

THE CYCLOPEAN WALL ON THE ISTHMUS OF CORINTH AND ITS BEARING ON LATE BRONZE AGE CHRONOLOGY

(PLATES 80-84)

THE end of the Mycenaean age, long a neglected chapter in the early history of Greece, has of late occupied the attention of many scholars whose studies have led to widely differing results. The differences do not derive from lack of available data; rather there is too much evidence, both literary and archaeological, of contradictory nature. Knowledge of actual events, kept alive by folk memory and distorted in the poetical lore of later times, became recorded as facts of history by writers removed by several centuries from the periods about which they wrote. Until recent years the early history of the Corinthian Isthmus was known mainly from such sources. On the assumption that the myths have a basis in fact, it is essential that our interpretations be anchored to material remains; for what happened in this strategic area forms an important chapter in the controversy concerning the chronology of events during the last decades of the Mycenaean era.

The first systematic study of prehistoric antiquities in the Corinthia was made by Professor Carl W. Blegen,¹ to whom this issue of *Hesperia* is dedicated. I count it an honor to present to him this contribution on a vital question which he has done so much to elucidate.

In the autumn of 1957 the University of Chicago expedition, then excavating the Isthmian Sanctuary of Poseidon, undertook an investigation of the terrain south of this site in an effort to find traces of the wall built in great haste in 480 B.C. to stem the advance of the Persians into the Peloponnesos.² No one had expected to find a fortification wall at this point going back to prehistoric times. The only trans-Isthmian wall known from actual remains before our excavations began was the wall of Justinian. On a stroll through the village of Isthmia we first became aware of two parallel rows of uncut stones³ visible above ground; these we thought to be part of the fifth-century fortification described by Herodotos. When we began digging into the fill between the two faces of the wall, we were surprised to find Mycenaean pottery in significant quantities. This and the absence of later pottery in direct contact with the wall led to the conviction that the construction could not be as late as the Persian Wars. Spurred on by this discovery we began a systematic search for the

¹ *A.J.A.*, XXIV, 1920, pp. 1-13, and *Korakou*, 1921.

² Herodotos, VIII, 71.

³ The two faces of the wall have always been visible above ground; their existence was first called to my attention by Jon W. Broneer in 1957.

continuation of the wall toward the east and west. In the spring of 1958 we excavated an important section near the shore, and at the end of that campaign we were able to trace the line of the wall westward from the Saronic Gulf to the great gully above the Later Stadium, a distance of about two kilometers (Fig. 1). The results were promptly published in preliminary articles,⁴ but a complete description of our findings was postponed pending discovery of the continuation of the wall. Further search proved unsuccessful, but our efforts were rewarded by the discovery of another trans-Isthmian wall which later study showed to have been built in the third century B.C.⁵

Since no detailed description of the Cyclopean wall has been published and some doubt has recently been raised about the relation of the Mycenaean pottery to the wall,⁶ it is desirable to present all the essential details of our findings. We begin with the easternmost stretch, *Sk* (Fig. 1, *Sk*; Pl. 80, a, b), located some hundred meters from the shore of the Saronic Gulf.⁷ Here the north face, preserved for a length of 17 m., is built of uncut stones, some of rather large size. In the northwest corner of our trench some smaller stones lay in disorder north of the wall; these are probably part of the interior fill raked out when the large blocks of the outer face were removed. The inner, south face is less well preserved, and the stones are smaller. The total width of the wall varies between 3.75 and 4.00 m.

From the surface soil came a mixed lot of pottery, mostly Roman, a few classical Greek, and 14 Mycenaean fragments, including kylix stems and sherds with glaze applied in horizontal lines. We cleared the two faces of the wall and dug two cross trenches, one 0.60 m. wide near the west end of the area and a larger trench 2.00 m. wide farther east. The latter showed evidence of building activities of Late Roman times, which had caused contamination of the fill, and at the south end of this trench there was a poorly preserved human skeleton. The pottery from the top layer was mostly Roman and nondescript coarse ware, but among these were five Mycenaean fragments. The lower stratum contained a larger percentage of Mycenaean sherds, some 30 in all, more than half of which preserve traces of painted decoration. The smaller trench, which reached a depth of 0.65 m., contained some small stones from the original rubble fill of the interior. From the fill of this trench, which seemed to be largely undisturbed, came many fragments of Mycenaean pottery, some with painted

⁴ *Antiquity*, XXXII, 1958, pp. 80-83; *Atti del Sett. Congr. Intern. di Arch. Class.*, 1961, I, pp. 243-249; *Hesperia*, XXVIII, 1959, p. 334.

⁵ James R. Wiseman, *Hesperia*, XXXII, 1963, pp. 248-275.

⁶ George E. Mylonas, *Hesperia*, XXXIII, 1964, pp. 372-373.

⁷ This section is located in the great orchard formerly owned by Konstantinos Skepheris and now the property of officials and employees of the National Bank of Greece. Permission to excavate was granted by the Superintendent of the Skepheris estate, Mr. Ioannides. The excavation in section *Sk* was supervised by the then epimelite E. P. Protonotariou (now Ephor of Antiquities, Mrs. Charalambos Deilaki), whose meticulously kept notes and drawings, together with the sherds, form the basis of my description of this area.

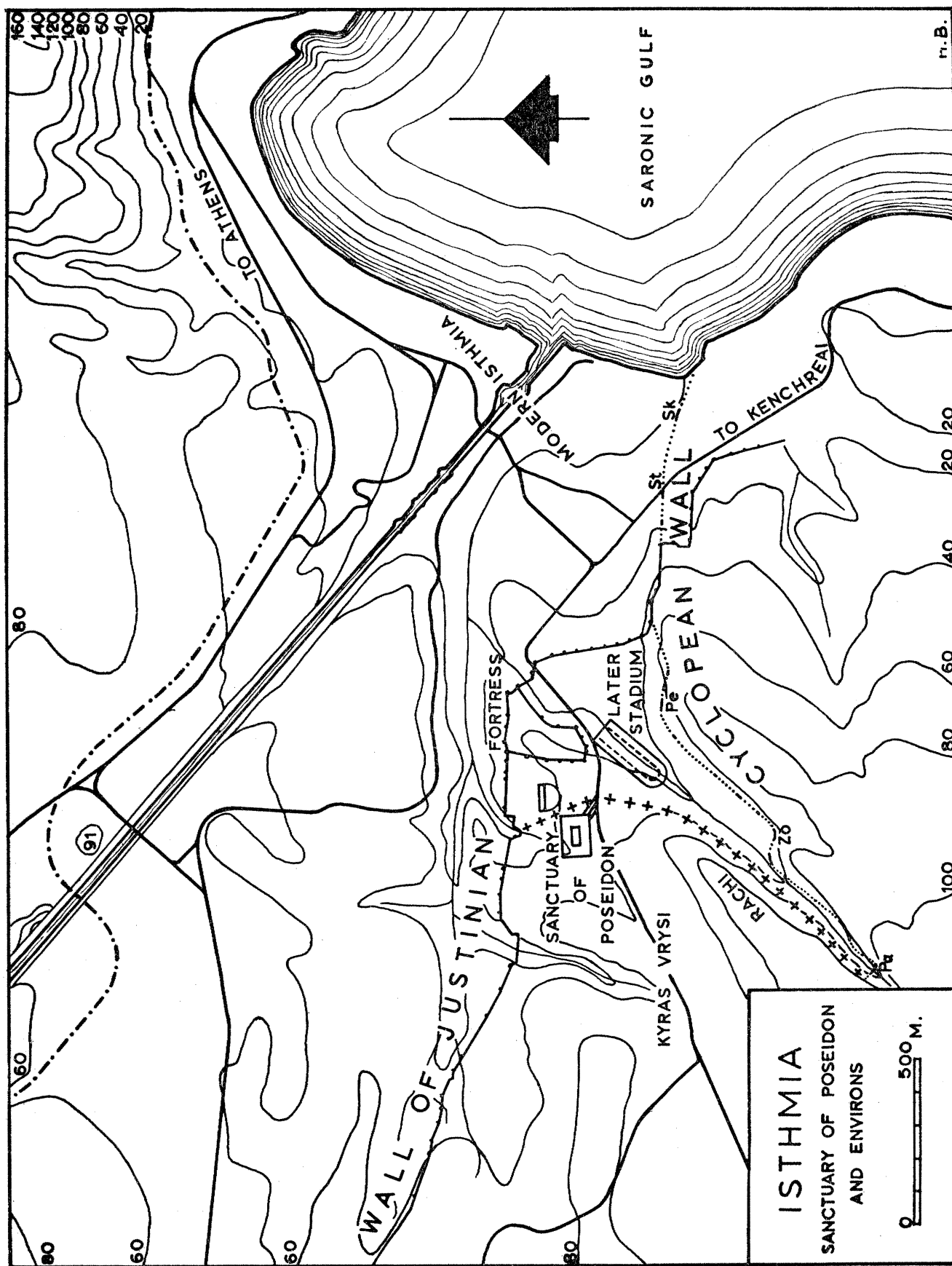


FIG. 1. Isthmia and Environs.

decoration. At the very west end of the excavated area we came upon the lower part of a pithos (visible to left of center in Pl. 80, b) of coarse heavy fabric, with a preserved diameter of 0.82 m. It contained fragments from the upper part of the same jar, some ash and carbonized matter, and at least four Mycenaean sherds, including the spout of an open vessel (Pl. 83, b). A trench dug along the north face produced a small, mixed lot of sherds, mostly unglazed pottery of later date, but also three kylix fragments and several other Mycenaean pieces.

The next section, *St* (Fig. 2, 5), the first to be excavated, is close to the road leading from Isthmia to Kenchreai, on property belonging to Athanasios P. Statiris.⁸ The two faces of the wall were here exposed for a total distance of 25 m.; but the south face is well preserved only in the western part. The construction is like that of section *Sk*, the two faces being built of large, uncut stones with smaller stones filling the interstices.

A trench along the south face produced some fragments of nondescript coarse pottery and a few sherds of archaic Corinthian. About half of the datable sherds from there are Mycenaean, including the fragmentary stirrup vase in Plate 84, a. In the northeast corner, close to the modern road, some of the interior fill of small stones was exposed, and here too some Mycenaean sherds came to light. Farther west there is a setback in the north face of the wall, but some of the blocks shown in the plan seem not to be in their original position. The width from face to face in the eastern section was *ca.* 5.75 m.; west of the setback it is 4.50 m. Much of the pottery came from three cross trenches in the western part, where Mycenaean sherds were found wedged in among the stones of the south face. It may be instructive here to quote verbatim from the entry on October 2, 1957, in W. P. Donovan's field book: "We found in a small cross trench between the two faces of the wall (S-2) a small Mycenaean vase (IP 1947, Pl. 84, a, lower left) and a stone grinder"; and later the same day: "The gap at R:24 between the large stones was filled by two small stones, one resting upon the other in front, and behind these stones the Mycenaean sherds were found." The next day he wrote: "This wall is clearly Mycenaean; Mycenaean sherds were recovered from between the stones in the southwest sector and from the trench (S-4) along the base of the wall in the northeast." These observations express our understandable surprise at finding evidence for such an early date of the wall.

Section *Ro* (Fig. 2, 4), on the property of Panagiota Roussi, *ca.* 120 m. to the west of *St*, is only 8.40 m. long, but this retains the interesting feature of a tower

⁸ In 1957 the owner courteously granted us permission to dig among the trees in his olive grove. It had been my intention to dig further into the interior fill of the wall in the spring of 1966, but the owner and his son, although they made no objection to our digging, were unwilling to comply with the new, more stringent government regulations requiring purchase of the property or written agreement. I regret greatly that this deadlock made it impossible to carry out this minor excavation.

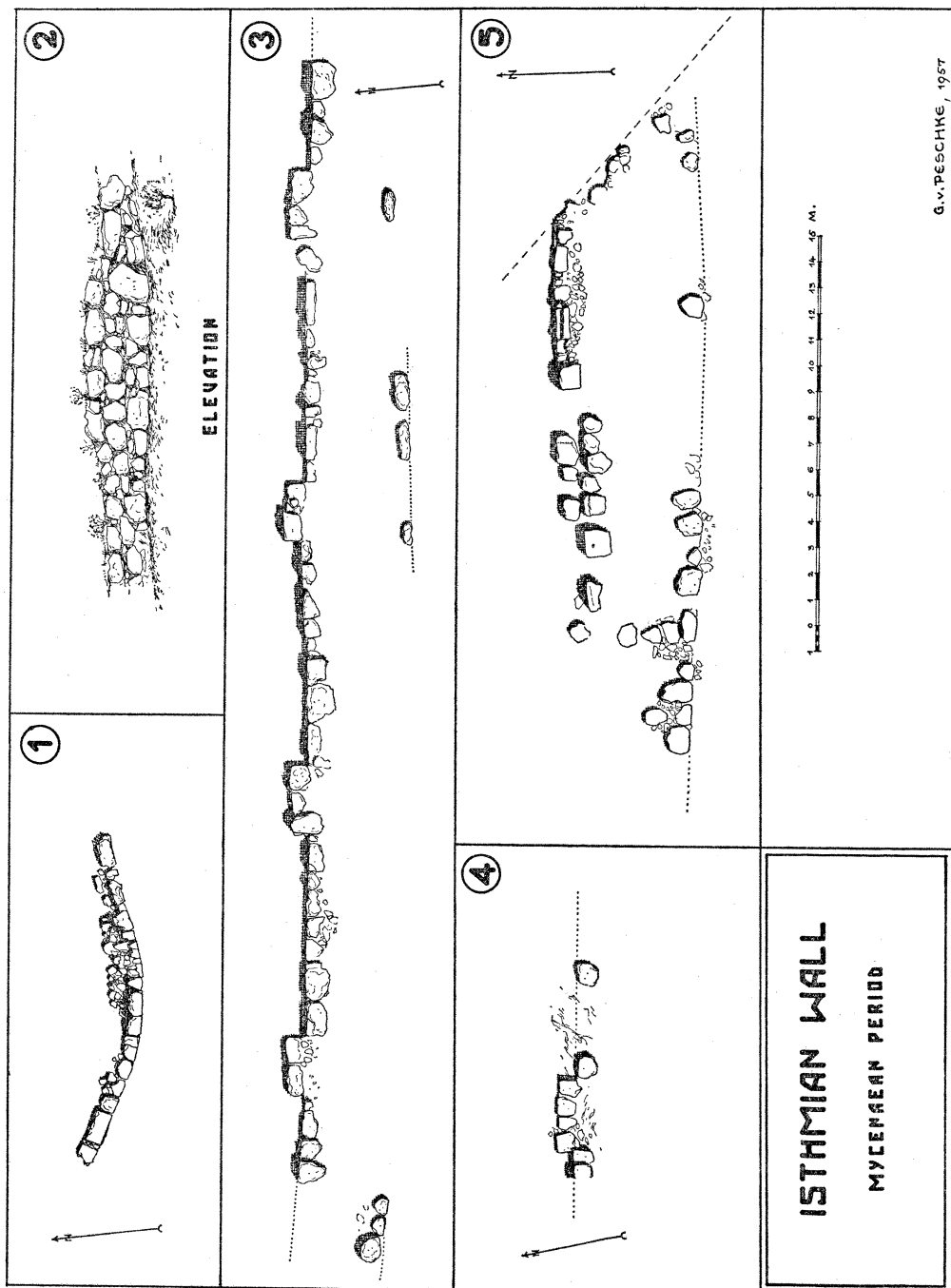


FIG. 2. Plans and Elevation of Cyclopean Wall: 1. *Zo*, 2. *Sp*, 3. *Pe*, 4. *Ro*, 5. *St*.

like projection, 2.80 m. wide and jutting out 0.63 m. from the face. This miniature tower, the stones of which project into the interior, is the first of several found in the wall. The setback on the north face of section *St* may have been made to serve the same purpose as these small towers. The few pottery sherds found in contact with section *Ro* were undatable.

For the next 360 m. west of *Ro* the wall probably followed the same line as the fortification of Justinian, which contains stones very similar to those used in the earlier wall. On the gentle, northeast slope of the hill, where Justinian's wall turns an almost right angle toward the north, the earlier fortification continues westward halfway up the slope. Largely hidden among the pine trees in the property of N. Phytobanis is a section, 11.70 m. long, which has a tower, 2.56 m. wide and projecting *ca.* 0.60 m. One continuous stretch, *Pe* (Fig. 2, 3; Pl. 81), in the property of Sotiris Peras, measures 45.50 m. in length. Only the outer, northern face is well preserved, in places to a height of two courses, but a few stones from the inner face show that the wall here had a thickness of 3.60-4.00 m. The stones are large, some measuring 1.50-1.75 m. in length and 0.75 m. in height. There are four towers, varying in width between 2.10 and 2.60 and projecting *ca.* 0.70 m. from the face of the wall. The distance from one tower to the next varies between 7.90 and 9.50 m. There was very little earth close to the wall, and the sherds found on the surface are mostly small pieces of undatable coarse fabrics. Two undecorated pieces might be Mycenaean.

As we proceed westward the wall descends to the lower slope but still keeps well above the floor of the valley. Several small stretches from the outer face, one 13 m. long, may be seen among the trees. The best preserved sections,⁹ *Sp* (Fig. 2, 2; Pl. 82, a), some 300 m. southeast of *Pe* in the property of George Spanos, is 22 m. long and preserved to a height of nearly 2.50 m. at its highest point. This is the most typically Cyclopean stretch, built of huge blocks—one measures nearly two meters in length and 0.80 m. in height—laid in three irregular courses with small stones and clay filling the interstices. A trench dug along the face of the wall contained mostly coarse, undatable sherds and two Mycenaean fragments (Pl. 84, b, upper right corner). Behind the wall we dug a cross trench, hoping to find the inner face. The fill, consisting of soft clay which extended to a depth of 2.50 m. close to the wall and 1.50 m. at the upper end of the trench, contained a few pieces of coarse pottery, including some Late Roman combed ware. Near the bottom of the trench we found two small fragments of Hellenistic roof tiles, but no stones or cuttings in stereo from the southeast, inner face. The tile fragments and late potsherds from this trench could have washed down from above, if (as seems likely) the smaller stones from the inner

⁹ This part of the wall was first observed in 1954 by Chrysoula Kardara, who was then excavating on the Rachi on the opposite side of the gully. We were then under the impression that it was part of a retaining wall for a road. See *Hesperia*, XXIV, 1955, p. 124.

face and from the interior fill had been removed at some late period. In any case there is but slight ceramic evidence for the date of this section.

There are shorter stretches of the wall, one 13.50 m. long, visible beyond this point, but we cleared only enough to reveal the face of some of the stones, which are very large. On the west side of a streambed, in property of Pan. Zographos, we exposed the curving inner face of the wall (Figs. 1, *Zo*, and 2, 1) for a length of 13.00 m. As in other places where the inner face is preserved, the stones are smaller; otherwise the construction is similar. But here some of the stones have been dressed, and at the west end two rectangular blocks, finished on all sides, lie in their original position (Pl. 82, b). The largest measures 1.25 m. in length, 0.60 m. in width, and 0.30 m. in height. The two blocks do not fit closely together, but some small stones are wedged in between them.¹⁰ The terrain here slopes gently down along a small streambed, which runs almost straight north, and there may have been a road with a gate through the wall at this point. This could be the reason for the use of squared blocks.

Beyond the point where it crosses the small streambed the wall continues south-westward nearly a half kilometer along the slope of the larger gully above the Later Stadium. The outer face appears in several places, and one such stretch, on a property of Ioannis Vlassis, is 30 m. long. A little below the head of the gully the wall turned at right angles toward the northwest across the stream (Fig. 1, *Pa*). On the right bank a short stretch of 2.50 m. is preserved in two courses; and on the opposite side, in a field belonging to George Papatheodorou, the outer face has been exposed for a length of 10 m. (Pl. 83, a). The existing two courses of stones terminate against a ledge of rock, and a little beyond this place the ground has been disturbed by a military trench from World War II. This is the farthest point from the Saronic Gulf that we can trace the wall with certainty; from there it may have ascended the steep slope and continued across the flat tableland toward the Corinthian Gulf, or it may have turned back on the left bank of the gully in the direction of the Sanctuary. In view of the obvious desire on the part of the builders to construct the wall on rising ground, the latter course seems the more likely.

On the slope below the Rachi there is an almost continuous but irregular terrace wall serving as support of the fields on the upper slope. Among the smaller stones are large blocks of the type encountered elsewhere in the Cyclopean wall. It is very probable that the terracing follows the line of the ancient wall, but the area has been so much altered since ancient times through erosion and cultivation of the fields that the course of the wall, however probable, is not certain. A small Mycenaean settlement on the western part of the Rachi, where the plow from time to time exposes some

¹⁰ The way in which the small stones fit into a somewhat wedge-shaped joint between the two blocks is reminiscent of the method employed in the threshold of the Treasury of Atreus. See Alan J. B. Wace, *Mycenae*, 1949, p. 120, figs. 10, 43a and b.

LH III B pottery, would have been on the Peloponnesian side if the wall followed the line suggested here (on the map in Figure 1 the probable course of the wall has been indicated by a line of crossed dashes). Below the east end of the Rachi the wall probably continued northeastward above the Later Stadium. Several trenches dug here in the spring of 1960 revealed some stretches of a wall of large uncut stones, but the area seemed much disturbed, and the pottery found among the stones was mostly Roman and later. Probably the wall turned northward here as far as the deep gully north of the Sanctuary of Poseidon, then followed approximately the same line as the wall of Justinian. If such was its course, the area which became the Isthmian Sanctuary would have been on the Peloponnesian side. That may be of little significance in view of the fact that the site had not at that time become a sanctuary. That it was not wholly unoccupied, however, is shown by a sprinkling of Mycenaean pottery in the area surrounding the Temple. Such sherds have appeared at all levels and in different parts of the excavation but nowhere in a Late Helladic stratum.

If the wall followed the line suggested above, it would have formed a loop, which would have increased its length considerably. This longer course may have been dictated by the effort to take advantage of the sloping ground; the cul-de-sac up the gully, easily defended from the steep banks on either side, probably had sufficient strategic value to compensate for the added labor of construction. But speculation about the merits or defects of such a feature remains academic unless traces of the wall itself are discovered beyond the point where it crossed the gully.

To determine the date we are dependent on two factors, the construction of the wall itself and the pottery found in contact with it. The sherds from our trenches are admittedly few; no one would expect to find an abundance of pottery in the fill of a fortification wall so far removed from a settlement.¹¹ Only the two areas *Sk* and *St* in the plain produced enough pottery to be chronologically important. In both places some classical and some very late sherds were found in the shallow earth above and alongside the two faces of the wall. Two small areas of the interior in which the fill seems to have remained undisturbed yielded only Mycenaean and some nondescript sherds.

Among the pottery from our trenches some seventy fragments can be recognized as Mycenaean, and this number could probably be increased by further digging. It is no easy matter, however, to date or even to classify much of this pottery. Those sherds—a very large percentage—which show neither shape nor characteristic decoration, though clearly LH III, can be used only as corroborative material. Still there are enough fragments of typical vases to convey a relatively clear message of chronology. Two of the larger pieces merit individual description. IP 1946 (Pl. 84, a, right) is a globular stirrup vase,¹² found in the trench close to the south, inner face

¹¹ Even at Mycenae, where the walls are not far removed from the houses, the excavators comment on the paucity of usable sherds from the wall. See George E. Mylonas, *op. cit.*, p. 373.

¹² The shape is common among LH III B and III C:1 stirrup jars. See Arne Furumark,

of the wall in section *St*. The spout and the base are missing. The preserved height is 0.119 m.; the diameter 0.104 m. It is made of good, reddish clay, and the glaze is dark brown shifting to red on one side. The stem with its top disc was made as a separate piece and attached to the top, the lower end filling the circular hole which resulted from the closing of the walls.¹³ The top of the slightly convex disc is decorated with concentric circles. On the shoulders are stylized floral designs, two on either side,¹⁴ and on the body are horizontal stripes of solid glaze alternating with broader bands, either plain or filled with fine parallel lines. IP 1947 (Pl. 84, a, lower left) is a small pitcher,¹⁵ complete except for the mouth and most of the handle. This was found in a cross trench through the rubble fill in the interior of the wall. The preserved height is 0.067 m., the greatest diameter 0.076 m. The handle extended from the shoulder to the lip. The clay is of a reddish color, the glaze light brown. There is a broad stripe of glaze at the base of the neck and two similar bands separated with finer lines on the body.

These two vases belong to a late phase of LH III B or to early LH III C, the choice between the two being largely arbitrary.¹⁶ Of the smaller Mycenaean fragments showing decoration in some form (Pls. 83, b, 84, b), 28 are probably to be classed in the same general category, but most of them are too small for accurate classification. There are 14 recognizable fragments of undecorated kylixes, a common

The Mycenaean Pottery, p. 31, fig. 6, Nos. 173 (Perked-up form, III B) and 176 (III C:1e). Our vase seems to me to correspond most closely to the former. Many of the stirrup jars from the Argive Heraion have almost identical shape with our IP 1946, see Carl W. Blegen, *Prosymna*, II, figs. 124, No. 267, 132, No. 352, 140, No. 146, etc., all dated in LH III B times. If there is any difference in date between these and the vases listed by Furumark as III C, it must be very slight. The division between III B and III C in this class of vases seems to me largely a matter of opinion.

¹³ For a description of this feature see Broneer, *Hesperia*, VIII, 1939, pp. 391-392.

¹⁴ This is one of the most common patterns on small LH III stirrup jars, and it varies but slightly on III A:2, III B, and III C:1 vases. The closest parallel in Furumark's *Mycenaean Pottery*, p. 293, fig. 45, is No. 151, which is classed as III C:1, but the difference between 151 and 120, classed III B, is an additional row of dots. No. 119, also grouped with III B, is exactly like ours except for the omission of the curved stem. On the basis of Furumark's description of this ubiquitous design, pp. 292-294, I find it impossible to distinguish between III B and III C:1. Cf. the designs shown by Carl W. Blegen, *Prosymna*, p. 452, figs. 721, 722, 723, 726. None of these is exactly similar to that on the vase from Isthmia.

¹⁵ For the general shape and decoration cf. Frank H. Stubbings, *Mycenaean Pottery from the Levant*, pl. XVII, 5, and Carl W. Blegen, *Prosymna*, p. 436, fig. 697, No. 48, which is less squat than ours. Cf. also A. J. B. Wace, *Chamber Tombs at Mycenae*, pl. LI, No. 19, which also has rather similar decoration. Most vases of this kind are less squat than ours. A recently published tomb from the Argive Heraion contained a pitcher ('Αρχ. Έφ., 1964, p. 131, pl. 4, 33) of much the same shape and with somewhat similar linear decoration. The excavator, Evangelia Protonotariou Deilaki, dates the earliest of the vases in LH II and the latest in LH III C times, and she comments on the absence of pottery of the Close Style and the Granary Style.

¹⁶ On the difficulty of identifying the pottery of this period with accuracy, I think most scholars feel inclined to chime in with Mylonas' impatient remarks, *op. cit.*, p. 373, "When we say Mycenaean III B pottery, what exactly do we mean?"

form of vase at the end of LH III B and continuing in use in the early period of III C.¹⁷ Besides these there are 17 unglazed fragments of other or uncertain shapes. Seven fragments of open vases covered with glaze, both in the interior and on the outside, are very small, and nearly all are from the rim. Some of these are probably from skyphoi (deep bowls). It is not always possible to tell whether the glaze on the outside is part of a broad band or over-all glaze. Vases of this kind, too, bridge the transition from LH III B to C. Open vases completely covered with glaze on both sides were doubtless more common in III C; but small bowls and cups of this kind occur frequently at other sites with LH III B pottery. On the matter of absolute chronology opinions of specialists differ. Professor Furumark, whose classification has become standard, puts the earliest appearance of III C at about 1230 B.C.;¹⁸ others would bring it down as much as half a century below his date.¹⁹ Many prominent scholars now put the transition at about 1200 B.C.²⁰ Whatever is the correct absolute date, the pottery from the wall, so far as I can judge, is very similar to that found at many of the sites showing sudden destruction or abandonment toward the end of the Bronze Age.

The wall construction is analogous to that in the Mycenaean citadels. The use of large stones laid in a semblance of horizontal courses, with small stones and clay used as fillers, is typically Cyclopean. The small tower-like projections from the outer face constitute a new feature, but they are comparable to the setbacks typical of Mycenaean architecture. Thus both pottery and construction seem to fit the period of transition from LH III B to LH III C. Wherever possible the wall was built on a slope so as to force the attackers to approach it over rising ground. Since the miniature towers are all on the north side and since the north face, being on the downward slope, was higher and built with larger stones, it is clear that the wall was designed to ward off attacks from the north. It is true that its line can be traced for only two kilometers from the sea, but there can be no doubt that it crossed—or was intended to cross—the Isthmus. The fact that no certain traces have been found west of the great gully need not imply that the wall did not continue farther west. In spite of several earlier explorations of the terrain, neither the Cyclopean wall nor the classical fortification published by James Wiseman (see above, note 5) had previously

¹⁷ Furumark, *op. cit.*, p. 63; Mogens B. Mackeprang, *A.J.A.*, XLII, 1938, p. 545; V. R. d'A. Desborough, *The Last Mycenaeans and their Successors*, 1964, p. 10.

¹⁸ *The Chronology of Mycenaean Pottery*, p. 115.

¹⁹ See Frank H. Stubbings, *Chronology of the Aegean Bronze Age in C.A.H.* (Revised Ed.), I, Ch. VI, 1962, p. 75.

²⁰ See George Mylonas, *op. cit.*, p. 366, who, however, prefers a date about 1190; Mackeprang, *op. cit.*, p. 559. Emily Townsend Vermeule, *Archaeology*, XIII, 1960, p. 69, "suggests that III B endured at some sites until 1220 at least," but admits an earlier date at other sites. Desborough, *op. cit.*, p. 240, after considering the evidence from all the Mediterranean lands, concludes that "a date of c. 1200 for the end of LH. III B and the transition to LH. III C is perfectly admissible."

been known to exist. This should serve as warning against drawing conclusions from the absence of visible material remains. The possibility cannot be excluded, however, that the wall was left unfinished,²¹ but that would not affect the date or the purpose for which it was constructed.

The wall cannot have been intended to enclose a city or settlement of some kind rather than to cross the Isthmus, for no settlement extensive enough for such fortification has been found in the vicinity south of the wall. Furthermore, if it had been meant to turn back toward the Saronic Gulf, making a circuit, its length would have been some four to five kilometers, not counting the shore line, which would also have been in need of protection. Such a wall would have exceeded in length all the known Mycenaean fortifications of this period. The wall surrounding the Mycenaean acropolis measures only about 900 m. in length, those of Athens and Tiryns about 700 m.; and the longest known Cyclopean wall, at Gla in Boeotia, is not more than three kilometers long. We cannot imagine a wall on the Isthmus enclosing such an immense area with no settlement to protect.²² When all these facts are taken into consideration we are left with the only reasonable conclusion, that what we have is an early fortification across the Corinthian Isthmus, intended to protect the cities and towns toward the south from some expected invasion from the north.

It could be argued that the wall is later than the latest vases found in contact with it and should thus be dated toward the end rather than in the early part of the twelfth century. However, a distinguishing feature of LH III C pottery is the formation of local styles,²³ indicating a strong centrifugal tendency and lack of communication in the Mycenaean world. A fortification designed to protect a large section of the country rather than a single city presupposes co-ordination and some form of

²¹ This suggestion was made by Sp. Marinatos in his introduction to Sp. E. Iakovides' great work, *Ἡ Μυκαναϊκὴ Ἀκρόπολις τῶν Ἀθηνῶν*, p. 16.

²² Emily Vermeule (*Greece in the Bronze Age*, p. 264) offers a startling explanation for "the wall at the Isthmos of Corinth which," she says, "runs north-south behind the eastern harbor, apparently defending farmland from sea raiders." As seen in our Figure 1, the Cyclopean wall runs more nearly east-west, and to reach the eastern harbor (Kenchreai), more than four kilometers to the south, such a wall would have had a length of at least five kilometers, a rather massive undertaking for the protection of a few farms. A somewhat similar view is expressed by R. Hope-Simpson in his recent work, *A Gazetteer and Atlas of Mycenaean Sites*, 1965, p. 32, No. 63. Because he was unable on his visit to the site in 1959 to find traces of the crossing, he suggests that the wall instead of crossing the gully continued westward in the direction of Perdikaria and Examilia, its purpose being to "link the settlements which lie on the plateau to the south of the plain of Corinth." But apart from the fact that the wall quite clearly turns northward after crossing the great gully, it is difficult to see what such an immense enclosure would have been designed to protect, in view of the fact that nearly all the important sites of the Corinthia lie north of the line that the wall would have followed and thus outside the protected area. Hope-Simpson too echoes the conjecture that the wall may have been left unfinished.

²³ On the diversity of local styles in LH III C see Desborough, *op. cit.*, pp. 9-28; Furumark, *The Mycenaean Pottery*, pp. 570-575.

central authority, which is not likely to have existed in the LH III C era of industrial and political localism. The known Mycenaean settlements in the Corinthia are too small to have been capable of such an undertaking, and we are justified in concluding that the wall was erected by concerted efforts of the kings and chieftains in the thickly populated Argolid. This need not imply lack of faith in the protection of the more imposing fortresses with which they surrounded their cities. It is rather to be looked upon as a first line of defence, which—if effective—would keep the invading hordes from laying waste the countryside with its undefended towns and villages and give the home guards time to mobilize for an all-out assault. The co-operative action implied in such an undertaking was one of the lessons which the Greeks had learned from the Trojan War;²⁴ their many humbling experiences before breaching the walls of Troy had demonstrated the danger of dissent among the leaders and the importance of acting in unison.

These deductions are in agreement with recorded events at the end of the Mycenaean era, when the population of Greece underwent radical changes through the influx of new tribes and the decimation and displacement of the Achaeans inhabitants. These movements, known in mythology as the Return of the Herakleidai and in history as the Dorian Invasion, are not to be thought of as a concerted attack upon the cities of Greece, but as a series of raids which lasted for a century and culminated in a permanent occupation of large areas of the mainland and the Aegean islands. The only approach by land from the north was through the Isthmus of Corinth, and more than one attempt was made by that route.²⁵ Herodotos relates the story of an early assault in which a duel was fought by the two chieftains Hyllos, son of Herakles, and Echemos, leader of the Achaeans, when the army of the invaders confronted the defenders at the Isthmus.²⁶ This story implies that there had been at least one earlier attempt to invade the Peloponnesos a long time (Herodotos says a hundred years) before the final occupation by the invaders. The Isthmian wall lends material substance to this story. But it cannot have been constructed to ward off the unsuccessful attack under Hyllos which would have been made as early as the Trojan War or soon thereafter. This early setback would have served as a warning, whether or not the threat to return was part of the peace settlement, as tradition indicates. The fact that the first encounter took place at the Isthmus may have given the united Achaeans reason to erect the wall there as a bulwark against a new assault. The invaders, however, did not make the same mistake twice; when they returned, they crossed the Corinthian Gulf by ship at two places, avoiding a head-on battle at the Isthmus. Thucydides' account of a landing by the Dorians in the Corinthia from the Saronic

²⁴ Cf. Thucydides I, 3, 1: *Πρὸ γὰρ τῶν Τρωϊκῶν, οὐδὲν φαίνεται πρότερον κοινῇ ἐργασαμένη ἡ Ἑλλάς.*

²⁵ See Pley in Pauly-Wiss.-Kroll, *R.E.*, s.v. Herakleidai. On the literary sources for the invasion see also N. G. L. Hammond, *C.A.H.* (New Ed.), II, Ch. XXXVI, pp. 22-50.

²⁶ Herodotos, IX, 26; and cf. Pausanias, I, 44, 10.

Gulf fits logically into such a picture. Solygeia,²⁷ where they made their first encampment, lies a short distance, *ca.* eight kilometers, south of the Isthmian wall. There is no other reference to this landing, but the fact that all three points of attack lie south and west of the Isthmus may be regarded as an indication that the invaders were aware of the Isthmian fortification, or that they knew about the defeat of their forebears at that point.

In a recent article published in this journal²⁸ Professor George E. Mylonas has challenged the view, now being held by an increasing number of scholars, that the widespread destruction and abandonment of previously inhabited sites at the end of the LH III B period was caused by the Dorian invaders. To answer each of his objections would require more space than can be given here, and most of what can be said for or against has been said elsewhere. The problem is intimately connected with Trojan chronology and the identification of Troy VIIa with the city of Priam. Mylonas follows Professor Blegen in respect to this identification but disagrees strongly with him in the matter of date. Other scholars would prefer to identify Priam's city with Troy VIh, and there is much to be said for Schachermeyr's ingenious interpretation of the Trojan horse as an earthquake sent by Poseidon, which made the walls crumble and gave the Greeks easy access to the city.²⁹ Architecturally the more spaciouly constructed Troy VIh would seem to fit the picture of Priam's capital better than the haphazard layout of the later city; but Mylonas argues forcefully that the crowded condition of Troy VIIa could have resulted from conditions created by the war and siege, compelling the population of the surrounding towns and villages to take shelter within the fortification where they would have occupied every available space. It cannot be denied, however, that the identification of Troy VIh as the city captured by the Achaeans would fit the conditions in Greece better. The objections which have been raised against such interpretation do not seem valid enough to rule out this possibility. All the conditions of poverty, haste, and overcrowding in the unhappy Troy VIIa so graphically and eloquently described by Professors Blegen and Mylonas could, it seems, be applied to the period of chaos inevitably following the fall of Troy. The destruction by fire, which has been charged to the attack of the Achaeans, could then be related to the general calamities that overwhelmed the lands bordering on the Aegean and the whole Eastern Mediterranean at a somewhat later period.

By Professor Blegen's most recent estimate "Troy VIIa came to its end by enemy

²⁷ Thucydides, IV, 42. The ancient site of Solygeia, excavated in 1957-58 by the late Nikolaos Verdelis, yielded much pottery, both Mycenaean and later. See preliminary accounts in *Πρακτικά*, 1958, pp. 135-145; *Ἐργον*, 1958, pp. 112-118; *Archaeology*, XV, 1962, pp. 184-192. See Thomas Kelly, *A.J.A.*, LXX, 1966, p. 113, note 7, for criticism of Verdelis' conclusion about the identification of the site.

²⁸ *Hesperia*, XXXIII, 1964, pp. 352-380.

²⁹ *Poseidon*, 1950, pp. 189-203; cf. Carl Nylander, *Antiquity*, XXXVII, 1963, pp. 6-11.

action in the decade around 1270 or 1260.”³⁰ In his earlier reports he had arrived at a lower date, *ca.* 1240, for the destruction of Troy VIIa,³¹ and Professor Mylonas calls in question the reason for this change in Blegen’s dating of the Trojan material. The difference originated in the need to co-ordinate the findings at Troy with the evidence from other sites, especially Pylos. This necessity is tacitly admitted by Professor Mylonas, who until recently maintained “the traditional date as preserved by Eratosthenes,”³² i.e. 1184/3, but now admits that the Trojan expedition “could not have been launched in LH III C times,” but at a somewhat earlier date between 1240 and 1195 B.C., i.e. “in the years preceding immediately the destruction which is said to have overtaken Mycenae at that period.”³³

In a comprehensive and admirable study of the Late Bronze Age sites of Greece Per Ålin, a student of Professor Schachermeyr, has shown how widespread the destruction of cities was at the end of LH III B.³⁴ A few of the settlements were

³⁰ *The Mycenaean Age*, pp. 27-28.

³¹ *Troy*, IV, p. 12. He adds the timely *caveat*: “We feel, however, that the exact equation of successive styles of Mycenaean pottery with specific terms of years has not yet been definitely established, but is still subject to shifts of a decade or two.”

³² *Ancient Mycenae*, p. 16, note 44.

³³ *Hesperia*, XXXIII, 1964, p. 380. In his more extensive presentation of the subject, *Οἱ Χρόνοι τῆς Ἀλώσεως τῆς Τροίας καὶ τῆς Καθόδου τῶν Ἡρακλειδῶν, Ἐπιστημονικὴ Ἐπετηρὶς τῆς Φιλοσοφικῆς Σχολῆς τοῦ Πανεπιστημίου Ἀθηνῶν*, 1959-1960, pp. 408-469, Mylonas gives a very full discussion of the literary sources and the archaeological evidence for the Fall of Troy and the Return of the Herakleidai. Especially useful is his well documented presentation, pp. 442-449, of the difficulties in the dating of Mycenaean pottery and the wide chronological differences among the specialists. The literary sources are ably discussed also by N. G. L. Hammond, *op. cit.*, pp. 22-50; Jean Berard, *Recherches sur la chronologie de l'époque Mycénienne*, 1950.

³⁴ Per Ålin, *Das Ende der Mykenischen Fundstätten auf dem Griechischen Festland*, 1962. In the summary of his review of all the Mycenaean sites on mainland Greece he concludes (p. 148) that there was “ein allgemeiner Siedlungsrückgang in oder am Ende von III B”; and (p. 149) “von grösster Bedeutung bleibt aber die auffällende Tatsache, dass fast sämtliche festgestellte Katastrophen in III B eingetroffen sind.” Against the view of Alan Wace that the fire in the Granary at Mycenae was directly connected with the “Fall of Mycenae” he states (p. 150) “dass die grössere Katastrophe bei der der Palast und die meisten Bauten untergegangen sind, schon gegen Ende von III B eingetroffen war.” Professor Mylonas did not have access to Ålin’s work when he wrote his article in *Hesperia*, XXXIII, 1964, pp. 352-380; nevertheless he states, p. 371, note 52, “that he (Ålin) does not reach the conclusion that a general catastrophe took place at the end of the LH III B.” This seems to be refuted by the passages I have just quoted. Since the publication of Ålin’s book in 1962 other books and articles on the subject have appeared. The pertinent literature may be found in Desborough’s careful and cautious study already referred to (note 17). He emphasizes (p. 230) that only a very great catastrophe could have been responsible for the “destruction of great centres such as Mycenae and Tiryns and Pylos” and caused “the flight in considerable numbers from the affected areas,” resulting in a depopulation of large parts of the Peloponnesos. On the probable date of the invasion, about 1200 B.C., see also Broneer, *Hesperia*, VIII, 1939, pp. 424-427; *Antiquity*, XXXII, 1958, pp. 81-83; *Atti del Sett. Congr. Intern. di Arch. Class.* 1961, I, pp. 243-249; and Carl W. Blegen, *The Mycenaean Age*, pp. 24-31. In the article on “The Fall of the Mycenaean Empire,” cited above in note 20, Emily Vermeule gives a very good account of the dramatic events during “this period of catastrophe and innova-

rebuilt after the disaster, but most of them were abandoned, and those that escaped show the decay and retrogression resulting from the disaster which overtook the country. There is evidence of depopulation at this time in the eastern and southern section of the Peloponnesos, and the explanation, as V. R. d'A. Desborough has pointed out,³⁵ may be sought in migration of the displaced population into the north-western section of the peninsula.

Professor Mylonas finds it irrational on the part of the invaders in their search for new land to pass up the fertile plains of Macedonia and Thessaly and push down into the less productive parts of the country farther south; he also points to the lack of pottery and other artifacts left behind by the invaders. Perhaps they had other motives besides the desire to find suitable land for permanent settlement. Warriors are seldom motivated by such long-term considerations of peaceful pursuits; they set out for plunder and immediate gain. Permanent settlers and tillers of the soil follow in their wake, if the raids are successful. Greek history offers many other examples of a similar nature. The Gauls in the third century B.C. passed over much of the same terrain as that assumed for the Dorian invaders. They probably did not reach the Peloponnesos, but the inhabitants quite clearly expected them to do so.³⁶ Eventually they found their way across the Aegean into Asia Minor and settled there, giving their name to a section of the country. But where are the material remains they left behind? The Herulians in the third century of our era, the Goths under Alaric a century later, Vandals and Avars, following more or less the same route, penetrated into the Peloponnesos, plundering and burning cities and sanctuaries. They probably intended to settle down eventually; some of them did and became absorbed and Hellenized by the native population. They left evidence of destruction by which we can trace the progress of their raids, but few, if any, recognizable monuments of their stay. Yet some of these late-comers remained long enough to leave their marks on the geographical nomenclature of the land. The Dorians too were rude barbarians, moved primarily we may assume by desire for adventure and loot, but their contact with the native Achaeans eventually made them temper their warlike manners and adopt more peaceful pursuits and the mode of life of the conquered. They too left their imprint on the geographical divisions and the dialects of the land, and they were numerous enough to become the predominant element in the population of large sections of the country. But it is probably a mistake to look for the introduc-

tion." In her graphic picture of this period the exploits of the Dorians have become obscured in the spray raised by the more nebulous Sea People who attacked Egypt early in the twelfth century and caused destruction in the eastern Mediterranean. The descent of the Dorians into Greece and the islands she would date "probably between 1100 and 950." "We need no Dorians to account for the results," she repeatedly reminds her readers, as if the term "Dorian invasion" were in bad taste in scholarly circles. See also the excellent discussion of this subject by James Wiseman, *Arion*, IV, 1965, pp. 700-720.

³⁵ *The Last Mycenaeans and their Successors*, pp. 221, 222 et passim.

³⁶ See James R. Wiseman, *Hesperia*, XXXII, 1963, pp. 267-268.

tion of new industry (pottery) and works of art as a result of such invasions by culturally less advanced peoples.

Professor Mylonas names other reasons, which to him seem more probable, for what he considers the pre-Dorian destructions of the various sites at the end of LH III B. Pylos, he thinks, may have been sacked by a "successful piratical attack which occurred after Nestor's return from Troy *ca.* 1200 B.C. or shortly afterwards." If such was the case why did not the people return home after the raid was over? The destruction of Thebes "towards the end of the thirteenth century B.C." was caused by the Epigonoι "in the same generation which saw the Fall of Troy." At Mycenae excavations are still in progress and new evidence might be forthcoming which will change current views. Professor Mylonas believes that the great building activity in the thirteenth century evidenced by the rebuilding of the walls, the Lion Gate, and the palace was unrelated to any threat of invasion, and he concludes that "these monumental works are not the result of fear or apprehension but of confident strength." Were the constructions of the Maginot Line and of the Siegfried Line prior to World War II manifestations of confident strength or of fear and apprehension? There were other buildings of great size and magnificence constructed in France and Germany during that period of peace and prosperity. It is not incompatible with a state of power and opulence to take precautions against threatening hostile attacks. Thucydides, whom Mylonas quotes extensively on conditions in Greece after the Trojan War, states specifically that it was fear of the Herakleidai (Φόβῳ Ἡρακλειδῶν) that induced the Mycenaeans to invite Atreus, because of his power and his popularity with the masses, to become king of Mycenae.³⁷ Since this was a major reason for his election, he would naturally take immediate steps to reinforce the defences of the city, and Mylonas credits Atreus with the construction of the Lion Gate, the Cyclopean wall to the south, the Postern Gate, and the Treasury of Atreus.³⁸ On the testimony of Thucydides we are justified in thinking that the rebuilding and strengthening of the fortification at Mycenae was largely motivated by fear of the Dorian invaders. When the test came, the citadel and royal palace, for all their impressive strength and splendor, did not escape the calamities which Tiryns

³⁷ Thucydides, I, 9, 2.

³⁸ *Ancient Mycenae*, 1957, pp. 39, 88. After the present article had been written Professor Mylonas kindly sent me a copy of his most recent publication *Ἡ Ἀκρόπολις τῶν Μυκηνῶν, Οἱ Περίβολοι, Αἱ Πύλαι, Αἱ Ἀνοδοί*. In this monumental work he presents the first comprehensive and authoritative study of the walls and gates of Mycenae, with copious illustrations of the areas which he and his collaborators investigated between 1958 and 1964, together with full description and excellent photographs of all the pottery that has a bearing on the chronology. He concludes that the earliest fortification is to be dated in the period of LH III A, 2 pottery; that the Lion Gate and the west wall, enclosing Grave Circle A, were built about the middle of LH III B, and the Postern Gate only a little later. The final changes, including the Northeast Extension with the subterranean cistern, were made toward the end of LH III B, i.e., according to his dating, approximately the first decade of the twelfth century B.C.

and Pylos and many lesser sites in the Peloponnesos experienced about the same time.

At Tiryns Professor Mylonas suggests that the fire may have been limited to some of the rooms in the palace, ignoring the crumbled walls of the megaron complex. He promises to return to Tiryns in a later study. The disturbance noted in Athens in the abandoned houses on the North Slope of the Acropolis he dismisses as being of slight significance since only a few houses were involved. I do not know how serious is his suggestion that since the vases were broken—one delicate kylix was found standing upright and intact on the floor—they may have been smashed by the owners themselves, who returned after the crisis had passed and “broke some of the pottery in jubilation and also in order to reduce the burden” of household gear to be carried back to their permanent houses outside the city.

The evidence provided by the Isthmian wall Professor Mylonas leaves out of consideration because, as he rightly observes, “it has yet to be fully studied.” But then he goes on to question whether the pottery published in connection with the wall may not have been found in some house in the village rather than in the wall itself. He does not explain what prompted these misgivings. In one of two preliminary reports to which he refers I pointed out that the “three fragmentary vases (here shown in Pl. 84, a) and other fragments (came) from the fill of the Mycenaean wall.”³⁹ In another, earlier article⁴⁰ I stated more specifically that “the pottery was extracted from the rubble fill of the interior, and some of the fragments lay wedged in among the stone construction at the inner face of the wall.”

As I have tried to show in this more detailed account of our investigation, the pottery does indeed indicate a date at the end of LH III B, which most scholars now place at the end of the thirteenth century B.C. or in the early years of the twelfth. Our discoveries do not prove that the Isthmus was fortified to keep the Dorian invaders from crossing over into the Peloponnesos, but the construction of the wall indicates a state of awareness of approaching storm,⁴¹ and it implies co-ordinated action on the part of those who built it. In view of the creation of this line of common defence and the measures taken by the individual cities to withstand attack, it does not seem an unwarranted inference that the calamities which overwhelmed so many Mycenaean strongholds in the Peloponnesos at the end of the Bronze Age were caused by the great Dorian invasion which is frequently mentioned by ancient writers. Any future effort to sort out the material evidence from this period of unrest must take account of the Cyclopean wall on the Isthmus and seek to find a logical explanation for its construction.

OSCAR BRONEER

ANCIENT CORINTH

³⁹ *Hesperia*, XXVIII, 1959, p. 334, note 43.

⁴⁰ *Atti del Sett. Congr. Intern. di Arch. Class.* 1961, I, p. 246.

⁴¹ Cf. Desborough, *C.A.H.* (Revised Ed.), II, Ch. XXXVI, p. 4.



a. Section *Sk*, from Northwest.



b. Section *Sk*, from Southwest.

OSCAR BRONEER: THE CYCLOPEAN WALL ON THE ISTHMUS OF CORINTH
AND ITS BEARING ON LATE BRONZE AGE CHRONOLOGY



Section *Pe*, showing Towers.

OSCAR BRONEER: THE CYCLOPEAN WALL ON THE ISTHMUS OF CORINTH
AND ITS BEARING ON LATE BRONZE AGE CHRONOLOGY



a. Section *Sp.*

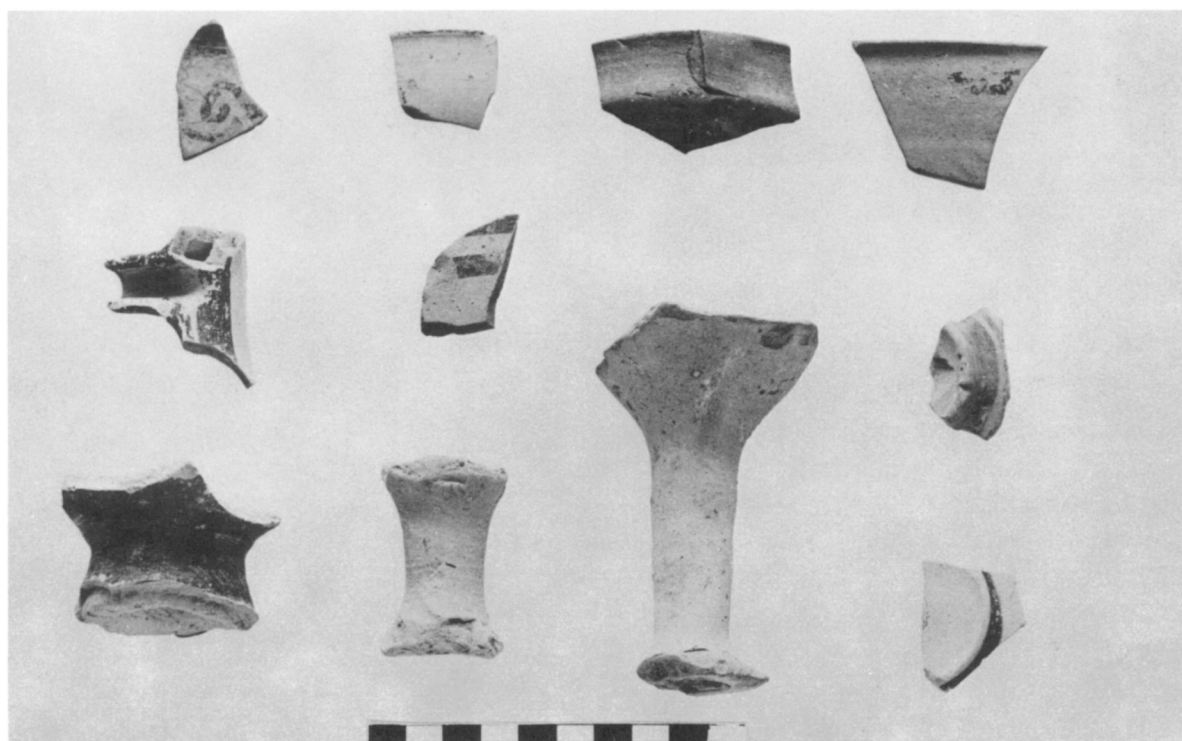


b. Section *Zo*, West End.

OSCAR BRONEER: THE CYCLOPEAN WALL ON THE ISTHMUS OF CORINTH
AND ITS BEARING ON LATE BRONZE AGE CHRONOLOGY



a. Outer Face of Wall, Section *Pa*.



b. Sherds from Section *Sk*.

OSCAR BRONEER: THE CYCLOPEAN WALL ON THE ISTHMUS OF CORINTH
AND ITS BEARING ON LATE BRONZE AGE CHRONOLOGY



a. Three Fragmentary Vases from Section *St*.



b. Sherds from Sections *St* and *Sp*.