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THE WESTERN APPROACH TO THE ATHENIAN AKROPOLIS

The Recent Scholarship

THE structures along the west side of the Athenian Akropolis have long delighted visitors approaching the site and have challenged scholars for generations.[1] By happy coincidence a variety of different studies has recently been published which emphasized different aspects of the approaches to the citadel and once again remind us of the many problems still remaining to be solved.

Ira S. Mark concentrated on the shrine of the Athena Nike. He dealt primarily with the Mycenaean bastion enclosed within the later ashlar masonry of the classical podium, the various early remains of the shrine, which lie roughly 1.30 m. below the floor level of the classical temple, and the historical background of the temple itself.[2] He published a few of the many early drawings of the bastion made by Nikolaos Balanos and his associates[3] and re-examined the early walls crowning the archaic bastion, which he divided into various stages.[4] Although, in my opinion, his chronology needs adjustment, his division of the walls built along the edges of the basion into different phases helps us to understand in more detail the history of the site and is a welcome addition. One of these earlier walls, which had long been considered to be Mycenaean, was dated by Mark to a much later phase (FIG. 1, 15). He suggested that the wall was a post-Mycenaean addition built in this position to enclose the east side of the shrine.[5] This wall lies parallel to the West Cyclopean Wall and had been thought to represent the eastern limit of the bastion. The fragmentary remains of this wall, which are no longer visible, were originally recorded by Panagiotis Kavvadias and Georg Kawerau[6] and its existence has bedeviled all attempts to restore a Mycenaean gate in this area. The addition of this wall to the gateway created a long narrow corridor which served to separate the bastion from the other

[1] During the course of studying this material, I was generously assisted by our Greek colleagues whose unfailing support and advice helped me immeasurably with this project. Drs Petros G. Kalligas and Ismini Trianti, Ephors of the Akropolis, kindly granted me permission to examine and photograph those parts of the site which are not normally opened to visitors. Demosthenes Giraud, responsible for the reconstruction of the Temple of Athena Nike and its bastion, shared with me his expertise gathered through years of studying the particular problems concerned with the bastion and its temple. Tasos Tanoulas, Director of the Restoration of the Propylaia generously provided a copy of his plan of the Propylaia and its surrounding area. As always discussions with T. Leslie Shear, Jr. of Princeton University helped to clarify and define the problems related to this project. Discussions with his student, Michael Djordjevitch, who is currently working on a study of the Akropolis, gave me new insights to some of the problems inherent in this study. To these colleagues and friends I wish to express my appreciation and thanks for their assistance. The plans in this article were drawn by T.L. Shear, Jr.; they are based on our observations of the site plus T. Tanoulas' survey and the published plans drawn by J.A. Bundgaard, W.B. Dinsmoor, Jr., and D. Giraud. The photographs, except for those from the École des Beaux-Arts (PLATE 7) were taken by the author.

[2] Mark (1993).

[3] The existence of the Mycenaean bastion was first revealed by Balanos in 1935 when he removed the classical remains in order to strengthen the foundations of the classical temple; Balanos (1937) 776-807. Traces of an earlier shrine had been uncovered over a decade before by Welter (1923) 190-201. At an even earlier date, the fill below the existing pavement was partially explored by Bohn (1882) 15-17.

[4] Mark's stage 1 consisted of a statue base for a cult statue, an archaic altar dedicated by Patrok[l]es, and an earlier rebuilding of the crown of the bastion. Stage 1 ended in massive destruction of the shrine by the Persians. It was followed by stage 2, a period when the site was abandoned and the remains of the earlier period lay in ruins. Stage 3 was distinguished by a poros naiskos, a rectangular altar to the E, a second altar or statue base to the NE, and an irregular trapezoidal crown on the bastion. During his stage 4 the shrine was rebuilt; at that time the level of the bastion was raised to equal that of the Mnesiklean Propylaia, the earlier cyclopean walls were enclosed within ashlar masonry, and the construction of the well-known marble Temple of Athena Nike was undertaken.

[5] Mark (1993) 16, accepted by Wright (1994) 340. Wall shown in Wright's plan, fig. 1, immediately W of the bedrock elevation marked 141,96 and Mark's plan A.

[6] Kavvadias and Kawerau (1907) 7-8, pl. H'.

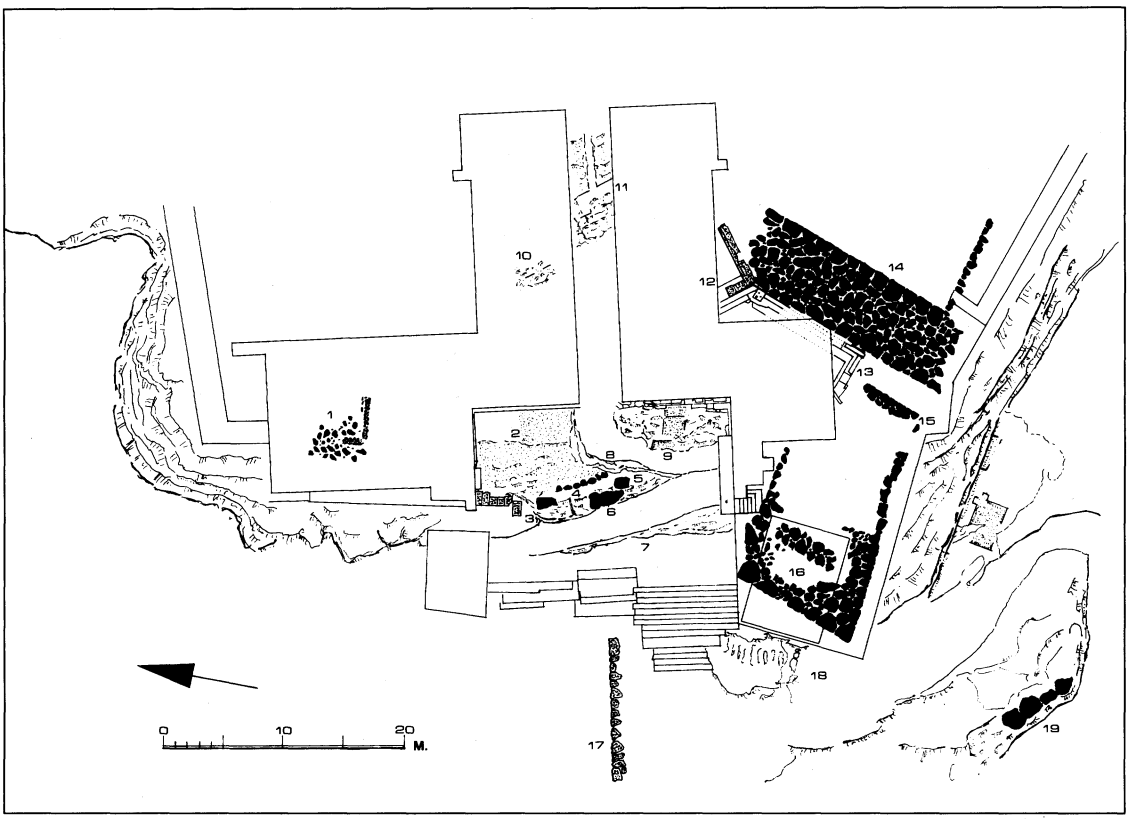

FIG. 1 Plan showing preserved remains:
1. 'rock pile' under Mnesiklean Propylaia; 2. in area to right and below, hammer-dressed surface of bedrock; 3. Akropolis limestone block resting on bedrock; 4. wall found by Stevens with bedrock cuttings found by Iakovidesto left; 5. second Akropolis limestone block resting on bedrock; 6. two pieces of Akropolis limestone wedged into natural crevice of bedrock; 7. pieces of Akropolis limestone cemented into foundations of modern path; 8. additional pieces of Akropolis limestone at base of modern path; 9. archaic cuttings in bedrock; 10. bedrock cutting under north aisle of Mnesiklean Propylaia; 11. bedrock cuttings in central passage of Mnesiklean Propylaia; 12. remains of Old Propylon; 13. metopes, bench and rock cut steps to west of West Cyclopean Wall; 14. West Cyclopean Wall; 15. archaic wall west of West Cyclopean Wall; 16. Mycenaean bastion; 17. north wall of archaic ramp; 18. pathway at base of Mycenaean bastion; 19. cyclopean blocks wedged into natural crevice of bedrock.

Mycenaean fortifications on the Akropolis.[7] The sharp drop in the bedrock at the south end of the restored corridor[8] precluded its usefulness as an exit, but at the same time an open gap at this point would have served as a constant temptation to any enemy besieging the citadel. The separation of this wall from the earlier Mycenaean phase of the bastion is of obvious importance in any attempt to restore the plan of the Mycenaean gate.

Mark's monograph is supplemented by the work of Demosthenes Giraud who published new drawings of the area in a report which focused primarily on the problems of the restoration of the Temple of Athena Nike.[9] Giraud's work in this area reminds us once again of the very long history of the area and the many alterations which occurred throughout the centuries. He has shown that this much studied site still has new evidence to be uncovered. His study of Balanos'

[7] For various alternative restorations of the Mycenaean gate see Wright (1994) 326-35, fig. 2; Dinsmoor, Jr. (1980) 1-4, pl. 1; Mylonas (1966) 37-39, text fig. 9; Iakovidis (1962) 166-73, drawings 34-45; Travlos (1960) 25, fig. 7; Bundgaard (1957) 34-35, 51-52, fig. 34; Stevens (1946) 73-77, fig. 2; Welter (1939) 1-9, fig. 4.

[8] See Picard (1929) pl. 27.2. The drop in level at this point is well over 10 m.

[9] Giraud (1994).

drawings and papers revealed that some of the work attributed to Balanos was actually done by his associates.[10] Giraud reviewed the evidence for the archaic phase of the shrine and its early statue base,[11] the post-Persian reconstruction,[12] and the marble Temple of Athena Nike which he associates with the architect Kallikrates.[13] His new drawings of the area[14] clearly show that the existing south end of the West Cyclopean Wall (FIG. 1, 14) is not Mycenaean and indeed an examination of this wall on the site reveals that the corner and many parts of the wall itself were substantially repaired in the medieval if not modern period (PLATE 4a). Giraud's meticulous work on the site recorded the evidence for a small, early shrine at the east end of the bastion which appears to have been separated from the sanctuary of the Athena Nike already in the sixth century BC.[15] The presence of this shrine explains the western turn of the steps and bench built in front of the West Cyclopean Wall in the archaic period (FIG. 1, 13). Giraud is currently continuing his investigation of the bastion and its earlier phases. His new observations are eagerly awaited by all who are interested in this area.[16]

James C. Wright emphasized the Mycenaean remains to the north and east of the bastion. Relying heavily on earlier scholarship, particularly the work of Balanos, Spyridon E. Iakovidis and William B. Dinsmoor, Jr.,[17] Wright published a lengthy discussion of the existing evidence, earlier scholarship, and various suggested restorations of the area.[18] His detailed review of the scholarship and early remains in this area makes it unnecessary to describe them once again in detail. Readers who are unfamiliar with the site are referred to his publication. In brief, he described the Mycenaean bastion lying encased within the ashlar podium of the classical shrine of Athena Nike (FIG. 1, 16),[19] the small niche set into the west face of the Mycenaean bastion,[20] the pathway around the bastion (FIG. 1, 18),[21] an early wall to the north

[10] Giraud (1994) 292-93.

[11] Giraud (1994) 32-34. His reconstruction of the statue base challenges the restoration made by Mark and offers a new explanation for the multiple cuttings within the base.

[12] Giraud (1994) 34-38. Unlike Mark (1993) 129-30, Giraud dates the construction of the poros naiskos to the immediate post-Persian period.

[13] Giraud (1994) 38-43. Mark (1993) 130-41 questioned this attribution and tried to associate the architect Kallikrates with the poros naiskos of his stage 3.

[14] Giraud (1994) pls. 4-7.

[15] Giraud (1994) 32-34, pls. 4-7. The shrine was not discussed by Mark, Wright, and Eiteljorg, even though it had already been noted by Travlos (1971) 148, and had been mentioned by Frazer (1898), commentary on Paus. 2.30.2.

[16] I have been privileged to share some of this new research undertaken by Giraud and I once again wish to thank him for many pleasant exchanges of ideas and observations.

[17] Balanos (1937); Iakovidis (1962); Dinsmoor, Jr. (1980).

[18] Wright (1994). Dinsmoor, Jr. (1980) 1-15 also summarised the earlier scholarship. Subsequent to Wright's article, Mark (1995) 383-88 published a brief note remarking on the differences in levels given by him in 1993 and those given by Wright in 1994. These are, for the most part, minor and they do not affect the reconstruction of the different phases suggested in this paper.

[19] Wright (1994) 325, 327, 329, 331-32, 334, 338-41, fig. 3; see also Giraud (1994) pls. 4-7; Mark (1993) 12-19, plan A; Iakovidis (1962) 106-9, 166-70, drawings 17, 20, 34; Balanos (1937) 784-807, pl. I. The Mycenaean bastion was built of cyclopean blocks resting on bedrock. The best preserved part, lying under the W end of the later classical structure is 9.70 m. in length and is preserved to a height of roughly 5 m. Its S side is preserved for 16 m., stopping roughly 5 m. W of the West Cyclopean Wall. Its N side, beginning at its W end, has been exposed for a length of 3.80 m. The eastward continuation of the N side, which appears to be roughly parallel to the S side, is obscured by the later ashlar enclosure of the bastion. Measurements from Mark (1993) 13. Published plans of the bastion vary slightly in dimensions.

[20] Wright (1994) 329-32, 341, fig. 4. See also Mark (1993) 13-14; Iakovidis (1962) 109-12, drawing 18. This niche, divided into two parts by a vertical support, was enclosed on the top and sides by the cyclopean blocks of the bastion; its base rests on the bedrock. In the classical period, when the bastion was enclosed with ashlar masonry, two niches, apparently reflecting the earlier, divided niche, were constructed along this side; see PLATE 4b, upper right.

first identified as Mycenaean by Gorham P. Stevens (FIG. 1, 4),[22] cuttings in the bedrock just north of this wall identified by Iakovidis (FIG. 1, below 2 and to the left of 3),[23] the 'rock pile' under the Pinakotheke uncovered by Kavvadias and Kawerau (FIG. 1, 1),[24] and finally the West Cyclopean Wall which lies east of the southwest wing of the Mnesiklean Propylaia (FIG. 1, 14).[25] Wright's conclusions are more or less similar to those previously presented and his only new suggestion was the restoration of a tower at the east end of the Mycenaean bastion. He continued to support the idea of terraces built along the exterior of the Mycenaean fortifications. Terraces in such a position, it is argued below, are not appropriate to a Mycenaean defensive system. If the terraces are not suitable in this position, then obviously the tower supported by such a terrace is also not acceptable. In his survey, Wright failed to mention a fragmentary Cyclopean wall noted by Antonios D. Keramopoullos (FIG. 1, 19, PLATE 5c).[26]

Harrison Eiteljorg II, presenting once again much of the same evidence already published by Dinsmoor, Jr., suggested a new restoration of the different phases of the entranceway which resulted in totally new plans for the Mycenaean gate and its successors.[27] He discussed in detail the fragmentary architectural remains usually associated with the Old Propylon (FIG. 1, 12, PLATES 6a and 6b).[28] These he suggested belonged to the same building phase as the rock-cut steps, bench, tripod base, and marble metopes lying immediately west of the West Cyclopean Wall (FIG. 1, 13, PLATE 5a).[29] The difficulties of this association will be discussed below and two separate building phases are supported for the two groups of structures, as suggested earlier by Dinsmoor, Jr.

[21] Wright (1994) 325-27, 332, 335-38. Wright discussed at great length the various bedrock levels along the W side of the bastion in order to determine the exact position of the Mycenaean path which lay in this area. He examined the rock cut steps to the W of the bastion. The number, position, and orientation of these steps, which are only partially visible, have been the subject of much debate since their initial discovery by Beulé (1862) 44; see also Tanoulas (1987) 468; (1997) 239. Wright rejected these steps as Mycenaean; Tanoulas accepted their prehistoric date.

[22] Wright (1994) 327-29, 334-35, 342; Stevens (1946) 73-75. This comparatively short stretch of curved wall, roughly 4 m. in length, consists of one course of small stones, laid in an earth mortar. Stevens suggested that these stones represent the lowest course of the Mycenaean fortification wall along the W side of the Akropolis. Bundgaard (1957) 48-49, n.62 argued that the stones were too small for them to serve as a fortification wall; he suggested that they formed part of a Mycenaean terrace wall; Dinsmoor, Jr. (1980) 2-3 supported Bundgaard's interpretation. This explanation was also accepted by Wright.

[23] Wright (1994) 332, 342; Iakovidis (1962) 113-17, fig. 17, drawings 19-20. These shallow cuttings were thought by Iakovidis to represent the position of additional stones belonging to a northern extension of the Mycenaean wall identified by Stevens.

[24] Wright (1994) 325, 332-33, 342-44, fig. 7; Tanoulas (1992) 153-54; Bundgaard (1957) 47; Kavvadias and Kawerau (1907) 41-44, 59-62, pls. B' and I'. This is a deep fill of many stones found in the western portion of the Pinakotheke; it had been cut through when the foundations of the Pinakotheke were laid. In this same area were the remains of two Mycenaean walls, which were once thought to lie inside the fortification wall formed by Stevens' Mycenaean wall. For scholars who believed this restoration and its problems, see Dinsmoor, Jr. (1980) 2-3. Dinsmoor argued that a fortification wall to the W of the two Mycenaean walls would have been too narrow to serve as a proper Mycenaean fortification. Wright's detailed description of this fill and his reinterpretation of Kawerau's drawing, Wright (1994) fig. 7, revealed that the rock pile covered the early walls. Since the walls lay within the stone fill and not outside it, they must predate the stone fill and consequently the walls need not have any important significance in the interpretation of the rock pile itself nor do they necessarily indicate the position of the later fortification wall.

[25] Wright (1994) 325, 341-42. For further discussion of the West Cyclopean Wall, see below.

[26] Keramopoullos (1934-35) fig. 5, pl. I, wall along ridge marked 53a.

[27] Eiteljorg (1995).

[28] Eiteljorg (1995) 18-19, 24-44. See also Dinsmoor, Jr. (1980) 35-62. These consist of the S end of three marble steps, running roughly NW to SE, an anta resting on the uppermost step near its southern end, a short spur wall connecting the anta to a lateral wall, a lateral wall, oriented NE to SW, which now consists of a series of orthostates with the traces of a bench and step to their N on the interior of the building, and part of the floor slabs.

[29] Eiteljorg (1995) 18-24. See also Dinsmoor, Jr. (1980) 17-34. Marble metopes, taken from the mid sixth-century Temple of Athena, were used to embellish the lower part of the West Cyclopean Wall; in front of the metopes a tripod base and a bench were placed. Further W, a series of rock cut steps led to the lower level of the archaic shrine of Athena Nike and the early ramp which led to the Akropolis.

Eiteljorg's discussion of the marble steps and surviving anta is also to be questioned. He suggested that these steps with their accompanying antae were not built as part of a propylon, but that they were placed here to mark the transition between a lower and upper courtyard in front of the old Mycenaean gate.[30] The interpretation of the steps depends largely on what was built on top of them. Dinsmoor, Jr. claimed that the anta standing here inclined both inward towards the interior of the building and sideways towards a columnar façade.[31] The inclination of the anta, in Dinsmoor, Jr.'s reconstruction, is a clear indication that the steps were built as a crepidoma for a building. While Eiteljorg did not disagree with this interpretation, he claimed that the anta was not meant to incline. The present inclination of the anta, he believes, is due to pressure from the rebuilt West Cyclopean Wall which pushed the anta into its present position.[32] Although Eiteljorg quite rightly noted that the anta has been slightly displaced by the pressure of the wall behind it, the presence or absence of inclination is not determined solely by the present position of the anta but also by the dimensions of the blocks forming the anta. Dinsmoor, Jr.'s drawing clearly shows that the lower marble block forming the anta is not rectangular. Its sides were cut with a shorter vertical surface facing the columns than the taller vertical surface adjacent to the anta wall.[33] A block cut in this way is clearly meant to incline and its later displacement by the West Cyclopean Wall merely emphasized the original inclination.[34] Once it is determined that the marble steps were intended to form a crepidoma for a propylon, Eiteljorg's reconstruction of a lower and upper courtyard separated by marble steps lying outside the Mycenaean gate can no longer be supported. The projection backwards into the Mycenaean period of a courtyard, similar to the one he restored in the later period, then becomes questionable. His restoration of the Mycenaean phase, furthermore, included a terrace west of the fortification wall and it failed to incorporate the Mycenaean bastion into the fortification system.

Eiteljorg's important contribution has been his observation that the metope slabs used to embellish the West Cyclopean Wall in the late archaic phase continued north beyond the existing metopes still in situ.[35] These cuttings for the metope slabs indicate that the West Cyclopean Wall must also have originally continued farther north beyond the existing north end of the wall as it is today. They also strongly suggest, in my opinion, that the placement of the metope slabs and the construction of the marble steps belong to two different projects. Eiteljorg also re-evaluated the bedrock cuttings under the Mnesiklean Propylaia (FIG. 1, 10 & 11).[36] These cuttings had been used by Jens A. Bundgaard, and both William B. Dinsmoor, Sr. and Jr., as a basis for restoring a very wide propylon with four columns in antis in the late archaic period. This extraordinarily wide propylon is completely out of scale with the rest of the archaic

[30] Eiteljorg (1995) 10-11, 14-15, 57-59, figs. 28-39.

[31] Dinsmoor, Jr. (1980) 56-57.

[32] Eiteljorg (1995) 40-43.

[33] Dinsmoor, Jr. (1980) pl. 11. Dinsmoor's conclusions were verified by Tanoulas (1996 a) 188-89, who once again measured the anta block.

[34] The displacement of the anta caused by the West Cyclopean Wall, furthermore, is so slight that it could not have been entirely responsible for the inclination of the anta as it exists today. The displacement as measured on the site by me less than 0.01 m. at the bottom, S side of the block. On the north, the top of this block projects 0.033 m. N of the bottom.

[35] Eiteljorg (1976) 94-95; (1995) 25-26. See also Dinsmoor, Jr. (1980) 18, 22-27, 35-36, pl. 4a.

[36] Eiteljorg (1995) 44-46. See also Weller (1904) 49-54, fig. 3, pl. VI, whose earlier observations of these cuttings are similar to those made later by Eiteljorg.

buildings within the Akropolis.[37] Eiteljorg's separation of the cutting under the north aisle from those in the central passage, which was the basis for the restoration of the wide propylon, is an important addition to any attempted restoration of the Old Propylon.

Tasos Tanoulas, working on the current restoration of the Mnesiklean Propylaia, presented new information and interpretations concerning various aspects of both the earlier and later phases of the area.[38] He dealt extensively with the remains of the cistern and the unfinished, Northwest Building adjacent to the Mnesiklean Propylaia, which have important implications in the reconstruction of the Mycenaean fortification wall along the north side of the Akropolis. Having re-examined much of the earlier work done on this site, he presented a meticulous drawing of this area and a detailed account of the much later history of the site. His summary of the early archaeological work on the Akropolis from the time of Greek independence to the beginning of the Balanos restorations[39] is a helpful guide to the various publications of that period. His work reveals, once again, that this site, although long studied, is as yet not completely understood and many problems still remain. His continuing research in this area is constantly providing new ideas and a fuller understanding of the history of the Akropolis.

Problems with the Old Restorations of the Mycenaean Fortifications

Although each of these recent studies helps to clarify certain portions of the evidence, many of the problems concerning the Mycenaean entranceway and its later history remain tantalizingly unanswered. Perhaps the most baffling problem concerning the Mycenaean gate is the existence of the Athena Nike bastion and its relationship to the Mycenaean fortifications. The restoration of this bastion as a terrace outside the fortification walls, it will be argued below, is not appropriate to the Mycenaean period. The use of cyclopean masonry in the construction of the bastion suggests that it served some important purpose whose usefulness was a significant part of the defensive system of the citadel. The relationship of the bastion to the other fortification walls of the Mycenaean period needs to be re-examined and a possible reason for its construction needs to be determined.

The position of the West Cyclopean Wall also needs explanation. It was built on that part of the plateau where the bedrock has already started to level out and not on the edge of a high, projecting bedrock ridge, which is the normal position of Mycenaean fortification walls in the other, better preserved sites. It has often been noted that this wall is thicker and straighter than the other portions of the surviving Mycenaean fortification wall. As it now stands, it can be seen to have had many repairs.[40] Its south end bonds into the south wall of the Akropolis, which is clearly not Mycenaean (PLATE 4a). After the Persian destruction of the Akropolis, this section of the cyclopean wall alone appears to have been left standing to any great height. Although none of these observations are new, there has been no speculation nor any attempt to determine whether there is any important reason for these differences and whether these differences should alter our understanding of this wall: why it was first built and how it was used both in the Mycenaean era and in the later periods of the site.

[37] Plommer (1960) 146-50 questioned the unusually wide façade of the Old Propylon when this idea had been first suggested by Bundgaard and Dinsmoor, Sr. He supported the earlier restoration of a narrower propylon suggested by Weller (1903) 94; (1904) 49-57.

[38] Tanoulas (1987), (1992), (1996 b), (1997).

[39] Tanoulas (1987) 461-77.

[40] A late repair of this wall is clearly indicated by the bricks and flat stones cemented into the fabric of the wall as noted by Iakovidis (1962) 117. These can be seen in the photographs published by Iakovidis (1962) fig. 29, and Travlos (1971) fig. 70.

New Evidence for the Mycenaean Fortifications

Overlooked by almost all recent visitors to the Akropolis, so overwhelming is the magnificent, marble, Mnesiklean Propylaia, is the simple fact that the bedrock immediately in front of the Propylaia has been hammer-dressed in a manner characteristic of the Mycenaean period (FIG. 1 area below and to right of 2; PLATE 2).[41] The visible hammer-dressed surface starts at the west corner of the south foundations of the Pinakotheke and extends southward for more than 10 m. towards the bastion of the classical shrine of Athena Nike before it encounters the modern path. Towards the east, in the direction of the foundations of the central hall of the Propylaia, the hammer-dressed surface covers an area of roughly 4.50 m. in width. On this surface lie Stevens' wall and Iakovidis' cuttings (FIG. 1, 4 and area to left of 4). This entire area rises in a series of irregular, sloping flattened areas which were clearly worked to receive a massive construction of some sort. Along the east side of the hammer-dressing the flattened bedrock surface ends in a vertical ridge which runs southward from the Pinakotheke for a distance of 3.50 m. roughly parallel to and 2.70 m. west of the west façade of the Mnesiklean Propylaia. In one section on the east the hammer-dressing continues still farther east under the foundations of the Propylaia. At the point that the hammer-dressing extends under the propylaia, its north side lies 3.50 m. south of the Pinakotheke and it has a north–south width of 3.00 m. The bedrock to the north, in the corner formed by the west façade of the propylaia and the Pinakotheke, is still rough and appears to be the only bedrock immediately west of the Propylaia which was never worked in any way. In the corner of bedrock framed by the west façade and the southwest wing (FIG. 1, area above 9), there is a series of rectangular cuttings with rounded corners, which appear to belong to a later period.[42]

At the west edge of the hammer-dressed surface, the bedrock falls abruptly and immediately below it lies the modern path. Wedged into the side of the hammer-dressed bedrock ridge are two large blocks of Akropolis limestone (FIG. 1, 6). These blocks have been so carefully fitted into a natural gap of the bedrock that at first they seem to be part of the bedrock itself (PLATE 3c). Their size, position, and workmanship recall the cyclopean construction of Akropolis limestone blocks noted by Keramopoullos (FIG. 1, 19). Usually ignored by modern scholars and obscured today by bushes and other plants, this segment of masonry still remains on the south slope of the Akropolis where Keramopoullos first noted its existence (PLATE 5c). Keramopoullos' cyclopean blocks also lie in a crevice between two outcroppings of bedrock south of the Athena Nike pyrgos and slightly to its west just before the former, modern entrance to the Akropolis where a guard house still stands. In both examples, the stones appear to have been used to bridge a gap in the bedrock which had been levelled on its upper surface to form a base for a Mycenaean construction.

On the bedrock ridge west of the Mnesiklean Propylaia there are additional pieces of Akropolis limestone. These are so weathered that they almost appear to be part of the bedrock

[41] This was observed by the author in the company of T.L. Shear, Jr. on a late February afternoon in 1995, when the sun was low on the horizon. When the sun rises higher in the summer, the hammer-dressing is harder to distinguish, which may partially account for the fact that this evidence has been largely ignored. That most of the bedrock in this area has been worked in some way, however, is immediately evident. Occasional references in a casual statement or a footnote refer to this fact: see among others Bundgaard (1957) 48, Bohn (1882) 35, but no attempt has thus far been made to use this evidence in the restoration of the early phases of the approaches to the Akropolis. The working of the bedrock was also noted by Stevens (1946) 77, but he associated it with later work in this area. Although largely obliterated by later construction and the passing of feet, the original hammer-dressing in this area is evident in the irregular pock marked surfaces of the bedrock which differ from the later surfaces worked with a point where the more evenly spaced markings are similar both in depth and in width.

[42] Dinsmoor, Jr. (1980) plan A; Wright (1994) fig. 1; Tanoulas (1992) fig. 3, and earlier publications of Bohn (1882) pls. II, XV no. 9; Kavvadias and Kawerau (1907) pls. A' and H'.

itself.[43] One of these lies wedged into the natural hollow in the bedrock 4.80 m. south of the Pinakotheke (FIG. 1, 3). This block is roughly 1.55 m. from north–south by a maximum width of 0.80 m. (PLATE 3a). It lies 1.00–1.60 m. east of the modern path. At a distance of 4.60 m. farther to the south (FIG. 1, 5), there is another much weathered fragment of Akropolis limestone, 0.87 m. from north–south, by 0.80 m., once again wedged into the natural bedrock (PLATE 3b). It lies 1.30 m. east of the modern path, just above the southern block placed in the crevice of the bedrock below. These two weathered pieces of Akropolis limestone probably lay in the lowest course of a wall once constructed in the area. The row of smaller stones which form Stevens' wall lies 0.80–1.00 m. to the east of these two stones (FIG. 1, 4). This position suggests that the stones of Stevens' wall originally formed part of the inner core of a much larger Mycenaean wall. The cuttings in the bedrock noted by Iakovidis (FIG. 1, area to left of 4) appear to represent the position of still more stones belonging to the inner core of the same wall. More pieces of weathered Akropolis limestone lie to the east (FIG. 1, 8), just below the modern path where it turns east to enter the Propylaia. In size and condition they are similar to the other pieces of weathered Akropolis limestone, but they appear not to be in their original position because they lie at odd angles and are not resting solidly on the bedrock (PLATE 2). Additional pieces of cut Akropolis bedrock are to be found at a lower level, to the west, where they help to support the modern path that runs from north to south, towards the bastion of Athena Nike (FIG. 1, 7). These have been cemented into place and are clearly not in their original position (PLATE 2, lower left).

The worked bedrock surface and the various pieces of cut Akropolis limestone clearly indicate the existence of a large, substantial wall in the area west of the central façade of the Mnesiklean Propylaia. The great breadth and massive construction of this wall suggest that it was more than a simple terrace wall and thus it must have served some other purpose. Its existence in this location, so close to the bastion of Athena Nike, necessitates a re-evaluation of the entire area at the west end of the Akropolis. In order to understand how a massive wall west of the central façade of the Mnesiklean Propylaia changes our understanding of the history of the site, we should once again examine the history of the Athena Nike bastion and its relationship to the other walls in this area.

The Restoration of the Earlier Mycenaean Phase

The Mycenaean bastion or pyrgos, which was later transformed into the sanctuary of Athena Nike (FIG. 1, 16), appears most logically to have been originally part of the Mycenaean fortification system. The use of cyclopean masonry in its construction[44] finds a parallel in the other fortifications of the Mycenaean period, both in Athens and elsewhere on the Greek mainland. Constructed on top of a ridge of projecting bedrock,[45] it follows the pattern established by other Mycenaean fortification walls which used the natural drop in the existing bedrock to give added height to the walls.[46] It is preserved to a height of roughly 5.00 m.

[43] Some of these are indicated on the plan drawn by Tanoulas (1992) fig. 3, where he shows the various bedrock ridges, cuttings, and the modern path in front of the Mnesiklean Propylaia.

[44] The large size of the stones is made clear by both Mark (1993) figs. 15-16, pls. 7-12, and Wright (1994) 338-39, figs. 3-4, 6. Balanos (1937) 791-95 noted that the bedrock along the W side of the bastion had been worked to receive the large stones of the lowest course of the pyrgos. This same characteristic was observed in other portions of the preserved fortification wall at Athens by Iakovidis (1962) 113-14, 121, 127, 140-41, 148-49, figs. 17, 19, 23, 25, drawings 17, 19, 23, 25; Wright (1994) 338.

[45] Wright (1994) fig. 5 cross section b-b'.

[46] This location can be compared to the fortification wall E of the Lion Gate at Mycenae and parts of the western circuit of walls at Tiryns; Mylonas (1966) figs. 1, 3, 11; Wace (1949) fig. 72a.

today, but originally it must have stood much higher.[47] Although earlier studies restored the pyrgos as a bastion loosely connected with the fortification wall,[48] more recent investigations have restored it as a small, isolated terrace outside the walls of the citadel.[49] The great size of the stones used in its construction and its position on the edge of the projecting bedrock suggests that it was not a simple terrace wall, but that it originally had a more critical and strategic purpose. The restoration of an isolated defensive tower at the west end of the terrace[50] may at first seem to justify the existence of the terrace, but further consideration makes it clear that a tower in this position would have created a difficult military situation. Warriors defending the citadel needed to exit from the fortifications in order to make use of the tower. An aggressive enemy besieging the fortress could have prevented the exit of a defending force from the main gate. An isolated tower in this position, furthermore, once it was captured by an enemy force, would have served as a protected shield from which further attack could be made against the walls of the citadel. The pyrgos had to be accessible from the fortification walls surrounding the citadel in order to serve an effective military function. Its defenders needed to have easy access to this area whenever the fortress was under attack.[51] Since the pyrgos stands on the westernmost outcropping of bedrock along the southern side of the Akropolis, the most logical explanation for its existence is that it formed the western limit of the south fortification wall. The very steep drop in the bedrock[52] in this area was probably responsible for the construction of the cross-wall within the pyrgos,[53] if indeed the cross-wall ever existed in the Mycenaean period.[54]

[47] Mark (1993) 15; Wright (1994) 341.

[48] Welter (1939) 1-9, fig. 4; Stevens (1946) 73-77, fig. 2; Iakovidis (1962) 166-73, drawings 34-35; Travlos (1960) 25, fig. 7.

[49] Bundgaard (1957) 69, fig. 34; Dinsmoor, Jr. (1980) 1-4, pl. 1; Wright (1994) 338-41, 345-49, figs. 8-9; Eiteljorg (1995) figs. 28-29.

[50] Wright (1994) 341, 348, figs. 8-9.

[51] This point was forcefully argued by Iakovidis (1962) 166-73.

[52] The bedrock immediately W of the West Cyclopean Wall lies at 142.68 masl. which is roughly 9 m. above the bedrock level W of the bastion; the top of the West Cyclopean Wall now lies at 145.93 masl., but in antiquity it was much higher; see n.68 below. If the top of the bastion originally lay level with the top of the West Cyclopean Wall, then the bastion must have had a minimum height of 13.50 m. In part because of this sharp difference of level, Wright concluded that the West Cyclopean Wall and the pyrgos were two separate elements; Wright (1994) 342. This height, however, does not automatically separate the wall from the bastion, since the minimum restored height of certain segments of the cyclopean fortification wall at Mycenae has been estimated to be 18 m., the preserved height of the Hellenistic repair of the walls; Mylonas (1960) 17.

[53] For description of the cross wall see: Balanos (1937) 788, 796; Mark (1993) 13, pl. 7, plan A; Wright (1994) 329, 340, fig. 3. This wall is known primarily from the Balanos drawings. It lies *c.* 4.50 m. E of the W face of the bastion and was said to have been founded on fill. Wright used this cross wall as the E foundation of the tower he placed at the W end of his restored terrace. If the tower is not accepted, then some other interpretation of the cross wall needs to be found. The use of cross walls within Mycenaean terraces has been documented; Wright (1980) 61; and one possibility is that this wall was constructed to help retain the deep fill of the original bastion. Wright (1994) 340 n.69 rejected this interpretation because interior cross walls within Mycenaean terraces, according to Wright, do not normally have two faces.

[54] See Wright (1994) fig. 3, which shows the cross wall, labelled 'Actual-state plan of the Nike bastion, after Balanos and Mark (J.C. Wright)'. Presumably Wright's drawing is based on the Balanos drawing reproduced by Mark (1993) pl. 7. Areas of the earlier drawing which had been left empty were filled in by Wright with rubble fill which makes this cross wall stand out as if it were a separate entity. Mark (1993) pl. 11 also published a cross section from the Balanos archives; in the cross section the entire area at its lower levels is filled with large stones. A clear vertical face for a cross wall at this lower level is not evident either on the W or on the EAST. The only possible vertical faces of a putative cross wall consist of five stones lying in two courses at the very top of the Mycenaean layer (identifiable by the large size of the stones). To the EAST of this possible cross wall there are two ashlar blocks belonging to the foundations of the classical temple which cut into the original Mycenaean fill and they appear to be responsible for the vertical, EAST face of this wall. On the W of the so-called wall there is a fill of stones and rubble whose small size immediately identifies the fill as post-Mycenaean; the level and position of the fill creates

The obvious association between the pyrgos and the southern fortification wall has not been made because of the existence of the so-called West Cyclopean Wall (PLATES 4a, 5b), which lies perpendicular to the line of the southern fortifications (FIG. 1, 14). It has long been noted that this segment of the wall is much thicker and straighter than the other surviving portions of the Mycenaean fortifications.[55] Its location on the level plateau of the Akropolis also differentiates it from the other Mycenaean defensive walls which normally lie along the edge of a hill in a position where the abrupt change in the level of the bedrock serves to increase the height of the wall. Since the West Cyclopean Wall differs in construction from the rest of the Mycenaean walls, it seems likely that its date is also different.[56] The awkward join between the south end of the West Cyclopean Wall and the southern fortification wall, noted on the plan of Kavvadias and Kawerau,[57] suggests that the West Cyclopean Wall is the later addition. The greater width of the West Cyclopean Wall compared to the other parts of the preserved Mycenaean fortifications also suggests a later date.[58]

The possibility of two different phases was suggested by George E. Mylonas,[59] but this idea was rejected because of a few scattered sherds.[60] No sherds from the pyrgos, however, were kept by Balanos and only one small group of the sherds from the fortification wall was published by Iakovidis.[61] Since these sherds, which Iakovidis dated to the late LH IIIB period, come from an entirely different segment of the fortification wall, they could represent a later repair or alteration in the fortifications and they need not necessarily date either the bastion or the West Cyclopean Wall. Their existence does not preclude the possibility of two different

the impression that it had been thrown into this area after the original Mycenaean blocks of the bastion had been dislodged when a pit was dug in this area. This impression is strengthened by the Balanos drawings of Courses 3 and 4 of the foundations for the Nike Temple, published by Mark (1993) pls. 16-17. These drawings give the clear impression that a pit had been dug in this area and that the stones of the so-called cross wall merely lie along one side of the pit. This 'wall' was originally removed and later rebuilt by Balanos (1937) 788, 796; Mark (1993) 13; Wright (1994) 340 n.70. I repeatedly visited the site, occasionally in the company of Giraud, and we were in agreement that this wall, as rebuilt by Balanos, does not look Mycenaean. Giraud (1994) 32-34, pls. 4-5, 9, 11, having studied both the site and the Balanos drawings, believes that this 'wall' is not Mycenaean and that its existence here has no bearing on the Mycenaean phase.

[55] The width of this wall is 6.00 m.; Kavvadias and Kawerau (1907) 129-30; pl. H'; Iakovidis (1962) 163-65, fig. 29, drawings 33-34. The segment of Mycenaean fortification wall found between the Museum and the Belvedere has a width of 3.50 to 5.00 m.; Kavvadias and Kawerau (1907) 95-100, pl. E'; Iakovidis (1962) 146-49, fig. 24, drawings 30-31. At the SW corner of the Parthenon the fortification wall had a width of 4.00 m. which thickens to 5.50 m. further W; Kavvadias and Kawerau (1907) 119-20, pl. Z'; Iakovidis (1962) 156, 161, drawing 32. Reproductions of the original drawings of the West Cyclopean Wall from the Kavvadias and Kawerau excavation were published by Bundgaard (1974 a) pls. 202-3.

[56] To be compared to the walls at Mycenae where different segments of the fortifications varying in construction were shown to date to separate phases; Mylonas (1962) (*passim*); (1966) 19-22. The walls at Tiryns also show many different phases; Müller (1930) 1-76, pls. 2, 4; Mylonas (1966) 12-15, text. fig. 1; Iakovidis (1983) 3-13.

[57] Kavvadias and Kawerau (1907) pl. H'; Bundgaard (1974 a) pl. 203; see also Giraud (1994) pls. 4-7. For description of this wall, see Iakovidis (1962) 161-62, who noted that the original corner, where the two walls joined, is missing at the top and that both the corner and the West Cyclopean Wall show many later repairs.

[58] To be compared to the fortification walls at Tiryns; in phase 2 they have an average width of 5-7 m. in contrast to the average width of 7-8 m. for the walls of phase 3; Iakovidis (1983) 6 for phase 1 and 10 for phase 3.

[59] Mylonas (1966) 39. Wright (1994) 348-49, quoting Mylonas, acknowledged this possibility but he did not seriously explore the idea.

[60] Pantelidou (1975) 24-27; Iakovidis (1983) 79-82; Wright (1994) 333-34; Mountjoy (1995) 40-41.

[61] Iakovidis (1962) drawing 39 on p. 239 shows the provenance of the sherds found during the course of his work on the Akropolis. Only one lot, Iakovidis fig. 54, came from the fortification wall itself, drawings 22, 35 no.5; this part of the wall was very badly preserved. These sherds are LH IIIB in date and one of them is dated by Iakovidis to the latest phase of that period, Iakovidis 244-45. Pantelidou (1975) 256 placed the construction of the fortification walls in the period immediately after the middle of the thirteenth century which is earlier than the late LH IIIB sherd found by Iakovidis. The discrepancy between these two dates also suggests two different phases.

phases, both within the LH IIIB period or soon afterwards,[62] like the fortifications at both Mycenae and Tiryns, which also had more than one phase during the LH IIIB and early IIIC periods.[63] Since the West Cyclopean Wall differs from the other preserved segments of the fortifications, it should be the addition, whereas the pyrgos, similar in its construction to the majority of other walls, should be part of the original construction.

It has often been argued that the walls of the pyrgos did not abut the West Cyclopean Wall since no trace of such a join can be seen today.[64] In the sixth century, but subsequent to the collapse of the upper part of the Mycenaean bastion, a small shrine was built adjacent to the south end of the West Cyclopean Wall dividing the area of the new shrine from that of the sanctuary of Athena Nike.[65] At the time the shrine was first constructed or during any of its later refurbishing, alterations at the south end of the West Cyclopean Wall could have obscured any trace of a join that once existed in this area. A reworking of the south end of the West Cyclopean Wall, in any case, must have been necessary after the Persian destruction of the Mycenaean fortifications along the south side of the Akropolis. In this area the Persians dismantled large portions of the Mycenaean fortification wall almost to its foundations. Any join between the West Cyclopean Wall and the other parts of the Mycenaean fortifications was obviously affected by this Persian activity and it is not surprising that later rebuilding of the fortification walls in this area obscured whatever traces remained after the departure of the Persians. A very late repair in the West Cyclopean Wall is indicated by the bricks and flat stones cemented into the fabric of the wall. The south end of the wall, as it exists today, bonds into the south wall of the Akropolis and the masonry which forms this segment of the Akropolis walls is clearly not Mycenaean but dates to a much later period (PLATE 4a). Any one of these alterations or repairs, which spanned the centuries from the archaic period into our own era, easily explains the removal of all traces of a join between the pyrgos and the West Cyclopean Wall.

The West Cyclopean Wall as it now stands has shifted outward, making the top lean towards the west. Eiteljorg noted that the shifting blocks of the wall displaced the anta of the Old

[62] Mountjoy (1995) 9, 23, 40-41, 44 in her recent survey of all the Mycenaean material from Athens, concluded that Athens was just as vital a centre in the Mycenaean period as Mycenae, Tiryns, and Pylos. At the same time she argued that the fortifications in Athens had only one phase, which included the construction of the Mycenaean fountain. The sherds from the fountain were dated very late in the LH IIIB period or even possibly in the early LH IIIC period (see p. 40 for a IIIB date which on p. 44 she modified to IIIB2 and IIIC early). If the latest sherds from the construction of the fountain are IIIC early, even if those sherds are few in number, then the fountain and any accompanying construction, must be LH IIIC. This date had been suggested by Bundgaard (1976) 33, and it was found acceptable by Hoper (1978) 200-1, in his review of Bundgaard's book, and by Mountjoy (1995) 11 herself. Casual comments made by O. Broneer about the date of the sherds from the earlier excavations, which Mountjoy (1995) 40 tried to use, are too vague to be a reliable index by themselves. Since the addition of a water supply within the fortifications at Mycenae and Tiryns occurred in the IIIB period or even possibly early in IIIC, a similar date for the construction of the fountain in Athens seems appropriate. By analogy with the two better preserved and dated sites at Mycenae and Tiryns, however, the bulk of the fortifications in Athens should date to an earlier period.

[63] Although the later phases at both Mycenae and Tiryns are now generally dated to the end of the IIIB period, the chronology of the closing years of the IIIB period and the early years of the IIIC period has been much debated and the possibility that the late additions are actually early IIIC and not late IIIB should not be entirely excluded. For summary of recent studies concerning the chronology of Mycenaen pottery, the dates and causes of the destructions at the end of this period, and extensive bibliography on these subjects see Shelmerdine (1997) esp. 556-57, 580-84.

[64] This view has been most recently expressed by Wright (1994) 342.

[65] Giraud (1994) 32-34, pls. 4-7, who labelled it the sanctuary of Hekate. Travlos (1971) 148, citing Paus. 2.30.2, placed the shrine of Artemis Epipyrgidia in this location. For the identification of Artemis Epipyrgidia as Hekate, see Frazer (1898) commentary on Paus. 2.30.2. The bench and rock cut steps built in front of the West Cyclopean Wall turn W at the point where they meet the shrine, indicating that the shrine must have existed at the time the bench was added and the steps were cut. The chronology of this period is discussed below, where it is suggested that these events took place sometime in the second half of the sixth century.

Propylon and he suggested that the west end of the wall had been rebuilt in the fifth century BC.[66] In the fifth century, however, the wall stood much higher than it does today, as indicated by the imprint of this wall left on the exterior southeast corner of the southwest wing of the Mnesiklean Propylaia (PLATE 5b).[67] The more ragged line of the lower section of the wall in contrast to the smoother upper portion clearly indicates that the cyclopean portion of the wall was preserved for a height *c.* 4.85 m. at the time the Propylaia was constructed.[68] The upper section of the wall consisted of an added segment with a well-dressed surface set back from the face of the cyclopean wall indicating the use of a different kind of masonry for the upper section. This addition was presumably built after the Persian destruction but sometime before the construction of the Propylaia. That a wall of this height should have been torn down and then rebuilt in cyclopean masonry in the fifth century is not consistent with the repairs made in other Mycenaean walls,[69] nor with the addition constructed on top of the West Cyclopean Wall itself.

Mycenaean cyclopean walls were usually built of unworked or only roughly worked stones, and thus different segments of those walls contain stones of varying size.[70] The existence of smaller stones at the north end of the West Cyclopean Wall does not justify the conclusion that the wall has been rebuilt. It is the nature of these walls that the larger stones were wedged into position by the smaller ones. With the passage of time, the smaller stones sometimes break under the weight of the larger ones and then rain water displaces the smaller stones causing the remaining wall to shift and sometimes collapse.[71] The West Cyclopean Wall at Athens does not need to be an exception to this general trend. Since this kind of damage is caused by natural elements, it is not always possible to date the period when the stones first started to shift. It would appear, however, that the West Cyclopean Wall had already begun to shift at the time the Old Propylon was first constructed. The join between the southwest façade of the Old Propylon and the West Cyclopaean Wall was formed by marble trapezoidal filler block with two irregular poros blocks above it (PLATE 6a).[72] The curved, slightly concave profile of these blocks along their southern face, where they had been carefully worked to form a join with the West Cyclopean Wall, indicates that the cyclopean wall had already started to shift at the time the Old Propylon was constructed.[73] The addition of a segment of wall on top of the West Cyclopean Wall in the post-Persian period, however, suggests that even though the stones in the wall had shifted, the wall itself still remained fairly stable and it did not need to be completely rebuilt.

[66] Eiteljorg (1995) 53-56. Tanoulas (1996 a) 189, in his review of Eiteljorg's book, rejected the idea that this wall had been rebuilt in the fifth century; he suggested that the wall might possibly have been repaired.

[67] Stevens (1946) 78; Bundgaard (1976) fig. 19.

[68] It is generally assumed that the wall was even higher in the Mycenaean period; Stevens (1946) 78-79; Iakovidis (1962) 163; Mylonas (1966) 37.

[69] *Cf.* repairs at Mycenae where the use of a different technique makes the repairs immediately obvious; Wace (1949) 52, 98; Mylonas (1966) 16-17.

[70] *Cf.* fortifications at Gla, where the size of the stones used in the construction of the walls is not consistent even though the walls belong to a single period; Iakovidis (1989) 10-12, 278-80, pl. 5; Mylonas (1966) fig. 49.

[71] Archaeologists currently studying Mycenaean fortifications often forget that the walls at both Mycenae and Tiryns as they exist today were restored by the Greek Service for the Preservation and Restoration of Ancient Monuments under the direction of E. Stikas in the 1950s and 1960s. For comparative views of the fortification walls at Mycenae before and after the restoration see Mylonas (1962) pls. 33-34. For views of the walls at Tiryns before the restoration see Müller (1930) pls. 14-17.

[72] Dinsmoor, Jr. (1980) 46-47, pl. 11.

[73] A further shifting of the West Cyclopean Wall after the construction of the Old Propylon is indicated by the existing anta which has been slightly dislodged, but this later shifting is very slight; see n.34 above. The metope slabs in front of the West Cyclopean Wall immediately adjacent to the Old Propylon also seem to have been dislodged, see PLATE 5a, but it is not clear when this happened.

The upper parts of the wall did eventually collapse and the cyclopean portion of the wall as it now stands is 1.50 m. shorter than it was at the time the Mnesiklean Propylaia was constructed. How seriously the south end of the West Cyclopean Wall was affected by these various alterations can no longer be determined, but once again another possible reason for the absence of a clearly defined join between the West Cyclopean Wall and the bastion can be identified.

Drawings of the West Cyclopean Wall often show an interior east return at its south end (FIG. 1).[74] These drawings reflect the early plans of Kavvadias and Kawerau[75] who first drew this wall and identified it as polygonal, therefore assumed by later scholars to be Mycenaean.[76] Only the north face of this wall can be seen today. At its west end, where drawings indicate it lay adjacent to the West Cyclopean Wall, later reconstruction has completely obscured whatever join there may once have been. The stones in this east return are not the massive cyclopean blocks normally associated with Mycenaean fortification walls. These stones are much smaller, more closely resembling the stones found in terrace walls or houses belonging to the prehistoric period but also to those of later times. Although it is no longer clear what purpose this wall may once have served, the small size of its stones indicates that it did not form part of the Mycenaean cyclopean fortifications of the Akropolis.

In order to make a convincing argument that the pyrgos was part of the original fortifications and that the West Cyclopean Wall was a later addition, as argued above, it becomes necessary to determine, if possible, the line of the original west fortification wall. In the area south of the Pinakotheke, Stevens found part of a prehistoric wall which he interpreted as part of the western fortifications (FIG. 1, 4).[77] Bundgaard argued that this wall was not a fortification wall because it does not rest on bedrock and its stones are too small.[78] He restored it as a terrace wall and associated it with the 'rock pile' found by Kavvadias and Kawerau beneath the western half of the Pinakotheke (FIG. 1, 1). A terrace in this position immediately adjacent to the exterior face of the cyclopean wall, however, is without parallel in the fortification systems of the Mycenaean period as we know them. In that period fortification walls were constructed on the edge of an abrupt fall of bedrock in a position where the natural slope serves to increase the height of the fortifications.[79] Bundgaard's restored terrace not only fails to incorporate the natural terrain into the defensive system, but its existence in this location would have provided a besieging army with a convenient, raised level area adjacent to the fortification walls from which to stage an attack.

Scholars have frequently restored the western fortification wall in a position beneath the east side of the later Pinakotheke.[80] Once again this location is not in accordance with other known Mycenaean fortifications. Bundgaard, among others, noted that the central portion of the Propylaia was not constructed at the edge of the bedrock fall but to the east of it, on the plateau

[74] Wright (1994) fig. 1; Mark (1993) plan A; Tanoulas (1992) fig. 3; Iakovidis (1962) drawing 33.

[75] Kavvadias and Kawerau (1907) pl. H'; Bundgaard (1974 a) pls. 202-3.

[76] This wall in the early drawings was rendered in a manner similar to the wall lying immediately W of the West Cyclopean Wall (FIG. 1, 15) which was also called Mycenaean by later scholars and incorporated by most of them in their reconstruction of the Mycenaean gate. More recently Mark (1993) 16 identified this second wall as post-Mycenaean.

[77] Stevens (1946) 73-75, no. 4 on fig. 2. The location of the Mycenaean fortification wall in this position was supported by Iakovidis (1962) drawing 20; Travlos (1971) fig. 70; and more recently Tanoulas (1992) 164.

[78] Bundgaard (1957) 48-49, n.62; accepted by Dinsmoor, Jr. (1980) 2, and Wright (1994) 342-47.

[79] Just as the pyrgos was placed on top of a natural outcropping of rock; see Wright (1994) fig. 5 cross section b-b'.

[80] Dinsmoor, Sr. (1947) 122; Bundgaard (1957) 50; Dinsmoor, Jr. (1980) 3; Wright (1994) 334.

of the Akropolis itself.[81] Although only a small portion of the area west of the Propylaia was excavated scientifically,[82] a study of the area makes it clear that the steepest drop in bedrock along this side of the Akropolis occurs at the 138–136 m. contour line above sea level. If the builders of the Mycenaean fortifications in Athens followed the normal procedures for their day, it is at this point that we should expect the Mycenaeans to have placed their wall and not higher up on the Akropolis where the bedrock had already begun to level out.

Some evidence, slight though it is, for the existence of a cyclopean wall along the bedrock ridge at 138 masl. does exist in the early records. In 1982-83, an exhibition of drawings of classical Greek architecture from the École des Beaux-Arts was organised by the École Nationale Supérieure des Beaux-Arts, Paris, and The Museum of Fine Arts, Houston. In the catalogue of this exhibition there are reproduced a ground plan and western elevation of the Propylaia drawn by Philippe Titeux and Louis Claudet in 1846 (PLATE 7a and b).[83] These drawings portray the remains of a cyclopean wall located in this very position. This same wall was shown in a second drawing made a few years later by Prosper Desbuissen (PLATE 7c).[84] In 1869 the remains of the wall, now reduced to a few stones, were photographed by W.J. Stillman.[85] At the end of the century when the railroad was installed to move the earth from the excavations on top of the Akropolis, the wall appears to have been further dismantled.[86] Although it is now almost entirely destroyed, faint traces of it still remain. In the area west of the Mnesiklean Propylaia (PLATE 2), where the early drawings show the remains of a cyclopean wall, there are two weathered pieces of Akropolis limestone, described above (FIG. 1, 3 & 5, PLATE 3a and b), which appear to be the meagre remains of the wall shown in the early drawings. These stones lie on the bedrock ridge running north–south from under the Pinakotheke towards the bastion of Athena Nike. Along the west side of the ridge, there are two additional blocks of Akropolis limestone (FIG. 1, 6), which are so tightly wedged into a natural crevice of the bedrock that they appear at first to be part of the bedrock itself (PLATE 3c). They help to form the base of the ridge and mark its most western limit. The surface of the raised

[81] Bundgaard (1957) 24. The natural slope of the bedrock from the W side of the Parthenon down to the Beulé Gate is illustrated by Bohn (1882) pls. XIX, XXI top. A more detailed cross section of the bedrock immediately to the W of the Propylaia is illustrated by Dinsmoor, Sr. (1931) facing p. 4; Bundgaard (1957) fig. 18. See also Bundgaard (1957) figs. 34, 41; (1976) pl. F; Iakovidis (1962) drawing 2; Wright (1994) fig. 5 section c-c'. These cross sections clearly show that the steepest fall of rock occurs W of the central building of the Mnesiklean Propylaia, under the W side of the Pinakotheke and not under its E side.

[82] See Bundgaard (1957), plan at end of book, which shows in shaded tones areas not scientifically excavated. After the completion of Bundgaard's book, this area was reworked in the late 1950s and parts of the bedrock were removed in order to lay a new path to the Akropolis. Bundgaard (1957) fig. 41 shows the major contour lines extending from the base of the Pinakotheke to the base of the classical bastion of Athena Nike. This is no longer true on the site today and it may be that the contours were changed at the time the path was laid. The path was raised and enlarged in the 1970s under the supervision of Tanoulas; at that time the bedrock was not reworked and careful drawings of the area were made before the work was undertaken.

[83] Hellmann, Fraisse, and Jacque (1982) Catalogue No. 6, items 1>26 and 2>27 on pp. 174-75. This publication was drawn to my attention by M. Djordjevitch.

[84] Hellmann, Fraisse, and Jacque (1982) Catalogue No. 8, items 3 and 4>43 on pp. 190-91.

[85] Stillman (1879) pl. 6a; reproduced in A. Tomlinson (1991) 55 photograph no. 8. This photograph was also discovered by M. Djordjevitch. It may be questioned how the cyclopean wall illustrated in the Beaux-Arts drawings could have been demolished so thoroughly in the nineteenth century. The Stillman photograph shows so many stones and marble blocks in the area W of the Propylaia that it becomes understandable that this wall was overlooked by the nineteenth century architects who were primarily interested in demolishing the medieval accretions to the Akropolis in an attempt to reveal the classical, marble buildings.

[86] Picard (1929) pls. 31a and b, 49b; location of the wall lies in the earth fill N of the brick pier built to support the railroad lines. An even later photograph published by Rodenwaldt (1957) pl. 58 shows only two cyclopean blocks remaining adjacent to the brick pier; this photograph was taken before the laying of the modern path to the Akropolis and it reveals that the bedrock ridge at 138 masl. originally continued further S towards the Athena Nike bastion.

bedrock ridge has been hammer-dressed in a manner typical of the Mycenaean period. The width of the hammer-dressed surface is 4.50 m., except for one small area which continues farther east to the foundations of the west façade of the Mnesiklean Propylaia. Within this extensive area cuttings for individual stones of a cyclopean wall were noted by Iakovidis (FIG. 1, area to left of 4) and fragments of a Mycenaean wall were identified by Stevens (FIG. 1, 4). The great width of the hammer-dressed ridge, in addition to the four fragments of Akropolis limestone still in situ, suggest that the western fortification wall originally stood in this location. Other fragments of cut Akropolis limestone, lying both to the east and to the west (FIG. 1, 7 & 8), probably once formed part of the fabric of this wall but in their present location they appear to be no longer in situ.

Within the line of the restored fortification wall are the stones of Stevens' wall (FIG. 1, 4). These stones are higher on the slope, to the east of the western limit of the restored wall, they rest on an earth fill, and they are smaller than the pieces of Akropolis limestone used for our restored fortification wall, all of which suggests that they formed part of the interior fill of the larger wall. Beneath the Pinakotheke the interior fill of this wall continued as the 'rock pile' found by Kavvadias and Kawerau (FIG. 1, 1). Wright's careful analysis of this area[87] indicates that the western portion of the Pinakotheke was filled with stones, whereas the eastern portion was filled with a combination of earth and stones. In the restoration suggested here the rock fill represents the dilapidated remains of the inner core of the fortification wall[88] and the section beneath the eastern portion of the Pinakotheke represents the earth fill thrown up against the inside of the wall to help level the interior area of the citadel. The fill beneath the Pinakotheke was said to be exclusively Mycenaean and pre-Persian.[89] The inclusion of pre-Persian material, the great age of the wall, the small area of the fill, the various vicissitudes of the area during the Persian attack on the Akropolis (discussed below), and the later disturbance of the fill caused by trenches dug by the Mnesiklean workmen for the foundations of the Pinakotheke account for the absence of a well-defined face at the time of Kavvadias' and Kawerau's excavations.[90]

According to Wright's calculations, when Mnesikles began his work in this area, the top of this stone fill in the Pinakotheke was preserved to approximately the same level as the top of the archaic Athena Nike bastion, with the fill in the bastion being somewhat lower.[91] If the fill beneath the Pinakotheke represents a terrace, as suggested by Wright, it is somewhat surprising that in the time of Mnesikles, it was preserved to a higher level than the top of the massive cyclopean blocks used in the construction of the Mycenaean bastion. In the Mycenaean period, terrace walls were normally built of stones much smaller in size than the cyclopean blocks of a fortification wall. The fact that both were preserved to approximately the same height does not prove the existence of a terrace, as Wright stated, but on the contrary, it suggests that both the wall and the bastion were originally constructed in a similar manner and that both were parts of similar walls. Wright claimed that the steep drop in bedrock in the area of the Pinakotheke precluded the existence of a fortification wall at this point, but if a cyclopean wall could be built

[87] Wright (1994) 342-5, fig. 7.

[88] See also Tanoulas (1992) 153-54, who also accepted the 'rock pile' as the remains of the Mycenaen wall.

[89] Wright (1994) 343, quoting Kavvadias and Kawerau (1907) 60.

[90] Bundgaard (1957) 47, in particular, objected to the interpretation of this rock fill as part of the fortification system because of the absence of a well-defined face. In light of the long history of this area and the small size of the excavated area, the absence of a clearly defined face is not altogether surprising.

[91] Wright (1994) 344; Wright placed the Mycenaean fill in the Pinakotheke 0.20 m. higher than the top of the archaic bastion; he placed the level of the bastion at 141 m. and the level for the top of the fill in Pinakotheke at 141.20 m. Tanoulas (1992) 156 quotes the difference between the two fills as being *c.* 0.80 m.; he places the level of the archaic bastion at 140.91 and the top of the Mycenaean fill in the Pinakotheke at 141.72.

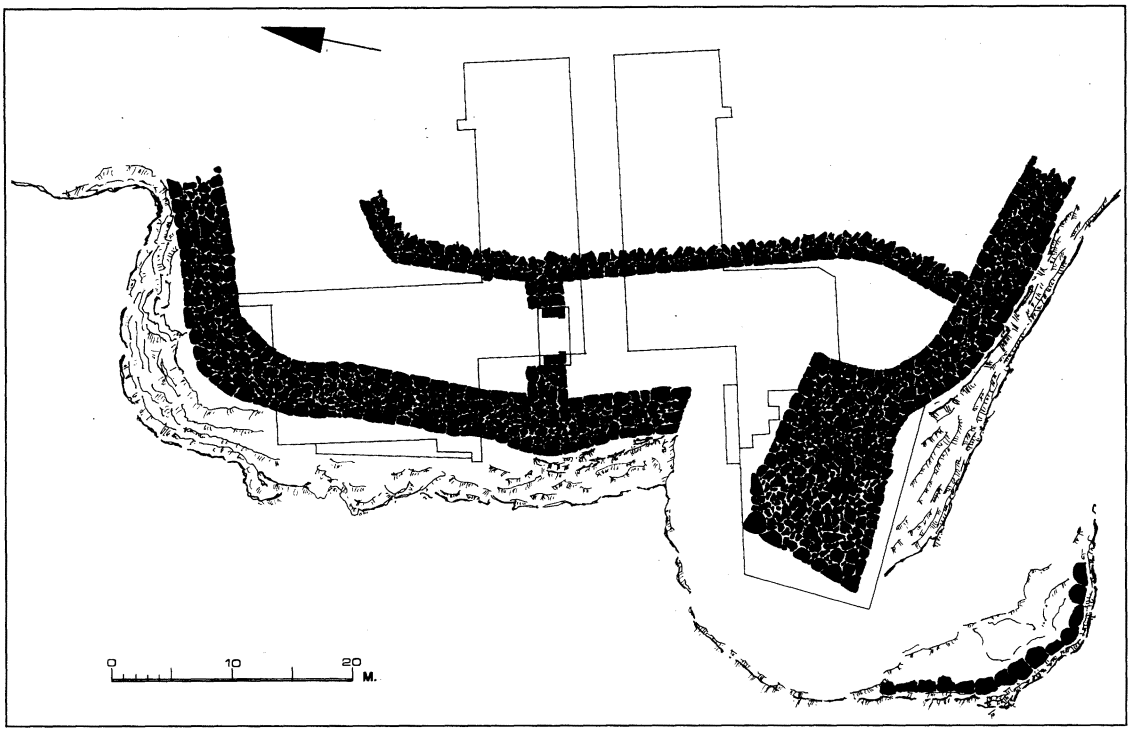

FIG. 2. Restored plan of earlier Mycenaean entrance to the Akropolis.

in the area of the bastion, where the bedrock also drops steeply, then one could also have been built here.

The restoration of a Mycenaean fortification wall along the natural bedrock fall at 138 masl., in the position suggested by the hammer-dressed bedrock ledge and illustrated in the early records, makes the pyrgos an integral part of the fortification system (FIG. 2).[92] Its juxtaposition to the restored western wall turns it into one side of an entrance leading into the Akropolis where it served a strategic purpose in the fortifications of the city. During this phase the approach to the Akropolis first ran along the southern face of the pyrgos, on a ramp supported in part by the cyclopean masonry noted by Keramopoullos (FIG. 1, 19). The size, position, and worked surfaces of these Akropolis limestone blocks supporting the ramp (PLATE 5c) closely resemble the pieces of cut Akropolis limestone west of the Mnesiklean Propylaia used in our restoration of the west fortification wall. The similarities between these two groups of stones suggest that they belonged to the same building project.

After the ramp passed along the south side of the pyrgos, it rounded the west side of the bastion and turned east, passing through the narrow entranceway between the restored west wall on the north and the pyrgos on the south. It then appears to have continued east, uphill along

[92] In this restoration the S fortification wall, E of the bastion, was placed along the edge of the steepest drop in the bedrock, which lies slightly S of the existing S fortification wall of the Akropolis; see Bundgaard (1957) plan, and Tanoulas (1992) fig. 3. The area of the bedrock, as first noticed by Djordjevitch when we visited the site together, has also been worked. This position places it S of the Mycenaen section at the S end of the West Cyclopean Wall. There is no clear evidence for the restoration of the NE corner of the bastion. In our restoration we visualized it as a northern extension of the S fortification wall, with the bastion extending W of it, in a manner similar to the area around the Lion Gate at Mycenae where the walls form a continuous line with the bastion W of the gate projecting N of that line.

the north face of the bastion.[93] A series of terraces for buildings within the fortifications, similar to those restored by Iakovidis along the north side of the citadel,[94] probably lay at the summit of the path, near the location of the later West Cyclopean Wall.[95] This approach forced attacking enemies to advance along three sides of the pyrgos with their shielded left side away from the fortifications, thereby exposing their right side to weapons flung down upon them from the walls above. This restoration has a striking parallel in the fortification system of Tiryns where the exterior, sloping ramp of the third phase forced the invader to approach the citadel along the outer side of the fortification walls to a narrow entrance flanked by massive towers.[96] The opening at the head of the ramp at Tiryns, like the suggested restoration in Athens, led to a long narrow rectangular area which was originally separated from the rest of the citadel by terrace walls supporting structures on the slope above.[97] At Tiryns a gate was placed across the narrow corridor formed by the terrace walls on one side and the fortification wall on the other. A similar gate should probably be restored in Athens, possibly at that point where the hammer-dressed bedrock extends under the foundations of the west façade of the later Propylaia.

The Later Mycenaean Phase

At some point the West Cyclopean Wall was constructed at roughly right angles to the older south fortification wall and 22 m. east of the west side of the pyrgos (FIG. 1, 14; PLATES 4a, 5a and b). Its great width, composed of cyclopean blocks resting on bedrock, suggests that it was added as part of the defensive system of the citadel. Its preserved length as it now stands, with its corner bonded into the later wall on the south, is roughly 20 m. Its preserved height is 3.25 m. The original length and height of the West Cyclopean Wall are unknown. When Mnesikles built his Propylaia the preserved height of the wall was 4.85 m.[98] Originally, it probably stood higher. The preserved north end of the West Cyclopean Wall is the work of the Mnesiklean workmen who cut back the wall in order to allow sufficient space for them to construct the south wall of the central wing of the Propylaia. The length of this wall in the sixth century must have bridged the gap between the south wall of the Akropolis and the south side of the archaic Old Propylon.[99] A distance of 6 m. separates the preserved north end of the West Cyclopean Wall from the projected line of the south side of the Old Propylon where the inner face of the West Cyclopean Wall was meant to abut the south side of the Old Propylon. Thus the length of the West Cyclopean Wall at the time the Old Propylon was first constructed must have been roughly 26 m. as measured from its southern edge where it bonds into the later fortification wall. In the Mycenaean period, it may well have been even longer.

The position of the West Cyclopean Wall on top of the levelled plateau differentiates it from

[93] Earlier scholars had suggested that a series of steps worn into the bedrock showed the path of the Mycenaean approach; see n.21 above. Wright (1994) 335-38 argued that these steps were not Mycenaean but much later. Normally in Greece, paths of this later date were cobbled and not laid directly on bedrock which makes Wright's conclusion difficult to accept. Whatever the date of the steps, the natural fall of bedrock suggests that the path itself skirted the three sides of the pyrgos, as argued by Bundgaard (1957) 22-29. Wright (1994) 338 wanted to place the path at a lower level, but his solution to the general approach still places it along the perimeter of the bastion.

[94] Iakovidis (1962) 101-5, drawing 16.

[95] The S end of the terrace wall restored along the E side of the entranceway in Fig. 2 was placed along the bedrock ridge at 144 masl. where it could take advantage of the natural fall of bedrock in this area; see Bundgaard (1957) plan.

[96] Müller (1930) 65-76, pls. 2, 4; Iakovidis (1983) 6-12. *Cf.* also walls at Mycenae, Mylonas (1966) 28; Iakovidis (1983) 24-37, where the main approach to the citadel is flanked by massive fortification walls.

[97] Phase two of the fortifications: Müller (1930) 55-67, fig. 43, pls. 2, 4; Iakovidis (1983) 5-6.

[98] See n.67 above.

[99] Bundgaard (1957) 33-34; Dinsmoor, Jr. (1980) 2. For Old Propylon see discussion below.

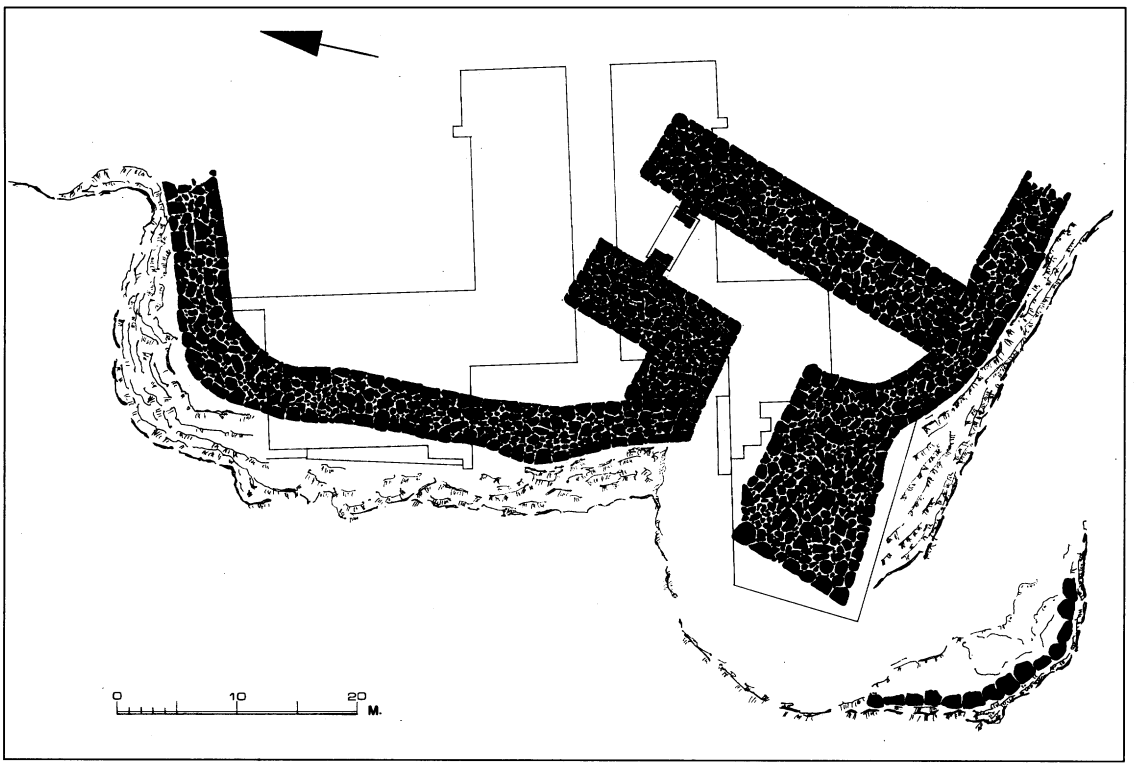

FIG. 3. Restored plan of later Mycenaean entrance to the Akropolis.

the other remaining Mycenaean fortification walls which stand on the edge of a high, bedrock ridge. This position immediately suggests that it was constructed as an interior wall within an already existing defensive system. The fortification system at Tiryns provides the parallel for the restoration of the various periods in Athens. At Tiryns the original entranceway in phase one appears to have been an exterior ramp which must have led to the gate into the open area before the courtyard of the later palace.[100] At the beginning of phase two, the southern part of the ramp was incorporated into the fortification and its northern end was lengthened. The west side of the ramp was separated from the citadel by the retaining walls which supported the higher level of the palace above. In the later part of the second phase the ramp was made narrower and more secure by the addition of massive walls both to its east and to its west. Finally in the third phase, the original ramp was enclosed by massive walls along its entire length and a completely new ramp was constructed along the exterior of the new fortification wall.

In Athens, if the West Cyclopean Wall is interpreted as a fortification wall replacing an earlier retaining wall, like the wall along the west side of the ramp at Tiryns in phase 2, then it can be understood to have enclosed one side of a roadway leading into the citadel. The space enclosed by the restored west fortification wall, the Mycenaean bastion, and the existing West Cyclopean Wall, however, is much wider than the width of the ramp at Tiryns and the interior corridor immediately inside its fortification wall. There the width of the passage in phase three

[100] The restored drawing of phase one, Müller (1930) pl. 4 shows only the southern end of the ramp which, standing alone, has no apparent purpose, whereas the entranceway into the area before the courtyard of the later palace has no apparent means of approach from the lower level of the valley below. By extending the ramp to the S in the original period, the ramp is given a function and the entrance into the citadel is provided with a means of approach. The extensive construction in phase two at the southern end of the proposed ramp easily accounts for the disappearance of any remaining trace of the earliest phase of the ramp in this area.

varied from 5 to 6 m. If the interior passage in Athens were to be restricted in a similar manner, then additional walls are needed to the north of the bastion and to the west of the West Cyclopean Wall. These additional walls can be paralleled by the walls added along the east side of the passage at Tiryns in the later part of phase two and in phase three. At Tiryns, the addition of the new walls made the earlier entrance narrower in the later phase and we should suppose that in Athens the earlier opening between the bastion and the west fortification wall was also made narrower. The new restricted entrance introduced two narrow right angle turns into the roadway, like the two right angle turns created at Tiryns when the ramp was reduced in width and moved to the exterior of the citadel in phase three. The resulting plan at Athens (FIG. 3) creates a narrow entrance passage, lined by wide fortification walls which would have substantially increased the defences of the city. At the same time, each stop of this restoration can be paralleled by the better preserved fortification at Tiryns.[101]

This new restoration avoids the problem of terraces immediately outside the fortifications, it explains the position of the West Cyclopean Wall on top of the levelled plateau, where it replaced an earlier retaining wall supporting buildings to the east, and it closes the gap between the pyrgos and the West Cyclopean Wall that appeared in so many of the older restorations. At the same time, it explains why there is no visible trace of a join between the West Cyclopean Wall and the pyrgos. Since the West Cyclopean Wall was the addition, in the Mycenaean phase the wall never bonded into the older parts of the fortifications. It might also explain why the West Cyclopean Wall was preserved to such a great height in the fifth century at the time Mnesikles built the Propylaia.

When the Persians captured the Akropolis earlier in the fifth century, they demolished the other parts of the Mycenaean fortification walls almost to their foundations. The West Cyclopean Wall, with its preserved height of 4.85 m. in the second half of the fifth century, was the outstanding exception to the Persian destruction and it is difficult to understand why the Persians neglected this segment of the fortifications.[102] For some reason they must have thought that the West Cyclopean Wall was not an important part of the defences of the Akropolis. Such a conclusion becomes understandable if major portions of the original western fortification wall still existed when the Persians captured the Akropolis. Standing amid the other Mycenaean walls, the West Cyclopean Wall would have appeared to serve merely as a subsidiary wall connecting the half-built propylon to the south fortification wall. Set more than 15 m. to the east of the original western fortifications, it would appear to have served no major defensive purpose. Under these circumstances, it becomes understandable that the Persians showed little interest in its demolition. Since the West Cyclopean Wall, in the suggested restoration, was an addition to the Mycenaean fortifications, it did not bond into the older walls. Hence the Persian destruction of the southern fortification did not seriously affect the fabric of the West Cyclopean Wall, which was left standing to become part of the later circuit wall of the Akropolis.

Since the West Cyclopean Wall survived the Persian destruction, it then becomes legitimate to ask what happened to the Mycenaen wall and gate, here restored to the north and west of the newly built passage which was enclosed on the east by the West Cyclopean Wall. The answer to that question lies in a much later phase of the Akropolis, when the citadel became transformed into a shrine.

[101] At Tiryns the first gate within the fortifications of the third phase has the same dimensions as the Lion Gate at Mycenae. In our restored plan the size of the gate and the length of the corridor in front of it were also based on the Lion Gate at Mycenae.

[102] The height of the West Cyclopean Wall has often been discussed, but only a few scholars, such as Iakovidis (1962) 162, and Bundgaard (1976) 24, have questioned why the Persians showed no interest in demolishing this wall.

Transformation of the Citadel into a Shrine

The Mycenaean fortifications on the Akropolis are generally assumed to have remained intact until the archaic period. During the centuries intervening between the Mycenaean and the archaic periods, the Athenians gradually moved off the Akropolis into the lower city. In 480 BC when the Persians attacked Athens, the lower city was surrounded by its own fortification walls,[103] the agora and its associated political buildings lay to the northeast and northwest of the Mycenaean citadel,[104] and many of its shrines had found homes to the south.[105] Although it can probably be assumed that the Akropolis continued to play a vital role in the life of the city, particularly in its religious functions, the first visible sign of its transformation into a major shrine is to be seen in the construction of a huge ramp, roughly 80 m. in length and 12 m. in width. The archaic polygonal masonry which formed the north side of this ramp was noted by Keramopoullos (FIG. 1, 17; PLATE 4b) and is still visible today.[106] The south side of the ramp, which is no longer preserved, is assumed to have aligned with the north side of the Athena Nike bastion. Eugene Vanderpool examined the sherds which were found in the fill adjacent to the lower section of the north wall and he established that the date of the sherds goes down to the second quarter of the sixth century.[107]

The construction of this wall with its adjacent ramp dramatically changed the approach to the Akropolis. In place of the circuitous path which originally passed along the base of the pyrgos, a broad, straight approach was introduced. This new approach, as Vanderpool observed, 'de-militarised' the Akropolis and changed it from a securely fortified area into a shrine housing the religious buildings of the city.[108] The old fortification walls functioned during the remainder of antiquity as precinct walls, and the earlier, fortified gateway was no longer considered an important part of the military defence of the city.[109] The ancient propylons leading into the shrine henceforth marked the transition between the civic and the religious areas. A small simple gate to keep unauthorised personnel off the Akropolis could now replace the massive fortified gate of the earlier period.

The impetus for the construction of the ramp appears to have been the need to establish an easier, more direct access to the Akropolis for the transportation of large, stone blocks for the construction of the first monumental temple. The steep fall of bedrock on the other sides of the Akropolis,[110] combined with the fairly simple lifting devices and techniques available at the period,[111] made the west slope the obvious means of approach.[112] Although it has been generally recognised that this ramp facilitated the transportation of large stones onto the

[103] The existence of a fortification wall surrounding the lower city is indicated by Hdt. 9.13.2 and Thuc. 1.89.3, 1.93.2. For discussion of this wall and its date see Vanderpool (1974) 156-57.

[104] T.L. Shear, Jr. (1994) 225-48.

[105] Thuc. 2.15.

[106] Keramopoullos (1934-35) 87, fig. 1, pl. I, wall 56-56a. This ramp was first uncovered by Beulé's excavations of 1852-53; Tanoulas (1987) 468. The upper section of the ramp, illustrated here (PLATE 4b), was constructed with a smoother surface and more carefully worked joints than the lower section; it appears to be a later repair of the ramp. In the classical period the archaic ramp was buried beneath an even wider ramp which almost doubled its width.

[107] Vanderpool (1974) 159.

[108] Vanderpool (1974) 159-60.

[109] Centuries later when the Akropolis served primarily as a fortified citadel once again, the circuitous approach was revived; Vanderpool (1974) 157; Tanoulas (1987) 413-18; Mark (1993) 7-10, fig. 1; Giraud (1994) 57-69, pls. 17-28.

[110] Picard (1929) pls. 8-24; Rodenwaldt (1957) pls. 1-3, 5, 6, 82.

[111] Orlandos (1968) 31-44, 87-98.

[112] Korres (1992) 43-44; (1995) 43-48, 107.

Akropolis, the implications of this usage and its effect on any gate which was located at its upper end are rarely considered in a general study of this area. The narrow, circuitous passage of the Mycenaean gate, which had served the city for so long, would have been an impediment during the large scale transportation of the imposing stone blocks needed for the new temple. Those parts of the old Mycenaean fortification system which lay between the north side of the ramp and the line formed by the Mycenaean bastion needed to be removed in order to create an open passage. In this area lay the south part of the restored, original Mycenaean west fortification wall, the northern part of the West Cyclopean Wall and the other later, Mycenaean walls which had been added to make a narrow, interior passage leading to the Mycenaean gate. We can assume that these walls were dismantled, at least to the level of the ramp, in order to make way for the wide new passage.[113] At this same time the first large, monumental Temple of Athena, the so-called H-architecture of the mid-sixth-century date, and the foundation of the shrine of Athena Nike[114] seem to have been undertaken. Reforms in the great festival of the goddess, the Panathenaic Festival, appear to have occurred at approximately this same period.

At the head of the ramp, centred on its axis, there exists a series of rectangular cuttings in the bedrock (FIG. 1, 9). These now lie in the angle formed by the west façade and the southwest wing of the Mnesiklean Propylaia. Although these cuttings frequently occur in the published plans,[115] they have not been discussed in any detail. Some of the cuttings extend to the east, under the west foundation of the classical structure, an indication that they are earlier than the Mnesiklean Propylaia itself. Another cutting, to the west, runs under the modern path. Their rectangular shape, horizontal surface, and tooling indicate that they are not Mycenaean but belong to a later date. Their varying size and depth suggest that they were made at different times. The cuttings on the west lie at a slightly lower level than those on the east, but otherwise they form no discernible pattern. Although the cuttings themselves are roughly rectangular, their corners are curved, which makes it unlikely that they were made to receive squared, masonry blocks.[116] Their only distinguishing feature seems to be that they lie on the central axis of the ramp. This position suggests that they served to anchor the base of a tackle, or a similar type of device, used to haul the building stones up to the Akropolis. Since the cuttings themselves do not form a clear pattern, we might assume that this device was reset or moved on more than one occasion.

After the dramatic alteration of the western approach to the Akropolis in the mid-sixth century, there is an almost complete gap in the archaeological remains from the west end of the citadel until some time later, when marble metopes from the early Temple of Athena became available for the embellishment of the old West Cyclopean Wall. Between these two events a second large Temple of Athena was constructed on the Akropolis, probably on the foundations of the original mid sixth-century temple.[117] Just as the construction of the first monumental

[113] The cyclopean wall in the Beaux-Arts drawings (PLATE 7), the lowest stones of the restored W Mycenaean wall (FIG. 1, 3 and 5), and Stevens' wall (FIG. 1, 4) lie partially in this area. These meagre remains were probably embedded in the ramp which served to protect them during the following centuries.

[114] Vanderpool (1974) 159; Mark (1993) 16-17, 32-35, 123-28, stage 1.

[115] Bohn (1882) pls. II, XV no. 9; Kavvadias and Kawerau (1907) pls. A' and H'; Dinsmoor, Jr. (1980) plan A; Tanoulas (1992) fig. 3; Wright (1994) fig. 1.

[116] Stevens (1946) 81-83, fig. 4 tentatively suggested that the cuttings were made for a statue base, but their curved corners made this unlikely.

[117] The location of the mid sixth-century temple has been a source of much debate. For history of scholarship concerning these two temples and the opinion that they stood on two different sets of foundation see Dinsmoor, Jr. (1980) 27-31; Korres (1994) 34-51, (1997) 218-42. R.A. Tomlinson (1982) 280-81, in his review of Dinsmoor, Jr.'s book on the Old Propylon, discussed some of the problems caused by the Dinsmoor chronology. For argument that they stood on the same foundation see Plommer (1960) 150-59; Beyer and Preisshofen (1977) 74-77; and discussion below.

temple affected the entranceway, the construction of the second monumental Temple of Athena must also have affected this area. Later in the fifth century both the Periklean Parthenon and the Mnesiklean Propylaia were planned as part of the same building project, even though the construction of the temple took place before that of the propylon. Although the Akropolis no longer served as a fortified citadel, it still needed some sort of gate to limit access to the shrine and to protect the dedications and treasures. It can therefore be assumed that after the first archaic temple was finished some sort of gate was built, which was afterwards removed when the second temple was undertaken.

Once the Mycenaean walls were removed to open the passage for the transportation of stone, the gap created was much too wide for an ancient propylon. The easiest solution for closing the gap between the existing walls would have been to place the new entrance at one side of the old fortification wall and to add a simple spur wall connecting the gate to the original Mycenaean wall lying outside the limits of the archaic ramp.[118] Unfortunately, the evidence no longer exists to indicate whether this simple solution was adopted or whether a more elaborate plan was implemented.

In addition to the two archaic temples, numerous dedications[119] and a variety of small buildings[120] were added to the shrine. The use of poros in the construction of these buildings instead of the more difficult-to-work marble suggests that most, if not all, of them were built before the marble, Old Propylon was begun. Bundgaard, in an effort to find a precedent for the elaborate plan of the Mnesiklean Propylaia, suggested that one of these buildings, the archaic, apsidal Building B, originally stood on the site of the Pinakotheke on his restored Mycenaean terrace.[121] If his concept of a Mycenaean terrace in front of the fortification wall is abandoned, then the position of Building B is no longer acceptable. The only possible evidence for the position of Building B, thus far cited, is the fact that most of its pieces are built into the foundations of the Pinakotheke. The argument that their later re-use on the site indicates their original location, however, does not withstand close scrutiny. Had Building B stood immediately outside the entrance to the Akropolis, as restored by Bundgaard, such a location automatically guarantees that the building would have been severely damaged during the Persian attack on the Akropolis. The remains of the destroyed building, along with the other monuments and buildings damaged by the Persians, would then have been collected during the post-Persian reorganisation of the sanctuary, long before the construction of the Pinakotheke. When the building was dismantled, its blocks were presumably stored somewhere within the reconstructed fortifications in order to be available for later re-use during the classical refurbishing of the sanctuary. Once the blocks were removed from their original foundations, their later use in the foundations of the Pinakotheke merely shows that they had been stored somewhere nearby. It does not indicate where their original location may have been or that the building must have stood on the site of the later Pinakotheke.

[118] Dinsmoor, Jr., and Bundgaard before him, rightly pointed out that the propylons to the Akropolis must have spanned a gap in the fortification walls; Bundgaard (1957) 33-34; Dinsmoor, Jr. (1980) 2; see also Eiteljorg (1995) 14. They assumed that this gap lay between two segments of the original Mycenaean fortification wall, but this assumption is not necessary and a short spur wall of the kind suggested above would have served the same purpose of closing off the shrine.

[119] Raubitschek (1949).

[120] Wiegand (1904); Heberdey (1919). For more recent scholarship and summary of this evidence see Bancroft (1979) 46-57, 61-64. For re-evaluation of the chronological implications of the clamps used in these buildings see Dinsmoor, Jr. (1980) 27-28.

[121] Bundgaard (1957) 55-61.

The Re-Arrangement of the Entranceway Associated with the Marble Metopes and the West Cyclopean Wall

Concern over the appearance of the entranceway led to the use of the marble metopes from the demolished mid sixth-century temple as an embellishment along the west face of the West Cyclopean Wall (FIG. 1, 13, PLATE 5a). A series of ten marble metopes from the early temple was set along the base of the West Cyclopean Wall facing the archaic ramp. These spanned a length of roughly 10.50 m. with the southern metope set slightly farther west of the base of the wall than the metopes on the north. In front of the northernmost fully preserved metope there is a marble base, the so-called tripod base,[122] which rests on poros foundations. Eiteljorg found cuttings for metopes that originally continued farther to the north of this point.[123] It can be assumed on the basis of these cuttings that there were at least two additional metopes to the north of the marble base. At the south end, four additional metopes were laid to form a right angle to those metopes lining the cyclopean wall. In front of the metopes was placed a marble bench, 0.29 m. high and 0.35 m. deep. A series of six rock-cut steps, supplemented with poros blocks in those areas where the bedrock was missing, descended from the bench in unequal widths to the level of the archaic shrine of Athena Nike. Since the lowest of the rock-cut steps lies almost level with the early archaic altar of the Athena Nike sanctuary,[124] it can be surmised that the shrine continued to flourish in this period.[125] The metopes, marble bench, and rock-cut steps have been described in great detail.[126] A few questions still remain, however, such as the date at which the metopes were installed along the cyclopean wall.[127]

Since the metopes came from the mid sixth-century temple, the so-called H-architecture, they could not have been used to embellish the West Cyclopean Wall until the temple itself was demolished. The date of the original construction of the temple in the middle of the sixth century can be stated with certainty because of the construction of the ramp, which must have immediately preceded the temple itself. The ramp is firmly dated to the second quarter of the sixth century, and consequently the date of the temple itself must be soon afterwards, close to the middle of the century.

The date of the demolition of the mid sixth-century temple, however, has been hotly debated.[128] The date of demolition depends on the location of the two archaic temples. If both stood on the same foundations, with the later temple succeeding the earlier one, then the demolition of the earlier temple is to be dated just before the construction of the later archaic temple near the end of the sixth century. If the earlier temple stood on the site of the later Parthenon and both archaic temples existed at the same time at the end of the sixth century, then the demolition of the earlier temple must be dated to the period of the construction of the earlier Parthenon during the decade following the Battle of Marathon in 490 BC.

An article on the early approaches to the Akropolis is not an appropriate place to argue this problem in detail. All building material for the construction of any major monument, however,

[122] Although generally referred to as the tripod base, this base probably held a perirrhanterion and not a tripod; Dinsmoor, Jr. (1980) 32-34; Amandry (1976) 87-90.

[123] Eiteljorg (1976) 94-95.

[124] Dinsmoor, Jr. (1980) 18-19.

[125] Mark (1993) 23, 29, 35, stage 1a of the Athena Nike bastion, the addition of a dedication to the shrine, may belong to the period when alterations around the entranceway to the Akropolis focused a new interest in this area.

[126] Dinsmoor, Jr. (1980) 17-34; Eiteljorg (1995) 15-24.

[127] Eiteljorg (1995) 9-22 suggested that the embellishment of the West Cyclopean Wall and the construction of the marble steps usually associated with the Old Propylon belonged to a single building phase. For reasons discussed below in the section concerning the Old Propylon, this suggestion is not accepted here.

[128] Childs (1994) 1-2, and n.117 above.

had to pass through the western entrance, and whenever an important building was begun on the Akropolis, all work in this area must have been curtailed if not suspended. The sequence of the later Parthenon followed by the Mnesiklean Propylaia makes this clear. If this was true of the later period, then it should also have been true in the earlier period. Through this area was carried the huge quantity of stone required for the building of the podium on which the Older Parthenon was to stand, in addition to the large number of marble blocks needed for the construction of that temple.[129] The problems of transporting this quantity of stone would have made it all but impossible to carry out the embellishment of the West Cyclopean Wall with its bench and rock cut steps, plus a second phase consisting of a new marble propylon, at the same time as the Older Parthenon was being constructed. The Dinsmoor chronology, which compresses these three different events into a single decade, does not allow enough time for all this work to have been done. The alternative solution is clearly preferable, for it places the later archaic temple on the site of the earlier one, and thereby allows the metopes of the earlier archaic temple to be available for re-use already before the end of the sixth century.

The existing remains of the Old Propylon (discussed below) must be later than the installation of the metopes, bench and rock-cut steps. Various cuttings in the bedrock, however, suggest that a gate may have originally been part of the plan. Eiteljorg noted that in the area north of the tripod base beyond the cut down metope there is a cutting for an additional metope, 0.408 m. in length.[130] Beyond this point the bottom of the cutting rises 0.054 m. to a level of 142.412 masl. Since all the metope slabs were over 1 m. in length, the change of level 0.408 m. north of the last preserved metope is a curious feature and it suggests that some change in the pattern occurred at this point. It is also noteworthy that the space between the north edge of the tripod base and the rise of the bedrock cutting is roughly equal to the space occupied by the first and shortest bench block immediately south of the base.[131] These dimensions suggest that a single bench block originally lay just north of the tripod base.[132] At the point where the level of the cutting rises, the area of levelled bedrock also becomes wider. Part of a second cutting in the bedrock, which was only partially uncovered, is to be found just north of the shifted floor slab of the later building.[133] Here the bedrock was worked down to a level of 142.411 masl. Since both these cuttings lie at almost the same level, it would appear that this

[129] Problems concerning the transportation of large marble blocks onto the Akropolis are rarely considered by modern scholars. Korres (1992), (1995), responsible for transporting new marble to the Parthenon as part of the current restoration, makes these difficulties clear. See also Korres (1994) 58-59, 61, where he noted that the larger, corner slabs of the stylobate of the present Parthenon weigh 7 tons, the drums of the external colonnade weigh between 5 and 10 tons, the capitals weigh 8-9 tons and the larger, corner cornice blocks weigh 9-10 tons each. These blocks, when transported, still with their quarry surface, would have weighed a good deal more; see Korres (1995) 28, where he states that the column capitals for the Parthenon when they left the quarry weighed roughly 12 tons. In order to avoid damaging the blocks being transported for the newly designed Parthenon but at the same time to protect the work already completed on the Old Propylon, work on the latter was surely suspended as long as work on the former continued. The identification of the route for the transportation of stone, Stevens (1936) 449 n.1; Korres (1995) 107, makes it clear that the blocks for the Parthenon came from the W side of the Akropolis.

[130] Eiteljorg (1976) 94-95; (1995) 25-26; Dinsmoor, Jr. (1980) 18, 22-23, 35-36, pl. 4a.

[131] The bench immediately S of the tripod base is 1.660 m. in length; the other seat blocks are: a preserved block no longer in situ, 1.932 m. in length; two blocks estimated to have been 2.123 m.; a preserved block of 1.91 m.; and the final block of 1.726 m., still in situ, on the S; Dinsmoor, Jr. (1980) 21. The seat block immediately S of the tripod base is no longer visible. According to the drawing in Eiteljorg (1995) fig. 6, the northern edge of this seat block fitted against the upper block of the tripod base. Whether the seat block rested against the upper or lower edge of the tripod base affects the space available for a bench block N of the base. In the lower position, there is space for a block 1.597 m. in length; in the upper position the space available is 1.659 m.

[132] Eiteljorg (1995) 20 believed that the bench did not continue N of the tripod base, but as he himself admitted (25 n. 50), there is no definite evidence either for or against such a restoration.

[133] Shown in Eiteljorg (1995) figs. 5-10, labelled 'Bedrock cutting for revetment slabs' and 'Bedrock cutting'; see also Dinsmoor, Jr. (1980) pls. 2, 9.

area was being worked to receive a wall, a stylobate or an anta to be set at right angles to the metope slabs. These cuttings suggest the possibility that a gate was originally planned as part of this project.

After the embellishment of the entranceway was started, this project was to be interrupted, never to be completed.[134] Its fate was similar to that of its later fifth-century counterpart built under Mnesikles. Lack of experienced workmen and the need for their skills for a more important project may have been partially responsible for the curtailment of the work. Plans for the construction of a new and presumably larger, more lavish propylon may also have contributed to the stoppage of work.

The Old Propylon

Eventually, construction of another propylon was undertaken, since remains of such a structure exist, the so-called Old Propylon (FIG. 1, 12, PLATE 6a and b).[135] The preserved remains of the Old Propylon, which are almost entirely visible on the site today, consist of the southwest end of a stylobate and two lower steps made of Pentelic marble, a partially preserved anta, a spur wall connecting the anta to the West Cyclopean Wall, and parts of the southeast interior, lateral wall and floor. The stylobate and middle step abut the West Cyclopean Wall at their southwest end; the bottom step ends against the projecting foundations of the tripod base. The stylobate is preserved for the length of *c.* 3.00 m.[136] Resting on the stylobate are two superimposed, rectangular blocks of marble forming the lower portion of an anta.[137] This anta does not fit the cuttings made in the upper surface of the stylobate and is therefore assumed to be a replacement, installed after the Persian destruction of the original, larger anta. A short spur wall, constructed primarily of poros, over 1.00 m. in length, connects the anta to the West Cyclopean Wall.[138] The interior southeast flank wall, made of Pentelic marble, was built against the inner core of the West Cyclopean Wall (PLATE 6b). It consists of two narrow, lower courses at the bottom, an orthostate course, and a restored, low string course at the top. It is preserved for a length of *c.* 5.00 m. and a total height of *c.* 2.00 m. Against the surface of this wall are traces of two successive benches resting on a low step.[139] The dressing of the finished surfaces of the building was never completed.

The preserved crepidoma and the anta of the Old Propylon give some indication of the size of the building. The width of the crepidoma and the depth of the anta base indicate the

[134] Dinsmoor, Jr. (1980) 20; Eiteljorg (1995) 22.

[135] A detailed description of these remains was published by both Dinsmoor, Jr. (1980) 35-64 and Eiteljorg (1995) 17-44.

[136] The preserved length of the middle step is 3.50 m. and that of the bottom step is *c.* 2.20 m. The finished width of the stylobate was to have been 1.165 m., that of the middle step was 0.449 m., and that of the bottom step was 0.47 m. The height of the steps was *c.* 0.40 m., with the top step highest in dimension and the bottom step the lowest. The two lower steps at their SW end rest on bedrock. The NW end of the steps and the stylobate rest on poros foundations. The level of the stylobate is slightly higher than that of the finished marble floor of the Mnesiklean Propylaia. Dinsmoor, Jr. (1980) 37, pl. 9.

[137] The two blocks of the anta are just over 3.50 m. in height. The depth of the anta at the base is 0.835 m. tapering to 0.812 m. at the present top. The width of the anta on both the exterior and interior is 0.586 m. at the base tapering to 0.570 m. at the present top. There is no entasis. The anta has a double inclination, towards the centre of the façade and towards the interior of the building. Dinsmoor, Jr. (1980) 56-57, pl. 11.

[138] The portion of the wall adjacent to the anta consists of five superimposed poros blocks with a thickness of 0.735 m., a preserved height of 2.95 m., and a length of just over 1.00 m. According to Dinsmoor, Jr. this poros wall is a post-Persian repair which replaced the original marble wall in this position. On the W façade, the gap between the anta wall and the West Cyclopean Wall was filled with three, superimposed triangular blocks, the lower, much taller one of marble, the smaller, upper two of poros. Dinsmoor, Jr. (1980) 58-60, pl. 11.

[139] Dinsmoor, Jr. (1980) 42-46, 54-56, pls. 10, 17.

approximate size of the lower diameter of the columns. An appropriate height for the columns can be estimated from the lower diameter in accordance with proportions established from existing columns of the same period.[140] Within the propylon, the preserved segment of the lateral wall and small portion of pavement give clear indication of two stages, each having a stone bench lining the interior of the wall. The present anta, a smaller replacement for the earlier, larger one in this position, is attached to the lateral wall by a short spur. This spur wall represents an unusual element in the building and one which is not normally found in propylons of sixth and fifth centuries. The bench constructed along the interior lateral wall, with its projecting step below, is another unusual feature. These remains are clear, but they give us only a fragmented picture of one side of this building. They do not indicate with any certainty the overall plan of the building. The width of the façade, the depth of the building, the exact size of the columns, and the relationship of the Old Propylon to the metopes lining the West Cyclopean Wall still remain problematical.

Eiteljorg suggested that the metope embellishment, the bench, and the rock-cut steps were part of the same building project as the construction of the marble steps belonging to the Old Propylon.[141] Had these two parts been conceived as a single project, then it becomes difficult to understand why the levels of the newly planned marble steps were not aligned with the levels of the rock-cut and poros steps along the base of the West Cyclopean Wall. Even more difficult to understand is the curtailment of the lowest marble step.[142] The lowest step should have followed the pattern used for the steps above it which ended when they abutted the Cyclopean Wall, but this did not happen. The lowest marble step stopped when it reached the foundations of the tripod base, and thus it must be concluded that the tripod base was already in place before the marble steps were constructed. Since the tripod base was part of the rearrangement which included the metope revetments and the installation of bench and steps along the West Cyclopean Wall, it follows that the marble steps present a later phase.

The argument used by Eiteljorg that the top marble step was built up against one of the metopes and therefore the two phases must be part of a single project is not convincing. It merely indicates that the metopes had been placed here before the marble steps were constructed. Presumably the metope was cut down to the level of the steps when the steps were laid and the anta wall was constructed on top of them. Practical considerations of construction can account for this sequence. Both Dinsmoor, Jr. and Eiteljorg agree that the blocks of the marble stylobate were laid from north to south.[143] As a result of this sequence, the southernmost block of the marble steps, adjacent to the cut down metope, was the last block of this course to be placed in position. A joint between two marble surfaces is easier to construct than a joint between a marble step and the uneven surface of a cyclopean wall. In order to simplify their task, the masons used the cut down metope for the final joint between the wall and the step. Since the joint was to be covered by the anta, this peculiarity of construction would not have been noticeable when the building was completed, and it was only later, under the detailed scrutiny of modern scholarship, that the unusual formation of this joint became evident. The possibility that these steps and the metopes formed part of a single building project is a modern construct which the archaeological evidence does not support.

Dinsmoor, Sr., Bundgaard, and Dinsmoor, Jr., believed that the bedrock cuttings in the central passage of the Mnesiklean Propylaia (FIG. 1, 11) and those under its north aisle (FIG.

[140] Dinsmoor, Jr. (1980) 38-52, pl. 15. Dinsmoor, Jr. makes clear the variety of possibilities that exist within these parameters.

[141] Eiteljorg (1995) 22.

[142] Illustrated in Dinsmoor, Jr. (1980) pl. 4c-d; Eiteljorg (1995) figs. 4, 6-14.

[143] Dinsmoor, Jr. (1980) 37 n.8; Eiteljorg (1995) 17.

1, 10) indicate the position of a central cross wall in the Old Propylon.[144] If both sets of the cuttings represent parts of the same building, then the building must be restored as having a minimum interior width of 16.80 m. and a depth of 12.45 m. from the southwest façade to the cross wall. These figures combined with an estimated lower diameter, restored height, and intercolumniations appropriate to the period led Dinsmoor, Jr. to restore the building as having a façade 19.74 m. in width with four columns in antis.[145] A propylon of this size is without parallel for its period,[146] just as the Propylaia built by Mnesikles was without parallel in its time. Unlike its successor, however, a marble, archaic propylon of such a great width would have overshadowed the much smaller, newly built poros temple within the sanctuary.[147]

The position of the restored northwest corner of the Old Propylon as drawn by Dinsmoor, Jr. is also difficult. It is located to the north of the line of the archaic ramp and thus it must be assumed that the ramp was widened to accommodate the greater width of the new building. Although this might at first seem to be an attractive solution, it should be noted that the ramp, when it was first constructed, was unusually wide for its period.[148] The increased width of the ramp necessitated by the restored northwest corner of the propylon once again creates a situation where the new scale is in conflict with the other structures in the area.

In the restoration of the Old Propylon, the bedrock cuttings found beneath the later Propylaia[149] were heavily emphasised by both Bundgaard and Dinsmoor, Jr. Those which lie in the central passage of the later building were restored as the cuttings made for the central cross wall within their restored Old Propylon.[150] Eiteljorg's recent re-evaluation of these cuttings questions this interpretation.[151] He argued that the sloping cutting along the north edge of this area rose above the levels of the cuttings for the lower steps on the south and consequently any steps resting on the cuttings to the south could not have continued to the

[144] Dinsmoor, Jr. (1980) vii, 12-14, 48-50, plan A.

[145] Dinsmoor, Jr. (1980) 49, pl. 16.

[146] Plommer (1960) 148-50 questioned the scale of the propylon when it was first purposed by Dinsmoor, Sr. and Bundgaard. For a catalogue of known archaic propylons see J.R. Carpenter (1970) 38-73. Carpenter lists: a poorly preserved entrance to the seventh century sanctuary at Samos (which is not a true propylon according to Carpenter), an earlier and later propylon to the sanctuary of Aphaia at Aegina (the first is poorly preserved; the second is distyle in antis), a propylon to the sanctuary of Aphrodite at the harbour on Aegina (which has only one side preserved), a restored distyle in antis propylon to the sanctuary of Poseidon on Poros, a poorly preserved poros propylon to the sanctuary of Poseidon at Sounion (possibly also distyle in antis) and finally the Older Propylon in Athens. All these earlier examples, in as far as they can be restored, are small, simple buildings with only two columns in antis, except for the first example which had no columns. The lavish design of the Old Propylon suggested by the Dinsmoors and Bundgaard, with its four columns in antis, the interior row of additional columns and an overall size which is more than double the size of the earlier, known propylons makes their restored plan unique for its period.

[147] The width of the Old Athena Temple at the level of the stylobate was 21.34 m.; Riemann (1950) 38. This width is only 1.60 m. greater than the proposed width of the Old Propylon. The Periklean Parthenon is roughly 9.50 m. wider than the central section of the Mnesiklean Propylaia.

[148] Bundgaard (1957) 30 noted the unusual width of this ramp; he measured the width as slightly more than 11.00 m.; he contrasted this width with the 4.00-5.00 m. width of the average Greek road. He compared the width of the ramp to that of the Panathenaic Way as it crossed the Agora. It should be noted that the exact width of the road in the Agora during the archaic period is unknown. In the centre of the Agora, furthermore, there were no buildings to constrict its width and retaining walls to support its substructure were not necessary. Elsewhere in areas where the Panathenaic Way passed standing buildings, the road was much narrower; Travlos (1971) 422.

[149] For cuttings in the central passage see Weller (1904) 49-54, fig. 3, pl. VI; Bundgaard (1957) 34-41, fig. 24; Dinsmoor, Jr. (1980) 38-39, pl. 14, plan A; Eiteljorg (1995) 44-45, figs. 17-18. For cutting under the N aisle see Bundgaard (1957) 30, 41-43, figs. 28-29; Dinsmoor, Jr. (1980) 39-40, pl. 7; Eiteljorg (1995) 45-46, fig. 17; Tanoulas (1996 b) 114-16, figs. 1-3. These cuttings, difficult to understand at best, are no longer visible and I had to rely on the earlier publications.

[150] Bundgaard (1957) 33-44; Dinsmoor, Jr. (1980) 39, pl. 14.

[151] Eiteljorg (1995) 44-46.

north. The sloping surface of the northern cutting is admittedly difficult to understand in the restoration suggested by Dinsmoor, Jr. and Bundgaard. It could, however, be seen as an indication that the northeast corner of the propylon was meant to lie at this point, hence the curtailment of the horizontal cuttings, as originally suggested by Charles H. Weller.[152]

The addition of an area to the northeast of these cuttings in the restoration suggested by Bundgaard and Dinsmoor, Jr. creates additional problems. The existing bedrock at its highest point below this northeast portion lies more than 1.00 m. above the bedrock surface and the stylobate to the southwest.[153] The high level of the northeast addition in the restored plan necessitates the use of a series of steps along the cross wall in order to bridge the gap between the floors of the two areas on either side of the suggested cross wall. The resulting steps lie well above the level of the bedrock and consequently the sloping surface along the north side of the cuttings does not necessarily exclude the possibility that steps were intended. The low level of the cuttings, however, seems entirely unnecessary and the question immediately arises why so much of the bedrock was cut away. It is also troublesome that the cuttings fail to reflect the rise in the steps restored above them. The three surfaces of the bedrock support a series of four steps with parts of three steps lying above the centre cutting.

The cutting under the north aisle of the later Propylaia presents an even more serious obstacle to the restoration of the Old Propylon suggested by Dinsmoor, Jr. The bottom of this bedrock cutting lies almost 0.50 m. below the comparable cutting in the bedrock farther south in the central passage of the later building.[154] The cuttings in the central passage, as pointed out above, are unusually low for the steps they supported. The addition of a second cutting, even lower than the first, creates serious doubts concerning both sets of cuttings as used by Dinsmoor, Jr. If both sets belonged to the same building project, then they should have been treated in a similar manner and both should have been worked down to a similar depth in the bedrock. This was not done. In actuality, nothing connects the two sets of cuttings except for the projected lines of the cuttings which are said to be parallel, but even these are not as clear as the literature on the cuttings seems to suggest. The projected line of the cutting beneath the north aisle, furthermore, causes additional problems. On one side of the projected line the bedrock lies at 142.395 masl., whereas on the other side it lies at 142.23 masl., but this same change of level is not reflected in the cuttings to the south under the central passage.

The possibility that the cutting under the north aisle represents some other phase in the work of this area is a serious consideration which has received little attention. Some reworking of the bedrock under the north aisle appears to have been carried out by the workmen who constructed the Mnesiklean Propylaia and they may be responsible for the cutting as it now exists.[155] This explanation, however, seems unlikely since the lowest part of this cutting once again lies much lower than the structure above warrants and the orientation of the lower area does not follow the orientation of the Mnesiklean Propylaia.[156] Possibly a more attractive solution is to associate this

[152] Weller (1904) 52. Many of the observations made by Eiteljorg (1995) 44-46 had already been recorded earlier by Weller.

[153] Dinsmoor, Jr. (1980) pl. 14.

[154] Dinsmoor, Jr. (1980) 39, plan A: a lower level under N aisle marked as 142,23 masl. but the comparable cutting in the central passage is shown as 142,708.

[155] This solution was suggested by Eiteljorg (1995) 46, and Tanoulas (1996 b) 114-16. If this cutting is to be associated with the floor slabs of the Mnesiklean Propylaia, then the foundation block used here must have been triangular in shape, which is not normal in rectangular buildings of this period.

[156] Dinsmoor, Jr. (1980) 39.

cutting with some sort of structure built here before the construction of the Old Propylon.[157]

If the bedrock cutting under the north aisle of the Mnesiklean Propylaia had been made to accommodate a monument base or a small building, this would explain the lower level of this cutting as compared to those farther south associated with the Old Propylon. If the two sets of bedrock cuttings belonged to two separate projects, then there would be no reason for both to have been dug down to the same depth. Separating the two sets of cuttings has the added advantage of reducing the width of the Old Propylon. A smaller propylon in this position is more compatible with the scale of the buildings already existing on the archaic Akropolis and the scale of other known propylons of this period. It avoids the necessity of deep foundations under the interior steps of the Old Propylon and it places the restored west corner of the building comfortably within the width of the archaic ramp.

A monument base or small building in this location would also happily explain the rather peculiar orientation of the Old Propylon which lies at a strange, oblique angle to the fortification wall. The orientation of the bench and steps adjacent to the West Cyclopean Wall suggests that the position of the old gateway, lying at right angles to the fortifications, and the roadway passing through it had been retained for centuries. With the construction of the Old Propylon the orientation of the entranceway appears to have been changed substantially for the first time since the Mycenaean period. The axis of the Old Propylon shifted the entranceway to the east, moving it away from its original Mycenaean location and changing the direction of the road leading to the buildings within the Akropolis. If the orientation was to be changed from the original Mycenaean entrance, then it seems more logical to place the new propylon at the head of the archaic ramp, just as the later Mnesiklean Propylaia lay at the head of the enlarged fifth-century ramp. This was not done. The new orientation chosen for the Old Propylon follows neither the orientation of the older gates and roadway nor the orientation suggested by the position of the archaic ramp.

In order to accommodate the new propylon, part of the West Cyclopean Wall had to be dismantled.[158] It may be that the existence of this wall encouraged the architect of the Old Propylon to orient his building in such a way that as little as possible of the wall had to be removed. If a monument base or small building had been constructed in this area where no structure had previously existed, then the reason for the changed orientation of the new entranceway becomes clear. The existence of such a structure would have forced the architect of the Old Propylon to change the location of the entrance and to undertake the laborious job of removing part of the old Mycenaean wall.[159] In order to minimise the labour, the orientation of the new entrance followed that of the neighbouring structure, thus accounting for the roughly parallel lines of the bedrock cuttings beneath the Mnesiklean Propylaia.

If a separate structure stood on the bedrock cutting under the north aisle of the Propylaia and the north corner of the restored entranceway stood on the cuttings in the central passage of the Propylaia, as originally suggested by Weller,[160] then the restored plan of the Old Propylon must be considerable reduced in both width and depth. Weller restored the façade of this

[157] This possibility was not considered by Tanoulas (1996 b) 114-16, nor apparently by Dinsmoor, Sr., who first uncovered the cutting, or by Bundgaard and Dinsmoor, Jr., who followed the conclusion of Dinsmoor, Sr.; Dinsmoor, Jr. (1980) vi, 12-14. Eiteljorg (1995) 46 n.89, noted this possibility but did not seriously consider it.

[158] This is made clear by the continuation of the cuttings for the metope revetment slabs N of the preserved N end of the West Cyclopean Wall; Eiteljorg (1976) 94-95; (1995) 25-26. See also Dinsmoor, Jr. (1980) 18, 22-27, 35-36, pl. 4a.

[159] Dinsmoor, Jr. (1980) 35-36, pl. 4, suggested that part of the West Cyclopean Wall was dismantled after the marble steps had been built. The obvious danger of damaging the newly laid marble steps during the demolition of this wall, had the wall been demolished after the steps were laid, makes this sequence unlikely.

[160] Weller (1904) 49-56, fig. 4, pls. I, IV.

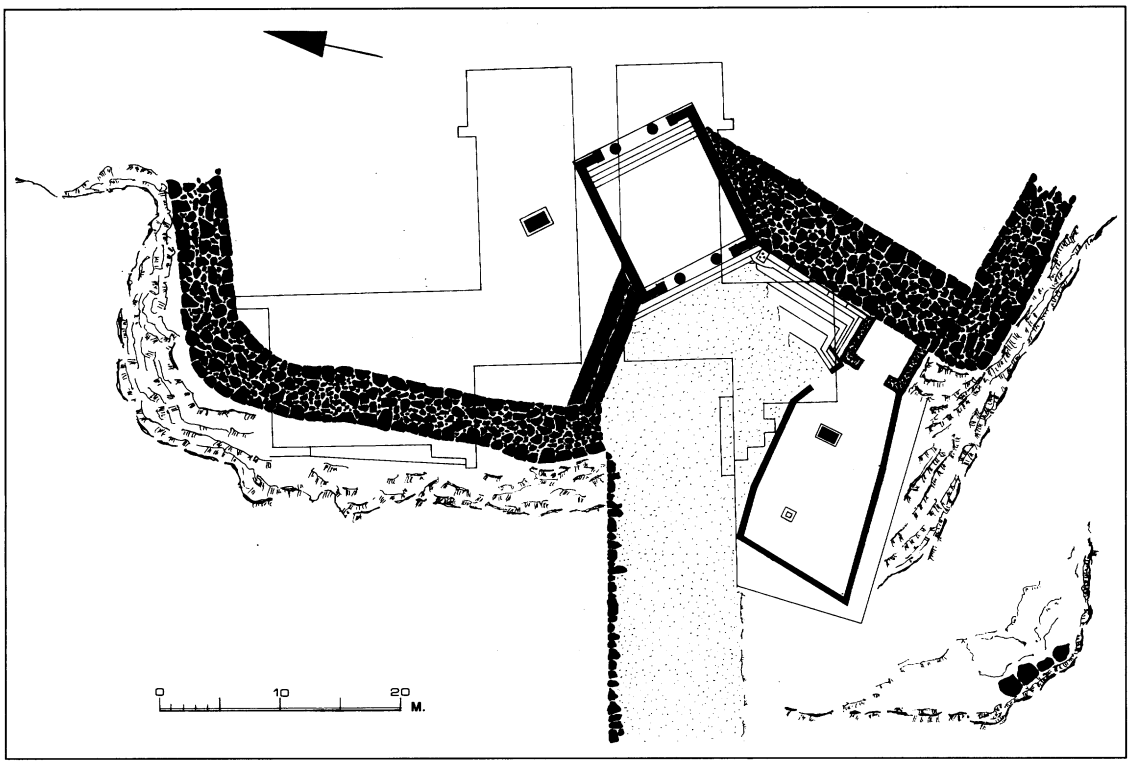

FIG. 4. Restored plan of Old Propylon.

narrower plan with two columns in antis. He also suggested that the central intercolumniation be wider than the side ones and that the frieze above it contained two triglyphs replacing the single triglyph usually found in this position. The width of this restored building is roughly 11 m. and its length is about 13.50 m.[161] This plan (FIG. 4), as Weller observed, places the façade of the Old Propylon within the gap formed by the West Cyclopean Wall and the extension of the north wall of the archaic ramp.[162]

An almost exact parallel for a building of this type is to be found at Selinous in the sanctuary of Demeter Malophoros.[163] This late fifth-century propylon in Selinous had two columns in antis, antae attached to the lateral walls by short spur walls, and stone benches along the interior lateral walls. The type of benches constructed in both entranceways is unusual. They originally consisted of two projecting courses, the upper one used as a bench and the lower used as a step.[164] The two ends of each bench lie adjacent to the interior face of the spur walls which connect the antae to the lateral walls of the building. The existence of these benches may have given rise to the use of spur walls in this position, another unusual feature shared by both buildings. The benches also explain the absence of a cross wall with a doorway in both propylons, a third unusual feature shared by both buildings. A cross wall would have divided

[161] Weller (1904) 54.

[162] Weller (1903) 94.

[163] Weller (1904) 56, 68. For discussion of the propylon in Selinous see Miles (1998) 35-57; J.R. Carpenter (1970) 106-08; Gabrici (1927) 75-87; Koldeway and Puchstein (1899) 82-84. Unlike the Old Propylon in Athens, the propylon at Selinous had a crepidoma of six steps. Its dimensions, proportions, and presumably the profiles of its mouldings, reflecting a later date, are also different.

[164] Dinsmoor, Jr. (1980) 42 n.16, noted the unusual construction of these benches which occurred in both buildings.

the area containing the benches into two small, separate, isolated portions, making the area of the benches more confined. At Selinous, metal grills were used in the intercolumniations between columns and between the columns and antae to block access into the sanctuary. A similar use of metal grills occurred later on the Akropolis in the Temple of Athena Nike and in the pronaos and opisthodomos of the Parthenon. Such grills were probably also intended for the Old Propylon. Another feature at Selinous which may have been intended in the Old Propylon is the use of two triglyphs in the central intercolumniation of the façade.

Although Dinsmoor, Jr. noted the similar unusual construction of the benches in the Old Propylon and the propylon at Selinous, he felt that Weller's restoration did not allow sufficient space for the vertical diminution of the façade.[165] According to Dinsmoor's calculations the end metopes of Weller's restored façade needed to be 0.049 m. narrower than the other metopes of the frieze. In Weller's restored drawing of the façade, however, the triglyph frieze extends over the top of the cyclopean wall,[166] which makes the calculation of the exact diminution of the triglyph frieze problematical. The width of the metopes, as well as the exact width of the propylon, furthermore, are unknown. The solution to this problem, however, need not be as complicated as these observations might indicate. At Selinous the axes of the triglyphs were simply not centred above the axes of the antae. If the same alignment was followed in Athens, then the problem of the variation of the metope widths is not only solved, but it also forms one more similarity between the two buildings.

Weller restored the columns with a lower diameter of 0.835 m. and a corresponding height of 4.165 m.[167] His estimated diameter of the columns is based on the dimensions of the existing anta whose depth is understood to equal the lower diameter of the columns, proportions similar to those found in the later Temple of Zeus at Olympia and the Temple of Hephaistos in Athens.[168] Dinsmoor, Jr. used columns with a restored lower diameter of 0.988 m. and a corresponding height of 5.270 m.[169] He also used the depth of the anta as his criterion for the lower diameter, but the dimensions he used were those of the original anta and not those of the later, smaller replacement. The size of the original anta, Dinsmoor, Jr. convincingly argued, is indicated by the tooling of the interior south wall next to the existing anta and the working of the upper surface of the stylobate.[170] These tool marks make it clear that the later replacement was smaller in depth by 0.15 m.

The different size of the two antae creates a dilemma. The original anta was presumably damaged by the Persians and needed to be replaced when the building was reconstructed after the Persian departure. If the lower diameter of the columns equalled the depth of the antae, then the reduced size of the anta should have been accompanied by a corresponding diminution in the size of the columns. Since the design of a Doric building is dependent on the size of its columns, the use of smaller columns would have necessitated a complete revision of the entire façade. We could assume that the entire building was simply made smaller when the Propylon was rebuilt, but if the building had progressed to the point where the marble steps and the antae had already been constructed, much of the building material for it must have already been transported to the site, awaiting the completion of the building. We should expect to see other

[165] Dinsmoor, Jr. (1980) 42 n.16 and 51 n.47.

[166] Weller (1904) 56, fig. 4.

[167] Weller (1904) 55-56.

[168] Adler *et al.* (1892) pls. VIII-IX; Koch (1955) pl. 41.

[169] Dinsmoor, Jr. (1980) 50-51.

[170] Dinsmoor, Jr. (1980) 46-8, 50-51, pls. 9-10.

signs of change, had this happened.[171] In order to avoid redesigning the entire building, the architect could have simply replaced the damaged anta with a new one of similar size. The existing anta, however, shows that this simple solution was not adopted. The larger anta was replaced by a smaller one but how the smaller anta affected the overall design of the building is not clear.

The dilemma caused by the reduction in the size of the anta, however, is cast in a different light if the lower diameter of the column and the depth of the anta did not correspond, one to the other, in the archaic period. Columns placed between antae from the archaic period with both columns and antae still preserved are not frequent on the Greek mainland,[172] but one example does exist on nearby Aegina in the early fifth-century Temple of Aphaia.[173] In accordance with the archaic aesthetic canon for the design of the peristyle, this temple has the columns on its long sides placed closer together than the columns of its façade. Another curious feature of the temple is the placement of its columns and antae in the pronaos and the use of antae whose depth differed in dimensions from those of the lower diameter of the columns. The columns of its pronaos and the sides of its antae were not centred on the stylobate blocks below, but were placed off-centre with their front close to the outer edge of the block. Although the width of the stylobate is 1.115 m., the depth of the anta is 0.915 m., and the lower diameter of the pronaos columns is only 0.82 m., some 0.095 m. less than the depth of the anta and 0.295 m. less than the width of the stylobate.[174] At Delphi, in the Treasury of the Athenians, the two columns standing between antae are also not equal to the depth of the antae, but in that building the columns are slightly larger than the antae. Unlike the antae and columns of the pronaos in the temple at Aegina, however, the columns in the Treasury were centred on the stylobate below.[175] A slightly larger dimension for the columns as compared to the antae appears to have been used also in the later archaic propylon to the sanctuary of Aphaia at Aegina.[176]

The same dimension for the depth of the antae and the lower diameter of the columns does not occur in these three examples and it may well be that an absence of a close correlation between these two dimensions was an archaic characteristic or perhaps a local deviation.[177] If we assume a similar pattern for the propylon in Athens, then we could explain the altered dimensions of the antae in the Old Propylon as a reflection of the changed attitude towards design on the part of the Athenian architect. When he rebuilt the Old Propylon after the Persian destruction, he may have rejected the earlier archaic practice and replaced it with later, classical

[171] *Cf.* clear signs of changes which occurred between the original plan of the Parthenon and its later completion: Hill (1912); Orlandos (1976) 64-89, pls. 3, 24.

[172] Other early buildings, such as the archaic Temple of Athena Pronaia at Delphi, do not have preserved columns in this position; Demangel (1923) 2-25. The Temple of Hera at Olympia has stone columns in its pronaos but these replaced the earlier ones of wood which may have been a different size; the depth of the anta, furthermore, is uncertain since the anta was covered in wood and the depth of the anta depends on the thickness of the wooden covering; Adler *et al.* (1892) 32, pl. XXIII.

[173] Furtwängler *et al.* (1906).

[174] Furtwängler *et al.* (1906) esp. pls. 31-32, 41.

[175] The imprint of the column on the stylobate indicates that the lower diameters were 0.84 m. whereas the width of the anta facing the columns is 0.730 m. Audiat (1933) 13, 17, pls. VII-VIII. It should also be noted that the axes of the triglyphs in the Treasury do not align with the axes of the columns and antae; Audiat, 36-37, pl. XXIV.

[176] Furtwängler *et al.* (1906) 75-85, pls. 56-58; J.R. Carpenter (1970) 42-46, where the propylon is dated 495-485 BC.

[177] An Athenian architect having close contacts with the architect on Aegina may also account for the unusually wide centre intercolumniation on the axis of the building, which both Weller and Dinsmoor, Jr. suggested in their restored plans. This is an unusual feature of the propylon but it is one which it shares with the archaic propylon to the sanctuary of Aphaia on Aegina and it forms another link between the two areas.

convention as reflected in the design of the Temple of Hephaistos where the same dimension was used for both column diameter and anta depth. If this were the motivating factor for the alteration, then both column diameter and anta did not need to be changed. One change would suffice to bring the two elements into harmony. Since we know that the size of the anta was changed, we may suppose that the size of the column was not altered and once again the narrow plan suggested by Weller seems to be indicated, and a façade similar to that restored by Weller, with a few minor changes, may be restored.[178]

The replaced anta at the south corner of the Old Propylon and its fire damaged southeast wall[179] place the beginning of the construction in the period before the Persian attack on the Akropolis. After construction of the Old Propylon had begun, work on the building was suspended before it was completed as the unfinished surfaces of the steps make clear. The early phase of this work most naturally falls into the period following the completion of the Old Athena Temple, before the plans for the Old Parthenon were conceived. This sequence of construction, the start of a propylon after the completion of a temple within the sanctuary, is suggested by the later history of the Periklean Parthenon and the Mnesiklean Propylaia. The Old Propylon must be dated to a period following the embellishment of the West Cyclopean Wall when the metopes removed from the mid sixth-century Temple of Athena became available for secondary use.[180] The logistics of transporting large quantities of building material to the Akropolis, discussed above, suggest that this happened after the Old Athena Temple was constructed. After the embellishment of the West Cyclopean Wall, the Old Propylon was begun. The same problems of transportation once again suggest that work began on the propylon before the decision was made to build an even larger, grander temple, the so-called Older Parthenon. The decision to construct the new temple then becomes the reason for the suspension in the work of the Old Propylon.

Although the southeast wall of the Propylon shows signs of fire from the Persian destruction, the preserved stretch of marble steps lying close-by remains in pristine condition. This area had been hotly contested during the Persian siege of the Akropolis, but no trace of damage either from fire or from falling debris appears on the steps. This total absence of damage suggests that the steps had been protected in some way. Since these steps lie in the path of the archaic ramp which was used for the transportation of marble and other building materials for the construction of the Older Parthenon in the decade 490 to 480, a deep layer of earth was probably thrown over these steps to protect the stones and at the same time to help facilitate the movement of building material. Such an earth covering explains the pristine condition of the steps, but it also implies that all work on the propylon itself was suspended when the new construction of the monumental marble temple was undertaken. At the same time any columns which had been put in position were probably removed.[181]

[178] The absence of a strict alignment between the axes of the triglyphs and those of the columns and antae may possibly be another characteristic feature in buildings of this period. See n.175 above.

[179] Dinsmoor, Jr. (1980) 53. Tomlinson (1982) 280-81 accepted this evidence for destruction by fire as correct, even though it was questioned by Eiteljorg (1995) 76-80. Possibly the Persians also damaged the interior bench, hence its later replacement which was described by Dinsmoor, Jr. (1980) 54-56, pl.17.

[180] This sequence of the different phases was accepted by Dinsmoor, Jr. (1980) 53-54,

[181] According to Dinsmoor, Jr. (1980) 51 n.47, the open space between the centre columns in Weller's restoration is 2.648 m. (3.483 m. intercolumniation minus 0.835 m., the diameter of the columns). The unfinished column drums from the Older Parthenon vary in size; one of the largest preserved has a diameter of 1.985 m.; Tschira (1940) 245-46, no. 32; Orlandos (1976) 77-87, pl. 24. In addition to this diameter there are the lifting bosses which together add a further 0.50 m. to the width; Tschira, fig. 9. This leaves a clearance of only 0.163 m. between the standing columns through which the drums had to pass and it allows for no further increase of width to account for the wheels used to drag the drums up to the building site. An even more serious problem would have been the transportation of the even larger, unfinished capitals, which weighed roughly 12 tons (see n.129 above) and had an

The Persians and the Akropolis

When the Persians captured the city in 480 BC, they laid siege to the Akropolis. Although the lower city had been abandoned, there was a group of Athenians who believed their salvation lay on the Akropolis. The oracle at Delphi had urged the Athenians to seek protection behind the wooden walls.[182] Themistocles was able to persuade the majority of Athenian citizens that the wooden walls of the Delphic oracle referred to their ships. They fled in large numbers carrying with them their families, their possessions, and many of the ancient relics of the city. One group of Athenians, however, remained stubbornly behind; they interpreted the wooden walls of the oracle to refer to the Akropolis where they sought shelter. This curious interpretation of the oracle must have a reasonable explanation. The fortifications of the Akropolis, as we know them, were made of stone. Only one section lay unfortified and that was in the area of the western approach where the wall had been breached, first to accommodate the construction of the Old Propylon and later to allow passage through this region for the transportation of the many blocks of stone required for the construction of the newly designed Parthenon. While this work was in progress, however, the opening must have been secured in some way in order to protect the dedications and to safeguard the tools and equipment being used on the construction site of the temple. At the same time this closing mechanism must have been removable when additional stones were needed for the building. These requirements suggest a large wooden barrier of some sort, which could be easily moved when the stones for the temple were being carried to the site. When the barrier was in place protecting the sanctuary, it must have been fitted with a set of smaller doors providing daily access to the site for the workmen and the officials. These practical demands of the construction site well explain the existence of a wooden wall on the Akropolis and help solve the ancient interpretation of the Delphi oracle.[183]

Herodotus mentioned the wooden wall again in his description of the Persian siege of the Akropolis.[184] He described the Persian occupation of the Areopagos and their attempts to besiege the Akropolis. First the Persians destroyed the wooden wall with burning arrows. The specific mention of burning arrows indicates that the wooden wall had served as an important barrier to the entrance of the Akropolis. Having destroyed the wooden wall, the Persians were still unable to take the Akropolis because the defenders protected the entranceway by various different tactics. One of those mentioned by Herodotus was the rolling of large boulders down the slope onto the Persian attackers. Boulders of sufficient size to hinder the Persians were presumably not simply lying about in plentiful supply within the sanctuary. They did, however, form the fabric of the old Mycenaean fortification walls and it can be assumed that the Mycenaean wall lying under the later Pinakotheke served as one source for these boulders. The other obvious source for the stones was the West Cyclopean Wall. The ramp which had served to facilitate the transportation of stone to the Akropolis became a convenient path for hurling

abacus wider than the diameter of the column drum; see Orlandos (1976) pl. 26 where the width of the finished abacus on the Periklean Parthenon is given as 2.047 in contrast to the finished diameters of the columns which are 1.922 m. at the bottom and 1.513 m. at the top. In order to decrease the danger of damaging both the standing columns and the new columns being transported, the central columns of the Old Propylon were probably removed. Although this may at first seem an extravagant use of labour, the cost of moving the standing columns is minor compared to the cost of transporting the marbles from the quarry; see Orlandos (1968) 29-30.

[182] Hdt. 7.142.

[183] In order to explain the association of the wooden walls and the Akropolis, Eiteljorg (1995) 51-52 suggested that a wooden wall was built in front of his Mycenaean gate at the time of the Persian siege. His suggestion fails to account for the original association of wooden walls with the Akropolis nor does it explain why such a wooden wall was suddenly considered necessary if the old gate, which had served to guard the Akropolis for centuries, was still in place.

[184] Hdt. 8.51-52.

the stones down onto the Persian forces.[185]

When the Persians captured the Akropolis and subsequently damaged the partially completed propylon, the Older Parthenon, and the many archaic structures which once stood there, they also wreaked havoc on the fortification walls. This damage was so extensive that traces of the Mycenaean fortification walls are no longer to be found in large areas of the original circuit. The walls at the west end of the Akropolis must have suffered a similar fate and it is not surprising that much of the area contains almost no trace of these walls today. Traces of damage by fire on the Old Propylon indicate Persian activity in this area and it may logically be concluded that the Persians in the course of damaging the Old Propylon destroyed its original anta. When the propylon was rebuilt after the Athenians returned to the city, the walls surrounding the propylon must have also been repaired. Clear evidence remains for raising the height of the West Cyclopean Wall.[186] It can be assumed that its south end, where it originally joined the now damaged south wall of the Akropolis, was also repaired when the south wall was rebuilt.

The original fortification wall to the northwest of the West Cyclopean Wall no longer remains, but perhaps a slight trace of part of this circuit can be recognised in the lowest poros foundations beneath the west wall of the Pinakotheke. Bundgaard noted that these foundations fan outward towards the southwest and that the lowest course continues beyond the line of the south façade of the later structure built above it.[187] These blocks lie adjacent to the suggested location of the Mycenaean fortification wall as restored in phase one and near the 'rock pile' found beneath the Pinakotheke. The battered remains of a Mycenaean wall left by the Persians along the west side of the Akropolis may have been the impetus for the construction of this poros facing,[188] which beautified the site and at the same time served to strengthen the venerable old wall inherited by the people of fifth-century Athens from their Mycenaean forbears.

The Sanctuary of Athena Nike and Kallikrates

In his monograph on the sanctuary of the Athena Nike, Mark revived an idea already suggested by Bundgaard.[189] He argued that the small poros naiskos and its accompanying altar, which he called stage 3, were constructed by Kallikrates in the middle of the fifth century BC in response to the building inscription, *IG* I^3 35. During this phase a square altar or statue base composed of re-used blocks, including a fragment of the earlier altar, was erected near the north wall of the shrine. A small naiskos was constructed on the west facing a rectangular poros altar lying on the axis of the naiskos to its east. The entire shrine was enclosed and a doorway on the north was constructed. All these structures were placed on the Mycenaean bastion, upon an uneven surface left in ruins by the Persians and no effort was made to level the area in preparation for the new installations.

Once the decision had been made in the middle of the fifth century to restore the Akropolis in Pentelic marble with buildings of a scale unprecedented on the Greek mainland, it seems

[185] Eiteljorg (1995) 51-52 argued that a gate of some sort must have existed here in order to keep the Persians out of the Akropolis once the wooden walls had been burned. Large stones, similar to those hurled down upon the Persians, could obviously have been used to form a stone blockade across the open entranceway. Material brought to the site for the construction of new buildings was also available for this purpose.

[186] See n.67 above.

[187] Bundgaard (1957) 51-52, fig. 6.

[188] Bundgaard (1957) 51-52 originally suggested that these stones were used to line the remains of the terrace which he placed in front of the Mycenaean fortification wall. Since I place the restored fortification wall in this area, these same stones are used here to line the remains of that fortification wall, rather than the terrace originally suggested by Bundgaard.

[189] Mark (1993) 36-122, 128-41; Bundgaard (1974 b) 43-49; (1976) 48-53.

unthinkable that at this same time a small poros naiskos would be constructed as the first temple to be seen by someone approaching the Akropolis. The later Ionic temple is best understood, in the sequence suggested here, as part of the glorious new plan to refurbish the sanctuary with buildings built entirely of marble. The lavishness of this programme with its extensive use of sculpture and its almost exclusive use of Pentelic marble was much criticised at the time of its conception.[190] On the Greek mainland, before this rebuilding of the Akropolis only the small treasuries at Delphi and the uncompleted older Parthenon (except for its lowest step) had been designed entirely in marble. When the bold plan was first initiated, building decrees for both the Parthenon and the Propylaia must have been passed by the boule and the demos. At the same time a building decree for the third building planned, the Temple of Athena Nike, was probably also passed, hence the early date of the inscription,[191] even though its construction was to be delayed until other parts of the plan were implemented.[192]

Mark argued that building the naiskos in the period immediately after the Persian destruction would have constituted a violation of the Oath of Plataia.[193] The construction of a naiskos to house the sacred relics saved from the Persian destruction in the immediate aftermath of the war, however, can be paralleled by the naiskos found in the shrine of Artemis and Apollo at Kalapodi in Phokis. At that site soon after 480 BC, a small naiskos and an altar were constructed within the ruins of the former temple. Sometime later in the second half of the fifth century, presumably after the decision had been made to restore the shrines damaged by the Persians, special offerings were made, the naiskos was buried, and a new temple constructed on the same site.[194] The history of the shrine of Athena Nike can be understood as an exact counterpart to that at Kalapodi. In the immediate aftermath of the Persian destruction, a simple naiskos and a small altar were first constructed,[195] later to be replaced by a larger, more sumptuous temple and altar.[196] In both examples the building of the naiskos appears to have been acceptable and its construction was not considered a violation of the oath.[197]

Although Mark presented many new ideas and insights, no single argument which he was able to produce proves a mid fifth-century date for his stage 3.[198] Mark emphasised the use

[190] Plut. *Per.* 12.2.

[191] The date of *IG* I^3 35 had been hotly debated in the recent past, but a date near the middle of the century now seems to be the consensus. For the date of the building inscription see nn.209-10 below.

[192] Earlier scholarship attributed the delay in the construction of the Temple of Athena Nike to conflicting religious arguments over the encroachment of one building into the area of another. Meiggs (1972) 496-503, in his discussion of the date of the decree, argued convincingly that these delays were unlikely to have been caused by such arguments and that there is every indication that the three architects associated with this project were working closely together as they evolved their plans. He found it troublesome that the boule and the demos were asked to pass decrees at more or less the same time for the construction of the Parthenon, the Propylaia, and the Temple of Athena Nike, but it is difficult to understand his objection. The decree for the Parthenon must have been passed at this time, since its construction was started. If the decree for the Temple of Athena Nike was also passed at this time, as Meiggs argued, then there seems to be no reason why the decree for the construction of the third project, the Propylaia, could not have also been passed at more or less the same time.

[193] Mark (1993) 98-104, 121, 128-29, 132-33.

[194] Felsch and Kienast (1975) 1-24; Felsch, Kienast, and Schuler (1980) 67-108; Felsch (1987) 13-26.

[195] Mark (1993) stage 3.

[196] Mark (1993) stage 4.

[197] For other naiskoi constructed in Athens see Travlos (1971) 148, fig. 202. Unlike the shrine at Kalapodi which can be dated by the stratigraphy, most of these naiskoi do not have a firm date, but the parallel of Kalapodi suggests that all of these naiskoi in Athens should be placed in the decade immediately following the Persian destruction.

[198] His emphasis on the similarity of the tooling on the naiskos to that of stage 3 of the Old Propylon for example, Mark (1993) 60-64, although an interesting observation, merely suggests that both structures are post-Persian and similar in date, but it does not establish whether that date was in the period immediately after the

of a single block of Piraeus limestone in the foundations of the naiskos.[199] He asserted that this stone is similar to the blocks used for the Kimonian reconstruction of the south wall of the Akropolis and thus the date of the naiskos must be near the middle of the fifth century. This block, which still retains its quarry surface, has one face which is battered. It shows no sign of having been cut in preparation for being placed in a wall. Only the top and bottom were reworked after it left the quarry and this reworking, according to Mark, was done when it was laid down as part of the foundations of the naiskos. The battered face of the block, Mark further argued, makes it all but certain that it was cut for the south fortification wall and not for the north fortification wall,[200] the podium of the Parthenon,[201] or the foundations of the unfinished Northwest Building,[202] which also used this same kind of stone. Following Mark's argument, we must suppose that each newly quarried stone to be used in the south fortification wall was cut in the quarry *c.* 0.03 m. narrower at the top than it was at the bottom,[203] as opposed to the blocks quarried for the north wall which were 0.013 to 0.007 m. narrower at the top than they were at the bottom. In view of the great number of stones which were quarried just for the podium of the Parthenon and the south wall, apart from those needed for the north wall and the foundations of the Northwest Building, it is difficult to credit the kind of precision that Mark wishes to attribute to the measurement of these stones.[204] The batter of a wall, furthermore, was surely not part of the quarrying process but was added when the blocks were trimmed and resurfaced as they were laid into the wall. The extensive use of Piraeus limestone on the Akropolis makes it highly questionable whether the amount of batter shown on a single block still retaining its quarry surface and used in secondary position can be identified as belonging to one specific building project as opposed to others, similar in date using the same type of stone.

The date of the poros naiskos can be more securely fixed by the mouldings used on its altar, which Mark discussed in some detail. The base of this altar was decorated with the cyma reversa (FIG. 5a). A second cyma reversa, almost identical to the one at the base, was used at

Athenians returned to their city or whether it was several decades later. How soon the Athenians began to reorganise their shrines is a complex question which lies outside the scope of this article. That it occurred before the middle of the century, the beginning of the Periklean Parthenon, and the passage of the decree on *IG* I^3 35, however, seems almost certain.

[199] Mark (1993) 49-50, block F2 in figs. 5-6.

[200] Mark (1993) 58-59, noted that certain portions of the N fortification wall have blocks of this same size but the batter of the N wall is only half the amount of batter shown in block F2 and for this reason, he argued, block F2 should not be attributed to the N fortification wall. The batter on the N wall, given by Mark in n.51, p. 59, is *c.* 0.025-0.014 for each metre of height, to be contrasted to the batter of F2 calculated as 0.060 m. for every metre, n.49, p. 58. The batter of the S wall, given in the same footnote, varies from 0.063 to 0.058 m. for each metre.

[201] For the podium of the Parthenon see Tschira (1972) 158-231.

[202] The Northwest Building, variously dated in the past, and the N fortification wall were recently dated to the second half of the fifth century by Tanoulas (1992) 210-11. This date was challenged by Korres (1997) 244-45; he dated the N fortification wall of the Akropolis to the Themistoclean period and the Northwest Building slightly later but still before the middle of the century.

[203] The degree of batter is not clear in the figures published by Mark (1993). In his n.49, p. 58, Mark stated: 'F2 batters 0.030 m. in 0.50 m.' but in his figure 6, F2 is shown having a height of 0.565 m. and the width is 0.635-0.605 m. which decreased the amount of batter to 0.03 m. in 0.565 m. and not in 0.50 m. To further complicate the issue, on p. 50, the estimated width of the block when it left the quarry is given as 0.61-0.635 m., which further decreases the batter to 0.025 m. for every 0.58 m. of height, the estimated original height of the block.

[204] The uneven surfaces normally occurring in foundations plus the irregular interiors of the fortification wall of the Akropolis make the kind of precision suggested by Mark very dubious. See Tanoulas (1992) pls. 46-47, for photographs of the foundations of the Northwest Building and the interior of the N fortification wall, and Kavvadias and Kawerau (1907) pls. I' through A' for additional views of the interior face of the fortifications and the irregular face of the podium under the Parthenon.

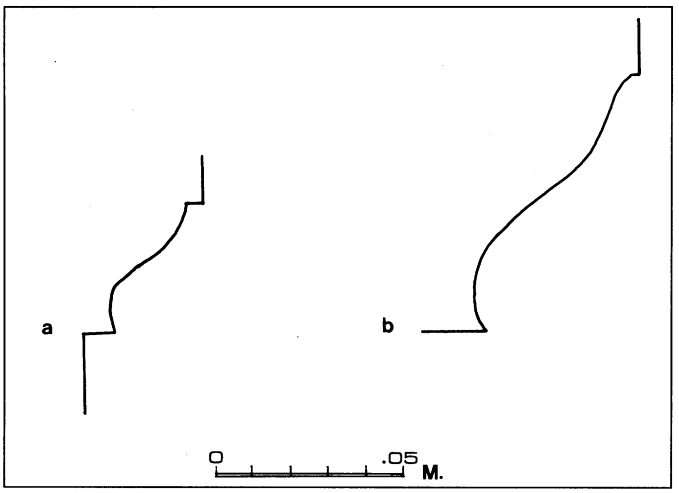

FIG. 5. (a) Moulding from Altar of Athena Nike on the Akropolis (b) moulding from Altar of Aphrodite Ourania in the Athenian Agora

the top below a crowning fascia.[205] As Mark rightly noted, the depth of the cyma reversa in proportion to its height increased gradually during the sixth and fifth centuries, but the increasing depth of the moulding reflects not only its date but also its position and size within the building.[206] In the examples published by Mark, it is the form of the base mouldings which gives us the clearest indication of date, since the base mouldings were seen from the same angle and were used in similar positions.[207] In the three examples published by Mark, the base moulding of the altar of Athena Nike is clearly closer to the late archaic moulding from Paros than it is to his later examples belonging to the second half of the fifth century. The Paros moulding is, of course, larger and it projects slightly more than the Athena Nike moulding. Of similar size to the moulding from Paros, but with slightly less projecting profile, is the base moulding from the altar of Aphrodite Ourania found in the Athenian Agora, which is to be dated *c.* 500 BC (FIG. 5b).[208] The similarity of these three mouldings is a clear indication that the altar of Athena Nike and its accompanying naiskos should be dated before the middle of the fifth century and the passage of the decree authorising the building of a new temple.

The decree to establish a priestess of Athena Nike and to build her a new temple and altar, passed in the middle of the fifth century, *IG* I^3 35,[209] was carved on the stele soon after it was

[205] Mark (1993) 59-60, fig. 13. Shoe (1936) 54-57, 178-79, discussed the cyma reversa in some detail. It should be noted that the cyma reversa in this position in the sixth century was infrequent and that this moulding, developed by the Ionian architects, was rarely used by sixth-century Athenian architects. Shoe (1936) 54-57, in her examples of cyma reversa 1, sixth century, lists only two altars, the altar of the Chians at Delphi and the Peisistratid altar of Apollo in Athens, pls. XXV:12; XXVI:2. In her book Shoe did not include the mouldings of this altar, which was found by Balanos after Shoe had already collected her examples.

[206] *Cf.* more shallow cyma reversa used as a frieze crown on the Parthenon, Shoe (1936) pl. XXVI:16, compared to the more protruding and much smaller cyma reversa used on the mouldings of the sills in the pronaos and opisthodomos, Shoe (1936) pl. XXXVII:1; Mark (1993) fig. 13:3.

[207] Examples of the cyma reversa used as crowning mouldings quoted by Mark (1993) 60, fig. 13:4-5, appear to have originally been at or above eye level. Raubitschek (1949) 3-6, 61-62, 166-68, 211-12, 318-20. Their depth in proportion to their height, as indicated by the cyma reversa used in the Parthenon, is not as great as that found in the cyma reversa used in lower positions.

[208] Mark (1993) 60 n.37 noted this parallel but he made no attempt to ascertain its date, which had been established by the time of his publication, nor did he ask for a copy of the profile, which existed in the Agora files. The date and the profile drawing used here were provided by T.L. Shear, Jr., the director of the excavation at the time the altar was found. The altar was mentioned in the preliminary report published by T.L. Shear, Jr. (1984) 24-28. The altar is pre-Persian in date. It was damaged by the Persians in 479 BC and was repaired by the Athenians after they returned to their city. The profile illustrated here in Fig. 5b belongs to the pre-Persian segment of the altar. The moulding from the top of the altar is no longer preserved.

[209] The inscription, as now preserved, is broken at the bottom; at the top there are dowel holes indicating that originally another block was attached on the top. Its present height is 0.39 m., its width is 0.39 m. and its thickness is 0.091 m. at line 5 and 0.096 m. at line 15; dimensions given in *IG* I^3, where it is dated *c.* 448 BC. For the date of the inscription see also Meiggs (1972) 496-503; Miles (1980) 323 and n. 47 on 323; Mattingly (1987) 68; Mark (1993) 104-7, 115-22, 128-30, 135-7, 140.

passed.[210] Some twenty-five years later a second decree reaffirming the position of the priestess was passed and the new decree, *IG* I^3 36, was carved on the back of the stele bearing the initial decree.[211] We can assume that the original decree was first set up in the precinct of the earlier shrine. At the time the second decree was passed, the earlier shrine was no longer visible but lay hidden below the raised ashlar bastion on which the marble Temple of Athena Nike now stands. In order for it to be available for the inscription of the second decree, the stele obviously had to have been moved from its original position.

The new position of the stele bearing the building inscription appears to have been at right angles to the west face of the double anta forming the northwest corner of the southwest wing of the Propylaia, as suggested years ago by Dinsmoor, Sr.[212] The outline of a stele is reflected in a raised, unfinished marble panel, 0.295 m. in width and 1.202 m. in height still visible on the anta today (PLATE 6c).[213] This raised, unfinished marble panel gives clear evidence that a stele must have been set here before the Propylaia was given its final surface, sometime before 432 when work on the building stopped. The base which held the inscription is now to be seen adjacent to this raised unfinished panel.[214] The suggested position of the building decree facing the site of the marble temple makes it probable that the decree and the new temple to be built on top of the ashlar bastion were references one to the other. Had the decree referred to the naiskos, as Mark would have us believe, it would not have been moved to a new position, once the naiskos was covered and a new temple planned.

Throughout this article the attempt has been made to show that the western approaches to the Akropolis were repeatedly influenced by the construction of new buildings inside the sanctuary. No one can seriously doubt that the Mnesiklean Propylaia was planned and its designs were begun long before the new Parthenon was completed. The close correlation between the construction of the Propylaia and the ashlar masonry of the bastion on which the new marble Temple of the Athena Nike was to stand[215] indicates that the new temple on the bastion was also part of this plan. The long delay in its construction[216] was not a delay caused by changed plans or new ideas, but a delay caused by the necessities of the site which required

[210] Tracy (1984) 281 demonstrated that this decree was cut by the same mason who cut the inscription concerning the statue of Athena Promachos. The same mason carving both inscriptions suggests a date near the middle of the century for the carving of both documents. Mattingly (1961) 169-71 originally redated the decree to a period later than the middle of the fifth century, but after the publication of Tracy's work, Mattingly (1987) 68 accepted the traditional mid fifth-century date as correct.

[211] Mark (1993) 107-8, 116, 119, 135-7, 140.

[212] Dinsmoor, Sr. (1923) 319-21; Giraud (1994) 41, pl. 65. Subsequent to Dinsmoor's identification of this block, it was returned to its original position by Orlandos, according to Giraud.

[213] The lower 0.138 m. section of the panel was finished when the block was first put in place; above this section the unfinished panel has a height of 1.202 m. making a total height of 1.34 m. The width of the panel is wider than the thickness of the stele and it may be supposed that the height of the panel was also higher than the original height of the stele.

[214] The cutting on the top of the stele base has a preserved length of 0.37 (from E–W) and a width of 0.11 m. (from N–S); Dinsmoor (1923) 321. In accordance with fifth century practice, a 0.39 m. wide stele with a tenon on the bottom would rest comfortably in the preserved length of the cutting. The stele thickness of *c.* 0.10 m. would allow space in the wider width of the cutting for the lead which was normally used to hold such stelai in place.

[215] Mark (1993) 79-82; Miles (1980) 323-25; Bundgaard (1957) 177-84.

[216] Mark (1993) 120-21 tried to argue that the wording of *IG* I^3 35 implies that there was neither a temple nor a gate in the shrine at the time the decree was passed, but if this is true for the temple and the gate then it should also be true for the altar and the one thing that is certain is that there was, in fact, an archaic altar in the shrine, as indicated by the inscription *IG* I^3 596. Whether the doors to the shrine and the construction of the temple and its altar were to be part of the same project or were considered two separate projects is also not clear. Since no other well-preserved inscription bearing a building decree of this period has been found in Athens, it seems questionable whether the wording of this single inscription can be used with any degree of confidence to indicate the state of the building site at the time the decree was passed.

an open area at the west through which the many tons of marble were to be carried for the new Parthenon. Afterwards, the available skilled craftsmen were concentrated on the Mnesiklean Propylaia,[217] once again delaying the actual construction of the marble Temple of Athena Nike.[218] The conception of the marble temple reflected in the building decree *IG* I^3 35, however, originated in the middle of the century and its architect, Kallikrates, while waiting for the temple to be built, was available for a variety of projects in the city and on the Akropolis itself.[219]

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BIBLIOGRAPHY

Adler, F., R. Borrmann, W. Dörpfeld, F. Graeber and P. Graef. 1892. *Olympia* vol. II. *Die Baudenkmäler von Olympia* (Berlin 1892)

Amandry, P. 1976. 'Trépieds d'Athènes: I. Dionysies', *BCH* 100 (1976) 15-93

Audiat, J. 1933. *Fouilles de Delphes* vol. II *Le Trésor des Athéniens* (Paris 1933)

Balanos, N. 1937. 'Η νέα ἀναστήλωσις τοῦ ναοῦ τῆς 'Αθηνάς Νίκης, *ArchEph* Γ' (1956) 776-807

Bancroft, S. 1979. *Problems Concerning the Archaic Acropolis at Athens* (Dissertation, Princeton University 1979)

Beulé, C.E. 1862. *L'acropole d'Athens* (Paris 1862)

Beyer, I. and F. Preisshofen. 1977. 'Die Datierung der großen Reliefgiebel des alten Athena-tempels der Akropolis', *AA* (1977) 44-84

Bohn, R. 1882. *Die Propylaeen der Akropolis zu Athen* (Berlin and Stuttgart 1882)

Bundgaard, J.A. 1957. *Mnesicles, A Greek Architect at Work* (Copenhagen 1957)

—1974 a. *The Excavations of the Athenian Acropolis, 1882-1890: the Original Drawings edited from the Papers of Georg Kawerau* (Copenhagen 1974)

—1974 b. 'Le subject de *IG* I^2 24' in *Mélanges helléniques offerts à George Daux* (Paris 1974) 43-49

—1976. *Parthenon and the Mycenaean City on the Heights* (Copenhagen 1976)

Carpenter, J.R. 1970. *The Propylon in Greek and Hellenistic Architecture* (Dissertation, University of Pennsylvania 1970)

Carpenter, R. 1970. *The Architects of the Parthenon* (Harmondsworth 1970)

Childs, W.A.P. 1994. 'The date of the Old Temple of Athena on the Athenian Acropolis', W.D.E. Coulson, O. Palagia, T.L. Shear, Jr., H.A. Shapiro and F.J. Frost (eds.), *The Archaeology of Athens and Attica under the Democracy* (*Oxbow Monograph* 37, Oxford 1994) 1-6

Demangel, P. 1923. *Fouilles de Delphes* vol. IX *La sanctuaire d'Athena Pronaia, Les temples de tuf* (Paris 1923)

Dinsmoor, W.B., Sr. 1923. 'The inscriptions of Athena Nike', *AJA* 27 (1923) 318-21

—1931. *The Archons of Athens in the Hellenistic Age* (Cambridge, Mass. 1931)

—1947. 'The Hekatompedon on the Athenian Acropolis', *AJA* 51 (1947) 109-51

[217] The speed with which the Propylaia was constructed is reflected in Plut. *Per.* 13.7.

[218] The same progression of work first on the Parthenon, next on the Propylaia and finally that of the Athena Nike Temple has occurred in the current restoration programme of the Akropolis. Problems of actual space needed for the work, transportation of equipment and stones, lack of sufficient skilled workmen, and restricted funding are responsible for the modern sequence.

[219] For the career of Kallikrates see I.M. Shear (1963). Meiggs (see n.192 above) convincingly argued that the reasons for the delay in the construction of the Temple of Athena Nike, originally supported by Shear in 1963, needed to be re-examined. Miles (1980) 309-25 reviewed the evidence for the date of the Ilissos temple which had originally been placed in 450-448 and showed that it should be placed in 435-430. Wesenberg (1981) 28-54 also dated the Ilissos Temple to the 430s and he believed that the work on the Ilissos temple and that of Athena Nike were undertaken at the same time. The stylistic details of the Ionic order used on the Ilissos Temple, in my opinion, place the Ilissos Temple in a slightly earlier phase than the more developed style of the Athena Nike Temple. R. Carpenter (1970) 21-68, 83-109, and A. Giuliano (1982) 325-32, attributed additional buildings to Kallikrates. The similarity, elaboration, and delicacy of the mouldings, the unusual use of piers, the treatment of the proportions, and the type of refinements which characterise the buildings initially assigned to Kallikrates are not to be found, in my opinion, in those additional attributions made by Carpenter and Giuliano.

Dinsmoor, W.B., Jr. 1980. *The Propylaia to the Athenian Akropolis* I. *The Predecessors* (Princeton 1980)

Eiteljorg, H., II. 1976. 'New finds concerning the entrance to the Acropolis', *AAA* 8 (1976) 94-5

—1995. *The Entrance to the Athenian Acropolis before Mnesikles* (*AIA* Monographs, n.s. 1 (1993) Boston)

Felsch, R.C.S. and H.J. Kienast. 1975. 'Ein Heiligtum in Phokis', *AAA* 8 (1975) 1-24

—H.J. Kienast and H. Schuler. 1980. 'Apollon und Artemis oder Artemis und Apollon? Bericht von den Grabungen im neu entdeckten Heiligtum bei Kalapodi 1973-1977', with contributions by G. Hübner, K.v. Woyski and H. Becker, *AA* 95 (1980) 38-123

—1987. 'Kalapodi, Bericht über die Grabungen im Heiligtum der Artemis Elaphebolos und des Apollo von Hymapolis 1978-1982', with contributions by K. Braun, M. Jacob-Felsch, G. Hübner, A. Nitsche, M. Slata and P. Ellinger, *AA* (1987) 1-99

Frazer, J.G. 1898. *Pausanias's Description of Greece, Translation and Commentary* (London 1898)

Furtwängler, A., E.R. Fiechter and H. Thiersch. 1906. *Aegina, das Heiligtum der Aphaia* (Munich 1906)

Gabrici, E. 1927. 'Il santuario della Malophoros a Selinunte', *MonAnt* 32 (1927) 6-419

Giraud, D. 1994. *Study for the Restoration of the Temple of Athena Nike* 1 (Athens 1994)

Giuliano, A. 1982. 'Politische Tendenzen und Arbeitseinsatz bei der Errichtung öffentlicher Gebäude in Athen in der 2. Hälfte des 5. Jhs. v. Chri.', in D. Papenfuss and V. Strocka (eds.), *Palast und Hütte* (Mainz am Rhein 1982) 325-32

Heberdey, R. 1919. *Altattische Porosskulptur* (Vienna 1919)

Hellman, M.-C., P. Fraisse and A. Jacques. 1982. *Paris-Rome-Athenès, Le voyage en Grèce des architectes français aux XIXe et XXe siècles*, with contributions from J. Musy, O. Picard, B. Foucart, A. Paccard, C. Garnier and V. Louvet (Paris 1982)

Hill, B.H. 1912. 'The older Parthenon', *AJA* 16 (1912) 535-58

Hopper, R.J. 1978. Rev. of J.A. Bundgaard, *Parthenon and the Mycenaean City on the Heights*, in *JHS* 98 (1978) 200-01

Iakovidis, S.E. 1962. Ἡ μυκηναϊκὴ ἀκρόπολις τῶν Ἀθηνῶν (Athens 1962)

—1983. *Late Helladic Citadels on Mainland Greece* (*Monumenta Graeca et Romana* 4, Leiden 1983)

—1989. Γλῶς Ι· Ἡ ἀνασκαφὴ *1955-1961* (Athens 1989)

Keramopoullos, A.D. 1934-35. Τὸ Πελαργικόν, τὸ Ἀσκληπιεῖον, αἱ ἀνάγουσαι πρὸς τὰ Προπύλαια, *ArchEph* (1936) 85-116

Kavvadias, P. and G. Kawerau. 1907. Ἡ ἀνασκαφὴ τῆς ἀκροπόλεως ἀπὸ τοῦ 1885 μέχρι τοῦ 1890 (Athens 1907)

Koch, H. 1955. *Studien zum Theseustempel in Athen* (Berlin 1955)

Koldewey, R. and O. Puchstein. 1899. *Die griechischen Tempel in Unteritalien und Sizilien* (Berlin 1899)

Korres, M. 1992. *Vom Penteli zum Parthenon* (Munich 1992)

—1994. 'The architecture of the Parthenon', in P. Tournikiotis (ed.), *The Parthenon and its Impact in Modern Times* (Athens 1994) 138-61

—1995. *From Pentelicon to the Parthenon* (Rev. English edition of Korres 1992, Athens 1995)

—1997. 'Die Athena-Tempel auf der Akropolis', in W. Hoepfner (ed.), *Kult und Kultbauten auf der Akropolis, Internationales Symposion von 7. bis 9. Juli 1995 in Berlin* (Berlin 1997) 218-43

—1997. 'Some remarks on the structural relations between the Propylaea and the Northwest Building of the Athenian Akropolis', in W. Hoepfner (ed.), *Kult und Kultbauten auf der Akropolis, Internationales Symposion von 7. bis 9. Juli 1995 in Berlin* (Berlin 1997) 244-45

Mark, I.S. 1993. *The Sanctuary of Athena Nike in Athens, Architectural Stages and Chronology*, *Hesperia* Supplement 26 (*AIA* Monograph, n.s. 2, Princeton 1993)

—1995. 'Levels taken on the Nike Bastion', *Hesperia* 64 (1995) 383-88

Mattingly, H.B. 1961. 'The Athenian coinage decree', *Historia* 10 (1961) 148-88

—1987. 'The Athenian coinage decree and the assertion of empire', in I. Carradice (ed.), *Coinage and Administration in the Athenian and Persian Empires, The Ninth Oxford Sympsium on Coinage and Monetary History* (*BAR International Series* 343, Oxford 1987) 65-71

Meiggs, R. 1972. *The Athenian Empire* (Oxford 1972)

Miles, M. 1980. 'The date of the Temple on the Ilissos River', *Hesperia* 49 (1980) 309-25

—1998. 'The Propylon to the Sanctuary of Demeter Malophoros at Selinous', *AJA* 102 (1998) 35-57

Mountjoy, P.A. 1995. *Mycenaean Athens* (Studies in Mediterranean Archaeology and Literature, Pocket-Book 127, Jonsered 1995)

Müller, K. 1930. *Tiryns* III, *Die Architektur des Burg und des Palastes* (Augsburg 1930)

Mylonas, G.E. 1962. Ἡ ἀκρόπολις τῶν Μυκηνῶν. Μέρος δεύτερον. Οἱ περίβολοι, αἱ πύλαι καὶ αἱ ἄνοδοι, *ArchEph* (1965)

—1966. *Mycenae and the Mycenaen Age* (Princeton 1966)

Orlandos, A.K. 1968. *Les matériaux de construction et la technique architecturale des anciens Grecs* vol. 2 (Paris 1968)

—1976. Ἡ ἀρχιτεκτονικὴ τοῦ Παρθενῶνος (Athens 1976)

Pantelidou, M. 1975. Αἱ προϊστορικαὶ Ἀθῆναι (Athens 1975)

Picard, C. 1929. *L'acropole, l'enceinte—l'entrée—le bastion d'Athéna Niké—les propylées* (Paris 1929)

Plommer, W.H. 1960. 'The archaic Acropolis: some problems', *JHS* 80 (1960) 127-59

Raubitschek, A.E. 1949. *Dedications from the Athenian Akropolis* (Cambridge, Mass. 1949)

Riemann, H. 1950. 'Die Peisistratidische Athenatempel auf der Akropolis zu Athen', *MdI* 3 (1950) 7-39

Rodenwaldt, G. 1957. *The Acropolis*, with photographs by W. Hege (Norman, OK 1957)

Shear, I.M. 1963. 'Kallikrates', *Hesperia* 32 (1963) 375-424

Shear, T.L., Jr. 1984. 'The Athenian Agora: excavations of 1980-1982', *Hesperia* 53 (1984) 1-57

—1994. ''Ισονόμους τ' Αθήνας ἐποιησάτην: The Agora and democracy', in W.D.E. Coulson, O. Palagia, T.L. Shear, Jr., H.A. Shapiro and F.J. Frost (eds.), *The Archaeology of Athens and Attica under the Democracy* (*Oxbow Monographs* 37, Oxford 1994) 225-48

Shelmerdine, C.W. 1997. 'Review of Aegean prehistory VI: the palatial bronze age of the southern and central Greek mainland', *AJA* 101 (1997) 537-85

Shoe, L.T. 1936. *Profiles of Greek Mouldings* (Cambridge, Mass. 1936)

Stevens, G.P. 1936. 'The Periclean entrance court of the Acropolis of Athens', *Hesperia* 5 (1936) 443-520

—1946. 'Architectural studies concerning the Acropolis of Athens', *Hesperia* 15 (1946) 73-106

Stillman, W.J. 1879. *The Acropolis of Athens Illustrated Picturesquely and Architecturally in Photography* (London 1879)

Tanoulas, T. 1987. 'The Propylaea of the Acropolis at Athens since the seventeenth century', *JdI* 102 (1987) 413-83

—1992. 'The pre-Mnesiclean cistern on the Athenian Acropolis', *AM* 107 (1992) 129-60

—1992. 'Structural relations between the Propylaea and the Northwest Building of the Athenian Acropolis', *AM* 107 (1992) 199-215

—1996 a. Rev. of H. Eiteljorg, II, *The Entrance to the Athenian Akropolis before Mnesikles*, in *AJA* 100 (1996) 188-89

—1996 b. 'New information about the Ionic stylobates and the building process of the Propylaia', in E.-L. Schwander (ed.), *Säule und Gebälk. Zu Struktur und Wandlungsprozeß griechisch-römischer Architektur. Bauforschungskolloquium in Berlin vom 16. bis 18. Juni 1994 veranstaltet vom Architekturreferat des DAI* (Mainz am Rhein 1996) 114-23

—1997. Τὰ Προπύλαια τῆς Ἀθηναϊκῆς Ἀκρόπολης κατὰ τὸν Μεσαίωνα (Athens 1997)

Tomlinson, A. 1991. *The Athens of Alma Tadema* (Wolfeboro Falls, NH 1991)

Tomlinson, R.A. 1982. Rev. of W.B. Dinsmoor, Jr., *The Propylaia to the Athenian Akropolis*. I. *The Predecessors* in *JHS* 102 (1982) 280-81

Tracy, S.V. 1984. 'Hands in fifth-century BC inscriptions', in K.J. Rigsby (ed.), *Studies Presented to Sterling Dow on his Eightieth Birthday* (Greek, Roman and Byzantine Monographs, no. 10, Durham 1984) 277-82

Travlos, J.N. 1960. Πολεοδομικὴ ἐξέλιξις τῶν Ἀθηνῶν (Athens 1960)

—1971. *Pictorial Dictionary of Ancient Athens* (New York 1971)

Tschira, A. 1940. 'Die unfertigen Säulentrommeln auf der Akropolis von Athen', *JdI* 55 (1940) 242-61

—1972. 'Untersuchungen im Süden des Parthenon', *JdI* 87 (1972) 158-231

Vanderpool, E. 1974. 'The date of the pre-Persian city-wall of Athens', in D.W. Bradeen and M.F. McGregor (eds.), ΦΟΡΟΣ *Tribute to Benjamin Dean Meritt* (Locust Valley, NY 1974) 156-60

Wace, A.J.B. 1949. *Mycenae, An Archaeological History and Guide* (Princeton 1949)

Weller, C.H. 1903. 'The pre-Periclean propylon of the Acropolis at Athens', *AJA* 7 (1903) 94

—1904. 'The pre-Periclean propylon of the Acropolis at Athens', *AJA* 8 (1904) 35-70

Welter, G. 1939. 'Zum Nikepyrgos', *AA* 54 (1939) 1-9

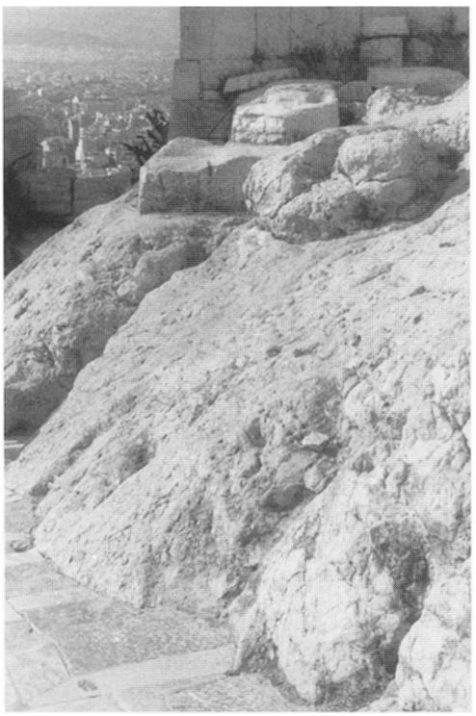
Wesenberg, B. 1981. 'Zur Baugeschichte des Nikетempels', *JdI* 96 (1981) 28-54

Wiegand, T. 1904. *Die archaische Poros-Architecktur der Akropolis zu Athen* (Kassel and Leipzig 1904)

Wright, J.C. 1980. 'Mycenaean palatial terraces', *AM* 95 (1980) 59-86

—1994. 'The Mycenaean entrance system at the west end of the Akropolis of Athens', *Hesperia* 63 (1994) 323-60

Area west of Mnesiklean propylaia facing north



3a (detail pl. 2 from S) Akropolis limestone block 4.80 m. S of Pinakotheke (FIG. 1, 3)

3b (detail pl. 2 from SW) second block of Akropolis limestone 10.95 m. S of Pinakotheke (FIG. 1, 5)

3c (detail pl. 2, from NW) two pieces of Akropolis limestone wedged into crevice on W side of bedrock ridge above modern path (FIG. 1, 6); wall found by Stevens visible at upper left (FIG. 1, 4)

4a S end of West Cyclopean Wall (FIG. 1, 14) from W

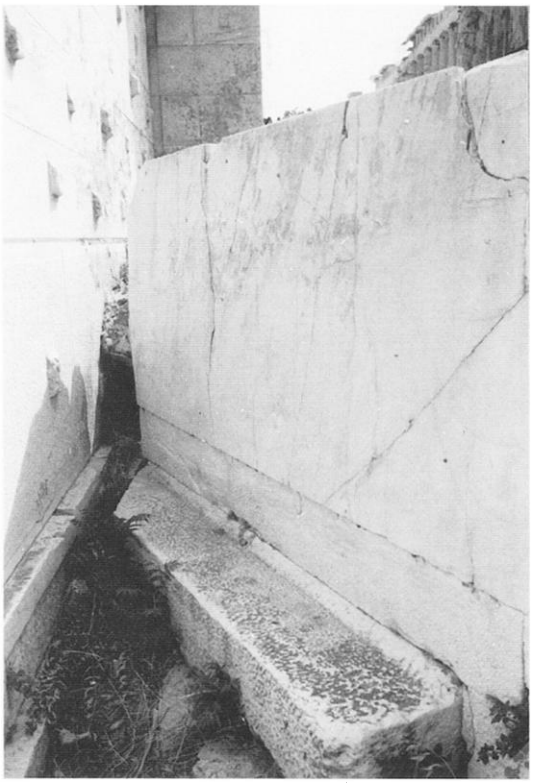
4b N wall of archaic ramp leading to the Akropolis (FIG. 1, 17); classical niche in W face of Athena Nike bastion in upper right

5a Metope slabs and tripod base against W side of West Cyclopean Wall, with relocated bench slab and modern pavement over remains of original bench and steps (FIG. 1, 13)

5b West Cyclopean Wall SE of SW wing of Mnesiklean Propylaia with NE corner of SW wing along left side

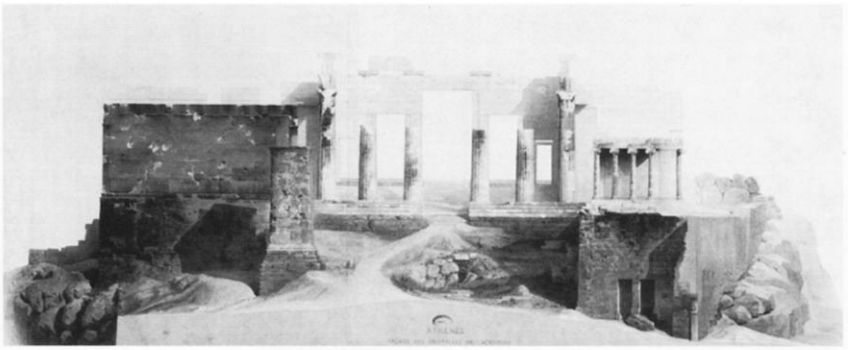
5c Cyclopean blocks wedged into natural crevice of bedrock just N of modern path leading to Akropolis, from SW (FIG. 1, 19)

6a SW corner of Old Propylon with West Cyclopean Wall, metope slabs and tripod base on right, exterior S wall of Mnesiklean Propylaia on left (FIG. 1, 13)

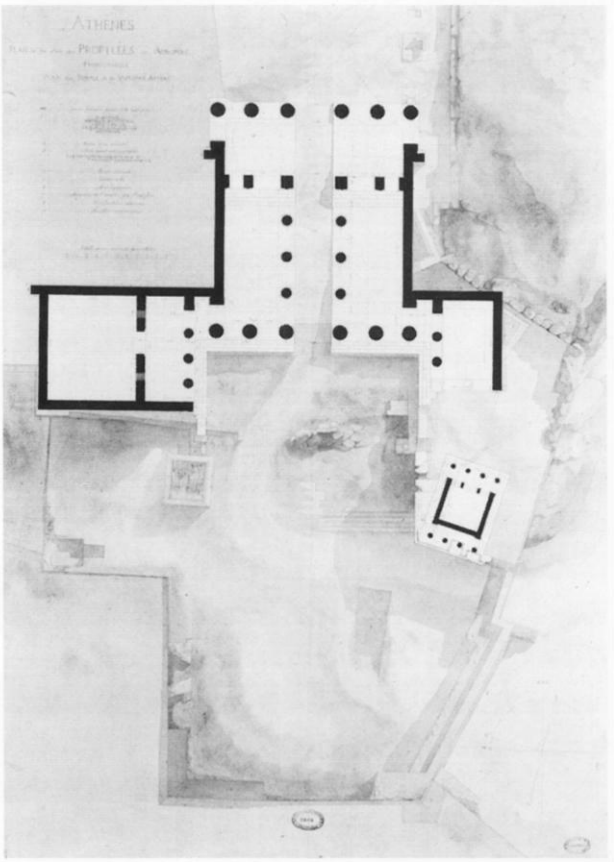


6b orthostate blocks of S interior wall of Old Propylon; exterior S wall of Mnesiklean Propylaia on left (FIG. 1, 12); partially-preserved bench in front of wall represents a post-Persian repair.

6c stele base for *IG* 13 35, identified by Dinsmoor, Sr., adjacent to W face of double anta at NW corner of SW wing of Mnesiklean Propylaia

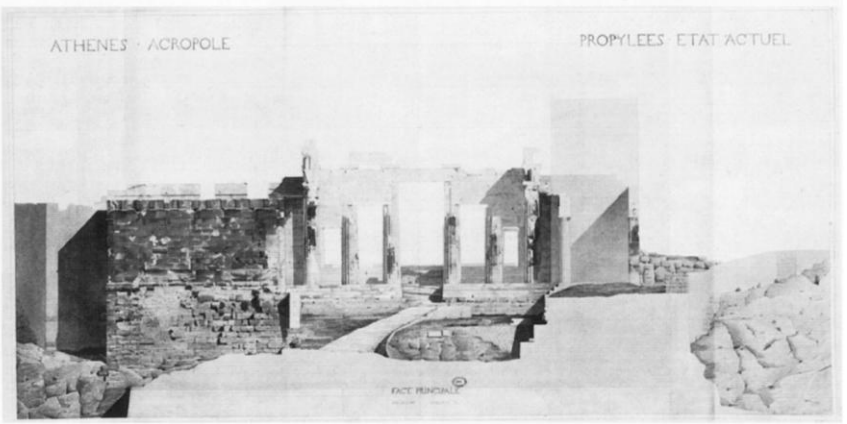


7a W elevation of Mnesiklean Propylaia (Philippe Titeux and Louis Claudet, 1846)



7b ground plan of Mnesiklean Propylaia (Philippe Titeux and Louis Claudet, 1846)

PHOTOGRAPHS BY COURTESY OF THE ÉCOLE NATIONALE SUPÉRIEURE DES BEAUX-ARTS, PARIS



7c W elevation of Mnesiklean Propylaia (Prosper Desbuissen)