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## THE ARCHAIC TEMPLE OF POSEIDON AT sOUNION


#### Abstract

The Late Archaic Temple of Poseidon at Sounion, known since Wilhelm Dörpfeld's notes published in 1884 and examined by William B. Dinsmoor Jr. in the 1960 s , was the first monumental peripteral temple in Attica. Based on our fieldwork, we argue construction began as part of the Athenian response to the Battle of Marathon. The temple is notable for its early use of the $6 \times 13$ plan that would become so distinctive in Attic architecture. The location of Sounion as the outer gateway to the harbors of Athens and the access point for communication with the broader Aegean meant that the deme (and its cult of Poseidon) became ever more significant when the Athenian navy was expanded as part of the defense of Attica.


## HISTORY OF EXCAVATIONS AND PREVIOUS SCHOLARSHIP

The 5th-century marble Temple of Poseidon at Sounion has long been known and admired (Fig. 1). ${ }^{1}$ Early travelers such as Le Roy, Stuart and Revett, Blouet, and Leake visited the sanctuary and remarked on its graceful elegance and dominant siting, thrust seaward on the promontory of

1. We thank Ioanna Drakotou and Eleni Banou for permission to study the Archaic Temple of Poseidon and to take 3D scans on the site, and Eleni Andrikou for permission to include in our study a fragment of its Doric geison now in the Laurion Museum. Bonna Wescoat, Marya Fisher, and John Lombardini helped on site, while Barbara Barletta, Natalia Vogeikoff-Brogan, Zetta Theodoropoulou-Polychroniadis, Philip Sapirstein, and Craig Mauzy provided additional assistance in Athens. We thank Anastasia Norre

Dinsmoor for permission to print William B. Dinsmoor Jr.'s drawings here, David Scahill for making the elevation drawing, and Katie Simon of the Center for Advanced Spatial Technologies for her work with us on the 3D scans. A brief version of this paper was presented at the Annual Meeting of the Archaeological Institute of America in San Antonio, January 2011. Natalia Vogeikoff-Brogan kindly provided us with a photocopy of William B. Dinsmoor Jr.'s catalogue of Doric capitals found in the Sanctuary of Athena

Sounias (in manuscript), from the Archives in the Blegen Library of the American School of Classical Studies at Athens (ASCSA). The published version, a study of the Temple of Athena Sounias revised and updated by Barbara Barletta, was in press during our final editing, and thanks to the Publications Office of the ASCSA, we had the benefit of seeing an early proof; we have added citations to it here, although the page numbers may differ when it is published. All translations are our own.
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Cape Sounion. The marble temple was frequently the subject of evocative drawings and paintings, which depicted the ruins situated picturesquely amid trees, shrubbery, and encroaching vegetation. Lord Byron's graffitied signature on an anta of the marble temple and his yearning for Sounion's "marbled steep" in one of his poems further enhanced its prestige. ${ }^{2}$ Along with the Hephaisteion and Acropolis temples, the marble Temple of Poseidon at Sounion is one of the best-preserved examples of Classical Athenian sacred architecture. The gleaming Agrileza marble, however, conceals an earlier Archaic predecessor, which has gone largely unexamined.

Systematic excavations at Sounion started in 1884, when Wilhelm Dörpfeld began investigating the area around the Temple of Poseidon and quickly made several unexpected discoveries. The most significant came when he found the remains of a previously unknown Archaic limestone temple beneath and built into the Classical temple. He documented several identifiable limestone blocks of this earlier temple and published a partial reconstruction along with his study of the marble temple (Fig. 2). Dörpfeld suggested that the Archaic temple was destroyed by the Persians in 480/79 в.c., and speculated that the marble successor was contemporary with the Hephaisteion in Athens. In addition to his discovery of the earlier temple, Dörpfeld's excavations further proved that both temples had a plan of $6 \times 13$ columns, rather than the $6 \times 12$ layout that had previously been envisioned for the marble temple. ${ }^{3}$

He came to these accurate conclusions despite limited excavations confined to the eastern half of the temple, primarily on the east and south sides. On the western half, much of the marble temple had collapsed, tumbling down the precipitous cliff into the sea and onto the slope of the

Figure 1. View of the Classical Temple of Poseidon, from the west. Photo J. Paga
2. Don Juan ("The Isles of Greece"), Third Canto, Stanza 86: "Place me on Sunium's marbled steep / Where nothing, save the waves and I, / May hear our mutual murmurs sweep."
3. Dörpfeld 1884, pp. 325-327, 336, pls. V, XVI. His plans of the two temples show the overlap of the columns (pl. XV, reproduced here as Fig. 2), and provided the basis for Staïs 1900, pl. VI; Dinsmoor Jr. 1971, p. 14; Travlos, Attika, fig. 514. The $6 \times 13$ plan is noted and discussed briefly in Riemann 1935, pp. 155-156; Dinsmoor 1950, p. 107; Lippolis, Livadiotti, and Rocco 2007, pp. 603-604.

Figure 2. Superimposed plans of the Archaic and Classical Temples of Poseidon. Dörpfeld 1884, pl. XV

Figure 3. State plan of the Archaic and Classical Temples of Poseidon, with locations of blocks from the Archaic temple. After Staïs 1900, pl. 6, reoriented from the original
northern terrace. Most of the northern side and western end of the temple platform were inaccessible to Dörpfeld because of the large amount of fill and overgrowth on top of the collapsed blocks. ${ }^{4}$

More extensive excavation and study of the Sanctuary of Poseidon continued under Valerios Staïs and Anastasios Orlandos from the turn of the century until 1915. ${ }^{5}$ The Greek excavators cleared and examined most of the area around the temple, particularly on the western end, where the fill was deepest. Several inscriptions found by Staïs provided the identification of the temples and proved that the sanctuary on the cliff was dedicated to the god Poseidon, rather than Athena, as Pausanias wrongly reported. ${ }^{6}$ Staïs's state plan provides more detail than Dörpfeld's, thanks to the excavations that removed extensive overgrowth and revealed deeper foundations (Fig. 3, modified to indicate the locations of Archaic blocks). He discovered part of the inner foundation to support an interior colonnade for the Archaic temple, a feature not repeated in the later marble temple. In addition to the Poseidon temples, Staïs excavated the Sanctuary of Athena, which sits on a low hill opposite the Sanctuary of Poseidon, and uncovered the remains of the Ionic temple mentioned by Vitruvius for its unusual plan (Vitr. 4.8.4). In both sanctuaries, he excavated deep pits packed with votive offerings and broken marble sculpture, dating from the 7th century to ca. 500 в.c. Staïs interpreted the contents of the pits as discarded votives and debris from extensive damage done to the sanctuaries by the Persians in $479 .{ }^{7}$

Although the roof, entablature, and architectural sculpture of the marble Temple of Poseidon have been well studied since then, investigation of the Archaic temple remained dormant for nearly 60 years until William B. Dinsmoor Jr. examined some of its remains and published several paragraphs, a plan, and a section in a brief guide to the sanctuaries at Sounion as an extension of his larger study of the Temple of Athena. ${ }^{8}$ In this guide, Dinsmoor Jr. adapts and revises the original drawings of the Archaic temple by Dörpfeld, and gives a brief description of the structure (Fig. 4). He notes the visible remains he observed, including parts of the krepidoma, scattered column drums, capitals, and an epistyle block (he does not mention blocks built into the terrace surrounding the temple). He accepts Dörpfeld's interior restoration of the cella and porches, resulting in a $6 \times 13$ plan with distyle-in-antis pronaos and opisthodomos, and a
4. Dörpfeld 1884, pp. 324-325, 327.
5. Staïs published brief notices about the excavation in Прокт兀ко́ and Aрхоıодоүıки́ Eчпиєрíc 1897-1913; fuller accounts in Staïs 1900, 1917; and an overview in Staïs 1920. His illustrations document the deep fill of topsoil and blocks over the western half of the platform of the temple and its northern side. A photograph taken before the excavations started shows the mound of fill around the northwest corner; see Staïs 1920, fig. 5. Orlandos also published discussions of the temple in 1915, 1917, and 1959.
6. Paus. 1.1. See $I G \mathrm{II}^{2} 1270$ (dated

298/7 в.с.), lines $18-19$, which states that the stele is to be set up in the Sanctuary of Poseidon; $I G I^{2}$ 1300, where Poseidon is restored in line 9 . These inscriptions are first reported in Staïs 1900, cols. 118, 134-138, 143-147. By the time of Pausanias's writing, the marble Temple of Athena Sounias had been dismantled and many of its parts moved into the Athenian Agora, and this may have led to the confusion. Parts of the roof of the marble Temple of Poseidon were also moved into central Athens; see Dinsmoor Jr. 1982.
7. Staïs 1917, p. 181; the contents
have been studied recently by Theodo-ropoulou-Polychroniadis (2010, 2014, 2015). See p. 686, below, for further discussion of the pits and their contents. For the Sanctuary of Athena, see Barletta, forthcoming.
8. Dinsmoor Jr. 1971: for the Archaic Temple of Poseidon, see pp. 1216; for the Sanctuary of Athena, pp. 37-51. His larger book-length manuscript on the sanctuary is the basis for Barletta, forthcoming. The fieldwork was carried out from 1967 to 1969, in collaboration with Homer A. Thompson; see Barletta, forthcoming, p. 16.

cella with an interior colonnade. ${ }^{9}$ More recent work on Sounion by Hans Goette and Maria Salliora-Oikonomakou provides welcome discussion of the epigraphic and archaeological evidence for the two sanctuaries and broader deme of Sounion, and the forthcoming monograph by Barbara Barletta on the Temple of Athena Sounias will offer a full study of the architectural remains in that sanctuary. ${ }^{10}$

Some catastrophe struck the Classical temple at an unknown date (but before the arrival of early modern travelers of the 17th century) that caused the temple to collapse on the western end; Staïs speculates that the destruction could have resulted from an earthquake or simply from the force of the high winds typical on the promontory. ${ }^{11}$ At least two modern interventions were undertaken to consolidate the temple platform, conserve it, and make it accessible to visitors. The first intervention was undertaken by Staïs ca. 1900, and involved leveling some blocks in the western end of
the published section, which reflects the state of the temple when Dörpfeld measured it.
10. Goette 1991; 2000, pp. 21-23, 27; Salliora-Oikonomakou 2004; Barletta, forthcoming. Further comments on both Temples of Poseidon and the Temple of Athena, with bibliography, can be found in Lippolis, Livadiotti,

Figure 4. Section through the Archaic and Classical Temples of Poseidon. Drawing W. B. Dinsmoor Jr. 1971, courtesy Agora Excavations
and Rocco 2007, pp. 602-605. In comprehensive analyses of Late Archaic architectural styles, the Archaic Temple of Poseidon is included, usually referred to as "Poseidon I"; see Coulton 1974; Lippolis, Livadiotti, and Rocco 2007, p. 603; Wescoat 2012.
11. Staïs 1900, cols. 114-115; 1920, p. 21 .
the temple and in the area of the opisthodomos, and building a retaining wall of dry stone. ${ }^{12}$ In another intervention (perhaps that of Orlandos in the 1950s), the western end of the temple platform was rebuilt in small modern blocks with curved outer profiles, and at another point, electricity was installed around the temple. There are also modern blocks made of limestone built into the east end of the temple, including its southeast corner, although in the center of the facade it is possible to see parts of the original limestone step blocks (see Fig. 15, below). These interventions conceal some of the courses of the Archaic temple; for some details of the interior and for overall dimensions, therefore, we rely on the reports of Dörpfeld and Staïs, who had access to them.

## THE LIMESTONE BLOCKS OF THE LATE ARCHAIC TEMPLE

Apart from Dörpfeld's initial excavations of 1884, and Dinsmoor Jr.'s observations in the late 1960s, no further on-site study of the blocks of the Late Archaic temple was carried out. Over the course of the summer and fall of 2010, we undertook a comprehensive study of the remains of the Archaic Temple of Poseidon, with additional fieldwork involving 3D laser scanning in the summer of 2011, as well as archival research and examination of finds in storage in 2012. Our objectives included: a catalogue of all blocks associated with the limestone temple that we could find and securely identify (see Appendix); measurements and photographic documentation of all identified blocks; a reconstruction of the elevation of the temple; and an assessment of its date, history, and historical context. We also wanted to test the value of 3D laser scanning for this type of study, with the help of Katie Simon of the Center for Advanced Spatial Technologies (University of Arkansas). It has proven to be a method with great potential, but it does not obviate firsthand autopsy.

## Material and Tooling

The blocks of the Archaic temple are readily identifiable on the basis of their oolithic limestone material, which ranges in color from buff tan to gray. The stone itself is porous, crumbly, and fossiliferous in some places. The upper parts of the entablature (epistyle, triglyphs, geison) were made of a finer type of limestone, while the column drums are cut from a coarser variety with more inclusions. The stone was worked with droves and clawtooth chisels. A few of the blocks preserve highly finished surfaces.

Many blocks bear cuttings for T-clamps and Z-clamps, pry marks, dowel holes, alignment bands, lifting bosses and $\cup$-shaped lifting channels, anathyrosis and other traces of chisel work, and mason's marks. Many of the column drums have cuttings for empolia on their joining ends. The majority of the blocks we measured are recognizable architectural components, and they provide the basis for our reconstruction. At the end of the catalogue, we have included a few blocks that we believe to be architectural because of their general dimensions and overall workmanship, even though their specific architectural features are broken off or are not visible in their embedded locations (B1-B9).


## Current Locations of Blocks

The majority of the remaining blocks of the limestone temple were reused in the foundations of the marble temple and are visible today in this secondary use, or are built into a supporting terrace that surrounds the marble temple (Figs. 3-6). The blocks used in the foundations of the marble temple would not have been especially noticeable when the Classical temple was intact. On the south and east sides, the edges of some of these blocks form part of the support for the marble euthynteria and could have been visible then as they are today, but it is more likely that the terrace was originally landscaped with fill and the levels below the euthynteria were not intended to be visible (Fig. 7). The reused blocks thus did not comprise a specific "memorial," like those built into the north wall of the Acropolis, but their reuse was both practical and in accord with the usual principle of making use of the deity's property and keeping it within the sanctuary. ${ }^{13}$

Still other blocks of the Archaic temple were recycled in tie-walls of a heavy supporting terrace that was built as a platform around the entire perimeter of the marble temple. This retaining terrace was necessary because of the poor quality of the bedrock and the steep southeast-northwest slope of the site. The terrace was created first by quarrying a large rectangular trench into the bedrock, approximately the size of the temple plus an additional ca. 6 m on the long axis (ca. 3 m each on the east and west ends), ca. 4.5 m to support the north flank, and ca. 3.5 m for the south flank-thus an overall size of ca. $21.2 \times 40.8 \mathrm{~m}$. The fabric of the supporting terrace consists of limestone architectural blocks (many of those visible are reused in their current positions) set against the perimeter of the rock-cut trench to form an outer wall, in horizontal planes to support compression, and in perpendicular tie-walls between this perimeter wall in the trench and the deep foundations of the temple beneath its euthynteria (two tie-walls are visible in Fig. 7). The interstices between the tie-walls are packed with

Figure 5 (above). View of the east supporting terrace and foundations of the Classical temple, showing reused blocks from the Archaic temple, from the east. Photo J. Paga

Figure 6 (opposite, above). Detail of the east supporting terrace, with C4-C7, and T1-T10 in the bottom row. Photo J. Paga

Figure 7 (opposite, below). View along the south flank of the Classical temple, showing the top of the supporting terrace with limestone tie-walls and fieldstone packing. At far right are geison blocks from the Classical temple on top of the perimeter wall of the terrace. At left, under the marble euthynteria of the Classical temple, the edges of limestone epistyle blocks of the Archaic temple are visible (indicated by arrows). Photo M. M. Miles
13. On reused material, see Miles 2011, pp. 670-672 (with earlier bibliography); Klein 2015, pp. 149-156.

rough fieldstones that closely resemble the local bedrock and are probably broken-up pieces from the quarrying of the trench. ${ }^{14}$

This terrace was crucial for stability on the western and northern sides of the temple site because of the steep downward slope of the bedrock of the promontory. It served to buttress these sides of the Classical temple,
14. The terrace may be compared usefully to the terrace at Stratos that supports and surrounds the Temple of Zeus. There, too, tie-walls extend perpendicularly beyond the perimeter of the krepidoma to an outer casing so
as to create a solid surrounding and supporting terrace for the platform for the temple; this arrangement provides aseismic protection, as it isolates the base of the temple. Since the temple at Stratos straddles a fortification
wall on a height, such additional support was needed. Goette (2000, p. 27) also comments on the terrace wall built for the Classical Temple of Poseidon.


Figure 8. View along the north flank of the Classical temple, where much of the supporting terrace is robbed out. At center, traces remain of a post-antique cistern built through the supporting terrace. Photo M. M. Miles

where the terrace appears as a freestanding coursed platform above the level of the bedrock. The terrace is robbed out on the north flank of the temple for much of its depth and length (Fig. 8). A cistern was constructed through both the terrace and the krepidoma near the east end of the marble temple at some unknown time, perhaps after the supporting terrace had

Figure 9. North flank of the Classical temple, platform, and remains of terrace, near the east front, showing the coursing of the platform. Photo M. M. Miles


Figure 10. View of the north side of the Classical temple, showing the extent of the terrace and platform, and the downward slope of the bedrock from east to west. Photo M. M. Miles
already begun to deteriorate, thus making the availability of loose blocks attractive. The components of the Archaic temple comprise a substantial part of the fabric of at least the upper parts of this terrace, which was an impressive construction project: on the north side, near the east front, below the second flank column from the front, a minimum of 12 visible courses was required (those visible at left in Fig. 9), and at the fourth column from the front, a 13th course becomes visible (at lower right in Fig. 9). At the northwest end of the platform, a minimum of 22 courses was required (Fig. 10, actual total not visible because of the bedrock). An enormous volume of stone was necessary for this platform and terrace, and this is where much of the built superstructure of the Archaic temple ended up. The use of the coursed blocks in the perimeter and vertically in tie-walls meant that the builders could use ordinary fieldstones as packing, reducing time and cost.

A smaller number of blocks from the Archaic temple were displaced and reused in other ways. Two curvilinear walls, not quite parallel, were constructed south of the temple platform near the west end, where the bedrock begins to slope downward sharply. Column drums from the Archaic temple were reused in these walls, which were intended to hold fill in the terracing of the south side of the temple (Fig. 11). ${ }^{15}$ Many more were surely lost to the cliffs and the sea. At least four significant blocks were removed from the area of the sanctuary altogether; these were Doric capitals reused in the Sanctuary of Athena located on a saddle inland to
15. These walls, approximately eastwest in orientation, have been interpreted as parts of a structure with a peculiar curvilinear or somewhat apsidal plan (dated variously from the Classical to the Ottoman periods; see Dinsmoor Jr. 1971, p. 16), but they do not form a coherent plan or enclosure. We
believe they were part of the landscaping that was carried out around the time of the construction of the marble temple. The southern terrace is exposed to very strong winds, and such walls would have helped to retain the fill necessary for leveling. See Goette 2000, p. 26 .

the north. ${ }^{16}$ In total, we have documented 96 individual blocks belonging to the limestone Archaic temple. This represents only a small fraction of the original material, but there survives at least one block for nearly every major architectural component of the exterior order of the temple.

## FOUNDATIONS AND PLAN OF THE ARCHAIC TEMPLE

A surrounding supporting terrace that framed and braced the foundations, much like the one constructed for the marble Classical temple, should be postulated for the Archaic temple, even though there are no identifiable remains of it today (any remnants must have been enveloped and reused within the extant later terrace). The steeply sloping bedrock posed a formidable challenge to the builders and must have required extensive preliminary trimming and leveling of the rough, striated bedrock on the south and east sides. Construction of a deep foundation and a buttressing terrace on its west and north sides would have created a firm, stable platform for the large peripteral temple. This geotechnical engineering project was not as enormous as the platform for the Older Parthenon on the Acropolis, built of some 8,000 blocks of Piraeus limestone, but it did pose similar challenges and demonstrates the sophisticated state of engineering in the Late Archaic period. ${ }^{17}$

As noted above, during modern anastylosis and conservation of the marble temple and its environs, the outline of the western end of the temple (including both corners) was defined and built up out of new stone (Fig. 12). This intervention makes precise overall measurements of the lengths of the two successive temples impossible today. Dörpfeld

Figure 11. View of the northern curvilinear wall, with reused column drums, from the south. Photo J. Paga
16. These blocks were noted by Dinsmoor Jr. (1971, p. 16), and are discussed further below.
17. For comments on the highly refined engineering of foundations of Greek temples already in use in the Archaic period, including other examples of aseismic "base isolation" as described above (n. 14), see Goette 2000, p. 27; Cooper 2014, pp. 230-232.

Figure 12. View of the west end of the supporting terrace of the Classical temple, with reused blocks of the Archaic temple, from the north. At left is the modern retaining wall. Photo J. Paga
18. Dörpfeld 1884, p. 331, pl. XV.
19. Staïs 1900, pl. VI; Dinsmoor Jr. 1971, p. 12, where the slightly smaller figures are not explained, but they are identical to those listed in Dinsmoor 1950, p. 338, where there is a notation "finish"; Lippolis, Livadiotti, and Rocco

measured the Archaic temple as $13.12 \times 30.34 \mathrm{~m}$ on the stylobate, and the Classical temple as $13.48 \times 31.15 \mathrm{~m} .{ }^{18}$ Staïs measured the Classical temple as $13.478 \times 31.156 \mathrm{~m}$, thus almost exactly the same, but he does not give independent figures for the Archaic temple. The figures $13.06 \times 30.20 \mathrm{~m}$ are given by Dinsmoor Jr., slightly smaller than Dörpfeld's by 0.06 m and 0.14 m , evidently to accommodate finishing. ${ }^{19}$ Enough blocks remain visible on the east end to determine that the Archaic temple had a three-step krepidoma (see Figs. 4, 15).

The interior foundations of the Archaic temple are now partly hidden from view because of the modern conservation efforts, but the outline is clear on the west end (Fig. 13). On the east end, repairs and rebuilding of the Classical pronaos floor, the eastern door into the cella, and parts of the pteron floor have obscured large sections of the interior foundations of the earlier temple. Deterioration of the friable limestone used for the earlier temple has resulted in a general obfuscation of large portions of the interior foundations. As a result, we rely on Staïs's state plan in several areas. We accept the existence of an interior colonnade for the Archaic temple, based on the foundations for it still partly visible today, and on the existence of appropriately sized interior epistyle blocks and one Doric capital. This interior colonnade has been reconstructed plausibly as two rows of five superimposed Doric columns. ${ }^{20}$

Dörpfeld's plan shows the overlapping position of the two sets of outer columns on the successive stylobates (Archaic and Classical). For the Archaic temple, the normal interaxial spacing was 2.46 m , matched

2007, p. 603 (which repeats Dinsmoor's figures). We use Dörpfeld's figures, for we find no evidence that he measured or calculated the stylobate on rough surfaces, and his section on pl. XVI appears to include finished edges. This discrepancy also accounts for Dinsmoor's
slightly smaller interaxial spacing for the columns; Dinsmoor 1950, p. 338.
20. Staïs 1900, col. 116; 1920, pp. 2223 , where he suggests that a column drum then in the stoa on the north side might represent reuse of the interior drums; Dinsmoor Jr. 1971, pp. 14, 29.

by existing blocks of the epistyle; for the marble temple, Dörpfeld gives $2.525 \mathrm{~m} .{ }^{21}$ On the slightly larger new marble stylobate, the architect of the Classical temple spaced the columns by beginning at the center of the two flanks and then working outward to the two facades, moving the position of each column gradually further apart, resulting in an interaxial spacing ca. 0.07 m larger on average than the Archaic temple (Fig. 2). ${ }^{22}$

## The Krepidoma

Two euthynteria blocks (E1, E2) are still in situ and partially visible below the rebuilt (modern) southeast corner of the marble temple (Fig. 14; also visible in the lower left of Fig. 15). They bear tool marks from a close-tined claw-tooth chisel, but their overall dimensions were not possible to ascertain with precision because of overlapping marble and modern limestone blocks. We can only note their location in original use. Other euthynteria blocks from the Archaic temple are presumably in situ under the marble euthynteria but are not visible or accessible.

Along the south and east sides of the temple, we have documented 19 individual step blocks (Figs. 15-17). These blocks are recognizable by their uniform height, length, chamfered edges, and, in many cases, lifting bosses. ${ }^{23}$ Many of these blocks display discoloration that appears to indicate burning along their front vertical faces (Fig. 16). On two of the blocks (S3 and S5), the lifting bosses on the vertical face of the step blocks preserve mason's marks in the form of single letters, such as A and $\Delta$ (Fig. 17). ${ }^{24}$ Blocks S1-S9 of the documented step blocks are in secondary use along the south side, recycled to support the marble euthynteria and krepidoma (see Fig. 7, above). Blocks S10-S18, however, remain in situ along the eastern facade (Fig. 15);
21. Dörpfeld 1884, p. 335; Dinsmoor's figure is 2.522 m (1950, p. 338).
22. Dörpfeld 1884, pl. XV; simpli-
fied in Dinsmoor Jr. 1971, p. 14, and in Travlos, Attika, p. 411, fig. 514.
23. Where it is preserved, the chamfered edge is always present on the left-
hand side of the block. This slight bevel would have been used to maneuver the block into place and ensure its proper laying position; see Hodge 1975.
24. The nature of the limestone material and its subsequent weathering has made the letterforms indistinct in
places; what we have determined to be a $\Delta$ could, in fact, be an A, and vice versa. A clear A is present on the lifting boss of block S3 (Fig. 17); the lifting boss on block S5 may be either an A or a $\Delta$.

Figure 14. Euthynteria blocks of the Archaic temple (E1, E2), in situ in southeast corner; they are surrounded by reused blocks adjacent to them in the foreground, and modern step blocks above. Photo J. Paga

Figure 15. Steps along the eastern facade of the Classical temple, showing marble overlapping limestone blocks of the Archaic temple. A: Archaic limestone steps; B: Classical marble steps; C: modern replacement steps. Photo M. M. Miles

Figure 16. Detail of the vertical face of step block (S1) with possible traces of burning, embedded in the south flank beneath the marble euthynteria. Photo J. Paga
25. Dörpfeld 1884, p. 335; Hodge and Tomlinson 1969, p. 187.


S19 appears to be in tertiary use as part of the modern anastylosis. The height of the step blocks (many of whose bottom surfaces are inaccessible) ranges from ca. 0.307 to 0.316 m , slightly lower than the 0.360 m (bottom and middle step) and 0.380 m (stylobate) of the marble temple. ${ }^{25}$ They vary in length (some are cut or broken), but the standard length is about 1.192 m .


These step blocks and many others-trimmed so heavily that we did not give them numbers, yet identifiable because of their height or length-clearly illustrate how the builders of the Classical successor laid the marble blocks directly over the limestone krepidoma after they trimmed them back as needed to conform to a remarkably similar plan with closely similar dimensions (Figs. 4, 15). This was done, of course, after all blocks of the superstructure above the krepidoma were removed: as we shall show, the outer peristyle of the Archaic temple was built at least as high as the geison course, and the interior colonnade and at least parts of the walls were in place before the temple was destroyed. The krepidoma of the later Classical temple was then constructed as a sort of marble sheath over the limestone krepidoma of the Archaic temple, 0.36 m wider and 0.816 m longer at the level of the stylobate. Some trimming of the Archaic steps was needed in order to set the marble step blocks in layered courses.

## THE COLONNADES

The most numerous identifiable limestone blocks are column drums. We have documented 41 in total. Many of the column drums preserve cuttings for empolia, which vary in size and depth, and average around $0.065-$ 0.075 m per side (Fig. 18). It is notable that none of the drums are fluted or show even the beginning traces of fluting, although the capitals do have the beginning of flutes. ${ }^{26}$ More than a third of the column drums have an articulated band-sometimes on both the top and bottom, although frequently on only one end-which would have been used to align the drums and place them in their proper order within the column shaft (Fig. 19, visible at bottom of drum).

In order to reuse column drums effectively, the builders of the terrace trimmed the proper vertical sides of the drums to create flat contact surfaces. At least three drums are currently serving as part of the substructure to the marble euthynteria on the south flank of the marble temple, set horizontally (C1-C3; see Fig. 3, above). Also set horizontally are eight drums built into tie-walls in the terrace on the west side of the marble temple

Figure 17. Step block (S3) with lifting boss bearing mason's mark-an upside-down " A "-embedded in the south flank beneath the marble euthynteria. Photo J. Paga
26. The lack of fluting on any of the preserved column drums may indicate that we do not have any representative examples of a lowest drum, which may have been the last to be dismantled but subsequently reused in the Classical terrace and therefore not visible. Dörpfeld (1884, pl. XVI) illustrates a lower drum in profile with a lower Diam. of 0.98 m (an appropriate size), but apparently without the beginning of flutes.

Figure 18. Column drum (C13) with empolion cutting, reused in tie-wall in supporting terrace of the Classical temple on the south flank. Photo J. Paga

Figure 19. Column drum (C19) with recessed setting band, built into the curvilinear wall on the south side of the Classical temple. Photo J. Paga

(C30-C37; see Fig. 12, above). The majority of the drums, however, were reused vertically in the tie-walls on all four sides of the Classical temple terrace. Eight column drums ( $\mathbf{C 1 6} \mathbf{- C 2 3 )}$ were reused in rough walls in the area just south of the temple, which served to support fill for the extended terrace overlooking the sea (see Figs. 3, 11, 19, above). Despite the extensive trimming of the reused blocks, on the basis of drums we could measure, we have calculated the approximate minimum diameter of the columns to be about 0.49 m (which therefore includes drums from the inner colonnade), and the approximate maximum diameter to be 0.97 m -very close to Dörpfeld's 0.98 m for the lower diameter of columns of the outer

peristyle. We assume entasis was intended, but in their current state it is not possible to determine the degree. The column height is unknown but may be estimated as ca. 5.30 m , in comparison with the Temple of Aphaia at Aigina ( 5.28 m ), which is of similar scale and date, even though the plan at Aigina is $6 \times 12$.

Dörpfeld gives the upper diameter of the columns of the outer peristyle as 0.79 m , and he illustrates a large fragment of a Doric capital with a nearly complete profile. He does not, however, provide a complete width for the abacus of the capital or its complete lower diameter (CAP5). ${ }^{27}$ We were not able to locate this capital on site or in the apotheke of the Laurion Museum, but still preserved today from the Archaic temple are the four Doric capitals currently located in the Sanctuary of Athena Sounias to the north (Figs. 20-22); these were measured, drawn, and studied by Dinsmoor Jr. ${ }^{28}$ The Doric capitals were reused upside-down as supports for posts, as they each have a large circular hole ( $\pm 0.20 \mathrm{~m}$ in diameter, slightly tapered in section) cut through the full height of the center. ${ }^{29}$ Dinsmoor Jr. made drawings of all four capitals, which were accessible to him on all sides at the time of his investigations (and perhaps better preserved; see Fig. 23). ${ }^{30}$ The three capitals now west of the Athena temple (CAP2-CAP4) were also 3D scanned, with the scans of CAP2 and CAP3 illustrated here (Fig. 24:a, b). These capitals are the only parts of the Archaic limestone temple that can be identified with confidence in the Sanctuary of Athena, but numerous smaller, roughly rectangular blocks of limestone that form part of the temenos walls probably also represent reused material from the Sanctuary of Poseidon.
27. Dörpfeld 1884, pp. 333, 335, pl. XVI.
28. Three of the capitals are located west of the foundations of the Temple of Athena (CAP2-CAP4; Fig. 20), while a fourth has rolled down the hill to the west (CAP1; Fig. 22). They are noted by Staïs and were originally attributed by him to the Temple of Athena (1900, col. 128), then to the Archaic Temple of Poseidon (1917, p. 181, n. 2). See also Dinsmoor Jr. 1971, p. 16;

Goette 2000, pp. 22-33. They are discussed further in Barletta, forthcoming, pp. 47-48, 263-264, nos. 6-9; the history of opinion is summarized on p. 46.
29. For further speculation about how they were used in the Sanctuary of Athena Sounias, see Barletta, forthcoming, pp. 46-52. There is one rough, unfinished block intended for a capital and with a hole for a post that we believe is too small for the Archaic temple; see Barletta, forthcoming, pp. 263-

Figure 20. View showing capitals from the Archaic temple (CAP2, CAP3, CAP4), reused in the Sanctuary of Athena, from the east. Photo J. Paga

264, no. 10. In addition to the capitals, at least four rectangular blocks on that site also have circular cuttings for posts; see Barletta, forthcoming, p. 264, nos. 11-14.
30. The drawings by Dinsmoor Jr. (previously unpublished, now in Barletta, forthcoming, pp. 47-49) are currently housed in the Agora archives. We have cleaned the digitized versions of his drawings.

Figure 21. View showing an unfinished capital in the Sanctuary of Athena, with (from top) CAP2, CAP3, and CAP4 beyond it, from the south. Photo J. Paga

Figure 22. Capital from the Archaic temple (CAP1), reused in the Sanctuary of Athena. Photo M. M. Miles


In material, workmanship, dimensions, and profile the capitals are appropriate for the Archaic Temple of Poseidon. What is less certain are their respective positions within the temple. The four preserved capitals differ slightly from CAP5, the now-missing capital known to Dörpfeld. The illustration on his plate XVI shows the abacus of CAP5 with a lower height than the abacus of a capital from the marble Classical temple illustrated on the same plate, but he does not provide dimensions for either abacus.


CAP1


CAP3



CAP2


CAP4
Figure 23. Drawings of capitals CAP1-CAP4 from the Archaic temple, reused in the Sanctuary of Athena. Scale 1:20. Drawings W. B. Dinsmoor Jr., courtesy Agora Excavations

Figure 24. (a) Laser scan of CAP2 from the Sanctuary of Athena; (b) laser scan of CAP2 (left) and CAP3 (right) from the Sanctuary of Athena. Scale 1:25. Courtesy K. Simon, Center for Advanced Spatial Technologies
31. Blouet 1831-1838, pl. 33.
32. Aigina: upper diameter of outer columns, 0.743 m on facades and 0.726 m on flanks; upper diameter of porch columns on east end

a

b

Blouet measured the abacus at Sounion (outer peristyle) as $0.196 \mathrm{~m} .{ }^{31}$ When faced with the same question about the height of the Archaic abacus illustrated by Dörpfeld, Dinsmoor Jr. estimated that the illustrated abacus was $\pm 0.175 \mathrm{~m}$, a reasonable estimate based on the scaled drawing.

Two of the existing capitals, CAP1 and CAP2, have abacuses with heights of 0.172 m and 0.175 m , respectively, a match to Dörpfeld's capital CAP5, but estimated lower diameters of 0.696 m and 0.695 m , which are smaller than the 0.79 m upper diameter for the columns given by Dörpfeld. Dinsmoor Jr. accepted Dörpfeld's upper diameter of the columns ( 0.79 m ) and therefore suggests that CAP1 and CAP2 came from the porches, where the columns could have been approximately $88 \%$ of the size of those in the exterior colonnade. He compares their dimensions with the closest parallels he could find, the capitals of the Temple of Aphaia at Aigina, and concludes that CAP1 and CAP2 probably came from the pronaos or opisthodomos (Fig. 25:a-c). ${ }^{32}$ A third capital, CAP3, has a preserved abacus width closely similar to those of CAP1 and CAP2, but its height is somewhat greater, at $0.205 \mathrm{~m} .{ }^{33}$ The profile of its echinus is more steeply angled than the others, and the curve where the echinus joins the abacus has less volume. The laser scans proved useful here: although the printed image in Figure 24:b is static, on screen it is possible to scale them, and they confirm a range of 0.197-0.202 m
$0.657 / 0.689$ m. See Bankel 1993, pp. 9, 75; Barletta, forthcoming, p. 298, n. 159; Dinsmoor Jr. uses older figures with an insignificant variation.
33. We measured the height of the
abacus of CAP3 as 0.205 m , while Dinsmoor Jr. measured it as 0.204 m, and Barletta (forthcoming, p. 263) as 0.19 m . In all its other dimensions, it seems to fit with CAP1 and CAP2.

## EXTERIOR COLUMN



PRONAOS and OPISTHODOMOS COLUMN

b


C
Figure 25. Profiles of capitals from the Archaic temple at Sounion and the Temple of Aphaia at Aigina, restored and compared (CAP5, CAP1, and CAP4 shown on left of a, b, and c, respectively). Scale 1:15. After drawings by W. B. Dinsmoor Jr., courtesy Agora Excavations


Figure 26. Standardized profiles of exterior and interior capitals from the Archaic temple. Scale 1:5. Drawing W. B. Dinsmoor Jr., courtesy Agora Excavations
for the height of the abacus on a much-pitted top with small knobby protrusions that affect measuring. ${ }^{34}$

Dinsmoor Jr. estimated the lower diameter of CAP3 as 0.70 m , thus close to CAP1 and CAP2: only the height of the abacus does not match the other two. This capital may have been unset, either rejected or never completely finished. ${ }^{35}$ The other trimmed and recut limestone blocks used as post-supports in the Sanctuary of Athena include an unfinished Doric capital (visible in the foreground of Fig. 21, above); these blocks currently lie west of the foundations of the Temple of Athena. The fourth capital (CAP4) matches the others except that it is smaller overall ( H . abacus 0.139 ; lower Diam. 0.550 m ), and should be assigned to the interior colonnade of the Archaic temple.

Dinsmoor Jr.'s distinction between the heights of capitals used in the exterior peristyle and those for the columns of the pronaos and opisthodomos is based on millimeters, on what is now a very rough surface. The correspondence in the general measurements leads us to consider the three larger capitals (CAP1, CAP2, CAP3) to be of the same group; whether they were employed in the peristyle or the porches (or, in the case of CAP3, possibly rejected) should depend on the upper diameter of the column. Dörpfeld gives this as 0.79 m , and proportionally, that too compares well with the dimensions of the Aphaia temple. If we assume this figure is correct, then Dinsmoor Jr.'s assignment of the capitals to the inner porches seems the most plausible solution.

The Doric capitals of the Archaic Temple of Poseidon are consequential for this study because wherever they were positioned within the temple, they help provide an approximate stylistic date for the temple in the Late Archaic or Early Classical period, despite their pitted and worn profiles (Fig. 26). Our laser scan gives an overall impression of the profiles and further demonstrates their worn surfaces (see Fig. 24, above). As Dinsmoor Jr. suggests, the profiles of the capitals may be compared usefully to those of the Temple of Aphaia on Aigina (see Fig. 25, above). ${ }^{36}$ The profile drawings illustrate a comparison between the larger capitals (CAP2, CAP5) and the smaller interior capital (CAP4), with their slightly larger counterparts from Aigina; at Sounion, the abacus projects over the upper bulge of the echinus to a slightly greater degree, and the echinus is proportionally lower in height.

The limestone Sounion capitals fit into Coulton's "Group 4/5," a cluster of sacred buildings constructed in the early 5 th century. ${ }^{37}$ These include the much smaller distyle-in-antis Treasury of the Athenians at Delphi, the Delion at Paros, the Older Parthenon, the current Temple of Aphaia,
eight marble capitals in the foundations of the cella walls of the Hephaisteion (intended for that temple); see Dinsmoor 1941, pp. 122-123; also at least five limestone capitals in the retaining wall of the Temple of Apollo Delphinios (intended for that temple) on its south and west sides; see Travlos, Athens, pp. 88-89, figs. 111, 112.
36. For the date of the Temple of

Aphaia at Aigina being 500-480 в.c., see Bankel 1993, pp. 169-170; restated by Indergaard 2011; Watson 2011. For a post-480 в.c. date, see Gill 1988, 1993; Stewart 2008b; Hedreen 2011; Polinskaya 2013. We accept the evidence and arguments in Stewart 2008b, the fullest recent treatment of the date of the temple.
37. Coulton 1979, pp. 85-91.
the Doric Treasury in the Marmaria at Delphi, and the Large Temple of Apollo at Delos: the dates of most of these buildings have been intensely debated, with the exception of the last two (ca.475). Suggestions range from the late 6th century to the period just after the Persian Wars, with current opinion favoring the lower end of the spectrum, 490-480. ${ }^{38}$ Besides the profile of the Doric capital, other stylistic markers of the Archaic Temple of Poseidon include the articulated Doric order, the material, techniques of construction, overall scale, and plan. Together they indicate a date in the Late Archaic period, in a chronological range of approximately 500 to 480 в.с., discussed further below.

## The Entablature

Eight identifiable limestone epistyle blocks survive, six from the exterior peristyle and two from the interior arrangement. Only one block from the outer peristyle is accessible enough to determine height as well as length and details of the front articulation. The other five are embedded under the marble euthynteria of the Classical temple, and only one long edge may be measured (A1). The differences in the lengths of the blocks allows for their assignment to either the exterior or the interior of the temple. The more visible block (A1) is built into the foundations for the marble temple near the southwest corner of the temple platform, inserted upside down (Fig. 27). ${ }^{39}$ As the regulae and guttae are still preserved, the block provides sufficient detail to confirm the dimensions for other parts of the entablature, such as the width of the triglyphs and metopes. The lengths of four of the blocks currently under the marble euthynteria are nearly identical (A1-A4, average 2.451), but one (A5) is slightly shorter, at $2.431 \mathrm{~m} .{ }^{40}$ The two preserved epistyle blocks for the interior have lengths of 1.795 and 1.833 ( $\mathbf{A 6}, \mathbf{A 7}$ ). The height of the most accessible outer epistyle (A1) is 0.723 m , which is lower than we would expect. ${ }^{41}$

On the east side, below the marble temple, 10 triglyph blocks are partly visible, all built into the eastern foundations of the retaining terrace for the marble temple toward the north flank (Fig. 28). Many of these triglyph blocks preserve lateral flanges for the insertion of metopes, which were presumably of a different material, probably marble (Fig. 29). ${ }^{42}$ As with many of the limestone blocks, the triglyphs were trimmed and cut

[^0]42. In Athens, compare the Bluebeard Temple, the Old Athena Temple, the Stoa Basileios, and the Temple of Apollo Delphinios, all with marble metopes slotted into limestone triglyphs. The existence of marble metopes is inferred from damaged triglyphs and clamp-cuttings on metope backers at the Temple of Aphaia on Aigina; see Bankel 1993, pp. 16-19. The exposed width of the metopes may be reconstructed from the distances between regulae on epistyle block A1: 0.708 m and 0.710 m , thus averaging 0.709 m . None of the triglyph blocks were visible to Dörpfeld (1884, p. 334).

Figure 27. Epistyle block (A1) at the southwest corner of the platform for the Classical temple, reused upside down, with regulae visible at lower left and lower center of block. Photo J. Paga


Figure 28. Triglyph blocks (T1-T6, right to left) built into the east supporting terrace. Photo J. Paga

for secondary use, but nonetheless it is possible to reconstruct an original width of 0.541 m (on average) and a height of approximately 0.80 m . Most of the triglyph blocks were set into the terrace on the east with their faces downward in this secondary use so that the top or bottom of the block is visible as the outward vertical surface of the terrace and the glyphs are not visible at all. In one instance, however, the block (T9) was placed on its right side, so that its glyphs are now vertical and therefore partly visible (through a hole). Especially useful to us are those with their top surface exposed (T3, T5, T7, T8, and T10), because three of them have cuttings for vertical dowels that were used to set the geison course above them. They show that the temple must have been erected at least up to the geison course before it was destroyed.

The triglyphs preserving lateral flanges on both sides (T1, T2, T4, T5, T6, and T8) average 0.541 m in width, whereas those with a single flange (T3, T7, and T9) average only 0.483 m . The smaller triglyphs were probably used for the porches, and it appears we have three end or corner blocks preserved (with no second flange), which maintains the possibility that the inner frieze was carried across to the outer peristyle. T10 has been excluded from these averages because we cannot determine if the block originally had one flange or two, due to its current position in the Classical terrace. Based on the fragmentary epistyle block A1, the triglyphs should have a width of approximately 0.53 m : the length of the regula is estimated based on the preserved distance between guttae $0.058 \mathrm{~m}(\times 5)+$ width of guttae $0.038 \mathrm{~m}(\times 6)+$ space at either end $0.0035 \mathrm{~m}(\times 2)$. Some blocks are wider at the back, behind the intended finished front surface with glyphs, which accounts for the discrepancy in averages. The full height of the triglyphs was measurable only on T1, T2, and T3, and varies slightly from $0.803-0.811 \mathrm{~m}$, with an average of 0.808 m .

Although no fragment of the marble metopes is known today, their width may be reconstructed from the distance between regulae on epistyle A1: 0.708 m and 0.710 m , thus averaging 0.709 m ; a thickness of $\pm 0.08 \mathrm{~m}$ is suggested by the slots on the sides of the triglyphs. That the temple once had sculpted metopes is possible. ${ }^{43}$

Investigation in the storerooms of the Laurion Museum yielded one fragmentary geison block (G1) with two partially preserved adjacent guttae (Fig. 30). This block is a piece of the soffit of the overhang and bears claw-tooth chisel marks on the face of the mutule, as well as facets that are faintly visible around the circumference of the guttae. The fragment preserves part of the back of the mutule, with two interior guttae (out of a row of six). Based on the distance between the two preserved guttae, the dimensions allow us to reconstruct the width of the mutule (ca. 0.53 m ), which accords with the preserved widths of the triglyphs and the preserved regulae of the epistyle. This is the only identifiable block from the geison we could find. Dörpfeld notes an additional fragment of a limestone geison block, which he saw in the Sanctuary of Poseidon; he does not illustrate it, but it is clear that our fragment is different, since Dörpfeld's "very small" fragment preserved a repaired gutta. ${ }^{44}$ A possible elevation for the outer order is illustrated in Figure 31.


Figure 30. Fragment of a geison block (G1) of the Archaic temple, Laurion Museum 43/M^ 647. Max. W. $0.274 \times \max$. D. 0.185 m . Photo M. M. Miles
43. Staïs (1920, p. 24) noted a small marble fragment preserving part of a female shape that could possibly have been part of a metope; its current location is unknown.
44. Dörpfeld 1884, p. 334: the "very small" fragment was recovered on the north side of the temple, near the fifth column from the east; it is now lost.

Figure 31. Restored elevation of the Archaic Temple of Poseidon. Drawing D. Scahill



## Walls

Although no wall blocks could be identified with certainty (such blocks would have been the easiest to recycle for other uses), we noted two blocks that are likely from the orthostate course ( $\mathbf{O} 1, \mathbf{O} 2)$. These blocks were reused at the northwest corner of the terrace that surrounds the marble temple. The blocks were trimmed in reuse, but one of them preserves both its reveal, a narrow beveled strip cut along the bottom exterior vertical face, and an apparent full height of 0.862 m (O1; Fig. 32). The other block, although lacking a clear reveal, is similar in size and shape and preserves a cutting for a Z-clamp.


## Incerta

In addition to these identifiable architectural blocks, there are several that clearly belong to the Archaic limestone temple but are of uncertain function. These blocks have been trimmed and reused in the tie-walls of the terrace that surrounds the marble temple, supporting the bedrock and rubble packing. Proper identification of these blocks is not possible without dismantling the terrace. There are also several unidentifiable limestone blocks scattered in other areas of the Sanctuary of Poseidon. These blocks match the material used for the Archaic temple, and we feel confident that they belong to it, even though it is no longer possible to determine what their original function might have been. They are included in the catalogue as "Unidentified Blocks" (B1-B9).

Questions still remain about the relationship between the heights of the epistyle and the frieze, why lowermost drums (with the beginnings of fluting) are not represented at the site, and whether the epistyle and frieze across the pronaos was in fact extended to the outer peristyle. While we assume the (unfinished) temple was the primary project of its period, there could have been other construction activity in the Sanctuary of Poseidon: the existence of other buildings, such as an earlier propylon or earlier stoas, should leave some trace; material from those hypothetical structures might have been reused as well. ${ }^{45}$

Figure 32. Part of an orthostate (O1), with reveal visible at lower right, reused horizontally in the west supporting terrace, at the northwest corner. Photo J. Paga
45. Goette (2000, pp. 19-26) discusses the possibility of other Archaic buildings, as well as the use of limestone as a material in the propylon of the Classical sanctuary and the stoas.

## reconstruction and overview

The preserved blocks provide enough information to indicate that the outer peristyle of the Archaic temple was erected at least up to the geison level, and some construction was carried out on the interior. We assume the temple had not yet been fully roofed at the time of its destruction. (The woodwork for the roofing could have been in place.) Neither Dörpfeld nor Staïs mention roof tiles in their excavation reports, nor could we identify any in the storerooms; if the temple had been roofed, presumably at least some fragments would have found their way into the fill and the pits they excavated. It seems more plausible to assume that the temple was unfinished at the time of its destruction, and very likely that it was covered in scaffolding. Many of the step blocks preserve their lifting bosses and there are still setting bands on the unfluted column drums. The discoloration on several of the step blocks built into the southern side of the marble temple suggests burning (see Fig. 16), perhaps of timber scaffolding near the blocks or in contact with them.

The configuration of the limestone temple is remarkably similar to that of its marble successor (see Figs. 2, 31). The overall dimensions of the Archaic temple measure ca. $13.12 \times 30.34 \mathrm{~m}$, with a $6 \times 13$ Doric peristyle; it was among the earlier temples with this plan to be constructed in the Greek world, and the first stone temple with the plan in central Greece. ${ }^{46}$ Its size puts the temple in the category of a hekatompedon or "100-footer," meaning a structure with a length of anywhere between ca. 27 and 33 m . As Wescoat observes, "100-footer" was a frequently used general term for this favorite size, which might have had a sacred value as well as being an affordable scale. ${ }^{47}$ The interior plan consisted of a pronaos, a cella with an internal colonnade of perhaps as many as five Doric columns per side, and a rear opisthodomos. The two porches were both distyle in antis, and the pronaos was likely aligned with the third flank column from the end, thus creating a "pseudodipteral" effect in the pteroma. That feature might have been inspired by familiarity with Cycladic architecture and temples in Asia Minor: Barletta argues persuasively for a strong Cycladic-Ionic connection for the Temple of Athena Sounias, and that island influence was already flowing during the later Archaic period in both sculpture and architecture, as it would continue to do in the mid-5th century. ${ }^{48}$ In sum, the Archaic Temple of Poseidon has several features that situate it at the forefront of Doric temple architecture of its time and place.

The scale and size of the Archaic temple find their closest parallel with the marble temple that eventually replaced it; the later temple is larger than its limestone predecessor by just enough to enclose its krepidoma. We have already noted the close similarity between the Doric capitals of the limestone temple at Sounion and those of the Temple of Aphaia on Aigina. The latter temple has a hexastyle facade but only 12 columns along the flank, and measures $13.77 \times 28.82 \mathrm{~m}$, slightly wider and shorter than the Archaic Temple of Poseidon but still in the category of a "100-footer." ${ }^{49}$ The Hephaisteion in the Athenian Agora, begun about 460, is comparable in scale with both the Archaic and Classical Temples of Poseidon: it has a plan with $6 \times 13$ columns and measures $13.71 \times 31.78 \mathrm{~m}$, making it slightly
longer and wider. ${ }^{50}$ The similarities in size, scale, and plan between the Archaic limestone temple and the replacement marble Temple of Poseidon, and the Hephaisteion, prompt a fresh view of the evolution of Attic temple construction. Innovation in Attica started early in the century. The architect chosen for the Poseidon temple was forward-looking and creative, using a new plan that would become standard later in the 5 th century.

## Archaeological Evidence from the Sanctuaries

Given the nature of its siting on the windswept promontory of Cape Sounion, as well as the early date of the excavations by Dörpfeld and Staïs, it is not surprising that there exists no ceramic, epigraphic, or stratigraphic evidence for the date of the Archaic limestone temple. But the archaeological evidence of cult practices and offerings in both sanctuaries is rich and voluminous. The votive deposits found by Staïs in the sanctuaries at Sounion begin in the late 8th (Athena) and early 7th centuries (Poseidon) and are markedly developed by the 6th century, with additional dedications of numerous large-scale marble kouroi. ${ }^{51}$ Marble fragments comprising a minimum of nine individual kouroi were found in the pits of the Sanctuary of Athena, and 15 pieces comprising a minimum of four individual kouroi were found in the pit near the Temple of Poseidon (including the wellknown, nearly complete Sounion Kouros with its base, NM 2720, and two other bases with the plinth and feet preserved). ${ }^{52}$ The 13 statues represented by these pieces range in date from ca. 600-500, several are life-size, and two are colossal. The quality, scale, and quantity of dedications from the Archaic period are remarkable; elsewhere in Attica we find such offerings only on the Acropolis. Although the numbers here do not approach the extraordinary wealth of marble Archaic statuary at the Sanctuary of Apollo Ptoios in Boiotia, nonetheless they mark Sounion as a much-frequented sanctuary with wealthy dedicators. ${ }^{53}$

Ridgway remarked that the statues from Sounion with preserved plinths and bases are oriented at an angle within the base, suggesting a specific relationship to their setting. ${ }^{54}$ Visitors at Sounion today will notice the cuttings still preserved in the trimmed bedrock terrace on the south side of the marble Temple of Poseidon, toward its east front, where the magnificent kouroi may have been set up, visible far out to sea as serried rows of marble figures. With this evidence of such monumental votives (many more might have been pushed down the cliffs or into the sea by the Persian invaders), it seems highly likely that a previous shrine or naiskos existed in the Early Archaic period in the Sanctuary of Poseidon, although no traces of it have been found. ${ }^{55}$

The Sanctuary of Athena Sounias did, however, have a pre-Persian temple. After thorough study of the remains of the small temple in the Sanctuary of Athena (a small naiskos, distyle prostyle, with mudbrick walls above a stone socle, and marble capitals and doorway), Barletta concludes that it dates to ca. 500 b.c. She accepts the attribution to Athena as surely correct (originally made by Staïs but with an earlier date), while the early oval enclosure to its north (with a few walls inside it) may represent either a cult of Phrontis or (more likely) a still earlier shrine of Athena. ${ }^{56}$
50. Lippolis, Livadiotti, and Rocco 2007, p. 565.
51. Staïs 1917, pp. 189-194, 201213 (kouroi), 195-197 (small finds, Poseidon sanctuary), 207-213 (small finds, Athena sanctuary), figs. 7-10, 17-21. See also Goette 2000, pp. 1923, 32-35; Salliora-Oikonomakou 2004, pp. 116-118, figs. 106, 107, 108. The finds (bronze and iron items, silver rings, terracotta painted plaques, terracotta figurines, scarabs, beads, tools, arrowheads, much decorated pottery, etc.) from the deposits excavated by Staïs have been studied by Theodoro-poulou-Polychroniadis (2014, 2015). A summary of previously published evidence and analysis can be found in Barletta, forthcoming, pp. 5-8, 19-21.
52. Papathanasopoulos 1983; Meyer and Brüggemann 2007, pp. 167-171, nos. 171-179 (Athena sanctuary), nos. 180-183.2 (Poseidon sanctuary), with earlier bibliography.
53. Schachter (1994) suggests the Ptoion became attractive as an alternative oracular sanctuary after the fire in the Temple of Apollo at Delphi in 548 в.с.
54. Ridgway 1971, p. 338.
55. Zetta TheodoropoulouPolychroniadis kindly informed us (pers. comm.) that no architectural remains from an Early Archaic temple are evident among the stored finds from the pits excavated by Staïs.
56. Barletta, forthcoming, pp. 52, 71-73 (attribution to Athena), 34-35 (oval enclosure).

## The Date of Construction

For the beginning of construction of the Archaic Poseidon temple, the upper range stylistically for the architectural details of the temple is ca. 500, as noted above. If the Archaic temple was built this early (which Staïs and Dinsmoor Sr. favored), it could be understood as an early effort under the new democracy, and perhaps still under the influence of the Alkmaionidai, who possibly had some sway in this region of Attica, even though Kleisthenes himself seems to have vanished from politics after 507 в.с. ${ }^{57}$

A project as large and ambitious as the construction of the Archaic temple was probably supported with funding and administrative help from central Athens. Recent discussions of the economy of Archaic Athens point to a fairly sophisticated set of institutions for public funding and administration already in place in the course of the 6th century в.c., certainly by its later years. ${ }^{58}$ Numerous new projects were undertaken throughout Attica at this time: small, nonperipteral temples were built in Brauron, Halai Aixonides, and Rhamnous, as well as (probable) small shrines at Thorikos, Ikarion, Marathon, Acharnai, and Pallene. ${ }^{59}$ The Telesterion at Eleusis also dates to the period around 500 , yet it was certainly not a building open to public viewing, nor was it located in a deliberately conspicuous setting. Although nonperipteral in plan, it was a large structure that required considerable energetics and engineering on its southeastern side, and it had an ornate roof with a marble sima. Within this context, an early start date around 500 в.c. for the Archaic Temple of Poseidon is possible.

Given the close affinities in style to the later Temple of Aphaia on Aigina and the other later buildings in Coulton's Group $4 / 5$ discussed above, however, and the forward-looking design of the Archaic temple with $6 \times 13$ columns and a "pseudodipteral" front, we prefer the date 490-480. We see the Archaic Temple of Poseidon as an offering set up after Marathon (as initially suggested by Dörpfeld and accepted by Dinsmoor Jr.), and as a recognition of the importance of the sea. That landscape could play an active role in defense is illustrated by Herodotos's comment that after Salamis, the retreating Persian fleet was spooked by small headlands near Cape Zoster that looked like Athenian ships (Hdt. 8.107.2).

Moreover, an enormous difference in scale and investment exists between the small naiskos (distyle in antis) with mudbrick walls for Athena, built ca. 500 в.с., and the large-scale stone peripteral temple for Poseidon. If we were to regard these as closely contemporary projects at Sounion, without the intervening "paradigm shift" triggered by the victory at Marathon, that difference between resources allocated to the two sanctuaries becomes strikingly odd. After the Persian Wars, the Sanctuary of Athena was the first to be rebuilt, ca. 460 , with a new marble Ionic temple, whereas the Temple of Poseidon was not rebuilt until some 20 years later, suggesting that Athena in fact had some priority at Sounion.

With a beginning date of ca. 490, the Archaic Temple of Poseidon would have had a biography analogous to the Older Parthenon on the Acropolis: a thank-offering to a helpful deity that was then burned deliberately by the enemy while under construction. Notably, the two temples presented similar engineering challenges for their builders, as they both
required extensive modification of the surrounding landscape, with trimming of bedrock around one side, and, on the other, the construction of deep foundations. For the temple at Sounion, a deep supporting terrace on the west half was needed as well. Both were set in highly visible locations in venerable sanctuaries, and both were successful, innovative, but quite short-lived precursors that nonetheless left a stylistic legacy through their successors.

## The Persian Invasion

Because the temple appears to have been destroyed while still unfinished, Dörpfeld and Staïs interpreted this plausibly as the work of the marauding Persian army of 480/79, and that remains the most likely scenario to explain the lack of roof, unfluted columns, possible indications of conflagration, and need for replacement. Moreover, the broken-up and calcinated kouroi and other Archaic votive debris found in pits near the temple by Staïs suggests a clean-up operation and deposits analogous to the Perserschutt on the Athenian Acropolis. ${ }^{60}$ Herodotos gives considerable details about Mardonios's actions in Attica and Phokis, where destruction of sanctuaries by fire punctuates the advance of the Persians. Twice he refers to damage in Attica (as distinct from the city of Athens: 8.50, 9.13). In the course of his description of the debate among the Greek leaders before the Battle at Salamis, he states that, "while the Peloponnesian commanders were discussing these things, an Athenian man arrived, reporting that the barbarians had entered Attica and were setting fire to the whole country" (8.50). ${ }^{61}$ In his description of the Battle of Plataia, Herodotos notes that no Persians fell within the Sanctuary of Demeter, and comments that this must reflect their damage to the goddess's sanctuary at Eleusis (9.65). Pausanias too, writing much later, notes Persian destruction of the Temple of Hera on the road between Athens and Phaleron (1.1.5), and three times mentions Xerxes' theft of the image of Artemis from Brauron, the major Attic sanctuary just north of Sounion (Paus. 1.33, 3.16, 8.46). A close study of historical references to burnt temples in the wake of the Persian army from Asia Minor onward, and the archaeological evidence that they were in fact burned, shows that there was a deliberate pattern to this kind of destruction, which had deep cultural roots. ${ }^{62}$ Burning the Archaic Temple of Poseidon would have been consistent with that pattern.

[^1]62. For evidence for Persian destruction, see Shear 1993 (Agora); Lindenlauf 1997 (Acropolis); Stewart 2008a (Acropolis); Thompson 1981 (Athens); Pritchett 1999, pp. 195-222 (Herodotos's account of the destruction); Sancisi-Weerdenburg 1989, pp. 549-561 (the role of Xerxes). On the deliberate burning of Greek temples by Persians in Attica and elsewhere, see Miles 2014.

## THE HISTORICAL CONTEXT OF THE ARCHAIC TEMPLE OF POSEIDON

The Sanctuary of Poseidon at Sounion is part of a network of sanctuaries dedicated to the god of the sea in locations where ships were especially vulnerable to the vagaries of Aegean winds and other turbulence. From the Athenian perspective, in the Saronic Gulf we note the Late Archaic Temple of Poseidon at Kalaureia (Poros), marking the southern passage toward the Peloponnese and around it, crucial for trade with southern Italy and Sicily; it may once have been the seat of an Archaic Kalaurian amphictyony. The Sanctuary of Poseidon on the southern tip of Euboia at Geraistos marks the passage from the Saronic Gulf to the Cyclades and beyond to the northern Aegean and the Black Sea through the strait formed with Andros, a route crucial to the grain trade. The Sanctuary of Poseidon and Amphitrite on Tenos similarly commands a windy coast just north of the safe harbor of modern Chora, on a route leading to Delos from Attica. ${ }^{63}$ Whether for religious travel, such as the theoria from Attica to Delos, commercial interchanges, or naval warfare, the likely sea routes were marked by sanctuaries of Poseidon that were generally founded by local communities at least as early as the 8th century, as the sea networks between islands and promontories became well established.

As the first large, peripteral temple to be built outside of central Athens, the Archaic Temple of Poseidon was a remarkable undertaking for its time. What would have made Sounion the choice for such an intensive investment of time, energy, and resources? We note first the rising importance of the Athenian navy during this period. ${ }^{64}$ Concurrent with the threat to Athens of the Boiotians and Chalkidians in $506 / 5$ was the ongoing conflict with the islanders of Aigina. In the course of the 6th century, the Aiginetans apparently held the upper hand against the Athenians, frequently ravaging their coastline, destroying the port at Phaleron, and inflicting significant damage on the demes located along the southwest coast of Attica and the coast on the east side facing Euboia (Hdt. 5.79-90, $6.49-50,6.87-94,7.145$ ). This conflict accelerated in the last decade of the 6th century, when the Thebans recruited the Aiginetans to help attack the Athenians. ${ }^{65}$ In the last decade of the 6th century, a shrine to Aiakos was established in the Athenian Agora after a consultation at Delphi. ${ }^{66}$
63. See Schumacher 1993 on the network of these temples of Poseidon reflected in legend and genealogy. On the Archaic Kalaurian amphictyony, see Mylonopoulos 2006; Constantakopoulou 2007, pp. 29-37; Polinskaya 2013, pp. 316-318, 463-464. For the sanctuary on Tenos in the 5th century, see Ténos I, Ténos II.
64. For the context of Themistokles' "bill" for the Athenian navy, see Wallinga 1993, pp. 130-164. The gradual buildup is analyzed by Davies 2013 (emphasis on the expansion of shipping
corridors and the acquisition of territory in the northeastern Aegean in the last third of the 6th century); Aperghis 2013 (emphasis on the mining of silver at Laurion and new coinage to help fund the new ships, ca. 500 and earlier); van Wees 2013 (emphasis on the earlier buildup of Athenian triremes in the late 6th century and how this development reflects institutional structures). On the economic transformation in Athens brought about in the Late Archaic period by the exploitation of the silver mines, see Davis 2014.
65. Stroud (1998, p. 86) persuasively argues that this incident must have occurred between the Kleisthenic reforms and democratic revolution of 508/7 and the dispatch of ships to aid in the Ionian revolt in 499. For perspectives on the conflict with Aigina, see Figueira 1985, 1988, 1991; Haubold 2007; Irwin 2011.
66. Hdt. 5.89. See Stroud 1998 pp. 85-108, where the Aiakeion is identified and dated to the last decade of the 6th century.

During a penteteric festival held at Sounion in the 490s that involved a boating event, the Aiginetans seized the vessel and the dignitaries onboard (Hdt. 6.87-88). After an Athenian intervention in Aiginetan internal struggles, Sounion became a place of settlement and refuge for Aiginetan exiles. The gravity with which these engagements were perceived is demonstrated by the communal burial honors given to Athenian war dead after one confrontation with the Aiginetans: their (then) atypical polyandrion was seen by Pausanias, who notes that the battle in which they died was before the Persian wars (1.29.7). ${ }^{67}$

Besides the ongoing raids and warfare, the Athenians might have felt some rivalry with Aigina in the honoring of gods, a rivalry inspired by the Aiginetan Temple of Apollo already built (ca. 520-510) on a conspicuous hill by their main harbor. The hexastyle peripteral limestone temple was $16.96 \times 32.22 \mathrm{~m}$ (thus a " 100 -footer"), with $6 \times 11$ columns, pedimental sculpture, and perhaps Parian marble metopes. ${ }^{68}$ Even while the Aiginetan threat continued-hostilities were not suspended until a truce was arranged just before the second Persian invasion (Hdt. 7.145.1)-the Athenians were also faced with the impending threat of Persian reprisals and had reason to fear invasion, since they had sent triremes to help Ionian cities in revolt against Persian rule, and had participated in the (accidental) burning of Sardis, then a Persian stronghold.

The defeat of the Persians at Marathon in 490 demonstrated the battle prowess of the Athenians on land, but it was painfully clear in the immediate aftermath of the battle that Athens was vulnerable to naval attack, which was only narrowly avoided after the Persians had rounded Sounion and sailed all the way to Phaleron. Ancient sources credit the new naval expansion to the inspiration and guidance of Themistokles, who had the foresight (perhaps as early as his archonship in 493/2) to push for further funding of the navy, and not long after, for the newly established facilities at Piraeus (Thuc. 1.93, Plut. Them. 4, 19). In 483/2 Themistokles persuaded the Athenians to use the profits from a particularly rich vein of silver in the mines at Laurion to build an additional 100 or 200 triremes to supplement the existing fleet. ${ }^{69}$ Themistokles achieved this by reminding the Athenians of the constant threat of Aigina, although Plutarch notes that he did this not to scare them with further talk of Darius and the Persians, but rather wanting them to focus on the closer-and more familiar-threat from the nearby island. Still, the new triremes played a crucial role in the Battle of Salamis in 480/79.

Themistokles had further connections with the area around Sounion. His family belonged to the deme Phrearrhioi (Plut. Them. 1); both Phrearrhioi and Sounion belonged to the coastal trittys of Leontis. Although he eventually had a house in Melite, Themistokles would have been familiar with Phrearrhioi and the general area around Sounion. His attention to family connections is illustrated by Plutarch's statement that he personally rebuilt and decorated with paintings a sanctuary of Demeter at Phlya associated with the Lykomidai after it was burned by the Persians (Them. 1.4). Themistokles' populist appeal was cemented by his support for the buildup in Piraeus, a new focus of civic and financial resources that enhanced the prestige of the rowers and emphasized the power of the ship over the shield. ${ }^{70}$
67. The polyandrion is dated to ca. 491 by Parker (1996, p. 133); for comments on polyandria and cenotaphs for the dead from warfare with Aigina, see Arrington 2015, pp. 40, 46, with earlier bibliography.
68. For the Aiginetan Temple of Apollo, see Wurster 1974; Hoffelner and Walter-Karydi 1999; Lippolis, Livadiotti, and Rocco 2007, p. 682. The date may be somewhat later (ca. 500), for the stated date interlocks with the high dating of the Temple of Aphaia.
69. Hdt. 7.144; Ath. Pol. 22.7; Plut., Them. 4.1-2. See also Rhodes 1981, pp. 277-279; Wallinga 1993, pp. 148157; Gabrielsen 1994, pp. 26-31; van Wees 2013, pp. 3-5, 102-104 (who deflates the "legend").
70. Thuc. 1.93.3-7, Plut. Them. 19, 20 (on Themistokles' role). Archaeological evidence for the buildup of the Piraeus in the early 5 th century is scattered but growing. For the walls, see Boersma 1970, p. 37; Garland 1987, pp. 163-165; Eickstedt 1991, pp. 2324; Steinhauer, Malikouti, and Tsokopoulos 2000, pp. 42-45; Conwell 2008. For the Sanctuary of Artemis Mounichia, see Garland 1987, p. 137; Travlos, Attika, p. 115. For the Mounichia Theater, see Travlos, Attika, pp. 342343; Paga 2010, pp. 360-361. For the initial design, see Gill 2006. For the quarries, see Langdon 2000. For the shipsheds, see Lovén 2011, pp. 1-14, 167-169.

The defensive advantages of Sounion were obvious: the southernmost tip of Attica functioned as a projecting bastion, a cape with dangerous waters and winds that had to be rounded by any sea traffic coming from the Aegean. If the deme did not already have a garrison or lookout function by the time Darius and his fleet rounded the cape, the Athenians surely would have developed it after 490. ${ }^{71}$ After Marathon, the Athenians remained vulnerable to a naval attack both from nearby islands like Aigina, still hostile to Athens, and from the Persians themselves. The development of Sounion as an outpost and garrison helped strengthen the coastal border of Attica, and the new Temple of Poseidon would have reflected and instantiated this new strategic importance.

The increasing importance of sea traffic generally after Marathon, as well as the increasing silver output of the mines at Laurion, must have brought even more prominence to the area of Sounion. The sanctuary had already attracted substantial dedications earlier in the 6th century, as noted above, and now the peripteral limestone Temple of Poseidon, aesthetically advanced for its time, was built there. The cape at Sounion provides a site just like an acropolis, with similar advantages and challenges: a high, prominent mount that showcases a temple with columns on all sides. The southern tip of Attica, moreover, was becoming progressively more crucial to the overall economic and military health of the polis over the course of the first few decades of the democracy.

## THE PERIOD AFTER SALAMIS AND FURTHER QUESTIONS

In the aftermath of the Battle of Salamis, among the first projects undertaken by the Greeks was the distribution of plunder and the dedication of akrothinia or first-fruits. The most notable was the hauling overland of three captured Phoenician triremes as dedications for Poseidon at Isthmia (noted in Hdt. 8.121), Poseidon at Sounion, and Ajax at Salamis, discussed in detail by Lorenzo. ${ }^{72}$ The Phoenician ship at Sounion, perched high on the cliff and perhaps adjacent to the charred ruins of the Archaic temple, would have been visible to sailors until its inevitable decomposition, probably about 40 years later. ${ }^{73}$ Meanwhile, the new marble Ionic Temple of Athena was built in the Sanctuary of Athena, beginning about 460 and completed soon thereafter.

Around the time when the dedicated ship was probably falling apart, the decision was made to rebuild the Temple of Poseidon, but in marble.
71. Sounion marks a point at which sea traffic becomes vulnerable to strong north and northeast winds from the Dhiekplous Kafireos, the strait between the southern tip of Euboia and the northwest tip of Andros. This strait still elicits warnings in modern Mediterranean Pilots (Mediterranean Pilot 1918, pp. 168-169; Heikell 1992, pp. 221222, 234; United States Defense Mapping Agency 1992, p. 272).
72. Lorenzo (2015, pp. 131-132) analyzes the logistics and reasons why the dedication at Sounion was on the cliff for Poseidon rather than in the saddle for Athena. Goette (2000, pp. 43-44) also expresses a preference for Poseidon. The offering of these aparchai was carried out in Greek unity, in contrast to the meager dedication at Delphi and the quarrelsome competition for awards, honors,

$$
\begin{aligned}
& \text { and recognition that followed; see } \\
& \text { Hdt. 8.122-125. On spoils from } \\
& \text { Salamis generally, see Miller 1997, } \\
& \text { pp. 33-34. } \\
& 73 \text {. We owe this estimate to Susan } \\
& \text { Katsev, which she made during discus- } \\
& \text { sion of Kristian Lorenzo's paper at the } \\
& \text { Annual Meeting of the Archaeological } \\
& \text { Institute of America, January } 2014 \\
& \text { (pers. comm.). }
\end{aligned}
$$

As we have discussed above, this required dismantling the remains of the limestone superstructure of the Archaic temple (which had stood up to geison level in the outer peristyle) and constructing the surrounding terrace for the bracing of the new temple, but still using the platform of the Archaic temple. While the replacement of a temple with a newer, more splendid version is common throughout Greek sanctuaries, what is distinctive here is the close resemblance between the overall design of the Archaic and Classical temples, despite a 50-year interval.

This is generally analogous to the Parthenon, but there the existing platform was extended to the north, and actual marble material of the Older Parthenon was used in the superstructure of the new Parthenon, while the plan of the building and many of its details were changed dramatically (such as the expansion to a $8 \times 17$ plan and the use of a $4: 9$ proportional system). We have indicated here a few of the correspondences in measurement between the Archaic and Classical temples, but a full comparison could further explore both the innovations made by the architect of the Archaic temple, and the creativity of the architect of the Classical building. ${ }^{74}$ Like Iktinos and Kallikrates, the architect of the Classical temple was faced with the challenge of creating a contemporary design within physical restrictions established by an earlier iteration. In contrast to Iktinos and Kallikrates, however, that architect accepted the design of the 50-year-older temple (sophisticated for its time) but made subtle changes with completely new marble fabric, such as the slender column proportions and their archaizing 16 flutes, the delicate treatment of steps, the addition of fine sculpture (making use of the "pseudodipteral" front), and a pierced marble sima inspired by Western Greek examples. These continuities and shifts warrant further study and could lead to a better understanding of both early- and mid-5th-century design. For that to be done, a new documentation of the existing marble temple is needed.
74. More recent studies of the architecture of the Classical temple include: for the roof and geison, Dinsmoor Jr. 1974, with earlier bibliography and reference to Orlandos's 1917 reconstructions; arrangement of outer frieze, Miles 1989, appendix II, pp. 247-249; Plommer (1950) offers independent measurements for some blocks, and his study usefully collects previous measurements. The studies of the Society of Dilettanti (1817) and the Morea Expedition of G.-A. Blouet (carried out in 1828-1833) yielded generally reliable but only partial documentation, before excavation of the temple.

## APPENDIX BLOCK CATALOGUE

Unless otherwise specified, the blocks of the Archaic Temple of Poseidon at Sounion listed here are located within the foundations and surrounding terrace of the marble Classical temple (e.g., "south side" is the south side of the marble temple). A few blocks are currently in four other locations: the slightly curved walls built into the bedrock terrace south of the marble temple; an area ca. 20 m due west of the marble temple and outside its peribolos wall where marble and limestone blocks are gathered; the temenos of the Sanctuary of Athena Sounias; and the apotheke of the Laurion Museum. Figure 3 gives the locations of many of the blocks.

Each entry details the original position of the block, its current location, and the measurements where they are accessible. We note any distinguishing features and provide relevant bibliography for the blocks noted by earlier investigators.

## EUTHYNTERIA

These two blocks, E1 and E2, appear to be in situ, components of the platform of the Archaic temple left in their original positions.

E1 Euthynteria block
Figs. 3, 14
South side, adjacent to E2.
Max. visible L. 0.862; max. visible W. 0.127 m.
E2 Euthynteria block
Figs. 3, 14
Southeast corner.
Max. visible L. 0.841 (on south); 1.121 m (on east).

## KREPIDOMA

75. For previous discussion of the step blocks, see Dörpfeld 1884, pl. XVI (generic section).

The dimensions of step blocks still in situ on the east side, although trimmed back to accommodate marble steps of the Classical temple, allow identification of other step blocks dismantled and used in the foundations. ${ }^{75}$

These nine blocks, S1-S9, are currently serving as euthynteria blocks for the Classical temple. Several of them have a uniform length of $\pm 1.192 \mathrm{~m}$, like those still in situ on the east front of the temple.

S1 Step block
Figs. 3, 16
South side.
L. 2.201 m .

Signs of burning on vertical face at base.
S2 Step block
Fig. 3
South side.
L. 0.761 m .

Shallow trough worn into top horizontal surface (which continues on C1).
S3 Step block
Figs. 3, 17
South side.
L. 1.190 (front); 1.188 m (rear).

Lifting boss preserved, anathyrosis on left lateral face, presence of claw-tooth chisel marks, burning on vertical face, including boss, with mason's mark A (upside down) on boss.

S4 Step block
Fig. 3
South side.
L. 1.192 m .

Lifting boss preserved, chamfered bevel on left corner at front (W. 0.024 m), burning on vertical face.

S5 Step block
Fig. 3
South side.
L. 1.193 m .

Lifting boss preserved, chamfered bevel on left corner at front, burning on vertical face, mason's mark A or $\Delta$ on boss.

S6 Step block
Fig. 3
South side.
L. 1.097 m .

Chamfered bevel on left corner at front, burning on vertical face.
S7 Step block
Fig. 3
South side.
L. 1.190 m .

Lifting boss preserved, chamfered bevel on left corner at front, burning on vertical face.

S8 Step block
Fig. 3
South side.
L. 1.192 m .

Lifting boss preserved, chamfered bevel on left corner at front, burning on vertical face.

S9 Step block
Fig. 3
South side.
L. 1.559; W. 0.792 m.

Burning on vertical face.

These nine blocks, $\mathbf{S 1 0}-\mathbf{S 1 8}$, are currently in situ on the east front of the temples, but they were trimmed or partly concealed by the marble steps of the Classical temple.

S10 Step block
Fig. 3
East side.
L. 1.198 m .

Chamfered bevel on left corner at front.
S11 Step block
Fig. 3
East side.
L. 1.080 m .

Chamfered bevel on left corner at front.
S12 Step block
Fig. 3
East side.
L. 0.520 m .

Chamfered bevel on left corner at front.

S13 Step block
Fig. 3
East side.
L. 1.191 m .

Chamfered bevel on left corner at front.
S14 Step block
Fig. 3
East side.
L. 1.190 m .

Chamfered bevel on left corner at front.
S15 Step block
Fig. 3
East side.
L. 1.176 m .

Stump of lifting boss preserved, chamfered bevel on left corner at front.
S16 Step block
Fig. 3
East side.
L. 1.190 m .

Stump of lifting boss preserved, chamfered bevel on left corner at front.
S17 Step block
Fig. 3
East side.
L. 1.191 m .

Chamfered bevel on left corner at front.
S18 Step block
Fig. 3
East side.
L. 1.187 m .

Chamfered bevel on left corner at front.

## S19 Step block

East side.
L. 1.184; max. H. 0.328 m.

Modern patch on left and top surface, possibly not in situ, but in secondary use (or possibly in tertiary reuse).

## COLUMN DRUMS

These blocks were used in a variety of positions, both vertically and horizontally. Many of them were reused for tie-walls in the supporting terrace of the marble Classical temple. Some were used upright as tie-blocks in the curved walls south of the marble Classical temple in the terrace near its west end, where the bedrock begins to slope downward sharply to the west. ${ }^{76}$

These three drums, C1-C3, were trimmed to form flat contact surfaces and laid horizontally to form a part of the euthynteria of the Classical temple. They are identifiable by their curved surfaces, drafted margins, dimensions, and the overall appearance of the blocks.

C1 Column drum
Fig. 3
South side.
P.H. 1.073 m .

Laid horizontally, with continuation of trough on $\mathbf{S} \mathbf{2}$ along upper horizontal surface, drafted edge on left (W. 0.056 m).

C2 Column drum
Fig. 3
South side.
P.H. 1.168 m .

Laid horizontally, drafted edge on left (W. 0.043 m ).
C3 Column drum
Fig. 3
South side.
P.H. 0.944 m .

Laid horizontally, drafted edge on left (W. 0.040 m ).
These four drums, $\mathbf{C} 4-\mathbf{C} 7$, formed part of the perimeter wall of the supporting terrace on the east side, adjacent to triglyphs. They were trimmed to obtain vertical sides so that they could be set tightly adjacent.

C4 Column drum
Figs. 3, 6
East side, adjacent on north to T10.
P.Diam. 0.576 m .

Set vertically into a tie-wall of Classical terrace.
C5 Column drum
East side, adjacent on north to $\mathbf{C} 4$.
P.Diam. 0.542 m .

Set vertically into a tie-wall of Classical terrace.
76. For a previous discussion of the column drums, see Dörpfeld 1884, pl. XV (notation "S" on plan), pl. XVI (generic sections and dimensions).

## C6 Column drum

East side, adjacent on north to C5.
P.Diam. 0.722 m .

Set vertically into a tie-wall of Classical terrace.
C7 Column drum
Figs. 3, 6
East side, adjacent on north to C6.
P.Diam. 0.811 m .

Set vertically into a tie-wall of Classical terrace.
These five drums, C8-C12, were set in east-west tie-walls in the terrace. Where upper courses are wholly or partly missing on the east (and also west) fronts, one can note that the drums were clearly stacked in several courses in the tie-walls.

C8 Column drum
Fig. 3
East side, east-west tie-wall.
Max. p.Diam. 0.823; min. p.Diam. 0.644 m.
Set vertically into tie-wall of Classical terrace, preserves traces of empolion cutting.

C9 Column drum
Fig. 3
East side, east-west tie-wall.
Max. p.Diam. 0.921; min. p.Diam. 0.652 m.
Set vertically into tie-wall of Classical terrace.
C10 Column drum
Fig. 3
East side, east-west tie-wall
Max. p.Diam. 0.941; min. p.Diam. 0.734 m.
Set vertically into tie-wall of Classical terrace.
C11 Column drum
Fig. 3
East side, east-west tie-wall, approximate center.
Max. p.Diam. 0.895; min. p.Diam. 0.628 m.
Set vertically into tie-wall of Classical terrace.
C12 Column drum
Fig. 3
East side, east-west tie-wall, approximate center.
No measurements possible.
Set vertically into tie-wall of Classical terrace.

These three column drums, C13-C15, were set vertically into a tie-wall of the terrace for the Classical temple toward its southwest corner where the bedrock begins to slope downward sharply to the west.

C13 Column drum
Figs. 3, 18
South side.
P.Diam. 0.654 m .

Set vertically into a tie-wall of Classical terrace, preserves empolion cutting ( $0.067 \times 0.064 \mathrm{~m}$ ).

C14 Column drum
Fig. 3
South side.
P.Diam. 0.662 m .

Set vertically into a tie-wall of Classical terrace.
C15 Column drum
Fig. 3
South side.
P.Diam. 0.772 m .

Set vertically into a tie-wall of Classical terrace, preserves empolion cutting ( $0.067 \times 0.065 \mathrm{~m}$ ).

These eight column drums, C16-C23, were reused to form part of two approximately parallel curvilinear walls built south of the Classical temple, on the bedrock near its west end, where the bedrock slopes downward sharply toward the west. C16-C21 were used in the curvilinear wall closest to the temple on the south (see Fig. 3), whereas $\mathbf{C} 22$ and $\mathbf{C} 23$ were used in the further wall, which is not shown on Figure 3. In between the drums (stacked vertically in some instances) are rough fieldstones, similar in appearance to the bedrock, built up in between the column drums to form a rough stone wall.

## C16 Column drum

Fig. 3
South curvilinear wall.
Max. visible Diam. 0.680; max. p.H. 0.205 m.
C17 Column drum
Fig. 3
South curvilinear wall.
Max. p.Diam. 0.620; max. p.H. 0.335 m.
Sides embedded with packed bedrock.
C18 Column drum
Fig. 3
South curvilinear wall.
P.Diam. 0.680; p.H. 0.675 m.

Preserves empolion cutting ( $0.067 \times 0.065 \mathrm{~m}$ ).
C19 Column drum
Figs. 3, 19
South curvilinear wall.
P.Diam. 0.646 (measured 0.346 m below top surface); p.H. 0.964 m .

Preserves empolion cutting ( $0.065 \times 0.066 \mathrm{~m}$ ), articulated band at bottom (H. 0.045 m ).

C20 Column drum
Fig. 3
South curvilinear wall.
P.Diam. 0.752 (measured 0.346 m below top surface); p.H. 0.821 m .

Preserves empolion cutting $(0.075 \times 0.060 \mathrm{~m})$, articulated band at top (H. 0.048 m ).

C21 Column drum
Fig. 3
South curvilinear wall.
P.Diam. 0.658 (measured 0.346 m below top surface); max. visible $H$. 1.064 m .

Possible empolion cutting (top surface gouged).

## C22 Column drum

South curvilinear wall.
P.Diam. $0.742-0.730$ (measured 0.346 m below top surface); max. visible H. 0.855 m .

Possible empolion cutting (top surface gouged), articulated band at bottom (H. ca. 0.050 m ).

## C23 Column drum

South curvilinear wall.
P.Diam. 0.796 (measured 0.346 m below top surface); max. visible H. 0.780 m .

Block broken into two parts.
These 14 column drums, C24-C37, were set into tie-walls of the surrounding terrace of the Classical temple on its west side. Some were set horizontally rather than vertically. As on the other sides, the drums were trimmed to make them stable and capable of being set tightly adjacent.

C24 Column drum
Fig. 3
West side.
P.Diam. 0.795; max. visible H. 0.491 m.

Set vertically into tie-wall of Classical terrace, preserves empolion cutting (ca. $0.07 \times 0.07 \mathrm{~m}$ ).

C25 Column drum
Fig. 3
West side.
Max. p.Diam. 0.745; min. p.Diam. 0.465 m.
Set vertically into tie-wall of Classical terrace.
C26 Column drum
Fig. 3
West side.
Max. p.Diam. 0.760; min. p.Diam. 0.662 m .
Set vertically into tie-wall of Classical terrace, articulated band at bottom (H. $0.017-0.045 \mathrm{~m}$ ).

C27 Column drum
Fig. 3
West side.
Max. visible Diam. 0.810; min. p.Diam. 0.750 m.
Set vertically into tie-wall of Classical terrace, articulated band at bottom (H. 0.065 m ).

C28 Column drum
Fig. 3
West side.
Max. p.Diam. 0.965 (measured below articulated band at top); min. p.Diam. 0.780 ; H. 0.590 m.

Set vertically into tie-wall of Classical terrace, preserves empolion cutting $(0.045 \times 0.045 \mathrm{~m})$, articulated band at top (H. 0.055 m ) and bottom (H. 0.055 m ).

C29 Column drum
Fig. 3
West side.
Max. p.Diam. 0.925; min. p.Diam. 0.755 m.
Set vertically into tie-wall of Classical terrace, preserves empolion cutting ( $0.073 \times 0.072 \mathrm{~m}$ ) .

Fig. 3
West side.
P.H. 1.015 m .

Set horizontally.
C31 Column drum
Fig. 3
West side.
P.H. 0.880 m .

Set horizontally.
C32 Column drum
Fig. 3
West side.
P.H. ca. 0.870 m.

Set horizontally.
C33 Column drum
West side.
P.H. 0.892 m .

Set horizontally.
C34 Column drum
Fig. 3
West side.
P.H. 0.840 m .

Set horizontally, preserves empolion cutting $(0.072 \times 0.070 \mathrm{~m})$.
C35 Column drum
Fig. 3
West side.
P.H. ca. 0.880 m.

Set horizontally.
C36 Column drum
Fig. 3
West side.
P.H. ca. 0.820 m .

Set horizontally, preserves empolion cutting ( $0.075 \times 0.075 \mathrm{~m}$ ).
C37 Column drum
Fig. 3
West side.
P.H. 0.955 m .

Set horizontally, preserves empolion cutting on both ends $(0.070 \times 0.080 \mathrm{~m}$ on north, $0.088 \times 0.070 \mathrm{~m}$ on south).

These three column drums, C38-C40, are located on the north side, embedded in remnants of the surrounding terrace wall of the Classical temple.

C38 Column drum
North side.
Max. p.Diam. 0.945; min. p.Diam. 0.875 m.
Preserves empolion cutting (ca. $0.06 \times 0.06 \mathrm{~m}$ ).
C39 Column drum
Fig. 3
North side.
Max. p.Diam. 0.820 m.
Very battered and worn.

## C40 Column drum

North side.
P.Diam. 0.607; max. p.H. 0.682 m.

Preserves empolion cutting (ca. $0.072 \times 0.070 \mathrm{~m}$ ), now part of post-Classical cistern.

This column drum, C41, was found farther away from the temple than the others; whether it was reused in the terrace for the Classical temple is not known.

## C41 Column drum

Freestanding block, now ca. 20 m west of southwest corner of Classical temple.
Max. Diam. ca. 0.870 (calculated from estimated radius of 0.435 m ); p.H. 0.973 m.

Preserves empolion cutting on both ends $(0.070 \times 0.071$, depth $0.053 \mathrm{~m} ; 0.075$ $\times 0.078$, depth 0.048 m ), as well as incised circle around empolion cutting (Diam. 0.405 m ), and articulated bands at both ends (H. $0.026,0.034 \mathrm{~m}$ ).

## DORIC CAPITALS

The Doric capitals are now in the Sanctuary of Athena Sounias, to the west of the foundations of the Temple of Athena Sounias. The four listed here are part of a group noted by Stais, and measured by Dinsmoor Jr. ${ }^{77}$ We list only the capitals to be assigned to the Archaic Temple of Poseidon. Where fluting is discernable, they have 20 flutes. All of the capitals included here were reused to support posts and are pierced with a tapered circular cutting to accommodate the post. We were not able to move the blocks, and some are embedded in the ground; we include Dinsmoor Jr.'s measurements, as the blocks were better preserved in 1968 and he was able to clean around them. The measurements are taken from his manuscript in the Archives of the Blegen Library, and are given on his drawings.

CAP1 Doric capital
Figs. 22, 23, 25:b
Athena sanctuary, beyond western temenos, over hill and enmeshed in bushes (some 15 m distant and southwest of the other capitals).

No accurate measurements possible in current position.
Measurements of Dinsmoor Jr.: H. 0.480; H. abacus 0.172, W. abacus 1.091; H. echinus 0.308; Diam. 0.696 m.

Trimmed along one side to make block more rectangular than square, corners of abacus battered and broken all around, four gouges on original bottom surface, annulets and traces of flutes visible.

Barletta, forthcoming, pp. 47, 263, no. 6.
CAP2 Doric capital
Figs. 20, 21, 23, 24:a, b
Athena sanctuary, in a row of capitals just west of the foundations of the Temple of Athena Sounias.

Diam. $\pm 0.66 \mathrm{~m} ;$ H. echinus $0.301-0.302 \mathrm{~m}$.
Measurements of Dinsmoor Jr.: H. 0.483; H. abacus 0.175, W. abacus $\pm 1.095$; H. echinus 0.308 ; Diam. $\pm 0.695 \mathrm{~m}$.

Trimmed on two sides to make block more rectangular, abacus mostly missing, some broken edges still preserved, traces of annulets and flutes visible on echinus.

Barletta, forthcoming, pp. 47, 263, no. 7.

CAP3 Doric capital
Figs. 20, 21, 23, 24:b
Athena sanctuary, in a row of capitals just west of the foundations of the Temple of Athena Sounias, partly embedded into ground.
H. abacus 0.205 ; W. abacus 1.095 m .

Measurements of Dinsmoor Jr.: H. of capital ca. 0.440; H. abacus 0.204, W. abacus 1.096; Diam. of shaft ca. 0.700 m .

Trimmed to form a roughly rectangular block, posthole slightly off-center, top of abacus is currently top surface (full height of capital and lower surface not presently accessible).

Barletta, forthcoming, pp. 47, 263, no. 8.
CAP4 Doric capital
Figs. 20, 21, 23, 25:c
Athena sanctuary, in a row of capitals just west of the foundations of the Temple of Athena Sounias, partly embedded in ground.

Diam. ca. 0.490 ; H. echinus 0.247 m ; full height not presently accessible.
Measurements of Dinsmoor Jr.: H. 0.384; H. abacus 0.139, W. abacus 0.873; H. echinus 0.245; Diam. 0.550 m .

Abacus and much of echinus broken all around to form a rough rectangle, traces of annulets and flutes visible, traces of a rectangular cutting into annulets on one side, perhaps for a grille (suggested by Dinsmoor Jr.) or for hanging a dedication.

Barletta, forthcoming, pp. 48, 263, no. 9.
CAP5 Doric capital
Fig. 25:a
Now lost. Known only from Dörpfeld 1884, where it is illustrated in profile. Dörpfeld notes that it is a large fragment that provides much of the profile, but not a full width.

Estimated H. of the abacus based on the drawing is $\pm 0.175 \mathrm{~m}$ (no height is given by Dörpfeld in the text or plate). Est. Diam. 0.790 m.

Dörpfeld 1884, p. 333, pl. XVI (profile).

## EPISTYLE

These blocks are embedded in the upper part of the supporting terrace, as part of the platform for the marble temple. A1-A5 were set to support the marble euthynteria.

## Peristyle

## A1 Epistyle block

Figs. 3, 27
Southwest corner of marble temple (upside-down, with right end to west), partially embedded in foundation for the marble euthynteria on the south flank of the marble temple, near the west end.
L. 2.453; H. 0.723; D. 0.461 m .

Preserves parts of two regulae and four partial guttae. Regulae: max. visible L. 0.325; max. H. 0.065; guttae: max. W. 0.037 m.

Dörpfeld's dimensions: L. 2.458; regula L. 0.520 m (+ two partial regulae, $0.255,0.265 \mathrm{~m}$ ); regulae spaced at 0.710 and 0.708 m .

Modern insertions behind west end, but block appears to be in situ (in secondary use).

Because of modern restorations around the current temple, we were not able to measure this block completely, but our measurements on the available surfaces are very close to those of Dörpfeld.

Dörpfeld 1884, pp. 333-334, pl. XVI (drawing with dimensions).

A2 Epistyle block
Fig. 3
South side.
L. 2.444; W. 0.442 m.

A3 Epistyle block
Fig. 3
South side.
L. 2.453 m .

A4 Epistyle block
Fig. 3
South side.
L. 2.455 m .

A5 Epistyle block
Fig. 3
South side.
L. 2.431 m .

A8 Epistyle block
Freestanding block in Poseidon sanctuary.
Max. H. 0.748 m.
Block is very fragmented and worn but preserves Lewis cutting.

## Interior

These two epistyle blocks, A6 and A7, are assigned to the interior of the temple because of their shorter lengths.

A6 Epistyle block
Fig. 3
South side, in line of blocks supporting euthynteria of marble temple.
L. 1.795 m .

Preserves $\cup$-shaped lifting channel, traces of gouging, and drove tool marks (W. ca. 0.02 m ), signs of burning along vertical face.

A7 Epistyle block
Fig. 3
South side, near southwest corner.
L. 1.833; max. W. 0.429 m.

Preserves $\cup$-shaped lifting channel, cuttings for a double T-clamp and possible Z-clamp or vertical dowel, pry marks.

Dörpfeld 1884, p. 334 (labeled "K" on pl. XV).

## FRIEZE

The 10 triglyph blocks are reused in the outer perimeter wall of the retaining terrace for the Classical temple, on the east side, toward the northern corner. They are all set on their longer sides, in various orientations, as noted below. These blocks were not seen by Dörpfeld, who relies on the measurements of the epistyle block $\mathbf{E 1}$ for his figures (W. of triglyph as 0.52 m and W . of metope as 0.71 m ). T1-T5 rest on a layer of limestone blocks partly visible below them. The bedrock slopes upward to the south, so that the edge of the overall trench for the retaining wall partly obscures the lower course.

East side, at north end of retaining wall of terrace for the Classical temple, adjacent on south to T2.
H. 0.811; W. 0.552; D. 0.526 m.

Flanges to receive metopes on both sides (W. $0.075-0.079 \mathrm{~m}$ ), possible cutting for dowel into epistyle on right side, anathyrosis present on north side of vertical face.

Current top surface partly obscured by packing of terrace wall, oriented in wall so that original bottom surface is vertical and faces outward, and original front (glyphs) faces downward.

## T2 Triglyph

Figs. 3, 6, 28, 29
East side, adjacent on north to T1.
H. 0.809; W. 0.537; D. 0.527 m.

Flanges to receive metopes on both sides (W. $0.082-0.087 \mathrm{~m}$ ).
Extremely worn, back of current top surface overlaid by chunks of stone and dirt fill in terrace, oriented in wall so that original bottom surface is vertical and faces outward, and original front (glyphs) faces downward.

## T3 Triglyph

Figs. 3, 6, 28, 29
East side, adjacent on north to $\mathbf{T} 2$.
H. 0.803; W. 0.477; D. 0.527 m.

Flange to receive metope on south side only (W. 0.075 m ), dowel hole for geison on original top surface (current vertical face): $0.050 \times 0.019 \mathrm{~m}$, depth of dowel hole 0.059 m .

Oriented in wall so that original top surface is vertical and faces outward, and original front (glyphs) faces downward.

## T4 Triglyph

Figs. 3, 6, 28
East side, adjacent on north to T3.
Visible H. 0.320; W. 0.527 (at back); W. 0.485 (at front); D. 0.527 m.
Flanges to receive metopes on both sides (W. 0.080 m ).
Current top surface partly obscured by other blocks in terrace, oriented in wall so that original bottom surface is vertical and faces outward, and original front (glyphs) faces downward.

## T5 Triglyph

Figs. 3, 6, 28
East side, adjacent on north to T4.
H. 0.439; W. 0.596 (behind flanges); W. 0.519 (at proper front); D. 0.492 m .

Flanges to receive metopes on both sides (W. 0.087-0.092 m), cuttings for Z-clamps on both sides (for attachment to metope-backers), anathyrosis present on north vertical face.

Current top surface partly overlaid by other stones in terrace wall, oriented in wall so that original top surface is vertical and faces outward, and original front (glyphs) faces downward, surfaces around flanges at sides are sharp and well preserved.

## T6 Triglyph

Figs. 3, 6, 28
East side, adjacent on north to T5.
H. 0.411; W. 0.520 (behind flanges); W. 0.511 (front); D. 0.520 m .

Flanges to receive metopes on both sides (W. $0.079-0.081 \mathrm{~m}$ ).

Current top surface mostly obscured by overlaid block in terrace wall, oriented in wall so the original bottom surface is vertical and faces outward, and original front (glyphs) faces downward.

T7 Triglyph
Figs. 3, 6
East side, adjacent on north to T6.
W. 0.480 (behind slot for metope); D. 0.514 m .

Flange to receive a metope on north side only (W. 0.066 m ), cuttings for Z-clamps on both sides, dowel hole on north side (for attachment of geison), setting line incised along bottom of current vertical face.

Current top surface is mostly obscured by upper course of blocks in the terrace wall, oriented in wall so the original top surface, very worn, is vertical and faces outward, and original front (glyphs) faces downward.

## T8 Triglyph

Figs. 3, 6
East side, adjacent on north to T7.
H. 0.513 ; W. 0.524 ; max. visible D. 0.375 m.

Flanges to receive metopes on both sides, cutting for Z-clamp on north side, dowel hole (to attach geison) on south side, vertical surface is broken away where second clamp was probably located.

Current top surface is obscured by upper course of blocks in terrace wall, oriented in wall so the original top surface is vertical and faces outward, and original front (glyphs) faces downward.

T9 Triglyph
Figs. 3, 6
East side, adjacent on north to T8.
W. 0.477 ; D. 0.441 m .

Flange to receive metope on bottom, visible glyph on south side (depth ca. 0.059 m ).

Current top surface is obscured by course of blocks above (block not fully accessible), oriented in wall so that original bottom surface is vertical and faces outward, while the original front surface (with glyphs) is vertical and faces north, south corner broken off, so that presence of second flange cannot be confirmed, glyphs are visible (finely cut and well preserved) on south side.

T10 Triglyph
Figs. 3, 6
East side, adjacent on north to $\mathbf{T} 9$, and on south to $\mathbf{C 4}$.
W. 0.631 (behind flanges); W. 0.518 (front); max. visible D. 0.475 m (full dimensions not accessible).

Flange to receive metope on north side (W. 0.087 m ), uncertain on south, U -shaped lifting channel in top surface (current vertical face).

Current top surface is obscured by course of blocks above, oriented in wall so that original top surface is vertical and faces outward, and original front (glyphs) faces downward.

## GEISON

G1 Geison
Fig. 30
Laurion Museum 43/M^647.
Max. H. 0.168 m to mutule +0.026 m to include gutta; max. W. 0.274 ; max. D. 0.185 m .

Guttae Diam. 0.037 m at base, spaced 0.059 m apart; center to center of guttae 0.096 m at base $\times 5=0.480 \mathrm{~m}+0.040 \mathrm{~m}$ for width of guttae and edge (fits triglyph width of $0.520-0.527 \mathrm{~m}$ ).

Fragment for soffit of overhang, preserves part of underside of mutule with two guttae, carved at an angle, claw-tooth chisel marks present, and facets visible around circumference of guttae.

## G2 Geison

Now lost. This block is described by Dörpfeld as a "very small" fragment found on the north side of the temple. It must have had at least parts of two guttae preserved since he was able to confirm their width and spacing as appropriate for the Archaic temple. It had one gutta broken and repaired with lead.

Dörpfeld 1884, p. 334 (no illustration).

## ORTHOSTATE

These two blocks, $\mathbf{O} \mathbf{1}$ and $\mathbf{O} 2$, were reused in the supporting terrace wall surrounding the Classical temple, near the northwest corner.

O1 Orthostate block
Figs. 3, 32
West side at northwest corner, reused horizontally in the supportive terrace for the Classical temple.
H. 0.862 m .

Reveal preserved (H. 0.060 m ).
O2 Orthostate block
Fig. 3
West side at northwest corner.
L. 1.150; H. 0.861 m .

Cutting for Z-clamp.

## UNIDENTIFIED BLOCKS

## B1 Block

East side.
L. 1.509; W. 0.770-0.740 m.

Preserves traces of cutting for double T-clamp and pry marks, overhanging lip on vertical face.

B2 Block
Fig. 3
South side.
L. 0.810 m .

Part of tie-wall of Classical terrace.

B3 Block
Fig. 3
South side.
L. 0.765; W. 0.790 m .

Part of tie-wall of Classical terrace.

B4 Block
Fig. 3
South side.
L. 0.507; W. 0.810 m.

Part of tie-wall of Classical terrace.
B5 Block
Fig. 3
South side.
L. 0.785; W. 0.774 m.

Preserves $\cup$-shaped lifting channels, part of tie-wall of Classical terrace.
B6 Block
Fig. 3
South side.
L. 0.470; W. 0.780 m.

Part of tie-wall of Classical terrace.

B7 Block
Fig. 3
South side.
L. 1.170; W. 0.750 m .

Part of tie-wall of Classical terrace.

B8 Block
Fig. 3
South side.
L. 0.450 m .

Part of tie-wall of Classical terrace, very fragmentary.
B9 Block
Fig. 3
South side, at southwest corner.
L. 0.860; H. 1.200 m.

Part of tie-wall of Classical terrace with C15.

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[^0]:    38. For a discussion of the dating in this period, and the generally downward trend, see Wescoat 2012, pp. 204207. Bankel (1993) provides extensive charts and thorough comparisons of measurements and proportions among these and other contemporary buildings. On the Athenian Treasury at Delphi (490-480), see the bibliography in Stewart 2008b, p. 582, n. 6. On the Delion (490-480), see Schuller 1991, pp. 71-73. On the Older Parthenon (490-480), see Korres 1993, pp. 59-75; 1994, pp. 54-58; Miles 2011, pp. 663665. On the Temple of Aphaia (just after 480), see Stewart 2008b, pp. 593599; see also n. 36, above. On the Doric

    Treasury in the Marmaria (475-470), see Bommelaer 1997, pp. 50-53. On the Large Temple of Apollo at Delos (ca. 475), see Courby 1931, pp. 98106.
    39. Dörpfeld provides a detailed drawing of this block with measurements (1884, pl. XVI).
    40. Dörpfeld measured A1-A5 as $2.45-2.46 \mathrm{~m}$ (1884, p. 333); it was on this basis that he calculated the interaxial spacing of the columns as 2.46 m .
    41. Dörpfeld measured two other blocks with heights 0.748 m and 0.724 m , and notes the discrepancy; he concludes that the height cannot be known (1884, p. 334).

[^1]:    60. On the contents of the pits as Perserschutt, see Staïs 1920, pp. 4855; Goette 2000, pp. 19-21, 32-35; Stewart 2008b, pp. 591-592. For destruction by Persians in the Sanctuary of Athena, see Barletta, forthcoming, pp. 23, 52, 72-73.
    61. T $\alpha \hat{\tau} \tau \alpha \tau \omega ิ v$ 人̀ $\pi o ̀ ~ П \varepsilon \lambda о \pi о v v \eta ́ \sigma o v ~$ $\sigma \tau \rho \alpha \tau \eta \gamma \omega ิ v$ غ̇ $\pi \wedge \lambda \varepsilon \gamma \circ \mu \varepsilon ́ v \omega v$ غ̇ $\lambda \eta \lambda \hat{\prime} \theta \varepsilon \varepsilon$
    
     $\alpha v ̉ \tau \eta ̀ v \tau v \rho \pi ๐ \lambda \varepsilon ́ \varepsilon \sigma \theta \alpha$.
