CORINTH

RESULTS OF EXCAVATIONS

CONDUCTED BY

THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS

VOLUME III, PART II

THE DEFENSES OF ACROCORINTH AND THE LOWER TOWN

BY

RHYS CARPENTER AND ANTOINE BON

WITH CONTRIBUTIONS BY

A. W. PARSONS

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A WORK such as the present volume is the result of the labors of many men. Since the day, now nearly eight years ago, when I undertook the responsibility for an adequate publication of the classical and medieval fortifications of Corinth, I have had to rely on the goodwill and special gifts of so many, that my own activity has repeatedly been confined to that of mere overseer, compiler, and grateful beneficiary.

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Finally, to yet a score who will scarcely wish their names recorded or their praises printed, and to all the company of those who have lived and labored below the familiar mountain and trodden its ridges, I register here my gratitude. May they grant their *bene exeat* to me, even though I found it so much more laborious than did ever Aratus to recapture the mighty stronghold of Acrocorinth.

"Jerry Run," January 1, 1935 RHYS CARPENTER

To Prof. Rhys Carpenter, late Director of the American School of Classical Studies at Athens, who gave me the opportunity of undertaking this investigation, and to his successor, Prof. Richard Stillwell, whose generosity permitted its continuation through the autumn of 1932, I owe a special debt of gratitude. My thanks are also due to many friends in Athens for suggestions and advice, more particularly to Dr. B. H. Hill and Dr. Oscar Broneer, both of whom drew unsparingly on their large funds of experience to help me.

Athens, March, 1935 A. W. PARSONS

ABBREVIATIONS

The following abbreviations are used throughout this volume:

A.J.A.	American Journal of Archaeology.
Arch. Anz.	Archäologischer Anzeiger, *in* Jahrbuch des deutschen archäologischen Instituts.
Ἀρχ. Ἐφ.	Ἀρχαιολογικὴ Ἐφημερίς.
Att. Mauern	W. Wrede, *Attische Mauern.* Athens, 1934.
Ath. Mitt.	Mitteilungen des deutschen archäologischen Instituts, athenische Abteilung.
B.C.H.	Bulletin de Correspondance Hellénique.
B.P.W.	Berliner Philologische Wochenschrift.
B.S.A.	Annual of the British School at Athens.
Gregorovius I, II	*Geschichte der Stadt Athen im Mittelalter.* 2 vols. 2nd ed. Stuttgart, 1889.
Hopf I, II	*Griechenland im Mittelalter und in der Neuzeit*: vols. 85–86 of Ersch und Gruber's *Allgemeine Encyclopädie.* Leipzig, 1867–8.
Miller (Wm.)	*The Latins in the Levant, a History of Frankish Greece (1204–1566).* London, 1908.
Not. Scav.	Notizie degli Scavi di Antichità.
Vassiliev I, II	*History of the Byzantine Empire.* 2 vols. Madison, Wis., 1929.

The references to late Classical and Medieval texts are to the following editions:

Chalcocondyles, Nicetas Choniates, Constantine Porphyrogenetus, Ducas, Pachymeres, Procopius, Theophanes,—	in *Corpus Scriptorum Historiae Byzantinae*, Bonn.
Livre de la Conquête	ed. J. Longnon. Paris, 1911.
Libro de los Fechos	ed. Morel Fatio. Geneva, 1885.

References to sites on Acrocorinth in the form of a numeral without further indication, e.g. "the bastion at 12," "interior face of wall, between 27 and 28," are to be identified from the small key plan, PLATE I, at the end of this volume.

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IN END POCKET

FOLDING SURVEY MAP OF ACROCORINTH

THE DEFENSES OF ACROCORINTH AND THE LOWER TOWN

I

THE CLASSICAL FORTIFICATIONS OF ACROCORINTH

By RHYS CARPENTER

SOUTHWEST of the ancient city of Corinth rises the rock of Acrocorinth, an imposing mass of limestone, abrupt and isolated on every side save where, on the west, a narrow and lower ridge connects it with more distant hills. Seen from the lower town (cf. Fig. 92), its height is emphasized by straight walls of cliff, for which on its southern side (cf. Fig. 100) are substituted less steep, but long and rather ragged, slopes of stone and verdure. In contrast, the summit is much less abruptly pitched and covers a considerable area, too irregular of contour to be called a plateau, yet largely overgrown with vegetation and comparatively free of cliffs or ledges. The actual crest of the mountain is a twin peak with a connecting saddle. On the eastern summit, which is the mountain's highest point and conical in profile, once stood the temple of Aphrodite to which a section of Part I of this volume was devoted. On the western height, which has more the form of a narrow rocky ridge, there still stands a high, square, medieval tower (cf. Fig. 161) looking finely down on the walls and bastions of three lines of defence which guard the main approach to the mountain stronghold and on the conglomeration of overgrown ruined houses of a Turkish town which once existed within the fortified area on its long western slope (Fig. 117).

This western slope is a crucial factor in the configuration of the mountain, since it stretches for nearly half a mile of steady and unbroken ascent from the low ridge which adjoins Acrocorinth on the west to the summit of the highest (or eastern) peak,—a rise of 220 m. vertically,—and in itself constitutes more than three-fourths of the fortifiable area of the mountain. To north and south are watersheds falling away from this long slope and soon turning into steep waterworn gullies which lead far down into the arable land at the mountain's base. The northern gully is particularly accentuated. Yet steep and wild though it is and framed on either side with crags, a path winds up through it to a postern gate, the existence of which proves that this approach is no modern shepherd's invention. None the less, the mountain lies open only to the west, and only toward the west is it so exposed that lines of walls with gates and towers would ever have been needed for its defence. Elsewhere a single ring of high wall above the steepest slope would preserve the mountain-top from capture by direct assault.

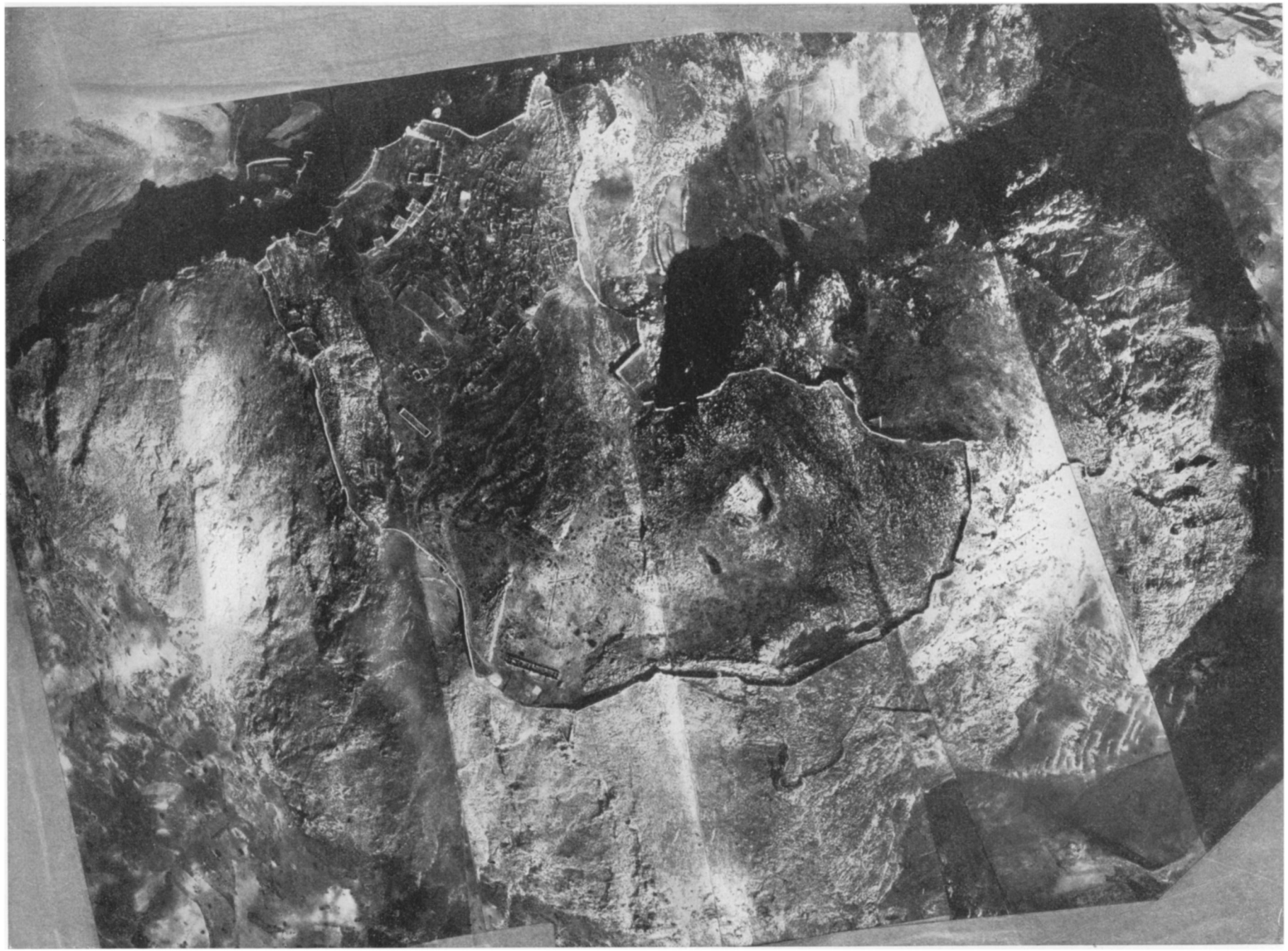

FIGURE 1. ACROCORINTH FROM THE AIR

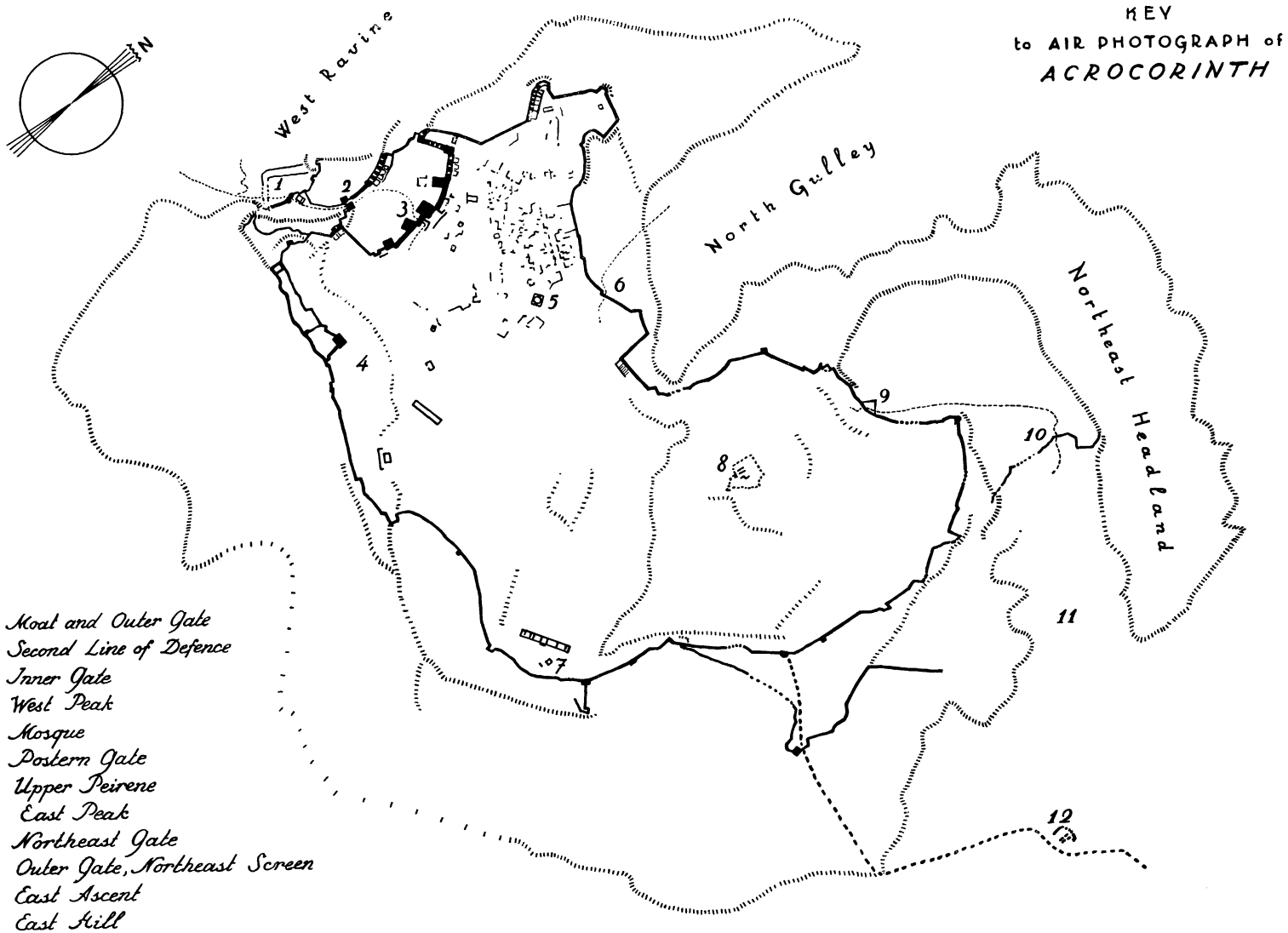
KEY
to AIR PHOTOGRAPH of
ACROCORINTH
N
West Ravine
North Gulley
Northeast Headland
1 Moat and Outer Gate
2 Second Line of Defence
3 Inner Gate
4 West Peak
5 Mosque
6 Postern Gate
7 Upper Peirene
8 East Peak
9 Northeast Gate
10 Outer Gate, Northeast Screen
11 East Ascent
12 East Hill

FIGURE 2

A view of Acrocorinth from the air[1] (Fig. 1, with a key in Fig. 2) will illustrate these simple and fundamental considerations, so often unappreciated by the pedestrian modern visitor who toils up a circuitous way affording only partial and shifting glimpses. In our photograph the circuit of fortification wall shows out prominently as an L-shaped pattern which, for the sake of simplicity, we may liken to a boot, which indeed it strikingly resembles. The walls and towers protecting the main west approach form the fringe turned back about the top of the boot; Upper Peirene lies exactly in the heel; the East Peak with its traces of pagan temple, Christian church, and Moslem mosque shows as a highly illuminated patch near the centre of the toe. Beyond the toe there lies a considerable promontory of high cliff which the walls have made no effort to enclose. It is an integral part of the mountain-top, a shoulder or headland pushing out toward the northeast. Its gently sloping expanse drops on the northwest into the deep cut of the North Gully (marked by heavy shadow) and descends in the other direction as a steep but perfectly practicable passage between bordering crags (in high illumination) leading down to a tiny flat hilltop (near the bottom margin; the East Hill (12) of figure 2) at roughly half the height between mountain-top and town. Thence there are easy descents northeastward (and out of the picture) to the lower levels on which the ancient city lay.

The south side of the mountain, as the even illumination of the photograph indicates, though rough and steep, is fairly uniform in gradient, without cliffs or deep clefts; while on the north two deep ravines lead up to the very walls. One, the North Gully just mentioned, strikes the internal angle of the L of the boot. It is steeper than the ascent to the northeast shoulder from the East Hill; but as it contains a trail leading to a passable postern gate in the wall, it is more frequently used to-day. In the air photograph the North Gully is filled with black shadow, falling in the morning sun from the straight cliffs which edge the Northeast Headland high above its floor. The other ravine is deeper and narrower and lies under the northwest slope of the mountain beyond the territory shown in the photograph. It is of great length, debouching after considerable winding on the level plain near the Roman Villa,[2] west of the lower city, while its upper end is the saddle which joins Acrocorinth to the ridge running west into the hinterland. The West Ravine is thus more than a mile in length; yet all but its very mouth lay inside the fortified girdle of the city. At its head the defenses of Acrocorinth begin; for here, as we have said, lies the only gentle slope which anywhere penetrates the precipices and rocky heights which ring the mountain-top. This western slope was therefore marked by nature to be the chief approach and entrance to the fortress, and its defence to be the chief preoccupation of the military engineers. Here in antiquity stood the main

[1] For which I wish to thank the Topographic Bureau of the Hellenic Ministry of Communications which, in 1928, despatched the plane and photographer. The picture is pieced together out of strips exposed consecutively in the course of the flight, and hence shows some slight distortions.

[2] *Corinth*, vol. V.

gate with its towers, and here in the Middle Ages was evolved that triple line of walls and gates and towers which make of Acrocorinth the most spectacular medieval ruin of Greece.

South of the gates there are again straight cliffs and sheer slopes for a brief stretch; but these suddenly give place along a well-marked ridge (where sun meets shadow in the upper left of the photograph) to the long south flank of the mountain, steep and rough but not difficult to traverse, ending far below in the valley of the stream which runs past the site of ancient Tenea to New Corinth near the Isthmus.

The camera's greater altitude has flattened out the differences of level, so that one would scarcely imagine that the ridge along the Achilles tendon of the boot is nearly 200 feet higher than the line of towers just above it in the photograph, or that the East Peak lies even higher above Peirene, while this in turn is raised more than a thousand feet above the slopes in the lower left-hand corner of the picture. The "boot" is thus a wrought and plastic one, and not the mere flat pattern which it seems. The walls climb and descend, only to climb again. Yet a simple military formula guides their course: they seek always to be near the crest of an ascending slope, so that an attacking force must mount against them and may never descend upon them. Since no higher ground may lie outside their girdle, both peaks of the mountain must be enclosed within their line,—the West Peak as narrowly as possible, the East Peak more generously, to take advantage of the steepest part of the south slope and the sheer cliffs above the East Ascent. Even so, the Northeast Headland was not included, presumably because, already lying within the territory of the city, it was adequately defended by its walls.

Such is Acrocorinth and such—from the air at least—is the circuit of its fortifications. Seen from above, with only the tops of the walls showing, it is the medieval structure which appears to view. But in PLATE II the general survey of Acrocorinth has been used as a basis, and the outline of the medieval walls has been filled in with solid black wherever these walls are built upon undisturbed ancient classical blocks as a foundation. No attempt has been made to distinguish the width of the classical socle (as this almost everywhere disappears under the later superstructure, so that its true extent is unascertainable) or to record graphically the height to which the classical blocks are preserved. The sole function of the drawing is to trace the line of the Greek fortification wall and to indicate how much of its circuit still survives at ground level.

The result is surprising; for it shows that the ancient circuit is virtually intact except at the entrances. And it shows that the medieval builders merely followed the ancient wall for their general girdle of defence, adding only certain outworks and screens to guard the East Ascent and the great West Entrance.

This ancient socle will be described in detail, in an effort to analyze its masonry and arrive at some information concerning its various periods. Its height, not surprisingly, is far from uniform; but only in a couple of towers and in one or two brief stretches does it exceed three metres. Generally, it fails to surpass the height of an ordinary man.

Why should such a wall-base have survived? The fortress of Acrocorinth was certainly dismantled[1] by the Roman army which under Mummius in 146 B.C. captured and destroyed the lower town. But even there, as will be shown, the great wall-base defied the efforts of the soldiery who—in many stretches at least—made no attempt to dislodge the two or three lowest courses of great blocks. The truth of the matter must have been that the labor of such destruction was very formidable and that the complete removal of the wall at certain strategic points, coupled with the demolition of the main gates, must have sufficed the needs of the moment. "And when I myself ascended Acrocorinth," wrote Strabo,[2] referring to a visit not long after the Roman rehabilitation of 44 B.C., "the ruins of the wall-girdle were plainly visible."

It is very likely that the wall base was more massively built than the superstructure and survived it mainly because of this greater solidity. In many portions of the lower city the wall must have made extensive use of mud-brick in its higher courses. It is impossible to determine whether the walls of the mountain citadel did the same. If they too were built of sun-dried brick, it is no wonder that they collapsed and that the medieval builders had to replace the missing superstructure with building material of their own.

It is a curious fact that the main girdle of Acrocorinth as it survives to-day is a *late* medieval top to an *early* classical base. Except near the gates and perhaps in the neighborhood of Peirene, the circuit is not demonstrably Byzantine; yet in Byzantine times the whole circuit must have been closed, else the fortress was useless. On the other hand, the stretches which are surely Byzantine all lie close to the north and the west entrances and replace those classical stretches which the Romans probably destroyed most carefully and completely. It is reasonable to infer that the rest of the Byzantine circuit was less durably built. Either it was of brick, then, or it was a flimsy repatching of the ruined superstructure surviving from classical times. But a more certain and final inference as to the composition of this classical superstructure cannot be made. We know only that the wall must have been of considerable height, since in Plutarch's account[3] a traitor proposed to guide Aratus to a point where exceptionally the wall was "not more than 15 feet high."

It remains therefore to describe the surviving socle, tracing its course and distinguishing its styles of masonry.

THE WEST DEFENSES

The lowest point at which there remain traces of the ancient Greek fortifications of Acrocorinth (as distinguished from the walls which pertain rather to the city below) is the passageway of the second or middle gate of the medieval defenses. Here, in the southern passage-wall (cf. the section in PLATE VII), there is a series of large blocks, fitted in polygonal style, three or four courses in height. The largest remaining block is 1.07 m. long and

[1] Cf. Strabo, vii, 6, 21; and Paus., ii, 1, 2, with direct reference to Corinth.

[2] *Loc. cit.*

[3] Plut., *Aratus*, xviii, 4.

0.92 m. high, so that the type of masonry may fittingly be characterized as megalithic and compared with the east wall of the lower town for massiveness and scale.[1] The obvious objection to thinking that these blocks are in their original position, *viz.* the presence of a small medieval wall-facing which extends beneath them, is overruled by the consideration that the polygonal angles of the blocks fit perfectly with one another. It is not reasonable to assume that the medieval builders, used to working in a microlithic style, would ever have had the patience to dismantle, move, and correctly reassemble these huge blocks without use of mortar or small fillers of tile or stone. We must assume, therefore, that the later builders cleared the accumulated earth from the base of these ancient walls and shored them from beneath wherever it seemed advisable. The construction of the underground chamber of the second gate may have led to considerable clearing and even to actual cutting away of the rock at this point. The few large blocks in the other wall of the passage have tile and mortar between them and were accordingly set in medieval times. This remnant of a single face of ancient polygonal masonry cannot be taken as evidence for or against an ancient gate at this spot.[2] The preserved ancient wall does not run quite parallel to the medieval gateway, but vanishes behind the later masonry and must continue invisibly within the strongly battering base of the external medieval[3] wall on the south. Where the line of the ancient wall should re-emerge against the cliff, there are (Fig. 113) large poros blocks in rough approximation to ashlar style which are certainly ancient and seem to be, almost all of them, set dry without mortar. Although weak spots have been cleared out and patched in later times, the main series of blocks is undisturbed. The change to poros, to supplement the heavier Acrocorinthian limestone used lower down, is quite in classical tradition, since this portion of the wall was inaccessible in antiquity. But the forms of the blocks make it difficult to believe that polygonal heavy limestone base and poros superstructure are contemporary; nor does such a re-use of material point to a classical construction. We should therefore have here a very early post-classical rebuilding of the defenses, suggesting (but not proving) that the classical line passed essentially in the same direction.

After the cliff has been reached, the medieval wall turns southwest and everywhere contains large ancient poros blocks (Fig. 113, at base of bastion in upper right). These may take the place of an ancient Greek wall; but there is so much mortar between the joints that it is apparent that the ancient material has been re-used and cannot be taken as evidence for the direction of the classical line. From this point there is no further trace of any ancient wall; the medieval screen which runs directly uphill to the higher line of defence is very thin, is nowhere based on ancient blocks, and makes no use of ancient material. It therefore seems likely that the classical defence relied extensively upon the natural cliff which here forms a sheer promontory with a steep gully beside it. At the

[1] Cf. p. 54 and Fig. 43.

[2] From the contour of the terrain it would be more probable that the gate through this wall was placed some 30 m. further north, almost in the axis of the Third Gate.

[3] Or rather, Venetian; cf. p. 178.

top[1] the medieval screen wall is based on crudely fitted and irregular, blue limestone blocks. These are part of an ancient construction, in which the medieval mortar is merely superficial patching. Beyond this wall lies a conspicuous ancient bastion (Fig. 3) and this, at its northwest corner, is bedded deep in the native limestone of a projecting spur, the worked face of which (Fig. 4) leads directly toward the blue limestone blocks just mentioned. It is thus arguable that before the erection of this bastion (which, from the comparatively small size of its blocks and the almost ashlar arrangement of its joints, cannot be much

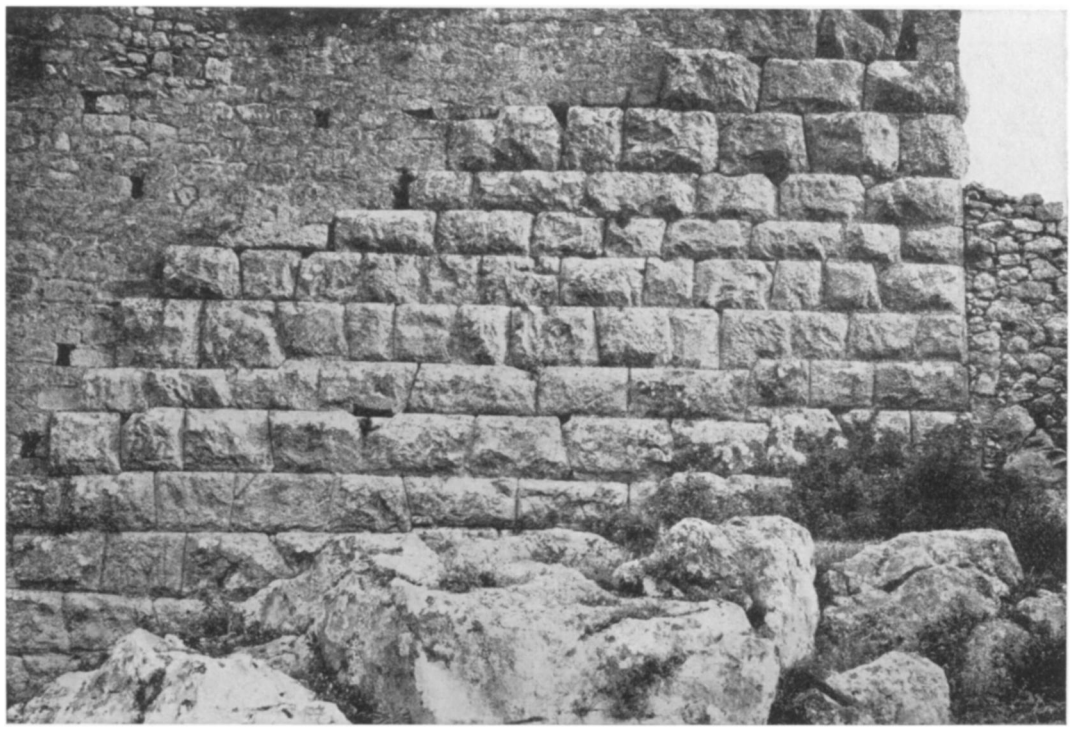

FIGURE 3. WEST DEFENSES: THE SOUTH BASTION. NORTH FACE

earlier than 400 B.C.) a line of defence diverged at this point, descended the steep step-like cliff to the open ground where the second medieval gate now stands, passed behind the Venetian cannon emplacements almost due north, and so, without change of direction, ascended finally to the northwest bastion of the innermost line of defence[2] where a brief stretch of ancient polygonal wall is still plainly visible (Fig. 11; cf. Fig. 47). It may accordingly be considered more than merely probable that a wall across the mouth of the ascending west slope of Acrocorinth at its narrowest point constituted a first line of defence and that this outer wall was attached to the corners of the two conspicuous tower-like bastions which marked the wings of the innermost line of defence. This wall still exists

[1] We are discussing the stretch of wall and steep terrain between the points marked 2 and 5 on the Key Plan to Acrocorinth, PLATE I. This plan may be found convenient if left unfolded.

[2] Point 12 on the Key Plan.

at three points—the two termini and the lowest mid-point—and is throughout in the rough polygonal style. There is no evidence for its actual date; unless we may argue that since no walls demonstrably later than the Persian Wars, thus far discovered in Corinth, are Cyclopean polygonal in construction, a date earlier than the Persian Wars should here be assumed.

The INNER LINE OF DEFENCE begins at the south with a magnificent bastion or tower-like projection (Figs. 3–5) built in horizontal courses of varying height, with fairly consistently vertical joints, of limestone blocks fitted together with *anathyrosis* and treated with rudi-

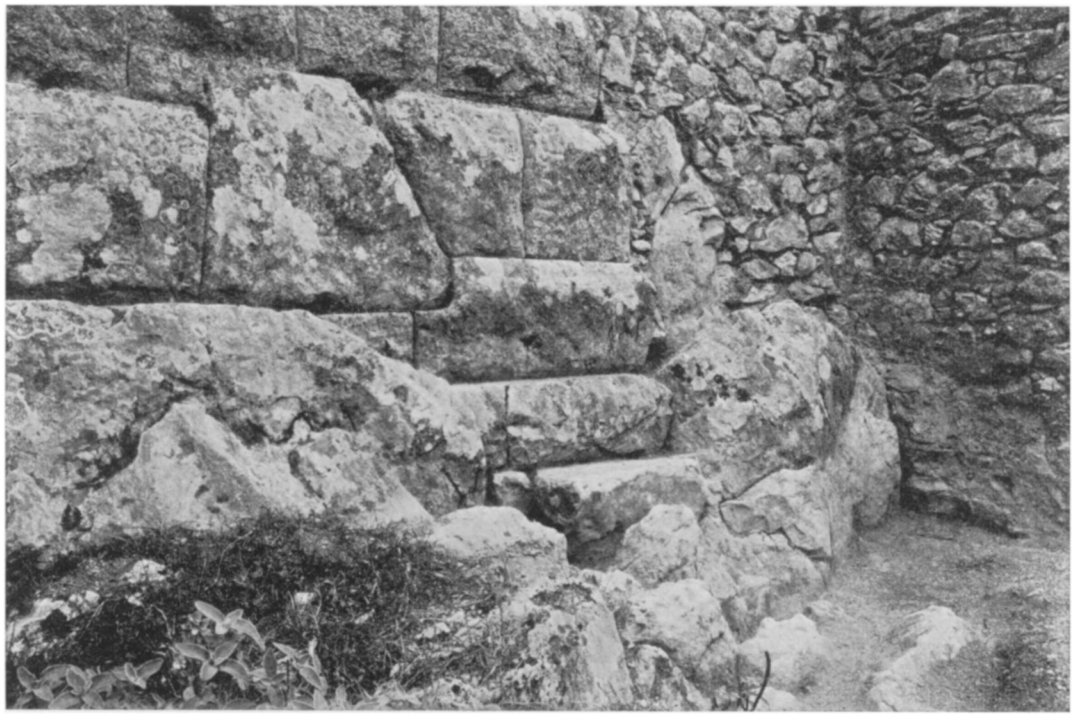

FIGURE 4. DETAIL OF LOWER RIGHT-HAND CORNER OF FIGURE 3

mentary panels or bevels at the joints to give a rusticated effect. The angles are drafted, and there is a noticeable batter. The west face (Fig. 5) shows an original window cutting flanked by a narrow archer-slot. The north face (Fig. 3) is preserved to quite as considerable a height and together with the west façade must be counted among the finest surviving remnants of the ancient wall. Its semi-ashlar manner of construction abruptly gives place on the east to a finely built stretch of regularly coursed small poros blocks (Fig. 3, upper left) in which horizontal courses of tile are freely introduced. As this is typically an Early Byzantine style, it might be argued that the ancient walls were deliberately destroyed at this spot by Mummius and that the breach was repaired at the end of the classical period, as soon as it became necessary to refortify the mountain. But it should not be overlooked that the classical wall has tended to survive where it is bedded in native limestone and to disappear where it was carried (as here) across shale or other erosive footing.

Though ancient wall blocks occasionally appear in the succeeding stretches, it is not until we reach the second tower of the medieval defenses that the ancient line clearly and certainly re-appears (Figs. 6–9). The entire front of this second tower (which flanks the medieval innermost gateway) is ancient, with the exception of the small fill of medieval stones beneath the crowning cannon emplacement. The careful vertical drafting of the angle blocks (for stretching cords to control the batter at the time of original construction) shows that none of the stones here have been tampered with. Two archer-slots and a window between them (Fig. 9), which have been plugged in medieval times, give a clue

FIGURE 5. WEST DEFENSES: THE SOUTH BASTION, FROM THE WEST

to the lower floor level in the interior; but there is no similar indication remaining to mark the location of any windows of a second story. There is no need to suppose that the whole tower was ever much higher than the surviving masonry.

The building style is identical with that of the bastion already described (compare Fig. 9 with Fig. 3). The horizontal joints run continuously except for very occasional small slanting jogs which here and there disturb the perfect level. The upright joints are seldom true verticals and not infrequently fork to make room for a small triangular stop-gap between the blocks. This triangular block is invariably placed with apex down and is introduced at the top rather than at the bottom of a course, so as to escape any load or strain. That the builders reckoned correctly is indicated by the number of these small plugs which have dropped out without in any way disturbing the structure. As in the

bastion wall, there are occasional plugs rectangular in section, but these are much less common than the triangular type. If we search for Attic parallels we shall find them very exactly in the towers at Varnava and Gyphtokastro ("Eleutherae"),[1] rather less cogently in the Cononian walls of Athens,[2] and perhaps rather more convincingly again in certain parts of the girdle-wall of Eleusis;[3] so that all our comparisons point to the fourth century B.C.[4]

On the flanks (Figs. 7 and 8) the local limestone employed for the façade and corners gives way in a surprising fashion to poros blocks set in rather more uniform courses,

FIGURE 6. WEST DEFENSES: THE THIRD GATE, SHOWING CLASSICAL TOWER

giving almost the effect of ashlar work.[5] Since the limestone[6] of the higher courses here and there projects laterally far enough to rest solidly on the poros, it is not possible that the poros is later than the limestone; and since the poros is cut at the joints exactly to all of the peculiarities of the limestone, we must assume that the two are of contemporary

[1] Wrede, *Att. Mauern*, pl. 68; 82; 83–86; cf. also the tower at Oinoe, pl. 77.

[2] Cf. *op. cit.*, pl. 75–76.

[3] Cf. *op. cit.*, pl. 79.

[4] Cf. Wrede's characterization of the style, *op. cit.*, p. 56.

[5] A clear distinction must be made between this original poros and the miscellaneous smaller blocks of medieval date which make up more than half of the flanks.

[6] Though poros is strictly a variety of limestone, we shall arbitrarily confine the term "limestone" to the harder and less easily hewn forms such as constitute the greater part of the bed-rock of Acrocorinth.

FIGURE 7. THE CLASSICAL TOWER, FROM THE SOUTH

construction and that the corners and the main face of the tower were built in the harder material to insure complete solidity, while the rest was built of the softer and more easily worked material (which may have been quarried on the slopes between Acrocorinth and Penteskuphi and therefore did not represent any great problem in transportation). The occurrence of an archer-slot in the poros of the north face (Fig. 8) at the same level and of the same dimensions as those in the limestone of the façade (Fig. 6) further proves the contemporaneity of these two materials. Most of the poros in this north face is panelled with a broad strip (up to 0.10 m.) around three sides,—a procedure which may be paralleled

FIGURE 8. THE CLASSICAL TOWER, FROM THE NORTH

in Periclean walls at Eleusis[1] and is not uncommon throughout the fourth century B.C. In addition, the bottom and the left-hand joints are usually bevelled. There is no authority for assuming a date much before the Hellenistic Age for such a technique, so self-consciously employed.

The poros facing of this north flank of the tower disappears within the masonry of the early medieval gateway, so that it is impossible to trace its course at this point; but

FIGURE 9. THE CLASSICAL TOWER, DETAIL OF FAÇADE, SHOWING WINDOW AND ARCHER SLOTS

it is reasonable to assume that there always was a gate here and that the size and strength of the tower are to be explained by its guarding and dominating position above the entrance way.

The next tower to the north, flanking the gateway on the other side (Fig. 6), seems to have ancient masonry in its socle; but there is so much mortar in the joints and so much tile beneath the stones that it cannot now be determined whether there is any remnant of the actual ancient line or whether the blocks have merely been re-aligned to make a tower. The latter, however, is much the more probable suggestion, as there is no sign of drafting to the blocks which form the quoins.

From this point northward there are again only uncertain traces of re-used ancient blocks (save that the south corner and west base of the fourth tower give a distinctly

[1] Wrede, *Att. Mauern*, pl. 37–39.

ancient impression) until we reach the conspicuous northwest bastion (Fig. 10) in which the ancient wall clearly reappears. The superstructure is, of course, post-classical; but all the lower portion is unmistakably ancient in spite of the apparent use of lime mortar with which the joints have been smeared. Actually the stones are fitted and were set dry and except for an occasional patch are still in their original place and order. A stretch of nearly 20 m. emerges out of the steeply sloping ground and leads southwest to a bold

FIGURE 10. WEST DEFENSES: THE NORTH BASTION

and finely preserved corner, still rising some twelve courses in air. Here it is joined from the south by a low spur wall (Fig. 11) running at right angles to it and continued as the westerly face of the bastion. This low wall has already been mentioned as a probable vestige of the outer line of defence. The main and loftier wall, which forms the southerly face of the north bastion, runs so nearly parallel to the south bastion opposite, that these two tower-like projections[1] can only be understood as symmetrically corresponding elements in the scheme of defence. Taken with the indisputably classical tower beside the Third Gate (and the probably ancient character of the fourth tower), they fix essential points in a plan fundamentally the same as the medieval one which survives in the great battlemented walls and towers of the innermost line of defence (Fig. 117; cf. also Fig. 47). Even though the classical project may not have been identical in every detail, we may say that an ancient

[1] i.e. Points 5 and 12 of the Key Plan, PLATE I.

invader who managed to ascend the west slope of Acrocorinth and pierce the lower line of defenses would have found himself in a sort of great open courtyard, 130 m. across, with high walls to the north and south of him, which turned at the top of the slope and shut off his advance by a final curtain wall with one or more towers guarding the final gate.

Where the outer line of defence joins this inner one at the north bastion, there are important indications (Figs. 12, 13) of their relative chronology; for the bastion has no true southwest corner in the lowest four metres of its height, but projects roughly and irregularly along the line of the lower or secondary wall, with clear indications where the now missing higher courses of that wall were once keyed in. At a height of 4.70 m. a corner drafting suddenly appears, and this continues upward as far as the ancient stones are preserved. It seems reasonable to assume that the point at which this drafting begins marks the height at which the attached wall ceased and that, therefore, this latter had an elevation here of nearly five metres. There is also a striking change of style at this level, since the large blocks in the quasi-polygonal style which characterizes the base give place here to regular courses of somewhat smaller blocks in which the horizontal joints are carefully observed and, though the vertical ones tend to slant obliquely, the whole effect is of rusticated ashlar. This is so precisely the style of the great tower beside the Third Gate that no pertinent distinction can be drawn between the two stretches of masonry. The style of these higher courses is wholly similar also to the other bastion across the way to the south. But it is difficult to determine whether we are dealing with two periods (an archaic megalithic polygonal base surmounted by a later more isodomic superstructure) or whether the huge stones are merely a precaution for carrying the wall past the sheer cliff at this point, while the spur wall was intended for a terrace, perhaps to minimize erosion.[1]

If we reflect that the remnant of ancient wall in the passageway of the Second Gate is purely polygonal and that the junction between outer and inner line of wall at the corner of the south bastion is not homogeneous but indicates a later structure bedded into the native rock on which an earlier wall was raised, it would seem that at the north bastion we are also dealing with two periods, the older one surviving in the low spur wall and the lower courses of the corner bastion, while the later one is preserved in the classical superstructure running east at right angles and ultimately vanishing into the sloping hillside. Our conclusion, then, must be that the inner line of defence was an addition probably of the late fourth century B.C.; but whether it was intended merely to supplement or wholly to supplant the older lower-lying outer line is not obvious. The archaeological evidence from the north bastion would suggest that both wall lines co-existed, whereas the evidence from the south bastion might be taken to indicate rather that the older line was dismantled when the later one was built. It is our opinion that the whole available evidence for the outer (polygonal) wall is so vague and inadequate that no binding conclusion can be drawn.

[1] Yet a terrace carrying a fill of earth nearly 5 m. deep is not a very plausible hypothesis.

FIGURE 11. WEST DEFENSES: THE NORTH BASTION. ARCHAIC SPUR WALL

FIGURE 12. WEST DEFENSES: THE NORTH BASTION. JUNCTION WITH SPUR WALL

FIGURE 13. WEST DEFENSES: THE NORTH BASTION. ANGLE ABOVE SPUR WALL

THE CLASSICAL CIRCUIT WALL

The description of the main girdle wall around the mountain-top of Acrocorinth may logically begin at the north bastion, which marks one terminal of the west defenses. As the corner of the bastion is turned, the tall and isolated belvedere which is such a conspicuous feature in figure 138 is a purely medieval invention.[1] The line of the ancient walls may be detected at the bottom of the photograph, swinging directly across from the outer edge of the belvedere to the main mass of wall behind it on the left, thus making a blunt redout in place of an isolated tower.[2] Beyond, the ancient blocks are well preserved to an average height of about two metres and include some enormous pieces fitted with extreme accuracy. But after the exposed position above the cliffs has once been passed (Fig. 14) the size of the blocks immediately diminishes,—a useful indication that mere inspection of the style of masonry will not necessarily yield an accurate criterion of period and date. The ground level now mounts rapidly.[3] Half-way up the hill, a brief stretch in four courses of much smaller blocks with perfectly horizontal joints (Fig. 15, *c*) might be taken to mark a later addition, perhaps for a small postern gate or in order to base a tower guarding such an entrance and utilising a large block of native cliff at this spot (Fig. 15, *b*). As the ancient wall ceases abruptly at this point (Fig. 15, *d*), it is indeed possible that it turned inward for a gateway, while the medieval wall ignoring this irregularity drew its line straight on. And it is further true that a postern at this point would give access to the steep grassy slope of this northwest flank of the mountain, not readily reached from elsewhere. But the existence of a passage through the wall at this point cannot be proved from the change in masonry style, which is due to the presence, not of a gate or tower but of a small natural watercourse beside the rock (Fig. 15, *b*); and the careful construction in flat blocks with horizontal surfaces was intended to combat the pressure of wet earth and water and prevent an undermining of the wall. That it is entirely contemporary with the semipolygonal stretch (Fig. 15, *a*) is indicated by the small triangular stop-gaps set, with apex down, at the top of vertical joints in both stretches of masonry.

At the head of the hill the still climbing wall contains other excellent examples of this technique (well illustrated in Fig. 16) by which the polygons are completed into more rectangular shapes and the horizontality of the joints restored by small wedge-shaped pieces. The lower joints of all the larger stones were hewn true to the line; the irregularities of the other sides were trimmed to a pentagonal or hexagonal outline with the largest possible upper surface cut parallel to the lower joint. It was only necessary to fill out the polygons into rectangular form to produce an effect of thoroughgoing horizontal courses. Occasionally

[1] This structure is also visible in figure 14, right.

[2] The explanation of this medieval departure from the classical instance is given on p. 198.

[3] Cf. the view from within, showing the medieval wall-crown for this stretch, in figure 117.

FIGURE 14. NORTH CIRCUIT WALL: SECTOR 12–13

the stop-gaps are trapezoidal or nearly square instead of wedge-shaped. Genetically, the style belongs to a transition out of the polygonal into the ashlar. If it still gives a markedly polygonal effect, this is mainly the result of a desire to utilize as large blocks as possible, in preference to cutting them down into uniform pieces. The bearing of this consideration on the chronology is evident, since it tends to make the walls later in date than first inspection would suggest. In Attica the device is common enough in heavy retaining walls. Where these can be dated, the evidence seems almost invariably to favor the fourth century B.C.[1]

FIGURE 15. NORTH CIRCUIT WALL AT 13

The north return at the top of the hill shows a surprising number of smaller stones used as fillers between the larger blocks; but, as this stretch runs perfectly level at the top of a long earthy slope instead of climbing uphill over irregular terrain, it is probable that this slight change of style reflects the sense of security of the builders rather than a difference in date.

On the northwest headland just beyond the point which we have reached,[2] a Venetian bastion with circular outline replaces the rectangular ancient plan. One of the square classical corners is, however, extremely well preserved, projecting well beyond the Venetian circle at the north. It was apparently traditional in ancient wall construction to transform

[1] See Wrede, *Att. Mauern*, pp. 55–56, and cf. with our Figs. 15–16 his pls. 79, 94, 98, and 102.

[2] Point 15 of the Key Plan on PLATE I.

the curvilinear outline of cliff or headland into a broken rectilinear contour and even to prefer rectangular jogs with all their indentations to a polygon of obtuse angles. The only curve which is tolerated is the curve of the round tower, attached for half (or somewhat more than half) of its circle externally to a straight line of wall. On Acrocorinth no such round towers seem to occur, and even the square towers are usually mere bastions created by the accidents of the terrain.[1] As in the case in point, they are the result of constructional method and not military strategy.

FIGURE 16. NORTH CIRCUIT WALL AT 14

From this point for about fifty metres to the next high cliff to the north,[2] the wall is piled together in a very crude manner with every available cranny filled with small stone and smeared with medieval mortar. It is natural to assume that such a stretch must have been rebuilt from old material; but on that assumption it would be difficult to explain how so many of the larger blocks were recovered and set on top of the later underpinning. It is more probable that this small stretch was considered immune from attack and that no particular pains were taken with a stretch of wall which seemed to the builders practically superfluous. The style is even more careless than in those portions

[1] Except in the western line of defence where they are true towers to flank the adversary attacking wall or gate.

[2] Sector 15–16 of the Key Plan.

on the south slope of the mountain which observers have hastily called Mycenean or Geometric. Toward the north end of the stretch, the distinction between the ancient base and the medieval superstructure is very clear indeed. The projection of wooden beams out of the ancient masonry is explicable because of the need of scaffolding for the medieval masons who filled the ancient crevices with mortar and then proceeded to add their own wall on top of the ancient one. A careful study of this sector will leave no doubt that it is intact and ancient, even though it is badly built. That there were such stretches to which the builders attached less importance can be proven from Plutarch's *Life of Aratus*, in which the betrayal of Acrocorinth to the Sicyonian hero on the occasion of his night attack hinges on the existence of a stretch of wall only fifteen feet high—presumably because the builders thought that attack from this quarter was out of the question. Aratus' informer, however, knew of a sloping gully which led directly up to this point and so made capture of the citadel possible.[1]

Beyond the Venetian cannon emplacement which marks the extreme northwest point of the fortification, there follows another stretch of rudely piled polygonal work. Crevices in the naked rock are filled with small stone laid so as to form horizontal joints, and on this base larger blocks are piled, with smaller stones roughly filling the interstices between the polygonal outlines. Again the rudeness of this work cannot be interpreted as indicative of its greater age but merely reflects the imagined security of its position.

Under the easternmost cannon emplacement of this northwest headland there was apparently a gully which carried rain water and would therefore be a source of danger to a wall piled so carelessly. In consequence the style of masonry here changes abruptly. Great stones more than a metre long are beautifully keyed and fitted together to block this small gap, only seven metres wide. Once more the exigencies of the terrain have produced a change in construction which might easily be mistaken for a chronological discrepancy. The great east corner a few yards beyond is, as would be expected, extremely well built of large stones which for the quoins become almost true rectangles. Here as in several other places, the ancient base, though two thousand years older, has outlasted the medieval structure. The westward return around this corner is illustrated in figure 17 as a particularly good example of the "wedged polygonal" style. Eight to nine courses are perfectly preserved; and, exceptionally, the medieval builders have made no attempt to plug the chinks or smear the joints with mortar. It will be seen that there are no perfectly horizontal joints running the whole course of the wall, but that the builders nevertheless re-established the horizontal level as often as the irregularities of the stone forced them away from it. The small filling stones in every case close gaps between polygons and restore the horizontal. At the bottom, the crevice in the naked cliff is characteristically filled with flat smaller stones instead of large polygonal blocks.

[1] Plutarch, *Life of Aratus*, xviii; cf. below p. 43.

From this point the ragged bed-rock takes possession and for the next hundred metres there is no vestige of ancient wall with the possible exception of a single large squared block. The position on the edge of a high cliff and the fact that the wall itself was based on the very irregular naked rock may account for the disappearance. The gap ends with a short run of poorly constructed semi-polygonal work perched on a steep ledge, and this is immediately followed by a long stretch of beautifully preserved ancient masonry, leading to the postern gate at the head of the North Gully (cf. Fig. 151 for a general

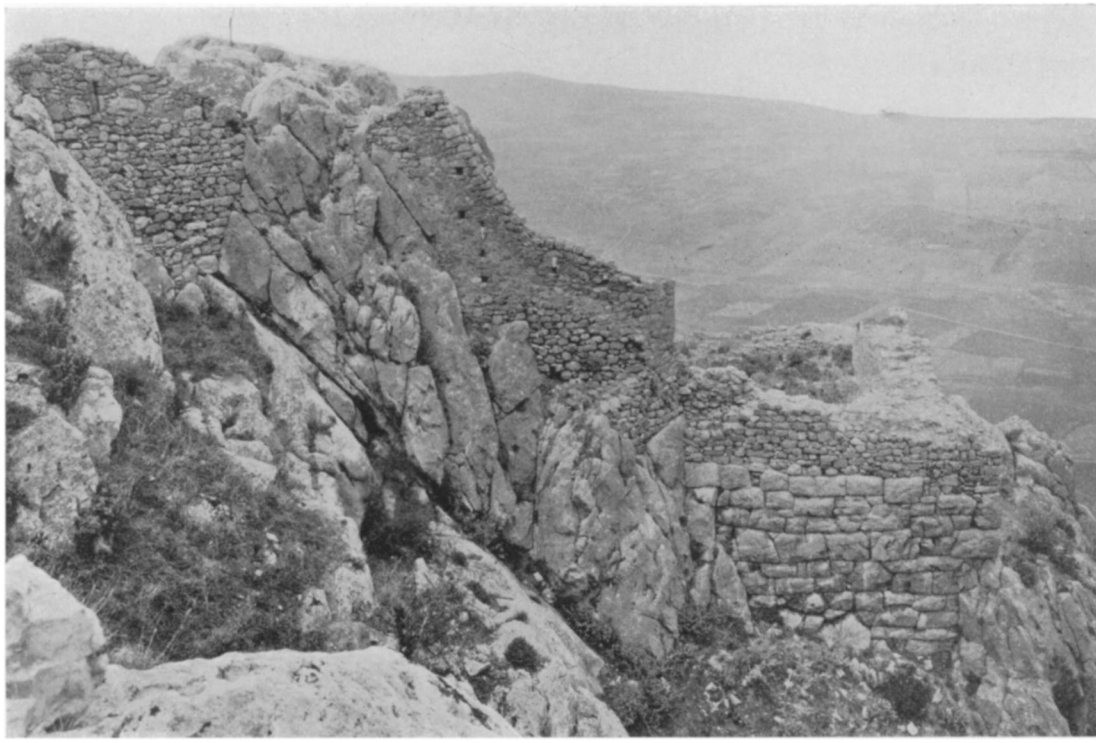

FIGURE 17. NORTH CIRCUIT WALL AT 17

view). This stretch sets some difficult problems for the archaeologist. Our general description of Acrocorinth emphasized the deep bay or gully in the north side of the mountain, framed in on either side by high cliffs which (on the east, at any rate) are almost impossible to scale. The bay itself is a long and steeply sloping valley which at the bottom gradually flattens out into the plateau on which the ancient city was built. Inland, its gradient becomes steeper and steeper until at the end, just within the surviving line of wall, a very sharp slope leads over the watershed into the west valley of Acrocorinth, far up the hillside above the western line of gates.[1] It has already been pointed out that Acrocorinth consists essentially of two rocky peaks with a grassy saddle between them,

[1] Cf. the Survey Map. The watershed between north and west passes just north of the mosque (point 50 on the Key Plan).

and that from this two-peaked crest the land descends in two large valleys: the steeper one to the north leading down into the heart of the lower city, the gentler and larger one to the west forming the only easy entrance to the stronghold. The problem of defence consequently involved strong curtain walls across these valleys and, naturally, gates through these walls, since it was by these approaches that in normal times the garrison of the fort would ascend and descend. At the Roman capture of the town in 146 B.C., a military commander charged with the problem of dismantling the fortifications would naturally

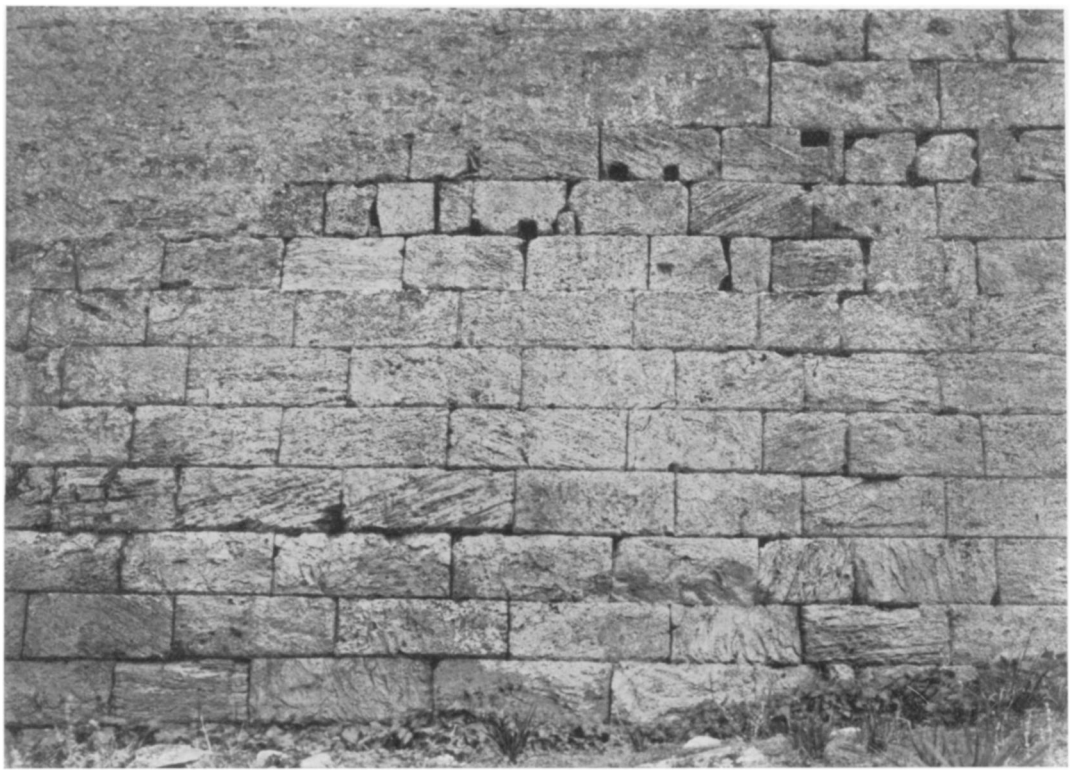

FIGURE 18. NORTH CIRCUIT WALL: SECTOR 18–19

turn his attention to these two curtain walls across the valleys and destroy them thoroughly. In the west valley only a single tower and two corner bastions have certainly survived from the Greek defenses, and these were left, no doubt, only because the work of destruction hardly repaid the efforts involved, once the bulk of the west wall had disappeared. It would be natural to assume that in the north valley the curtain wall was similarly destroyed; yet actually there exists a long stretch of accurately fitted poros ashlar (Fig. 18) which is free from mortar and has an undoubtedly ancient look. The blocks seem to have been re-used from some rather large and extensive building and to have been fitted with extreme care, respecting even the bevelled lower joint which is nowhere mis-set as an upper one. Above the seventh course there comes a change: the blocks are no longer fitted with the same precision and the vertical joints no longer alternate

correctly. It is natural to look on the lower portion of this stretch of wall as ancient, i.e. either as Hellenistic Greek or as Roman; but logically considered, it should be neither. It should not be Greek because elsewhere the base of the Greek circuit wall is hard limestone; and, though it would be perfectly reasonable to use poros in the higher courses, it is strange that the original line of Greek wall just to the east of this point should have been based on the usual native limestone socle (Figs. 19–20) and that this same system should not have been consistently carried through. Such a massive limestone base could not have disappeared in Greek times, no matter how often the wall was repaired or rebuilt. If the poros screen is Greek, it cannot, by its technique, be earlier than the Hellenistic Age; and since the original line of wall must have been continuous and complete, it follows that the Hellenistic builders must have removed the great limestone blocks at the base of the wall in order to replace them with less substantial poros,—which is an impossible assumption. Again, the poros screen cannot be Roman, since we may be sure that the general Roman policy which forbade the local fortification of cities within the empire would have been strictly applied to Corinth, the memory of whose resistance to Rome was never extinguished. Not until the capital of the empire had been shifted to Constantinople and the barbarian invasions had convinced the rulers of the Eastern Empire that they could not hold the frontiers of their empire unbroken, would permission have been given to refortify such a dangerous and redoubtable ancient stronghold as Acrocorinth. Similarly, at Eleusis, the great outermost screen wall of the fortifications seems to date from a period which we may place toward the end of the fourth century of our era.[1] In Corinth a powerful wall to be described later[2] was built at about this same time to protect the lower town; and from this period and in connection with these same defenses it is reasonable to assume that the poros screen across the north valley was erected. The first stretch (Fig. 18), some 30 m. in length, is laid entirely without mortar and should therefore strictly be pre-Byzantine. Other stretches (Fig. 20) show fine mortar joints between the blocks, and are based on the old Greek limestone socle, which re-emerges on either side of the postern gate. In some places the poros is carelessly put together, while in others it shows a careful use of tile in both the vertical and horizontal joints. This latter stretch should therefore be Byzantine. Possibly the fact that the blocks, being taken from a well-built Hellenistic structure, were already hewn to exact sizes induced the builders of the westernmost stretch (Fig. 18) to fit them together without mortar, at a period when they would normally have done their building with less homogeneous material and bonded this together with mortar and tile. The absence of mortar may therefore be fallacious evidence for the date.

Our conclusion is that the whole poros screen most probably dates from the refortification of Corinth at the end of the pagan period, that it may more reasonably be held to show two periods in its construction and be assigned to a single period only if a technical

[1] But at Eleusis the style of masonry is characteristically late-Roman.

[2] Cf. p. 126.

explanation for the absence of mortar in one of its sections can be found. Recourse must be had to various subsequent periods to explain the stretch of heavy buttress wall (at the left of Fig. 19) behind which the Greek limestone base with its Early Byzantine poros top vanishes from sight, or the details of the doorway of the postern gate, as well as various higher portions of the wall above the poros, which are built of small stone and

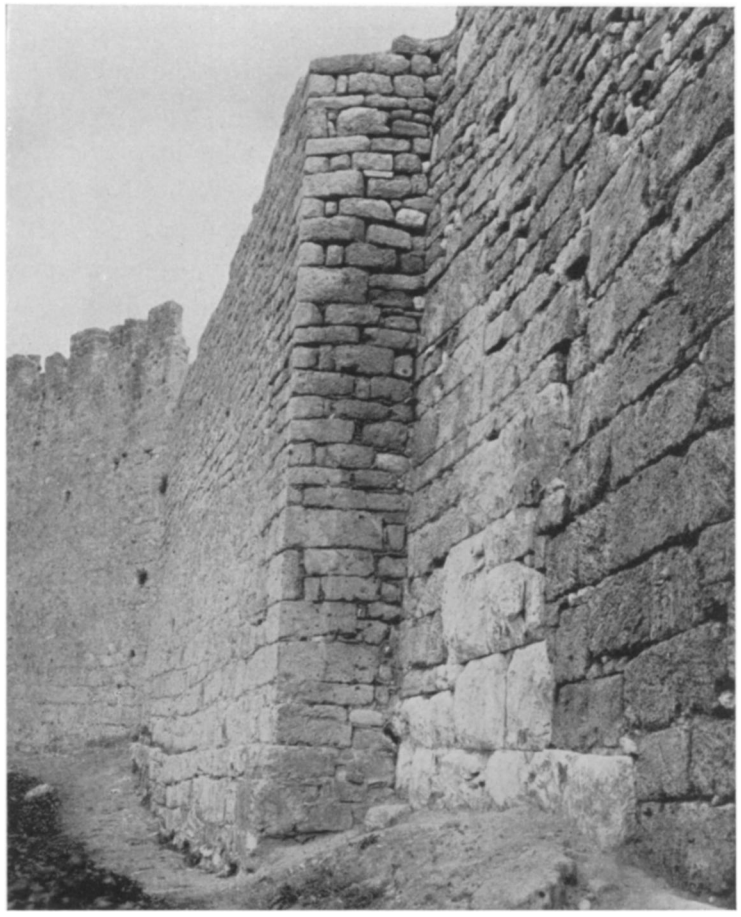

FIGURE 19. NORTH CIRCUIT WALL AT 20

carry late medieval battlements. But the analysis of all these elements belongs to the second portion of this volume.

Just as the curtain walls across the valleys were the first thing which the Roman conqueror would have destroyed, so inevitably they were the first thing which a new defender would have to rebuild. The rest of the circuit of the wall seems never to have been thoroughly dismantled and therefore was probably easy to patch up sufficiently well for any sudden emergency; but the completely obliterated screen walls across the entrances, at the two most vulnerable points of the whole fortress, would have to be built more carefully and more thoroughly. This consideration explains why the earliest Byzantine

period is best represented at these two places. The wall which adjoins the ancient Greek south bastion of the west line of fortifications (visible in the central background of figure 146) is thus an exact parallel to the poros screen near the North Postern gate.

Since the Greek limestone socle can be traced for fifty metres on either side of the postern, it follows that the Roman destruction was concentrated on the southern half of this stretch of wall and that, therefore, the ancient Greek gate was not situated, like the medieval postern, on top of the cliffs at the valley's head but rather at the true crest of the grassy slope, which reaches the wall exactly at the portion of the finest poros construction

FIGURE 20. NORTH CIRCUIT WALL: SECTOR 22–23

without mortar shown in figure 18. Consonant with this is the observation that there are no classical elements in the extant postern gateway.

With the ending of this long poros wall and the disappearance of the classical limestone socle behind the projecting masonry corner shown at the left in figure 20, the circuit reaches the head of the ravine, a generally dry watercourse which leads back to the internal angle of the "L" or boot, to which we have repeatedly compared the fortified area. The ancient wall-base re-emerges beyond the protruding nose of later masonry and commences the long ascent around the head of the ravine, in order to reach the high plateau above the sheer cliffs which overhang it on the eastern side. A general view of the ascending stretch, in which the joints, strangely enough, incline parallel to the slope instead of horizontally, is given in figure 21. The style remains semi-polygonal and differs in no

recognizable respect from the northwest circuit which we have already followed and described. But when the last innermost corner of the ravine has been passed, directly above a low cliff, this well-built wall gives place to the mere pile of roughly shaped blocks shown in figure 22. Since only the most gaping crevices contain medieval fragments, while elsewhere there is no vestige of mortar or of tile, this badly constructed wall-base must be ancient. Its crudity offers no criterion of date. Immediately afterward the semi-polygonal style is resumed in small intermittent stretches of preserved blocks, leading thus to the highest point yet attained[1] and thence descending slightly to the edge of a high

FIGURE 21. NORTH CIRCUIT WALL: GENERAL VIEW OF SECTOR 18–24

cliff, nearly due north of the east peak of the mountain, where stands one of the best preserved pieces in the entire circuit of wall (Figs. 23–24). The style remains semi-polygonal, with a more careful approximation to squared blocks at the corner. Figure 24 gives a detail of the inner face of the wall. This[2] is the only place in the circuit where both faces of the Greek construction are visible. The width averages only slightly more than two metres; but it is probable that the whole wall is built solid, and not (as in the lower town) in two faces with loose fill or brick between. Beyond, the cliff suddenly drops sheer (Fig. 23, extreme left). Near at hand, on its hollyoak-clad face where no camera

[1] 543 m. above sea level, at point 26 of the Key Plan.

[2] Point 27 of the Key Plan.

can uncover it and very few visitors can descend to admire it, the ancient wall is preserved for a magnificent but brief stretch, with four courses of finely hewn, almost isodomic, masonry set together of blocks more than 1 m. long and 0.50–0.80 m. high. One block, the largest of the series, measures 1.75 m. by 0.80 m.

Once past the cliff, it is no difficult task to trace the ancient wall around the toe of the boot; for everywhere ancient and medieval line are identical. But there is comparatively little which demands comment, since there are no notable stretches and no apparent

FIGURE 22. NORTH CIRCUIT WALL NEAR 25

departure from the semi-polygonal style, until the northeast corner has been turned and—at the ball of the foot within the boot[1]—the slowly climbing wall skirts more vertical cliffs than any hitherto encountered in the circuit.

Here the rocks rise sheer above the sloping band of the East Ascent; and these cliffs are unlike most of those surrounding Acrocorinth, which, seen from afar, are imposing and forbidding, but actually can nearly everywhere be penetrated by anyone who is (in the ancient phrase) "well-girt" and used to climbing. Only at two or three points in the circuit (near the head of the North Gully, for a very brief stretch in the Northeast Headland, and here under the east wall of the mountain-top) the rock cannot be scaled.

[1] Point 31 of the Key Plan.

Furthermore, this east stretch lay within the city defenses, since the walls of the lower city tied into those of the upper citadel south of this point near the hexagonal tower which marks the beginning of the instep of the boot of Acrocorinth.[1] Thus there was no good reason for elaborately built defenses in this portion of the circuit. Figures 25 and 26 illustrate some of the very crude pieces of wall which occur here and which have been called Mycenean; but it should be noticed that wherever this wall turns a right-

FIGURE 23. NORTH CIRCUIT WALL: EXTERIOR AT 27

angled corner the blocks are carefully trimmed and laid and do not show a primitive technique. Even in the apparently casual piling of rudely fitted blocks in figure 26 a careful eye will detect long horizontal faces carefully hewn to the line. However, this alone does not militate against a prehistoric origin, since mere crudeness of style is not a correct criterion of Helladic masonry, much of which is beautifully squared and fitted. We must approach the problem with more general considerations.

Acrocorinth is too high to be a typical Mycenean citadel. The Helladic hills of Corinthia have been enumerated by Blegen:[2] they are all low mounds. The typical Helladic citadel—Tiryns, Mycenae, Athens, Thebes, Gla—was small in area and rose to no great

[1] Point 33 of the Key Plan.

[2] → *A.J.A.*, XXIV, 1920, pp. 1ff.; cf. *Corinth*, I, pp. 107–114.

height above the surrounding plain. A steep and lofty citadel like the Larisa above Argos seems, in spite of a prehistoric name, not to have been fortified except as a watch-post in Helladic times.[1] Acrocorinth, with its enormous size and great height, would be even less suitable. Nor can it be argued that only a small portion of the mountain-top need have been enclosed and fortified in the Helladic period; for the pseudo-Mycenean stretches in the wall occur at points that fix a circuit essentially identical with the classical one.

Again, no Mycenean sherds or other indubitable traces of Mycenean civilization have ever been discovered on Acrocorinth. Such negative evidence is, of course, inconclusive,

FIGURE 24. NORTH CIRCUIT WALL: INTERIOR AT 27

but it is not for that reason valueless. The sanctuary on the peak and the immediate surroundings of Upper Peirene have been thoroughly investigated, and both should be critical spots for testing an early occupation of the mountain.

Greek heroic legend kept alive the memory of the great Helladic towns, but has little to say about Corinth. True, Sisyphus' task of endlessly rolling his boulder uphill might be taken as a distant and distorted reflection of the labor of fortifying the great hilltop. And later classical tradition definitely supported this identification by building a "Sisypheum" somewhere near Upper Peirene.[2] But the cult need scarcely be older than the obviously un-Helladic marble building; and the problem of finding any traces of a Mycenean

[1] Cf. Vollgraff, "Arx Argorum," in *Mnemosyne*, LVI, 1928, pp. 315–327. Care must be taken to distinguish between walls belonging to the Mycenean watch-post and the Late Geometric sanctuary of Athena.

[2] Strabo, viii, 6, 22.

occupation is still incumbent on the modern theoriser. In the Homeric Catalogue—which, whatever may be its relations to the rest of the Iliad, can be shown to reflect conditions earlier than the Doric invasions—Corinth is merely one of the towns of Agamemnon's

FIGURE 25. EAST CIRCUIT WALL: DETAIL OF CYCLOPEAN MASONRY

domain, ruled from Mycenae.[1] Elsewhere in the Homeric poems Corinth is inconspicuous and all but unmentioned. Nor is it certain that the Homeric Ephyra is to be identified with Corinth, much less with Acrocorinth. Its localization μυχῷ Ἄργεος ἱπποβότοιο[2] is

[1] *Iliad*, ii, 570. The adjective ἀφνειόν may be a later touch, more appropriate to Homer's than Agamemnon's time; but cf. Blegen's cogent remarks on the fertility of the district and its abundant springs, *A.J.A.*, XXIV, 1920, pp. 1ff.; *Corinth*, I, p. 107.

[2] *Iliad*, vi, 152. The connection of Ephyra with Sisyphus and Bellerophon is explicit, however.

scarcely appropriate to a situation so conspicuous and so easily characterized by a more distinctive epithet.[1] "Corinth," being a pre-Hellenic word like "Tirynth," is presumably the survival of the original Helladic name, but, as we have remarked, does not seem to have belonged to any important town. Not until the development of sea-borne east–west trade did great prosperity come with the Oriental contact in the late eighth and the seventh centuries B.C.

We conclude that the balance of present evidence is contrary to the identification of any part of the circuit wall of Acrocorinth as Mycenean or pre-classical. The sole apparent

FIGURE 26. EAST CIRCUIT WALL: ILLUSTRATING "CYCLOPEAN POLYGONAL" STYLE

support of the hypothesis—the wall itself—offers no good evidence of prehistoric origin. We have already remarked that the Cyclopean stretches are intimately and indistinguishably connected with construction in classical polygonal and pseudo-polygonal style. Further, though they imply a use of clay or mud as a binder and are not accurately fitted and dry set as classical walls should be, there is no reason to term such a method unclassical. The archaic polygonal manner presumably was developed out of just such a style by closer setting and more careful fitting of the blocks. The rude Cyclopean should therefore be a specifically late-seventh or early-sixth century method, capable of perpetuation indefinitely into later centuries for just such rough powerful defence of an inaccessible acropolis. The evident parallels to the Acrocorinthian "Mycenean" stretches do not exist

[1] e.g. "*bimaris Corinthi*," "The landmark to the double tide."

at Mycenae or Tiryns so much as at Athens, in the "Pelasgian" wall of the Athenian acropolis. But this latter thick and tall girdle wall has likewise no indisputable claim to be called Mycenean.[1]

Are these ill-assembled (but by no means weak) stretches of wall on Acrocorinth accordingly to be identified as remnants of extremely archaic Greek circumvallation? It is possible to argue that the builders of the later wall in semi-polygonal style might have allowed an earlier cruder structure to remain at certain points which they judged unassailable. But the location of these "primitive" stretches—on the Northwest Salient, at the head of the North Gully, on the east flank, near the west end of the south flank—defines a circuit as vast as the later final defenses; and we have no historic tradition of Corinthian greatness in the Geometric Age to justify so tremendous a citadel. Only with the commercial prosperity of the Age of the Tyrants is there reason to assume so ambitious a fortification; and to some portion of this period it is reasonable to ascribe these hasty but powerful constructions, with which may be associated the more careful screen of polygonal masonry across the west slope of the mountain. And even this ascription must be admitted as uncertain, since it is always possible that the stretches of cruder masonry mark not so much the antiquity and rudeness of the age as the sense of security of the builders who, in the course of their enormous enterprise, might well have welcomed an opportunity to save themselves the toil and expense of working every stone to an exact joint.

In general, this southeast portion of the circuit is less laboriously constructed than the north. The long stretch discernible at the top of figure 27 is fairly representative of the style. To the left of the hexagonal tower of this photograph, the wall base is made practically of great boulders balanced on the bare limestone ribs of the mountain. But a little farther on, the good semi-polygonal style reappears, culminating in careful megalithic work, where a "trilithon" at the base of the wall contains two consecutive stones 1.10 m. square and a third 1.30 m. long by 0.90 m. high. If these blocks have a depth proportionate to their outer faces, they should weigh some three tons each.

Figure 28 is added as a good specimen of a style which recurs frequently in this southeastern face. The jointing system is polygonal, but the blocks are loosely and carelessly

[1] The chamfered edge of the southwest wing of the Mnesiclean Propylaea shows that this wall stood to a height of 10 m. in 432 B.C. We can hardly imagine a classical repair or superstructure in ashlar or other non-Cyclopean style topping the crude base which still survives, so that the whole 10 m. height would seemingly have been Cyclopean. Must we believe that such a wall stood intact for some 700 years from the Mycenean days? Or, if we assume a classical rebuilding of the superstructure in Cyclopean style, why should not the entire wall be early classical Cyclopean? It is far more likely that the Pelargikon is merely the first classical girdle-wall to the Acropolis and hence belongs to the late seventh or early sixth century. The indubitable Helladic remains on the Acropolis have no demonstrable connection with this wall. For a photograph of the Pelargikon, see Wrede, *Att. Mauern*, pl. 1 (with which cf. the almost identical construction shown in our Fig. 26). For the facts cf. Judeich, *Topographie von Athen* (1931), pp. 113–5, where, however, it seems to be taken for granted that the Pelargikon is prehistoric. Cf. also Dinsmoor's study of the stratification south of the Parthenon, *A.J.A.*, XXXVIII, 1934, pp. 416ff., with its indication that the fill behind the "Pelasgic" wall contained geometric as well as Mycenean sherds.

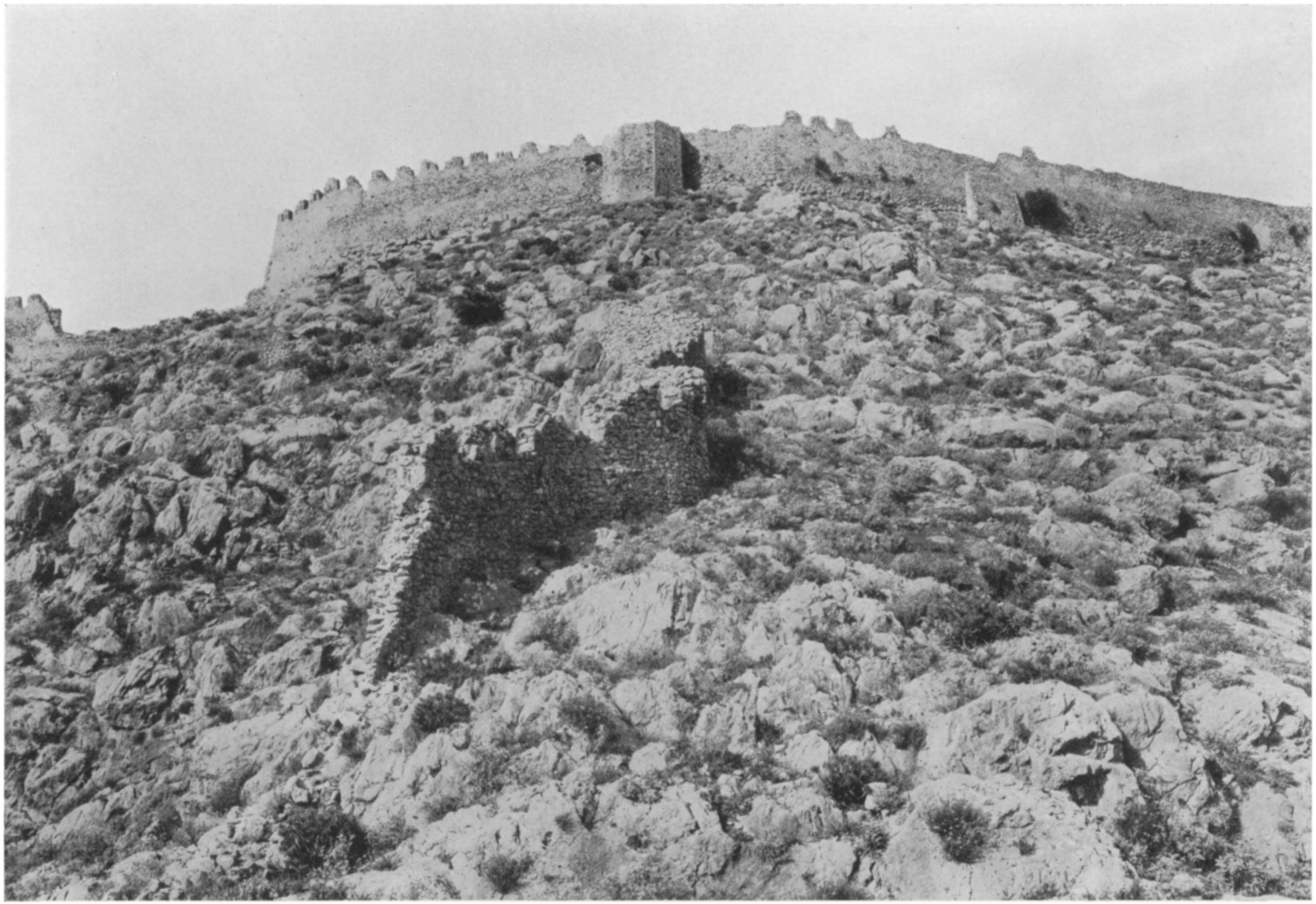

FIGURE 27. EAST CIRCUIT WALL: SECTOR 32–34
(The East City-wall once Ascended through the Central Foreground to the Hexagonal Tower)

fitted. The medieval builders thrust small stones into the gaps[1] and solidified the whole structure externally with a liberal use of mortar. In the centre of the photograph, the blocks in the two topmost ancient courses are not polygonal, but resemble squared blocks in horizontal courses. Any effort to date such a construction by mere inspection seems methodically useless.[2]

Figure 29 shows large semi-polygonal blocks at the bottom giving place to more regularly squared and smaller blocks above. The larger filling-stones which are cut to follow the

FIGURE 28. EAST CIRCUIT WALL: ILLUSTRATING "PSEUDO-POLYGONAL" STYLE

outline of the blocks are ancient; the smaller stones are set in mortar and are medieval. Such a style might fitly be called "ashlar polygonal" in view of the manifest tendency to preserve horizontal lines and to alternate the vertical joints. The date may therefore be fourth century B.C. or even later.

Figure 30 shows the adaptation of the wall to the living rock. The protruding ribs of native limestone are not trimmed, but at most merely flattened a little on top in order to bed the wall. The interstices between the ribs are filled with small blocks carefully fitted against them, and the higher courses are carried over blocks and cliff alike, with an approximation to horizontal coursing.

[1] Herein probably merely repeating the original builders' method. Mud may have been the classical equivalent of the mortar.

[2] We might, however, draw a parallel with certain stretches of the roughly assembled frontier wall running between Parnes and Aigaleos (the so-called *Dema*; cf. Wrede, *Att. Mauern*, fig. 29, and p. 17, where a date in the fourth century is advocated) to show that such a construction is not necessarily early.

Opposite the "fountain" of Upper Peirene, the enormous batter of the medieval buttress walls entirely conceals the ancient structure, some of which must survive inside the medieval line. It is thus impossible without dismantling the medieval construction to ascertain whether there was an ancient gate near Peirene or whether the vicinity of this precious reservoir was marked by any special defenses.

In the south bay, stretching from Peirene to the high rocky ridge of the western peak, very little of the ancient wall is preserved; but as small stretches of it nevertheless do

FIGURE 29. EAST CIRCUIT WALL: ILLUSTRATING "ASHLAR POLYGONAL" STYLE

occur here and there and are in every case at the base of the medieval wall, it is perfectly certain that the Greek and medieval fortifications followed the same course.

The final stretch of wall, close under the ridge of the western peak, is again more crudely put together of limestone blocks (Fig. 31) which are not trimmed polygons so much as rough-hewn boulders preserving the shapes in which they were split from the bed-rock.[1] The effect is that of a very ancient style of masonry; so that this stretch also has been commonly considered to be Mycenean. But again there is no reason to assume that the wall is older merely because it is less carefully put together out of large and irregular blocks. Much of it has been patched at the time of the building of the keep, and the chinks and crevices filled with small stone and mortar (Fig. 32). It none the less

[1] Herein, of course, is all the *raison d'être* of Cyclopean and "Pelasgic" construction. Marble and poros can be sawn and hence lead inevitably to an ashlar style: the heavier limestones must be split and hence tend to arbitrary and irregular shapes.

accurately preserves the ancient line. In the stretch to the east of the medieval donjon, the ancient wall is preserved to an unusual height; but the stones become smaller and the general impression is of a less powerful fortification.

The ascent to these southwest walls is long and fatiguing, through an open and rocky slope (Fig. 33) more than a thousand feet in altitude. Of all the aspects of Acrocorinth this is the least suitable for a surprise attack or for a powerful assault. Far below, beyond the interruption of countless eroded gullies, the highway runs through a treeless valley. No army intent on the capture of the citadel would storm the mountain up this cruel

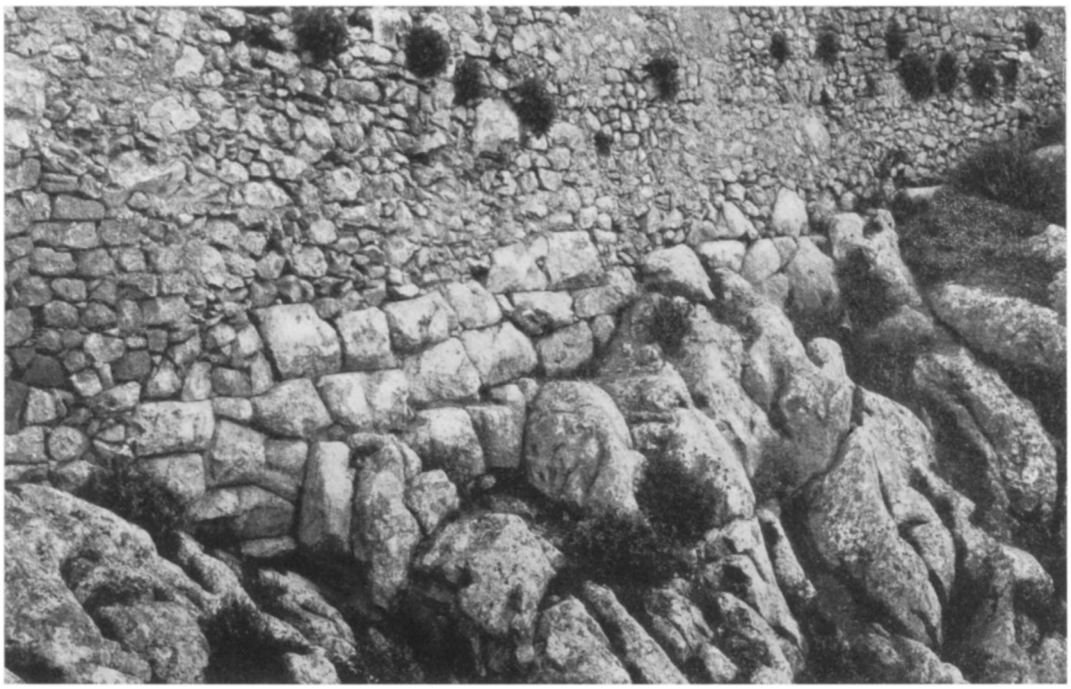

FIGURE 30. EAST CIRCUIT WALL: SHOWING ADAPTATION TO BED-ROCK

and exposed incline, on which no gate opens and through which no path descends. The perfunctory style of masonry is thus explained by the strategic conditions.

Under the Venetian artillery platform, at the extreme west end of the redout which in medieval times occupied the southwest peak of the mountain, the Greek walls disappear from sight (cf. Fig. 195) and here all further trace of them is lost. The medieval walls descend at right angles northward and end in air on an overhanging cliff above the third and innermost line of defence of the western entry (cf. the Survey Map). It may well be doubted whether the classical line followed the same course. It is more logical to suppose that the ancient walls continued westward with very little change of direction, descending the steep ridge which divides the south slope from the western cliffs.[1] Lower

[1] In figure 33 this ridge appears as the sky-line immediately above the spear-head of shadow at the extreme left of Acrocorinth.

down, turning north through these cliffs they would have reached the belvedere, or outpost, on the height above the lowest medieval gateway, where ancient blocks once more are to be seen.[1] Thence, doubling back eastward, and holding to a fairly level band or break in the cliffs, the wall would have rejoined the south bastion above the middle gate, to complete and close the long circuit whose details we have traced.

FIGURE 31. SOUTH CIRCUIT WALL: SECTOR 43–44

The strong but tiny medieval belvedere toward the west, which juts out in air more than a hundred feet sheer above the "drawbridge" and the dry moat at the entrance to the whole medieval system of fortifications, even though it follows a line of ancient Greek wall on which it is directly based, is actually an illogical device, to which a semblance of meaning has been given by three or four cannon emplacements. This wall appears to be a wholly separate element in the classical defenses, without visible connection with the double line which blocks the main ascent. Toward the east it leads back under the medieval

[1] Point 4 of the Key Plan.

curtain until it strikes the first sheer cliff running up to the western peak of the mountain, where it entirely vanishes;[1] it is natural, however, to suppose that originally it continued to the great South Bastion. Beyond the belvedere in the other direction the ancient wall may be traced only as far as the immediately following Venetian cannon emplacement, where it again vanishes abruptly on top of the west cliffs of the mountain. The purpose of this short stretch of wall becomes apparent only if we take it to be part of the great girdle wall of the mountain and not what medieval engineers converted it into, a mere

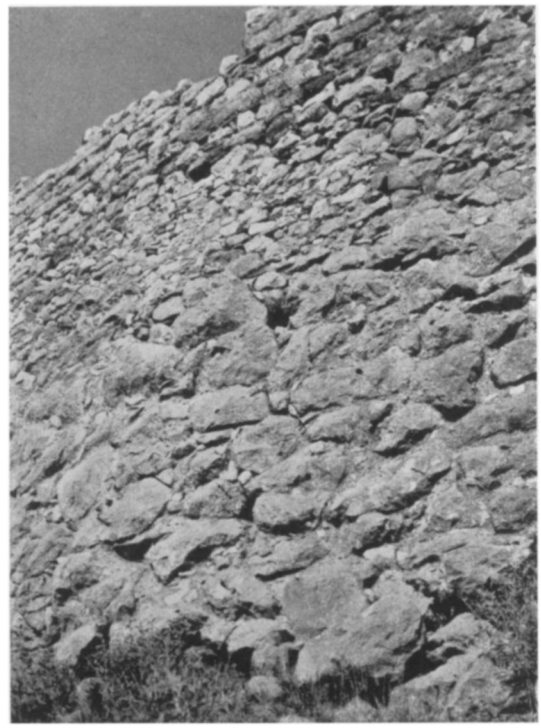

FIGURE 32. SOUTH CIRCUIT WALL: DETAIL FROM SECTOR 43–44

fortified point of vantage overlooking the west approach to the main citadel. It is for this reason that we have asserted that the ancient line of wall must have continued southward from the belvedere through the southwest slopes of the mountain, perhaps ascending where a very steep and sharp ridge of natural rock marks the division between the sheer cliffs of the west face and the much less abrupt slope of the mountain's southern side. It is possible that a small medieval wall, not more than five metres long, situated on a tiny plateau which forms the only easy passage through this ridge, marks the spot where once the ancient wall ascended toward the west redout of the great medieval keep on the western peak. Here, as already remarked, the ancient line of wall suddenly re-emerges; and from this point it can be traced with great consistency along the line occupied by

[1] Cf. the indications on PLATE II.

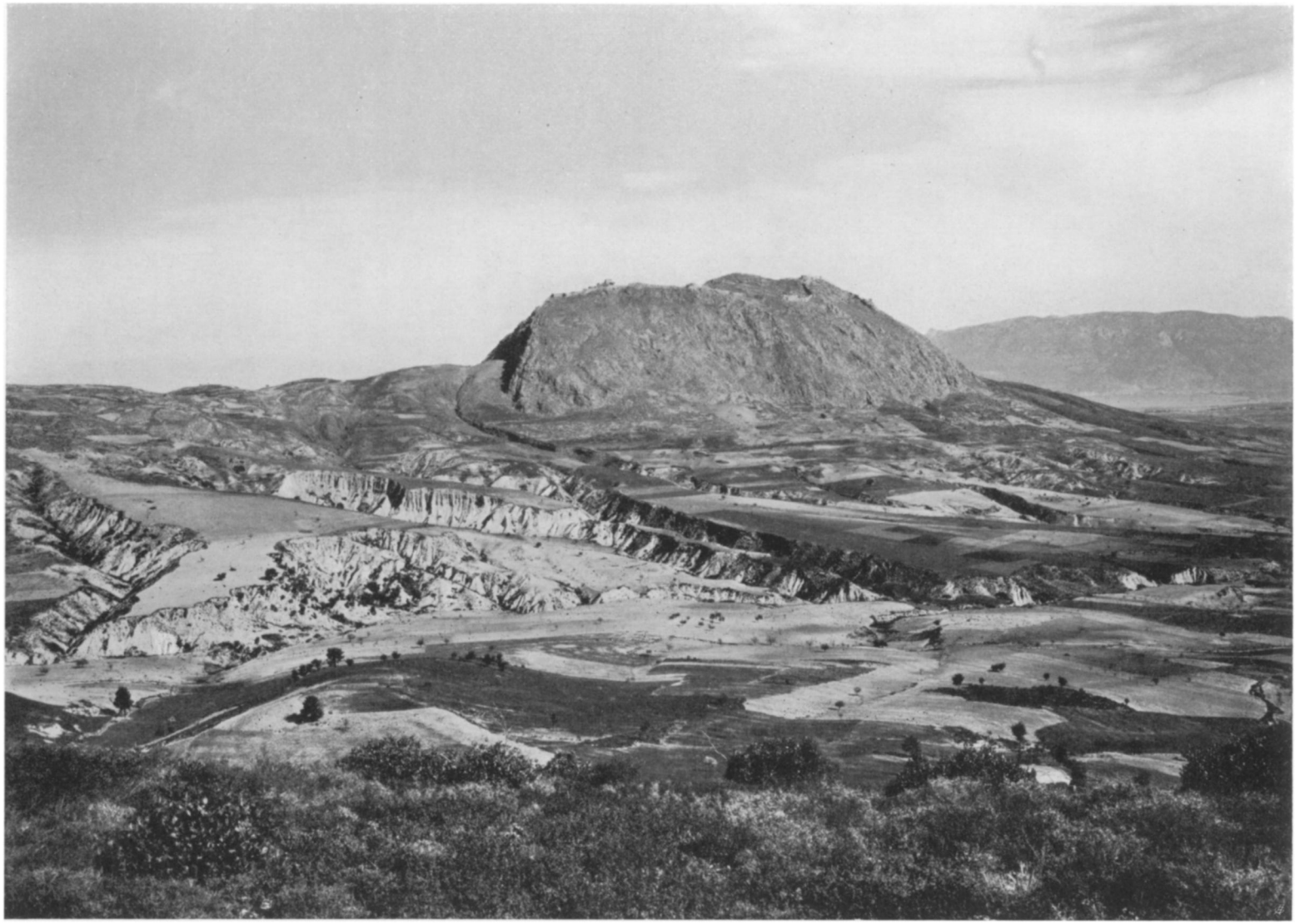

FIGURE 33. ACROCORINTH FROM THE SOUTHWEST

the medieval fortifications. This assumed connection between the belvedere and the west peak high above is shown by a dotted line in PLATE II. If the assumption is correct, the belvedere formed a spur of the true girdle wall, and its north face must have continued very nearly where the medieval walls outline a narrow passage eastward through the cliffs to the main line of defenses and the bastion above the middle gate. As no trace of the wall has survived at the critical point necessary to decide the question, the solution must remain hypothetical. It is difficult, however, to see how the belvedere could have remained as an isolated lookout unless it had some protected access leading to it from the main fortifications behind.

A final consideration is practically decisive. The great wall which enclosed the lower city of Corinth and tied it to the defenses of Acrocorinth can be traced, in its western course, nearly up to the projecting rock of the mountain beneath the belvedere. Any apparent lack of logic in bringing the Acrocorinthian wall-circuit so far to the west beyond the main entrance and its gates is instantly dispelled by this observation. The medieval engineers, having only the mountain top to defend, were equally logical in cutting directly northward from their castle redout on the western peak down to the bastion which marked the junction of their second and third lines of defence. The superfluous loop through the belvedere was then utilized as best it could be and became a mere outpost above the lowest gate. In the classical circuit it had been an integral part of the girdle wall of Acrocorinth, in immediate connection with the west wall of the lower city.

With all its ins and outs, such as they appear upon the plan, the entire circuit measures almost precisely 3000 metres, which are a scant 2 miles in English and about 17 stades in ancient Greek reckoning. The bootlike area thus enclosed is about 600 metres long, 300–440 metres wide in the upper or narrower part of the boot, and 500 metres wide in the foot, making a superficial area of about 240,000 square metres or very nearly 60 acres.

It would be hazardous to venture an estimate how large a garrison would have been needed to defend such a fortress in antiquity, were it not for the fortunate piece of precise information in Plutarch's *Life of Aratus*, a biography which seems to have been compiled largely from that hero's own memoirs. After the spectacular nocturnal capture by Aratus, the citadel "was garrisoned by the Achaeans with four hundred men-at-arms and fifty dogs with as many keepers."[1] As for the force necessary to overwhelm such a stronghold, we are apparently only echoing classical opinion when we declare the defenses impregnable to normal direct assault with ancient military equipment. With only four hundred men, however, Aratus succeeded in capturing it on a moonlit summer night by scaling the walls at a low point and overcoming in hand-to-hand fray the bewildered Macedonian garrison within. In this exploit Aratus did not attack Acrocorinth directly from the open country, nor attempt to penetrate the obvious west defenses, but first forced a passage into the main lower city near "the gate by the Heraeum" and then, after having traversed a section

[1] *Op. cit.*, xxiv.

of the town itself, ascended the mountain by a "diagonal cut toward the cliffs," which brought him to the spot where the citadel wall was lowest to scale.[1] The account[2] indicates that the walls of the lower city joined those of Acrocorinth, so that the acropolis formed part of the city's defenses; and this is expressly stated by Strabo[3] who remarks that all the city was walled except the part against the mountain, which was itself included in the general circuit of defence. To the identification and description of these City-walls we now turn.

[1] Plut., *Aratus*, xviii, ἦ χθαμαλώτατον ἐπῳκοδόμηται τῷ φρουρίῳ τὸ τεῖχος.

[2] It is perhaps not a matter of particular moment to determine the precise spot of Aratus' successful assault; yet Plutarch's narrative (*Aratus*, xxi–xxii) is circumstantial enough to make the identification possible. The penetration of the city-wall before ascending the mountain limits the area of approach to the sector 4–33 of the Key Plan, since the rest of the circuit lies outside the city. The approach from Sicyon and the probability that the Heraeum lay outside of Corinth to the west indicate that the West and not the East City-wall was crossed. Hence any approach of the mountain from the east is unlikely because involving a risky and seemingly needless traverse of the whole width of the lower city. The abnormality in the height of the Acrocorinthian wall at the point attacked indicates that it was not easily accessible, perhaps only approachable through the couloir which Aratus followed. The possibilities are thus narrowed down with considerable certainty to the short stretch of wall 25–27 across the plateau on top of the high North Cliffs, where the extant remains indicate that the classical wall was not very powerful. The cliffs outside the acropolis wall in this sector cannot be scaled by armed men approaching from the west, out of the North Gully directly, but can be penetrated from the open slopes of the Northeast Headland, which in turn can be reached out of the North Gully through a single steep cut or couloir—a πλαγίαν ἐντομὴν πρὸς τὸ κρημνῶδες, in the phrase of Aratus' informer, who claims to have first noticed this feature while ascending Acrocorinth to visit his brother on garrison duty. Quite correctly, the couloir to the Northeast Headland is plainly visible to one mounting through the North Gully to the North Postern, the direct and obvious shortcut between the city and its acropolis. A fragment of medieval masonry still partially stopping the mouth of the couloir suggests that its military significance was remembered or rediscovered in later times. The other details in Plutarch's stirring narrative,—the direction of the moon, the ambush for the descending guard, the shadowy cliff under which the main attacking force crouched in bewilderment—can all be localized with ease, once the couloir to the Northeast Headland is accepted as the πλαγίαν ἐντομήν.

[3] viii, 6, 21.

II

THE CITY-WALLS OF CORINTH

By RHYS CARPENTER

It is a necessary inference from Strabo's description, already quoted, that the City-wall attached itself to the Mountain-wall or else ended in some cliff in immediate connection with the Mountain-wall; but no ocular inspection of Acrocorinth will disclose the points of contact. Since we cannot begin at the top, we must adopt the opposite procedure and, identifying the City-wall to east and west of the inhabited town, seek to trace its course up the mountain-side to its final junction with the defenses of the mountain-top.

It was not until very recently that, thanks to Mrs. Stillwell's and especially to Prof. Broneer's excavations, the course of the City-wall on the west was identifiable at any point. A portion of the wall to the east of the town on the contrary, has always been apparent.[1] It is perhaps more feasible, therefore, to begin with the known and familiar.

The map on Plate III is based directly on a plan prepared by the Topographic Bureau of the Hellenic Ministry of Communications, employing airplane photographs and a hypsometric cartographic machine of recent German type. It will be noted that the archaic Apollo Temple and the main excavations of the lower town lie to the west, beyond the legend "Modern Village" at the top of the sheet, and that the modern highroad from Corinth to Argos together with the Leukon[2] stream marks the lower or eastern boundary of the survey. Surviving stretches of the East City-wall have been entered in solid black, while the certainly established further course of the wall is shown as a broken line. At the upper left this broken line will be seen ascending a long spur or ridge leading toward the southern flank of Acrocorinth. It is this same spur which appears against the sky on the left in figure 92 and leads to the low flat eminence which we have termed the East Hill and marked with the numeral "12" on the small key plan in figure 2. Up to this point the wall can be traced without excavating, since the strongly accentuated watershed permits no choice and an occasional poros block still in place amid the thyme with which the mountain-side is overgrown lays at rest any possible doubt.

From the East Hill observation re-inforced with superficial excavation traced the wall in a southerly direction along the lower edge of a level stretch, perhaps 200 m. in length, occupied to-day by the highest sown fields on this flank of the mountain (Fig. 34, left). A closer view of the line of wall-base here (Fig. 35) shows large rough-hewn blocks in considerable disarray but in perfectly unquestionable sequence. The series leads directly

[1] *Corinth*, I, pp. 80ff.

[2] *Τῶν Λευκῶν*, "of the Poplars," a modern appellation of unknown antiquity.

to a conspicuous cliff (Fig. 36) and there disappears. In this photograph the level stretch of ground at the bottom is due to the retaining power of the buried wall socle. The great nose of native rock above it shows an artificial smoothing at its base and a discoloration of its face, marking the attachment of a high polygonal or semi-polygonal wall. This wall takes advantage of the bastion-like character of this formidable projection to turn at right angles and ascend the last slope of the mountain (cf. Fig. 37), which forms the sky-line of the photograph reproduced in figure 34. A single large block still in place

FIGURE 34. SOUTHEAST SLOPE OF ACROCORINTH

in 1932 on the rough slope below the medieval outwork, where the wall-line becomes the sky-line in this photograph, furnishes the proof that the East Wall actually ran where we have just indicated. We have herewith entered the territory covered by the general Survey Map of Acrocorinth, having reached the square bastion of the medieval East Outwork situated at the lower right-hand margin of the map.[1] Here all further evidence for the course of the East City-wall is dissipated; but the ancient girdle-wall of Acrocorinth lies just ahead only 60 m. higher and some 120 m. distant. The obvious direct ascent strikes the mountain circuit at the hexagonal tower[2] of early medieval construction, which may

[1] Height 500 m. on the Survey, point 35 on the Key Plan on PLATE I.

[2] Height 560 m. on the Survey, point 33 on the Key Plan.

therefore have been erected to mask a troublesome projection of keyed-in ancient blocks or a breach resulting from the deliberate Roman destruction of this crucial point in the ancient Greek defenses. Certainly, the tower's military function in the medieval scheme of defence is not evident. Either here or at some point within a few yards to the west of the tower the East City-wall began. The contrast between the finely fitted "trilithon" in the classical wall-base to the west of the tower and the coarser assemblage of "Mycenean" boulders to the east thus finds its explanation, since the former lay without, the latter within, the shelter of the city's special circumvallation.

FIGURE 35. EAST CITY-WALL: REMAINS WEST OF HILL 12

Having thus fixed its approximate point of departure from the Acrocorinthian circuit, we may retrace the course of the East City-wall down the steep descent to the projecting cliff and at right angles thence to the East Hill (Fig. 37; cf. Fig. 2). Here, on the west of the hilltop, brief excavations in 1928 laid bare the outer and inner face of the wall, which here had a width of 4 metres. On the hilltop itself there were no ancient remains, but considerable traces of later occupation, beginning with Byzantine and extending at least until the Frankish occupation. Apparently there was a small military post here,—a condition which is quite intelligible, as a path must have ascended, as shown by the dotted line in figure 37, directly to the gate in the Northeast Outwork,[1] whence entrance into the fortress itself was effected through a doorway (later blocked with masonry) within the triangular barbican illustrated in figure 168 and readily apparent on the general map

[1] Point 29 on the Key Plan.

of Acrocorinth. The tiny hilltop was therefore in medieval times either used by the defenders as an outpost to guard this nearest entrance to the fortress or seized upon by an attacking force as a siege-post.[1] At that time the ancient City-wall was recommissioned along the hill. Such a stretch as is shown in figure 38 is composed of the blocks of the ancient wall; but they have been reassembled and set inaccurately together with the help of tile and mortar patching.

In classical times, even though, as is practically inevitable, an ancient ascent to Acrocorinth led over this hilltop with much the same course as the medieval ascent,[2] the East

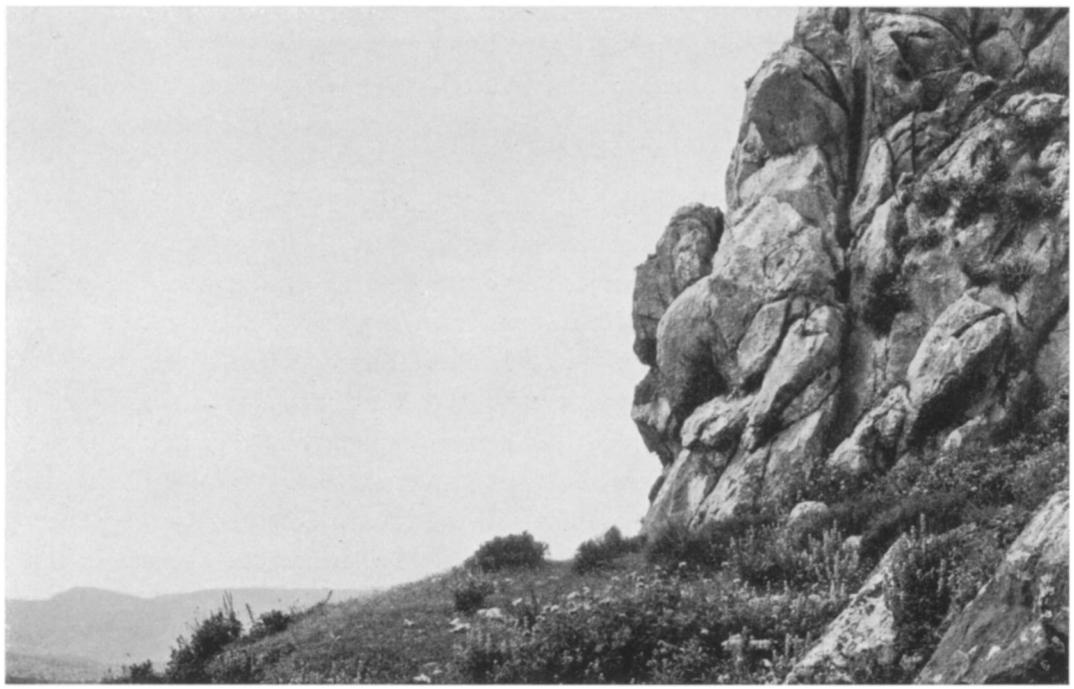

FIGURE 36. EAST CITY-WALL: POINT OF ATTACHMENT TO CLIFF

Hill possessed no significance because the whole area lay within the city-walls and was therefore already adequately defended. The ground here falls away so steeply toward the south that, though we may assume a corner tower, there is no reason to postulate a gate at this point: the wayfarer bound for Tenea or beyond would never ascend hither, since he could either pass through the Southeast Gate at the level of the town itself, or, if

[1] An "*antikastro*" in the phrase of the Frankish chronicle; *vide infra*, pp. 135 f.

[2] There is a passage in Xenophon's *Hellenica* (iv, 4, 4) which supports this view. A massacre is in progress in the Agora; the younger men are, however, unmolested in the Cranium (i.e. in the New Gymnasium not far from the Southeast Gate); news of the massacre reaches them; they flee into the stronghold of Acrocorinth, which they hold for a time against their opponents. It is more reasonable to assume that these youths fled directly to the mountain top by the East Ascent rather than risked passing the very scene of the slaughter in order to reach the usual north and west approaches. The slavishly exact rehabilitation of the classical defenses which throughout characterises the medieval refortification of the mountain argues strongly for a classical precedent for the Northeast Postern and the use of the East Ascent.

once on Acrocorinth, would naturally pursue the hill road in the direction of Penteskuphi or descend directly from the westernmost gate of the fortress.[1]

Below the hilltop the course of the wall is so logical and so inevitable that there is no further possibility for doubt or mistake. The ancient builders profited by a very marked watershed, the eastern slope of which is everywhere eroded by deep water-worn ravines leading to the Leukon River, while the northern and western slopes face directly the territory of the ancient city and are scarcely less eaten away into deep valleys (PLATE III). This watershed was therefore from the point of view of ancient military engineering not merely highly desirable, but the only possible place to run the city wall, which swings inevitably around on the sky-line to the lower but prominent hillock at the end of the ridge pictured in the immediate foreground of figure 37. At this point, as already indicated, the air-survey map on PLATE III picks up the course and traces it along the east of the ancient city.

On the last hilltop (height 180 m.) just before the final descent to the level of the plateau and the first important gate of the town, the wall once more comes very clearly to light and outlines a large square projection on the south of the hill. Excavation in 1932 here uncovered the foundations of a corner tower in squared poros blocks, preserved in places for four courses to a total height of 1.60 m. The east face of the tower is over twenty feet (6.65 m.) long on the lowest course and confronts a long slope which may at one time have led more gently than it does now over the white clay gullies and which, in any case, commanded a view across the Leukon stream to the ancient Corinthian line of defences leading to the port of Cenchreae and the eastern sea. Conversely, such great towers against the sky must have been an important and characteristic element in the view of the city from afar.

As the wall approaches the gate, the final stretch (Fig. 39) is characterized by much larger blocks set with greater care and composed of hard conglomerate instead of soft poros. The explanation is obvious: the danger from an attacking army at this point, where almost level fields led directly up to the wall, was far more acute than up the steep slopes above the wild gullies farther south. Occasional stones are still in place (Fig. 40) which contain more than a cubic metre and must therefore weigh around three tons. The width of the wall close to the gate is 4 m. The wall is built with an inner and outer face, each composed of large blocks 0.70–0.80 m. wide, with a tendency to prolong the horizontal joints carefully for a considerable distance. With so strong a facing the actual fill of the wall was probably a matter of indifference to the builders and seems to have consisted of small and very miscellaneous material. Whether sun-dried brick was employed for the superstructure is not now apparent. At intervals of about 200 feet there are traces of semicircular towers projecting from the wall. Their foundations were of poros, which has disintegrated so badly that scarcely any of the stone remains visible. Excavation

[1] The Teneatic Gate of Pausanias, ii, 5, 4; cf. his phrase *τραπεῖσι τὴν ὀρεινὴν* (sc. *ὁδόν*), and *Corinth*, I, pp. 87 f.

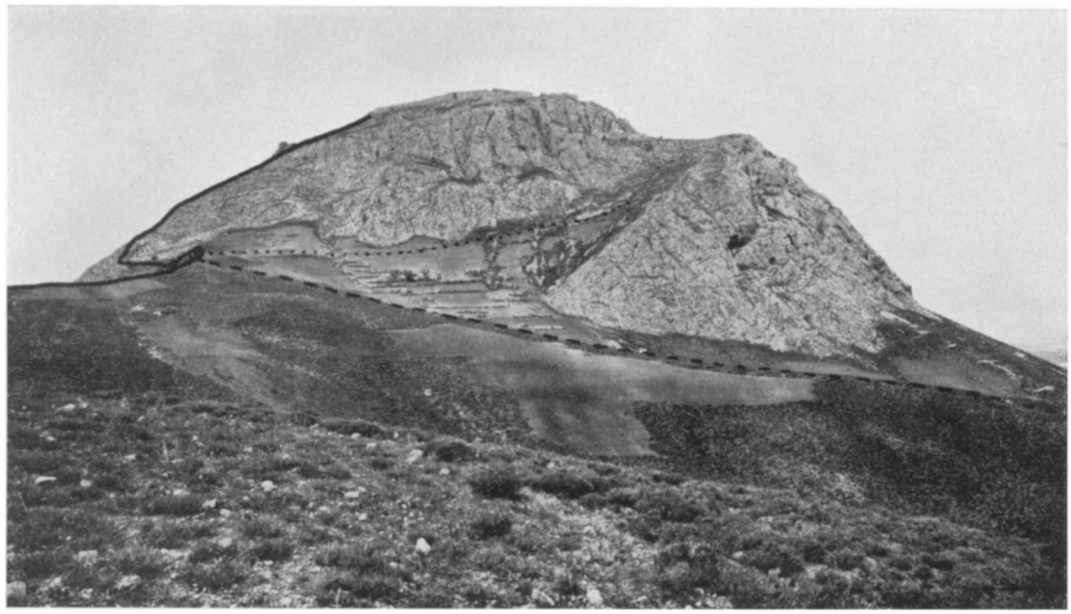

FIGURE 37. COURSE OF EAST CITY-WALL AND EAST ASCENT TO ACROCORINTH

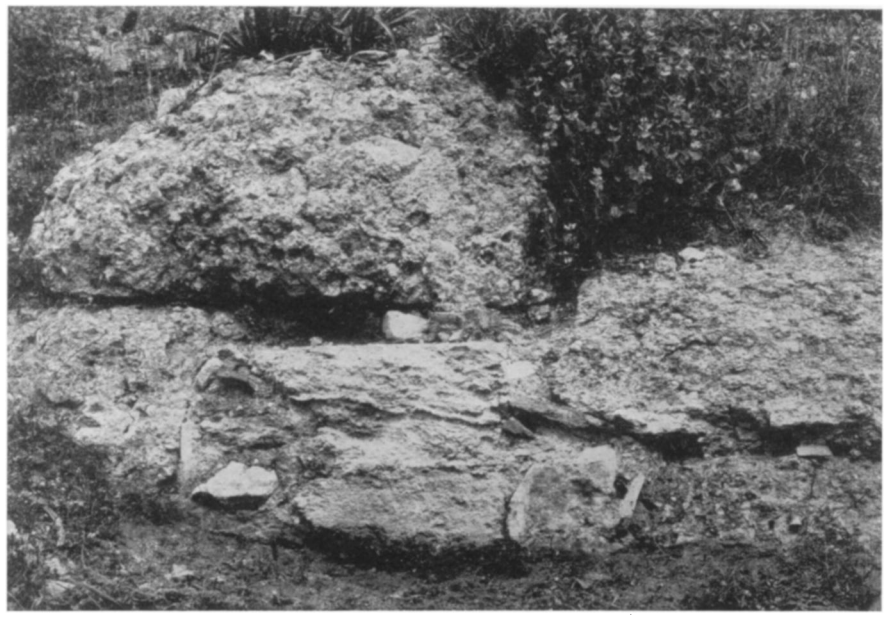

FIGURE 38. RE-SET BLOCKS OF EAST CITY-WALL BELOW HILL 12

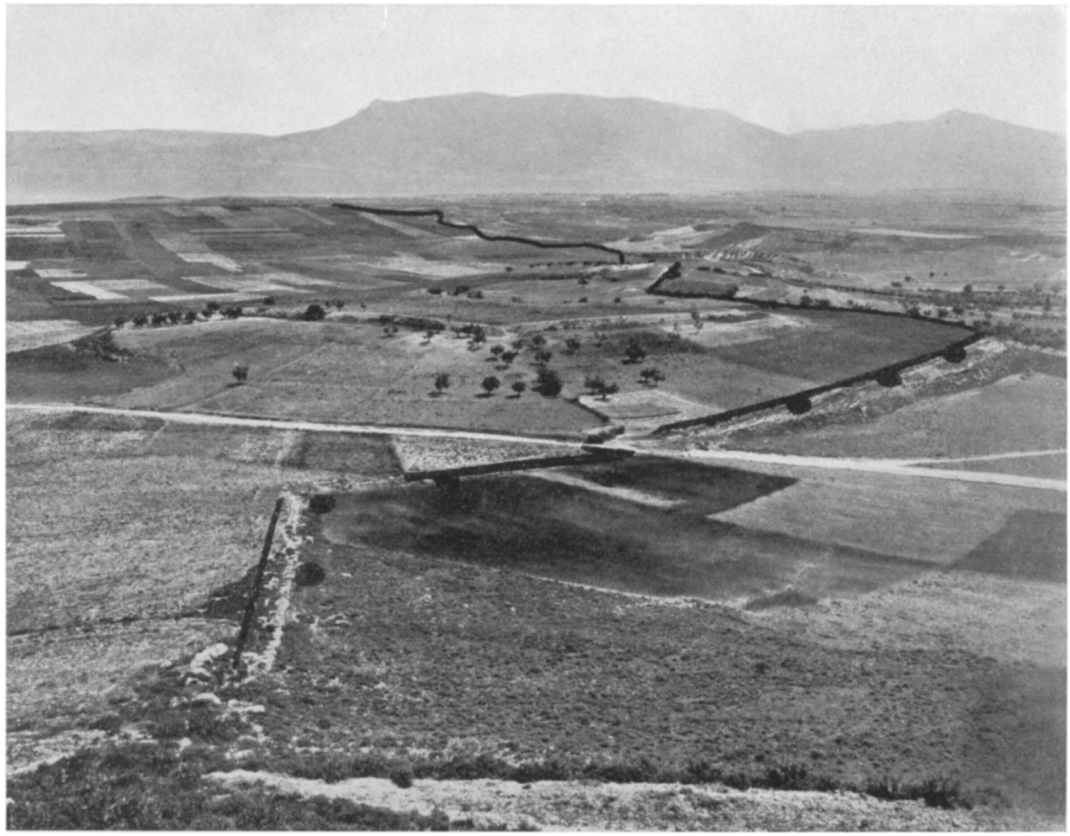

FIGURE 39. COURSE OF EAST CITY-WALL WITH TOWERS

FIGURE 40. EAST CITY-WALL, ABOVE SOUTHEAST GATE

showed, however, that they were laid out on radii of about 4 m. and probably differed in no way from the much better preserved semicircular towers beyond the gate.[1]

The SOUTHEAST GATE itself (whose passageway lay at a higher level than the modern road) is completely destroyed except for a flanking wall on the southwest which runs inward toward the city for a distance of nearly 15 m. beyond the inner face of the wall,

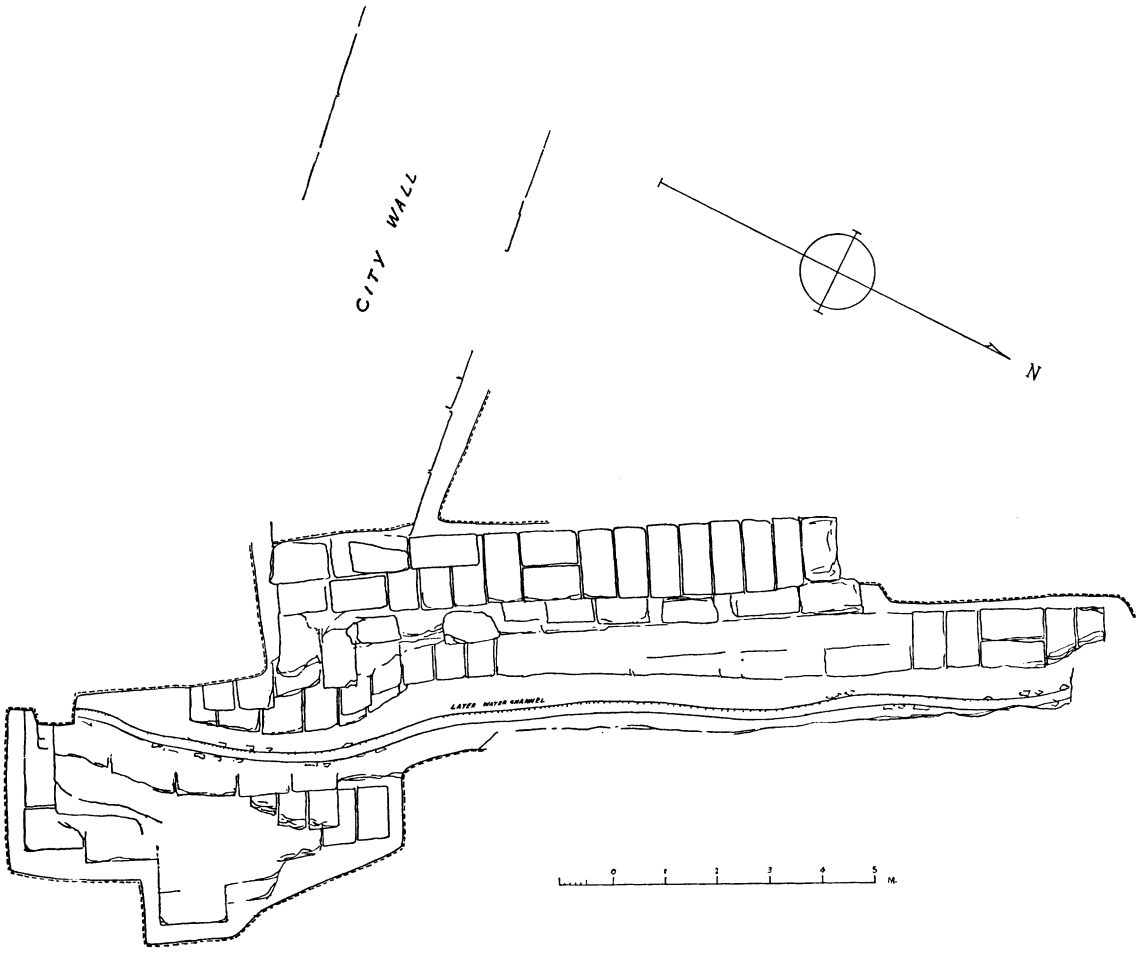

FIGURE 41. TRACES OF TOWER AND FLANKING WALL AT SOUTHEAST GATE

with which it makes rather less than a right angle (Fig. 41). The traces of unusually broad foundations at the outer corner are the only remains of a large square tower guarding the gate and presumably echoed by a similar tower on the east. Tower, flanking wall, as well as the first stretch of the main wall toward the west, are all built of weak red poros which has disintegrated extensively.

Beyond the gate the wall is resumed in much the same style of masonry with large well-fitted blocks of hard limestone and conglomerate, but only the outer face of the wall

[1] Their location, as determined by excavation, is shown by ink additions to the photograph, Fig. 39.

is exposed to-day. It is based upon a natural shelf of conglomerate which forms a sudden rise of some 4 m. in the hillside and therefore gave a natural course for a wall to follow (cf. Fig. 39, in which the modern road passes through the Southeast Gate). Behind the ancient face are abundant traces of a fill in small stones which cannot be Greek because it contains quantities of red tile, and may be nothing more than the stones cleared by the peasants from the grainfields behind, which have become packed down in earth so firmly as to seem set in clay mortar. The clay, however, may be the water-worn

FIGURE 42. ROUND TOWER NEAR SOUTHEAST GATE

remnant of original bricks used in fill or superstructure. Along the outer face and spaced at about 60 m. intervals, there are the deeply buried remains of three ROUND TOWERS, two of which were cleared in 1932 (cf. Fig. 42). They project for slightly more than a semicircle from the face of the wall on a radius of about 4 m. The outermost blocks of the foundation courses, which are sufficiently preserved to give the curvature, are laid in alternate courses of headers and stretchers with radiating joints. A typical block measures 1.20 m. in length by 0.60–0.65 m. in greatest width by *ca.* 0.45 m. in height, measurements which must correspond to an approximation to specifications of $4 \times 2 \times 1^1/_2$ ancient feet. All the blocks are poros, but are not preserved higher than the level of the lowest course in the adjoining wall, and hence should be foundation blocks beneath the ground level. A central partition wall 0.60 m. wide runs down the

FIGURE 43. EAST CITY-WALL, EAST OF SOUTHEAST GATE

diameter of the circle at right angles to the main line of wall. The fill is not of irregular loose material, but of properly dressed blocks fitted concentrically.

The intervening stretch of straight wall between the towers is one of the best preserved and most impressive in the entire circuit and, owing to its situation close to the road which leads from ancient Corinth towards Argos and Mycenae, one of the most familiar to the modern visitor. Its outer face was cleared of accumulated earth in 1932 and revealed (Fig. 43) a smaller socle 0.35 m. high forming a carefully levelled groundline for two magnificent courses with a height of 1.60–1.70 m. containing blocks as much as a metre high by 1.30–1.60 m. long, beautifully fitted, with the horizontal joints perfectly true and fairly continuous. The effect is extremely imposing. Occasional smaller stones are used to equalize the horizontal joints; but there seems to be no use of the small vertical triangular wedges to fill out the polygons, such as were noticed in various stretches of the Acrocorinth fortifications. The higher courses are occasionally keyed into the lower on shallow horizontal beds seldom more than a few centimetres deep. As these keys form jogs that break the true horizontal line of the joints, one might imagine that they were occasioned by weak spots in the stone which were trimmed away to make a level bed; but close inspection rather suggests that they were due to a deliberate desire of the builders to tie the courses together more securely. There is therefore a curious contradiction between the intent to carry continuous horizontal joints along the wall, using squared blocks with parallel faces above and below, and a feeling that these long horizontal joints between courses might be a source of weakness. The fill of earth at the base of the wall opposite the low *euthynteria* course contained sherds of Corinthian ware[1] uniformly belonging to the early seventh century B.C. A sherd of Protocorinthian linear ware from this period was found among the mason's chips packed tightly around the base of one of the semicircular towers when it was cleared. In a region devoid of other indication of occupation in classical times, this is as nearly authoritative for the date of construction of this section of the city-walls as such purely external evidence can hope to become. The rather widespread belief that this megalithic style belongs to the Age of the Tyrants of Corinth would thus be confirmed; but the date in the first half of the seventh century seems utterly impossible to accept. I know of no even halfway plausible parallels from this period, since there is no evidence to countenance wall-building on such a scale and with such resources in early archaic times. The interest in horizontal joints, the extremely accurate footing without recourse to polygons, the sophisticated articulation of a low *euthynteria* with two or three courses of huge blocks to echo the orthostates and carrying (as I think we must certainly assume) a high wall of small sun-dried bricks,—all of these

[1] Seven sherds were undecorated Early Corinthian red-glaze and brown-glaze ware, such as is found elsewhere with Protocorinthian linear and early Orientalizing; seven sherds were Protocorinthian linear (of which three showed lines in red, the others in brown); four were Protocorinthian geometric. The early seventh century B.C. is the latest admissible date for these fragments. The earth must have been back-filled against the wall to cover the *euthynteria*, which itself rests only on earth and could not have been left exposed.

elements would rather point to the early fourth century B.C.[1] The style, though on a smaller scale, recurs in the fourth century girdle to the Eleusinian sanctuary.[2] The great stone socle to the brick walls of Mantinea also comes naturally to mind. That a brick superstructure would not have been thought a weak anticlimax to this tremendous base may be inferred from these Mantinean walls as well as from Pausanias' well-known remark[3] that mud-brick walls were considered more resistant to siege engines. The pertinent moral seems to be that the earth against a wall is a precarious means of dating that wall's construction. We must conclude that this particular stretch of wall was laid through territory containing archaic burials (as would be natural near a road leading from the town) and that the earth, after being disturbed by the digging of the trench in which the wall was laid, was back-filled against the foundations, carrying fragments of its ceramic contents with it.[4]

The ledge now turns and continues northward (Fig. 39), gradually gaining height until it has passed the low flat hill which is the survival of a Venetian earth-fort of only two centuries ago. Thereupon it reaches a gentle saddle which forms the watershed between two long and gradual slopes,—that to the east draining into the Leukon river, that to the west descending to the slightly sunken central floor of the large plateau occupied by the ancient city (cf. PLATE III). Along this saddle the width of the wall may be accurately measured, since both faces are tolerably well preserved. This width reaches the surprising figure of 5.60 m. or very nearly 19 ancient feet; and from this observation we may argue that the superstructure could not have been stone, but must have been brick.[5] A round tower, considerably better preserved than the preceding, shows very nearly the same dimensions as these, with somewhat more than a half circle drawn on a radius of about four metres. A short distance beyond the tower, the masonry of the wall becomes more definitely polygonal without, however, furnishing any indication of a difference in the date of construction, since it would be extremely unlikely that only a portion of this long open stretch should have been fortified at any one time, when only a closed circuit would have afforded any defence to the city.

On the descending slope to the north toward the next or CENCHREAN GATE (where the line of wall first disappears from view in Fig. 39), the width of the wall shrinks to 3.80 m., though the masonry still preserves its monumental character. Where the inner face is preserved it may be seen that it is built of much smaller blocks than the outer, which had to bear the brunt of attack by an enemy.[6] The wall dominated the gateway with a long flank returning inward above it (PLATE III); but the gate itself is almost

[1] Cf. Wrede's remarks in *Att. Mauern*, pp. 55–57 and p. 60.

[2] Wrede, *Att. Mauern*, pl. 78.

[3] viii, 8, 7.

[4] The wall at the Isthmian Gate, below, p. 116, passes directly over three earlier graves.

[5] Even if we allow that part of this extra thickness may be due to the presence of stairs leading up to the rampart on the inside face of the wall.

[6] Cf. a similar observation by Mr. Parsons in his excavation of the East Long Wall, *infra*, pp. 88 and 99.

completely destroyed. Many of the blocks from what seems to be a projecting north tower have been removed in very recent times, as the passage of the modern road has made it only too convenient for the peasants to load the blocks in their carts and drive them away. Both the ancient and the modern road agree in passing through the wall at the same spot, but otherwise do not seem to follow the same track. Outside of the walls the ancient road to Cenchreae may be traced by a broad and regular hollow which descends gently through a long grove of olives and finally reaches the River Leukon at nearly the same point as the modern cart track, a hundred metres downstream from the modern bridge of the motor road from Corinth to Argos (indicated on PLATE III). Inside the gate, in the other direction, the ancient road seems to have pursued almost a straight line for the Agora of the city. Excavations in 1929 failed to bring to light any paved stretches of roadway, but every transverse trench across the line of the road revealed Greek graves (long since pillaged) on either side of an open stretch between seven and eight metres wide. This condition could be traced from a point just within the gate[1] as far as a line of late-Roman fortification wall about halfway between gate and agora. These graves are presumably remnants of a cemetery, the tombs which Pausanias remarked lining the road *πρὸς τῇ πύλῃ*. Among them he recorded the tomb of Diogenes the Cynic and Laïs the lovely courtesan.[2]

The antiquity of the spur road which turns sharply northeast just outside of the Cenchrean Gate and descends between steeply cut banks of white clay to the River Leukon is very uncertain. The ancient wall, running north from the gate, pays no attention to the steep edge of this cutting, but runs inland just below the actual watershed between the city plateau and the valley of the river. The surviving fragments of masonry have no particular interest, but are sufficiently numerous to make the exact course of the wall certain. The eastward slope of the hillside gradually becomes more and more pronounced until the wall finds itself on the edge of the actual valley of the Leukon, which is here more than half a mile in width and has cut its way down through the white clay which lies at the bottom of all this landscape. Through a broad notch the lower plain becomes visible with the Isthmus in the distance and the high peak of Geranium behind it. The plateau bends sharply to form a small but deeply indented gully across which there may have been a small gate for a track leading down the Leukon valley, as suggested by Prof. Fowler in Volume I of this series.[3] Beyond, the wall continues along the edge of the plateau, while the ground outside it to the east continues to sink slowly lower until a conspicuous point is reached where the ancient builders were obliged to choose between the two alternatives of turning abruptly west along the edge of the slightly sunken bowl in which the city lay or else continuing northward down the slope along the river valley.

[1] Immediately south of the Early Christian basilica excavated in 1928; cf. my account → *A.J.A.*, XXXIII, 1929, pp. 345ff.

[2] Paus., ii, 2, 4.

[3] *Corinth*, I, pp. 83f.

Excavation has shown that the former alternative was adopted and that the builders of the wall were not interested in enclosing the entire middle plateau which stretches east and west below the upper ledge (cf. PLATE III). In 1928 a brief campaign in this region showed that both faces of the wall are preserved underground, that the width of the wall was 5.60 m., as in the stretch between the Southeast and the Cenchrean Gates, but that the type of masonry had changed. Instead of huge limestone or conglomerate blocks adjusted to horizontal courses, the two faces of the wall are regularly built of rectangular poros blocks 1.20–1.30 m. long and 0.60–0.70 m. wide, set as headers and stretchers. The type suggests the period between the Peloponnesian War and the time of Alexander. This wall could be followed westward along the rocky bank separating the highest from the middle plateau as far as the conspicuous promontory at which the ledge turns southwest on the long stretch which passes the late-Roman amphitheatre.[1]

This headland is a critical point in the course of the wall, since a choice had again to be made between two alternatives, either of which was strategically rational. As the plan on PLATE III indicates, it was possible to continue along the top of the ledge above the middle plateau (i.e. past the site of the later amphitheatre). By following this course, advantage could be taken of the great natural strength of the bank of white clay, in places twenty feet high, which is surmounted and protected by a thick cap of rock on which a wall could be firmly founded. But this ledge runs south of west and so leads gradually inland, finally reaching, under the houses of the modern village, the rocky hill beside Lechaeum Road, opposite the archaic Temple of Apollo. As the ancient town seems to have extended very considerably north of this point (there are even indications that the site of the Asclepieum was occupied before the end of the sixth century B.C.), such a course would have been unsatisfactory. Sooner or later it would have been necessary to bring the wall down from this higher plateau and to run it north to the next ledge above the plain. Apparently the builders saw no advantage in postponing this passage and accordingly accepted the second alternative, which was to carry the wall nearly due north, directly down from the headland. Here they found themselves on an almost level expanse, 350 m. wide, which sloped very gently toward the west into the territory of the ancient city, and descended on the east through narrower but perfectly accessible open country toward the Isthmus. This level stretch of the middle plateau was therefore the first easily vulnerable sector which the fortifiers of the town had yet encountered, and here it was essential to build a wall which could not be destroyed or penetrated.

A modern cart track passes longitudinally through this plateau (PLATE III). In its surface at a point opposite the headland of the upper plateau where all traces of the City-wall had disappeared, a series of large poros stones runs northeast and southwest, nearly obliterated by the use of the road. To the north there were traces of broken yellow Greek roof-tile in the fields and a long narrow stretch of field in which the grain

[1] In figure 39 the sunken pit of the amphitheatre appears at the extreme left, with the Gulf of Corinth just above it.

grew stunted and sparse. By opening a trench parallel to the poros blocks and a few metres to the north of them, Mr. Parsons in 1932, digging at my request, discovered substantial remains of a great wall still extant underground. Unlike the stretches which we have been examining, the portion of the wall thus laid bare was not built in two separate faces but in a single solid mass, over 5 m. in width, composed of rectangular poros blocks averaging 1.20–1.30 by 0.60 by 0.45 m., or four feet by two feet by a foot and a half, grouped in pairs as headers and stretchers. At one point, five courses survived with a height of nearly $2\frac{1}{2}$ m., all but the top course of which were certainly underground in antiquity, as could be determined from the stratification of the earth on either side.

On the top course of these massive foundations were the bedding surfaces for an inside and an outside wall-face of stone, and between these now vanished barriers was preserved a mud-brick filling extending up to the present surface of the field and supplying the explanation for the unfertile grain-crop sown upon it. Such a construction is of such unusual archaeological interest that a detailed study of it has been included as an appendix to this volume.[1]

Parallel trenches dug to the north showed that this wall continued in a straight line, maintaining much the same width and massive construction. There could thus be no doubt that this was still the City-wall and that the builders had chosen this convenient point to cross the middle plateau where the distance between the two ledges was at its least.

On reaching the ledge above the plain, the City-wall turned west to take advantage of this natural line of defence and thus limit the city to the height above the broad littoral. But just beyond the westward turn, a spur of this same wall was uncovered continuing due north, descending past a dipylon gate to the plain, and heading for the sea, thus unmistakably marking the eastern arm of the two Long Walls which in Greek times protected communication between the city and its port on the gulf. The existence of these walls was known from Xenophon's *Hellenica*, but no previous attempt to discover their actual location had been successful. The results of Mr. Parsons' excavations are so important for the topography of the ancient city that a detailed publication of them has been incorporated as a separate chapter of this volume.

The ledge bordering the plain is roughly twice as high as the ledge of the upper plateau, but is here rather a steep slope than a sheer ascent. Though the City-wall, after throwing off the East Long Wall to the sea, was traced westward for a few yards along this ledge, no further vestiges have yet been discovered at any point. Search is made difficult by the violent erosion to which such a slope is exposed and by the natural interest in convenient building-blocks on the part of the inhabitants of the plain below and the plateau above, through all the intervening centuries. It may be taken as certain that excavation could reveal the traces of the bedding for this wall, perhaps at various points; but the search is probably superfluous, since the discovery of the West Long Wall in 1932

[1] See APPENDIX A.

at a considerable distance from its fellow, showed quite conclusively that the City-wall must have continued at least for an equal distance along the edge of the plain. There is, however, a genuine problem raised by the excavation of the Asclepieum in 1931–32, since this sanctuary was not confined to the upper level of the ledge, yet could not have been left unprotected outside the City-wall. Just to the east of it, between the "Baths of Aphrodite" and the Turkish ruin (or baths of Kjamil-bey), the "direct road" to Lechaeum has left traces of its descent from plateau to plain. It is to be hoped that future excavation here may show the mutual relations of this road, the West Long Wall, and the North City-wall.

Nor has there as yet been any attempt to discover traces of the City-wall immediately to the west of its junction with the West Long Wall. But farther on, a deeply indented gully is reached, which cuts off a conspicuous little hill forming the westernmost outpost of the Corinthian plateau. This hill was crowned, until the earthquake of 1858, by a stone windmill, from which it has derived its local modern name of the Mill of Cheliotes, or *Cheliotomylos*. It is quite unthinkable that the City-wall, after passing the Asclepieum and being joined by the West Long Wall, should have long relinquished its position of vantage on the edge of the plateau. The close-grouped and abundant graves of the North Cemetery, which fill the section of the plain immediately below the ledge,[1] are testimony that this district actually lies outside the city limits. The graves further suggest that some important road from the city must have passed through or beside the cemetery; and, as the district lies too far west to be in line with Lechaeum, this road should be the one to Sicyon, a town which began its existence on the shore of the gulf and lay in exactly this direction from the Agora of Corinth. But no ancient road seemed to descend directly from the Agora on the city plateau to the cemetery in the plain, a hundred feet lower. A modern cart track cuts through the cliff at the next bay to the west of the Asclepieum; but this is very steep, with a gradient of more than 1 in 10, and is not accompanied by any ancient cuttings. It seemed natural to assume, therefore, that the ancient road descended through Cheliotomylos gully.

Here, in 1931, Prof. Shear discovered[2] a Greek fountain-house on the east slope of the gully—an indication that a road may once have passed this way. But the true main road for the classical period proved to have lain still farther west and to have passed not down the gully but around the shoulder of Cheliotomylos Hill (cf. Fig. 44).

Messrs. H. A. Thompson and F. O. Waagé, while searching for graves in 1930, dug trenches across the line of heavy wall under the north slope of Cheliotomylos Hill (Fig. 44, "A") and came to the conclusion that an ancient road existed here, even though it led away from, rather than toward, the ancient city.

The evidence for this road is clear. At its exit into the plain there are wheel ruts in the exposed rock. Farther west, there are two lines of walls about 8 m. apart, giving the

[1] Cf. Prof. Shear's excavations in this distri → *A.J.A.*, XXXII, 1928, pp. 490–499; XXXIV, 1930, pp. 403ff. → *A.J.A.*, XXXV, 1931, p. 424.

width of the roadway. The upper line is much less complete than the lower, as is natural, since the upper served merely to prevent the scarp of Cheliotomylos Hill from washing down over the road at the steepest parts, while the lower was the true embankment supporting the roadway. This embankment wall can be traced for more than 30 m. as a discontinuous series of large irregular blocks, exactly oriented to a line running northeast and

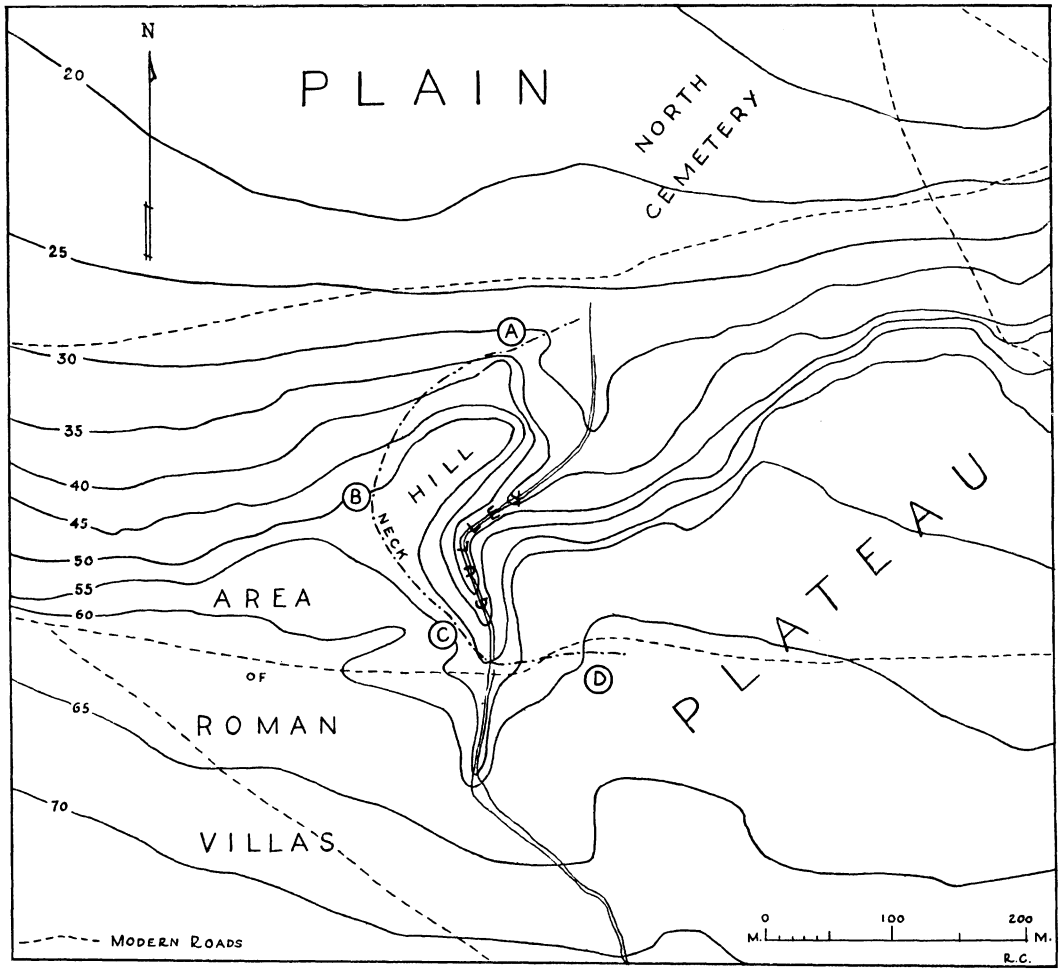

FIGURE 44. SKETCH MAP OF CHELIOTOMYLOS HILL, SHOWING COURSE OF CLASSICAL ROAD

southwest, with the level rising continuously on a long ascent. In the 32 m. for which the blocks can be traced, there is a rise of slightly more than 2 m., giving the reasonable grade of 1 in 15.

It was not clear at the time what this road could be or whither it might have led; but in the following year, in the course of a campaign for tombs in the Cheliotomylos ravine, Prof. Shear discovered a stretch of Greek wall,[1] finely built in alternate courses of headers

→ *A.J.A.*, XXXV, 1931, p. 425. The wall is presumably as early as the fourth century B.C., since sherds and coins of that period were found at its base, i.e. along the roadway.

and stretchers to a preserved height of 3 m. It had only the sandy soil of the hillside behind it and, with its single face of 1.30 m. thickness, seemed inappropriate for a city-wall. Parallel to it, some 3.50 m. distant on the downhill side, there ran for a brief distance a second wall, less pretentiously built, with its top apparently no higher than the base of the first wall.

It was a reasonable hypothesis that here, too, were the traces of a carefully constructed roadway, with the low wall for embankment and the high retaining wall to prevent the steep soft hillside from washing down over the road.

The ancient way accordingly had avoided the direct descent along the Cheliotomylos stream, presumably because this turns into a narrow gully with steep banks such as would have made a precarious and unenduring course for a broad wagon-road to follow. Instead, Cheliotomylos Hill itself was taken as a pivot around which to wind a spiral ascent from plain to plateau on a steady and easy grade. The beginning and end of this ascent having been found by Messrs. Thompson and Waagé in 1930 and by Prof. Shear in 1931 respectively, the obvious test-spot was the central point where the road must have passed over Cheliotomylos Neck ("B" on the survey sketch, Fig. 44). The writer accordingly dug for an ancient road here and was rewarded by finding it uninjured and well-preserved under two metres of subsequently accumulated earth. Our knowledge of Greek road-building is so fragmentary that a fairly detailed description is desirable.

On this neck of land the original *stereo*, or hard-pan, had been cut down to a depth varying from 1 m. at the west to 2 m. at the east so as to make a passage some 10 m. wide, running roughly north and south, by which the road could cross Cheliotomylos Neck at the lowest feasible level and with a steadily descending grade. Actually, the excavation showed a road-cutting extending for a width of 14 m., but the outermost 4 m. of this were cut in Roman times. The limits of the Greek passageway for the road can be determined by the change from Greek to Roman sherds in the soil and by the occurrence of Greek graves higher than the road level and therefore originally dug in the undisturbed soil which lined the cutting for the road. On the east side the vertical cut for the roadway, some 2 m. deep, was lined with a retaining wall 1.10 m. thick, which has now entirely disappeared, leaving only its foundation cuttings in the hard-pan.[1] Along this wall ran the road, bedded on loose small blocks of poros and fossiliferous chalklike limestone collected from the cutting for the road a little farther back (closer to "C" on the survey). These small blocks had been packed very tightly and covered with a coating of much smaller stones and heavy soil, to make the final road-surface. At one point, where a natural soft pocket must have been encountered in the soil, the ballast is 1.30 m. thick; elsewhere it is much shallower. In this ballast were found occasional sherds of Attic fifth-century ware; and similar minute fragments could be picked out of the road-surface, thus dating its construction. A second covering of small stones in clay, just above the Greek,

[1] This wall would be exactly comparable to that discovered by Prof. Shear on the other side of the road at "C." Cf. also the retaining wall, 1.25 m. thick, behind the Northeast City-wall (pp. 285 f.).

contained fragments of Roman tile, showing that the road had been reconditioned and resurfaced in later times. This later surface extends over the cutting for the retaining wall on the east edge of the Greek road and therefore was laid after that wall had been removed. Some 0.30 m. above the Roman road-level were tile-graves of Early Byzantine times, also extending over the vanished retaining wall, for which a poor late construction had been substituted at a higher level, set farther back in the scarped hard-pan. In building this, the later masons seem to have broken into an underground chamber tomb, which their new wall immediately resealed (cf. APPENDIX B).

On the west edge of the road, where the ground rose less abruptly, there was no need of a wall. Beyond 7 m. of actual road-width with a properly laid and ballasted bed, the

FIGURE 45. CONTENTS OF TWO GRAVES ON CHELIOTOMYLOS NECK

level was carried out for two or three metres more of hard-trodden clay.[1] Immediately under this clay lay Greek sarcophagi, intact and, until our coming, unrifled. Two of these, set side by side at a slightly divergent angle, were identical in size (2.10 m. long, 0.92 m. wide, 0.76 m. high, with a lid 0.15 m. thick, all of soft poros), as well as in their decoration, showing a large chevron pattern in thin white stucco all around the exterior rim just below the cover slab. The contents (Fig. 45) show that the burials were very little anterior to the making of the road near the end of the fifth century B.C.

The date proved to be important for its bearing on an important accessory find, the tomb chamber just mentioned, which contained a stuccoed poros funeral couch of the fifth century B.C. As it is generally held that the funeral bed was not an indigenous Greek custom and as no other fifth century bed, to my knowledge, has survived, the material is published in full in APPENDIX B at the end of this volume.

[1] Scarcely indicative of a side-walk or pedestrians' track, but merely less firmly based because not catching the full weight of wheeled traffic (?).

The occurrence of these graves and this tomb on Cheliotomylos Neck argues in favor of an extramural situation, and the impossibility of finding any trace of fortification wall on Cheliotomylos Hill agrees with the assumption that this stretch of road lies wholly outside the city. Except for the sherds in the roadbed and the Greek graves on either side, no Greek objects exist in the soil, though Roman material is plentiful enough to the south and Helladic out on the hill to the north. This being the case, the retaining wall discovered by Prof. Shear might also have served as the fortification wall of the town, which must be assumed to swing west, avoiding the hill. But excavation here revealed no trace. Its extreme thinness (1.30 m. against 5.60 m. in the east circuit) and the existence of an exactly comparable retaining wall on the other side of the road where it crosses the neck argue against identifying it as city fortification. Perhaps the sandy fill behind it makes the omission of an inner face explicable, as the wall was not free-standing but had the whole mass of the hillside behind it. Or the complex of wall and hillside may have formed a scarp behind which the true wall was set. In any case, the road must have passed through the city wall at some point farther east, probably at the spot marked "D" on figure 44, where an outcropping of rock, with abundant traces of a Roman cement-paving running through a central depression, seems to mark a natural gateway. It is tempting to locate the Sicyonian Gate at this point.

A trench dug diametrically across the east mouth of this "gateway" disclosed a roadway slightly less than 8 m. wide with a narrow gutter (0.10 m. wide by 0.30 m. deep) running along its northern edge. Most of the roadbed had been destroyed; but the natural rock everywhere came up through a composition paving of lime, pebbles, sand, and occasional small fragments of tile, such as may be traced also along the south edge of this same passage, farther west, and again at the foot of the retaining wall "C," just beyond the crossing of the Cheliotomylos brook.

There is thus no doubt that the road which ascended from the North Cemetery in the plain by winding around the north and west slopes of Cheliotomylos Hill, crossed Cheliotomylos Neck and Stream and continued through this rocky passage toward the Theatre and Agora; but whether in Greek times a city-wall with a great gate existed here remains uncertain. A trench to the south of the "gate" showed cuttings in bed-rock 1.25 m. wide and 2.45 m. apart suitable for bedding a wall 5 m. wide with two faces of normal width. The "wall" runs south, at right angles to the "gate" but must subsequently turn west, if it really belongs to the defenses of the city. Unless the City-wall thus passes well to the south of Cheliotomylos Hill, it is very difficult to explain why its line was not made to include this conspicuous vantage-point within its own territory.

As all the objects found on Cheliotomylos Neck were either Roman or fifth century Greek, with complete absence of all archaic Corinthian, it is probable that the earliest Greek road descended the gully directly, where Prof. Shear discovered the fountain-house of early date, to which reference has already been made. The tendency of such a track to wash out may have accounted for the shift to the well-graded but longer descent over the neck

and around the shoulder of the hill, and this alteration may in turn explain the course of the new road with its loop completely around Cheliotomylos Hill returning almost to the very mouth of the gully to rejoin the track of the disused older road no longer passable between the gully-mouth and the gate. It is further possible that this road was the main artery of vehicular traffic from plateau to plain, leading to Lechaeum as well as Sicyon, the "direct road" of Pausanias being shorter, but descending by steps, and thus being impassable for vehicles.

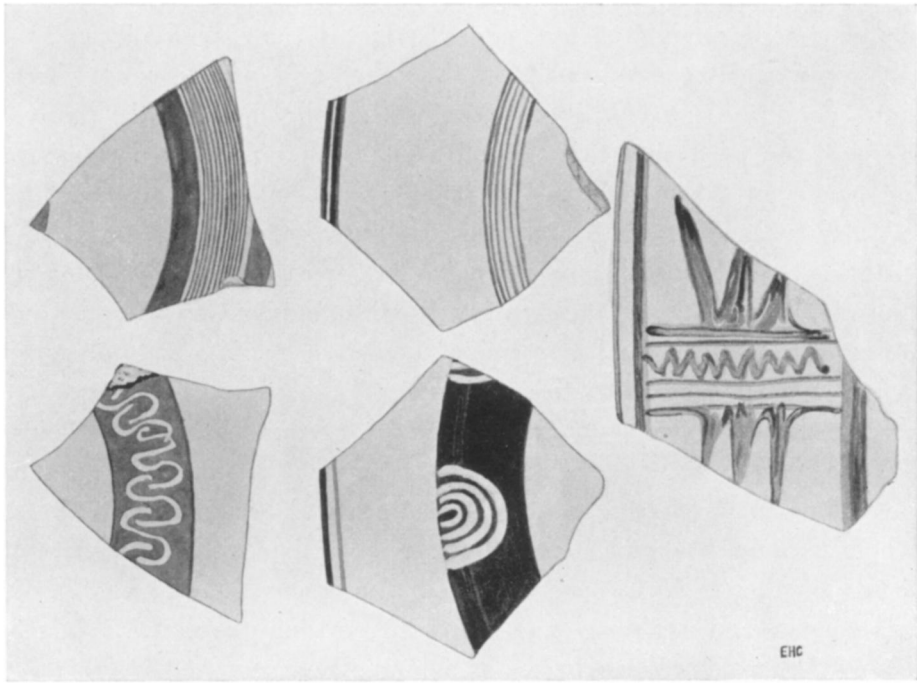

FIGURE 46. LATE-HELLADIC SHERDS FROM CHELIOTOMYLOS HILL

Passing reference may be made to a trial trench on Cheliotomylos Hill itself, which indicated that erosion has removed all traces of classical occupation, leaving only a shallow layer of earth containing prehistoric (mainly Early Helladic) vestiges. Potsherds and traces of accompanying house-walls were neither numerous nor significant, in distinction to the great quantities of Helladic material found by Prof. Shear in 1930 on the lower levels of the north slope of this hill. The evidence indicates that the hill was inhabited throughout Helladic times, but that much of this settlement lay along the present north edge of the hill, whence it was carried down the slope by erosion and collapse. On the south slope toward the neck there were fairly numerous Late Helladic sherds, the best of which, though technically inferior, perhaps merit illustration (Fig. 46) in view of the discussions provoked by the rarity of "Mycenean" remains within the actual territory of Corinth.[1] At no point

[1] Cf. the controversy → *A.J.A.*, XXVII, 1923, pp. 151–163.

on the hill could there be found any evidence for occupation in classical times. The Greek graves are not on the hill itself, but in immediate proximity to the ancient road, which they line closely on either side.

At this point, since the further course of the City-wall momentarily eludes us, it will be more convenient to return to Acrocorinth and trace the WEST CITY-WALL thence in the opposite direction, even though the exact point of its attachment to the main mass of Acrocorinth has not yet been determined. The only reasonable hypothesis takes account of the sheer western cliffs below the "belvedere"[1] and assumes that contact was effected somewhere in the stretch of about 100 m., marked by almost vertical rock, difficult even for a trained Alpinist to climb and extending from a point a little south of the "belvedere" to the assumed turning point of the Acrocorinthian walls high above at the top of the cliff. The edge of these cliffs is shown in the lower left corner of the general Survey Map; but they are much more extensive than could there be shown (cf. the view in figure 100). If the City-wall tied against this sheer ascent, it would be impossible for an attacking enemy to penetrate the defenses except by traversing this cliff, which is an impossible feat for an armed man. A wall brought so far to the south of the entrance to the citadel would have the strategic advantage of dominating the watershed toward west and south and the approaches from Tenea and Cleonae. To the former of these and the upper valley of the Leukon the descent is easy; and, although the earth erosion has progressed at a great pace in all this valley head, it is easy to trace a course which an ancient road might have followed. This would necessarily first ascend from the edge of Acrocorinth to the little saddle (Fig. 100, beneath the west defenses), which falls away on the northern side to make the deep Northwest Gully. Where this ancient road cut through the West City-wall there must necessarily have been a gate, and this would correspond with the gate toward Tenea and the interior, mentioned by Pausanias, who speaks of the "mountain road" and the Teneatic Gate, near which he remarked a sanctuary of Eileithyia.[2] It is not surprising, however, that gate and wall and sanctuary have completely disappeared, since they were a natural source of supply for the builders of the medieval fortifications. The little hill immediately beyond the saddle has apparently been a camping place through the Middle Ages, presumably for the attack rather than for the defence of Acrocorinth. The ancient builders more shrewdly included it within their own territory by running the City-wall beyond its crest. It is only at the western end of this hill, however, that excavation has revealed the first traces of this wall.

In order to guard the approach of the road to the gate and to deprive an enemy of so convenient a base, the wall was carefully kept on the outward watershed away from the Corinthian gully and Acrocorinth. We may compare this line of City-wall to an outermost line of defence for Acrocorinth itself, taking the place of the third or lowest line of defence of the Venetian and Turkish system, which seems to have had no precursor or exact counter-

[1] At 4 on the Key Plan to Acrocorinth; cf. above p. 42.

[2] Paus., ii, 5, 4.

part in classical antiquity. It is characteristic of ancient Greek military engineering that the walls should everywhere either follow an actual crest or be placed beyond the crest on the declivity toward the enemy. The great Northwest Gully to which we have twice referred thus lay entirely within the city, even though it was wholly waste land which could not be built upon or ploughed or even crossed with facility. Strabo's quotation concerning the territory of Corinth as "beetling with rocks and full of hollows"[1] here comes forcibly to mind. The modern investigator might naturally assume that this deep ravine would have been utilized in the ancient defence as an impassable obstacle or moat and that the City-wall would have attached itself to Acrocorinth far around on the mountain's northern side; but apparently there were important considerations against such an easy and labor-saving solution. For one thing, communication between the western slope of Acrocorinth and the lower city would have been cut off, since the ascent would then have lain outside the defenses, whereas the actual course of the walls includes the whole western face of the mountain within its protection. And secondly, the Potters' Quarter and a very considerable stretch of the city plateau near its westernmost limit could only with difficulty have been included within the city by a long western loop, leaving to the enemy the convenient and dangerous flat hilltops around the Phliasian Gate (*q.v. infra*) with their commanding view of the interior of the city. Granted the enormous extent of territory and the desire to make available an easy ascent to Acrocorinth, the line of the western walls as laid out by the ancient builders is logical; but the expense and labor required to build so huge a circuit must have been enormous and still fills us with wonder. Here, and not for the first time, we are reminded of that exclamation in the so-called "Spartan Sayings" of Plutarch,[2]—"What women be these who inhabit so strong a place?"

In the spring of 1932 Prof. Broneer dug a series of parallel trenches on the western slope of the hilltop opposite the entrance to Acrocorinth and succeeded in finding either the cuttings in hard-pan where the foundations of the City-wall had been laid or else the actual foundation course of the wall itself. He was able to show that the wall was 3.00–3.50 m. wide and that its foundations were built of large squared poros blocks averaging 1.30 m. in length and 0.60–0.70 m. in width. These are precisely the dimensions of blocks used in certain other sectors of the City-wall, e.g. on the plateau beyond the amphitheatre.[3] As nothing of the superstructure has remained, it is impossible to determine either the height or the material of the upper portion; but the course and direction of the wall could be exactly traced. The slope turns downward toward the north to form a long ridge, which grows sharper and narrower until it is flanked by deep ravines on either side (Fig. 47, left).[4] These at length broaden out and delimit the small plateau of the Potters' Quarter

[1] Strabo, viii, 6, 23, *fin.*

[2] *Apophthegmata Laconica,* διερχόμενος (sc. Agis) δὲ τὰ τῶν Κορινθίων τείχη καὶ θεασάμενος ὑψηλά τε καὶ ὀχυρὰ, ἐπὶ πολύ τε παρατείνοντα, τίνες, εἶπεν, αἳ τὸν τόπον κατοικοῦσι γυναῖκες;

[3] *Supra,* p. 57.

[4] The right-hand depression is the Northwest Gully; the left-hand one passes the Phliasian Gate and the excavations of the Potters' Quarter. The Northwest Gully is the West Ravine of Fig. 2 and p. 4.

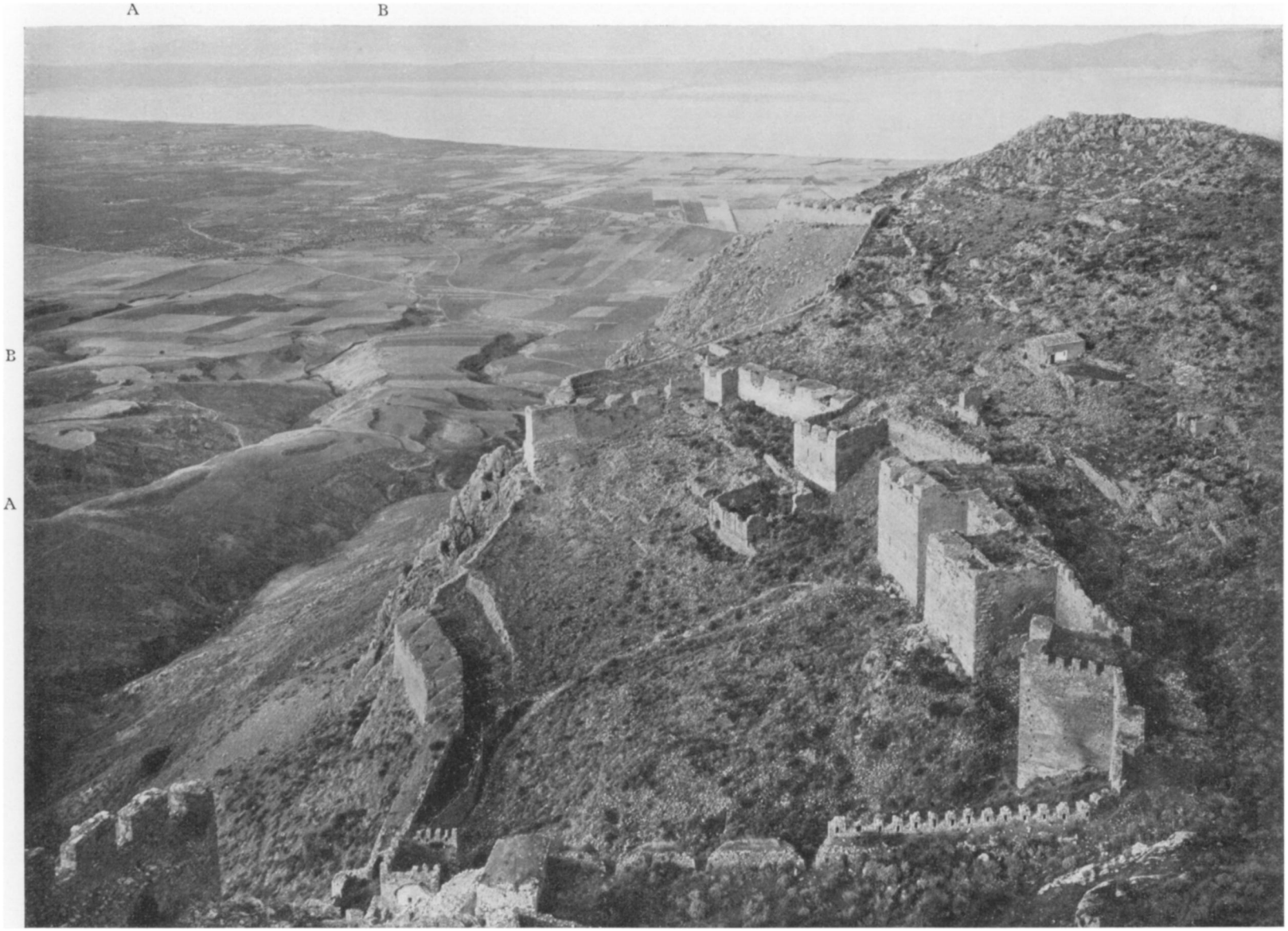

FIGURE 47. WEST SLOPE OF ACROCORINTH, FROM SOUTHWEST PEAK

(The West City-wall descended along the crest of the conspicuous ridge. A, A, to B, B, the Potters' Quarter)

(Fig. 47, B, B) beyond which the two stream-beds join as they emerge into the level plain. The wall follows this descent in the nearest equivalent straight lines, broken however by occasional jogs and insets in its initial stretch before the narrow ridge becomes completely defined.

An enormous tower stands midway between the hilltop and the first steep descent. It was probably intended to prevent surprise from the direction of Penteskuphi and Cleonae, where a broad saddle running southwest from Acrocorinth offers the only really easy approach to the fortifications of the mountain. The plan of the tower appears in figure 48 and consists of a slightly elliptical rather than accurately semicircular projection, with the characteristic central partition-wall on its axis. The two compartments thus formed seem to have been filled with loose material only. At the south, the tower takes off at approximately a right angle to the wall proper, which is here built of an inner and outer face of well-preserved blocks of the dimensions previously indicated, with headers and stretchers in alternate courses, leaving a fill between the two faces of only about 0.60 m. At the north, the tower returns farther than on the south; and behind the tower, the wall is enlarged into a rectangular platform, built in an almost solid grid of the same standard blocks of poros. This platform, added to the projection of the tower itself, makes the whole construction extremely massive and imposing.

Considerably lower on the slope and shortly before the first abrupt drop in the ridge, a square tower was discovered and laid bare (Fig. 49). Like the preceding tower and the intervening stretches of wall, it is built entirely of poros blocks tending very generally to the same dimensions of 1.20×0.60 m., laid as stretchers, but interrupted by occasional courses of headers to make an external casing for the tower rather more than four feet thick. Transverse ribs divided the interior into compartments and prevented the fill from shifting.

Between the tower and the abrupt descent of the ridge there are unmistakable traces of an ascending road, probably once paved throughout its length. Uphill this road can be easily traced, running well inside and to the east of the line of ancient walls and leading with a fairly regular gradient to the ramp and the drawbridge of the medieval fortress of Acrocorinth. Where its track is crossed by the modern ascent from the village of Old Corinth, it is clearly the older road, since it is deeply cut through by the modern path. This latter path, in turn, because of its stone paving, must date back into Turkish times and cannot be wholly recent. Since the road cuts across the line of the ancient Greek wall in more than one place and is elsewhere bedded on top of blocks taken from it, this ascent cannot date from Greek times. Nor is it likely to be Roman, because the Roman ascent would naturally have followed the preceding Greek one; and archaeologically, from the surviving traces of its paving and embanking, it may be definitely declared to be neither Roman nor Byzantine. It is reasonable, therefore, to assume that the road ascending the ridge, since it is not of recent Turkish construction yet is post-Byzantine, and since it leads west of the village in the general direction of the Venetian forts in the plain and on the

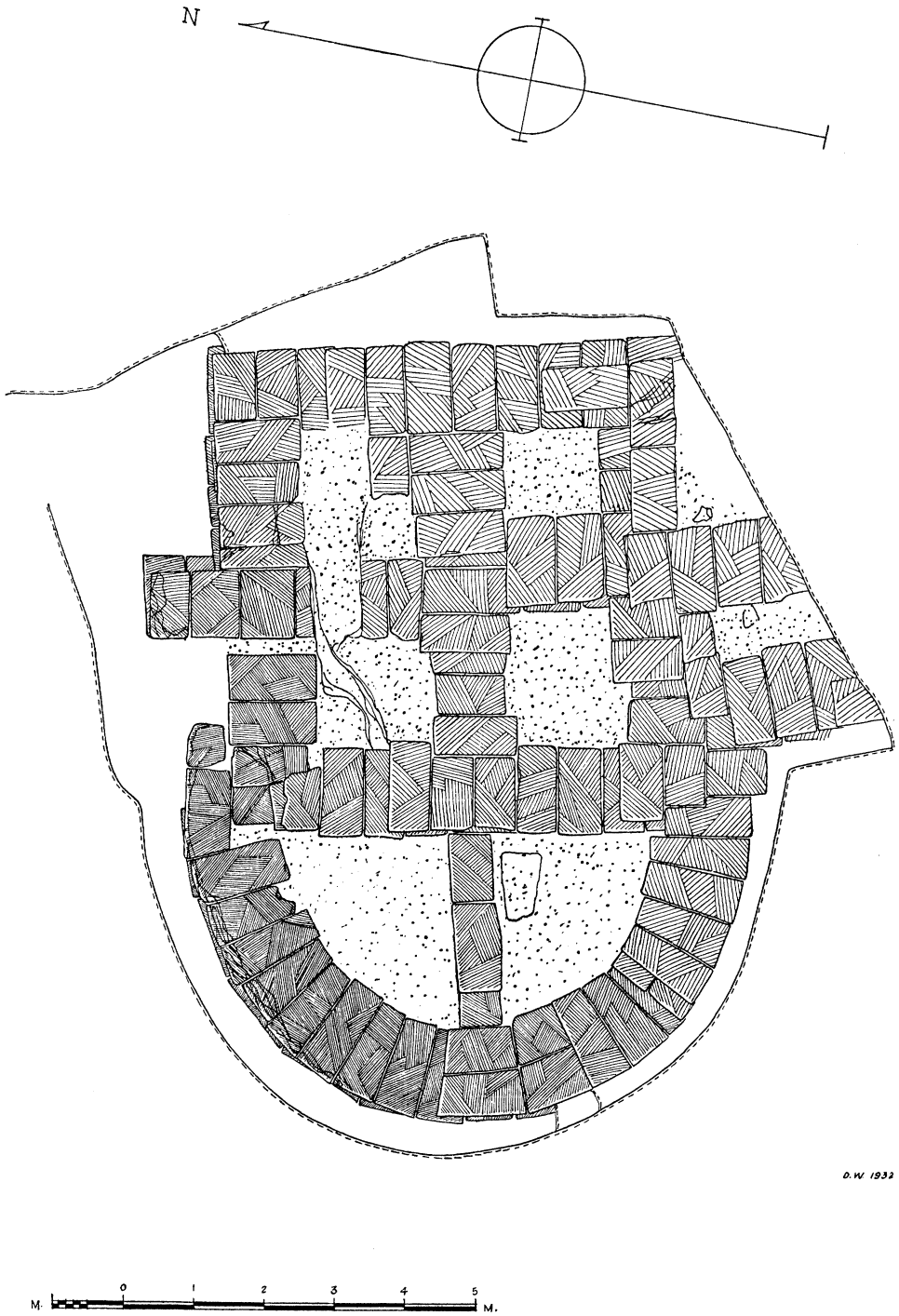

FIGURE 48. WEST CITY-WALL: FOUNDATION OF ROUND TOWER OPPOSITE ACROCORINTH

shore of the gulf,[1] is Venetian in origin and supplied communication between the Venetian ships and the castle of Acrocorinth.

If the course of this Venetian road is explained by the position of the Venetian forts and the presence of the Venetian ships, and if the course of the Turkish road (succeeded by the modern track) is explained by the renascence of a village under Turkish rule in the stretch between the fountain of Hadji Mustapha and the baths of Kjamil-bey,[2] the

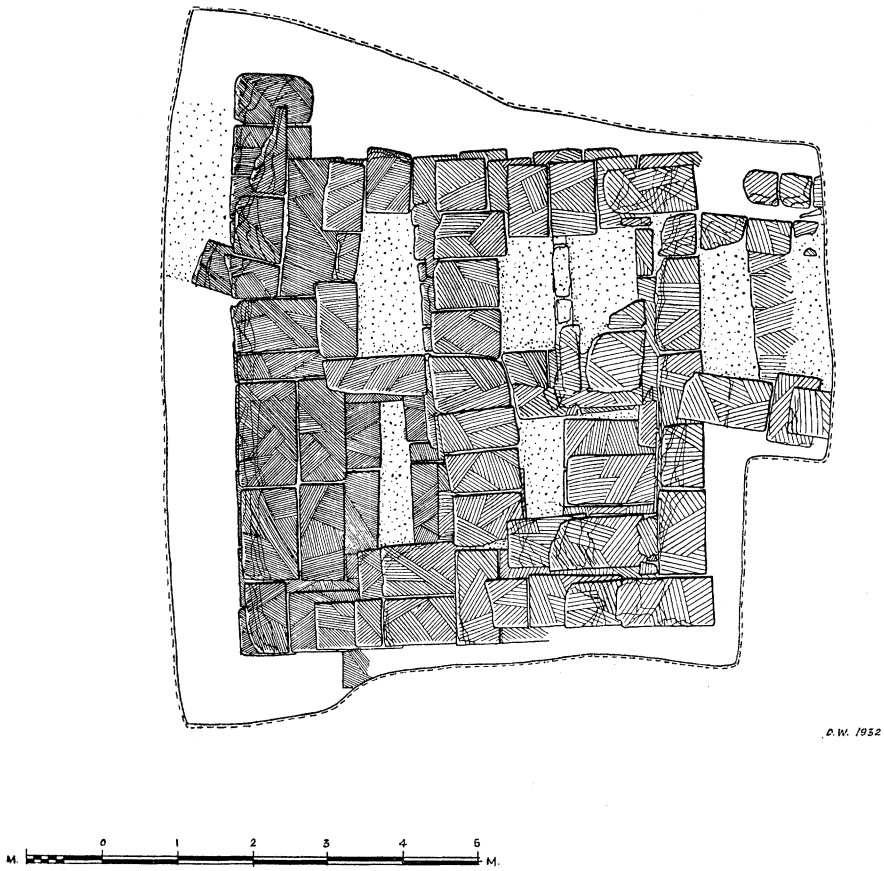

FIGURE 49. WEST CITY-WALL: FOUNDATION OF SQUARE TOWER

problem of the ancient classical ascent to Acrocorinth remains unsolved. The course of the West City-wall at various points on the long ridge upward from the Potters' Quarter seems hardly to leave room for a road on its inner or city side; while the interest of direct communications between the Agora and the western entrance of Acrocorinth would favor a path more on the lines of the Turkish and the modern one; but until some trace of the sanctuaries mentioned by Pausanias on the way between city and mountain top has been

[1] Cf. below p. 162.

[2] i.e. in general, the limits of the present village of Old Corinth.

discovered, the course of the ancient road must remain a matter of opinion.[1] The Venetian road negotiated the steep rocky descent, which breaks the slope at the top of the long ridge between the two gullies, by a double winding turn in the shape of the letter S, while the ancient wall descended in an uncompromising straight line over the low cliff. The cutting for the road with occasional traces of its paving are completely certain, while the track of the ancient wall is more difficult to follow.

Beyond a small saddle the ridge now becomes completely isolated by the deep ravines on either side (Fig. 47, left); and here the traces of the ancient wall abruptly change their character. Instead of the large well-shaped poros blocks there is now a line of much smaller and poorly set material which in places looks more like the curbing for a road than the basis for a city-wall; yet the line follows the natural line of defence rather than the more regular gradient which a road would have chosen. Prof. Broneer in his excavations found occasional Greek sherds at the base of this line, thus supporting his contention that, in spite of appearances to the contrary, it must be interpreted as the socle for an ancient classical wall the superstructure of which was probably built of mud-bricks. The situation above the deep western ravine apparently was deemed wellnigh impregnable by the ancient builders. The wall accordingly was not erected on a solid stone base, nor does it even seem to have possessed a curbing for its inner face. The only function of the line of small stone was to keep the ground moisture away from the exterior face of the bricks and so prevent the rains from undermining the wall. It remains surprising that the same civilization which erected the magnificent megalithic walls between the Southeastern and Cenchrean Gates could have been content with such construction; but the use of mud-brick for the entire superstructure may have produced a wall imposing enough at a distance and actually adequate for such an unassailable stretch, against which no rams or siege engines could be brought.

Toward the lower end of this region, where the two ravines begin to widen and their slopes to become less precipitous, the poros construction is once more adopted, at first without the use of very carefully hewn or regular blocks, but afterwards more and more formally as the danger of attack seemed to increase. The ridge, which has been descending in a continuous slope, now turns into a stair-like series of low terraces; and this change in the contour apparently induced the builders to adopt a more careful construction with step-like reaches of masonry lifting the wall from height to height. Blocks 1.30 by 0.60 m. are set as headers and stretchers to make the impressive line of wall shown in figure 50. The round tower at the foot very closely resembles in construction and in dimensions the round tower near the Southeast Gate of the East City-wall. It is not, however, necessary to assume an identical date, since the type and the tradition of its construction, with exterior face in headers and stretchers, concentric fill, and axial partition might easily be inherited and perpetuate itself through many generations. Still lower, where the wall makes

[1] I see no reason for assuming with Prof. Broneer (*Corinth*, X, pp. 9–10) that the old road through the quarries behind the Odeum has anything to do with an ascent to Acrocorinth. It is more likely to lead to the Phliasian Gate.

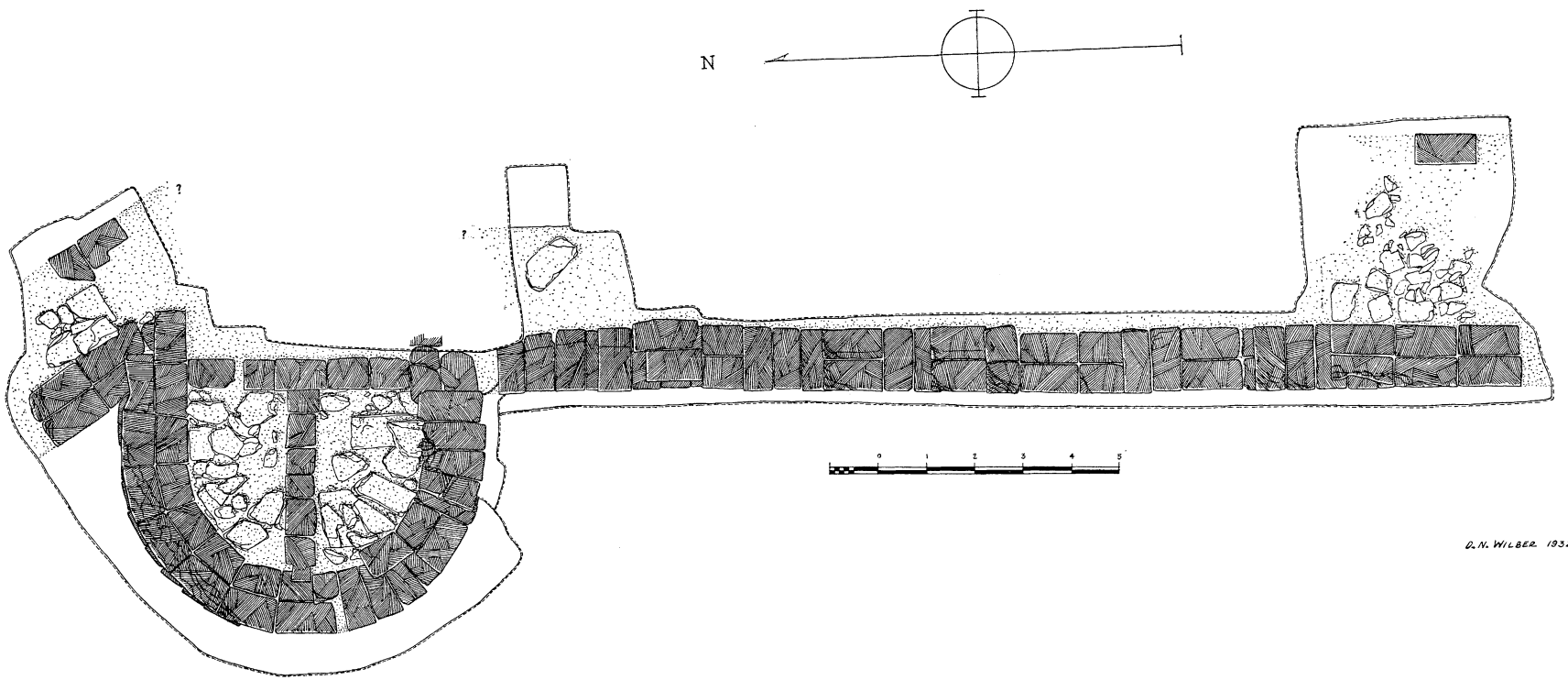

FIGURE 50. WEST CITY-WALL: TOWER ON RIDGE ABOVE PHLIASIAN GATE

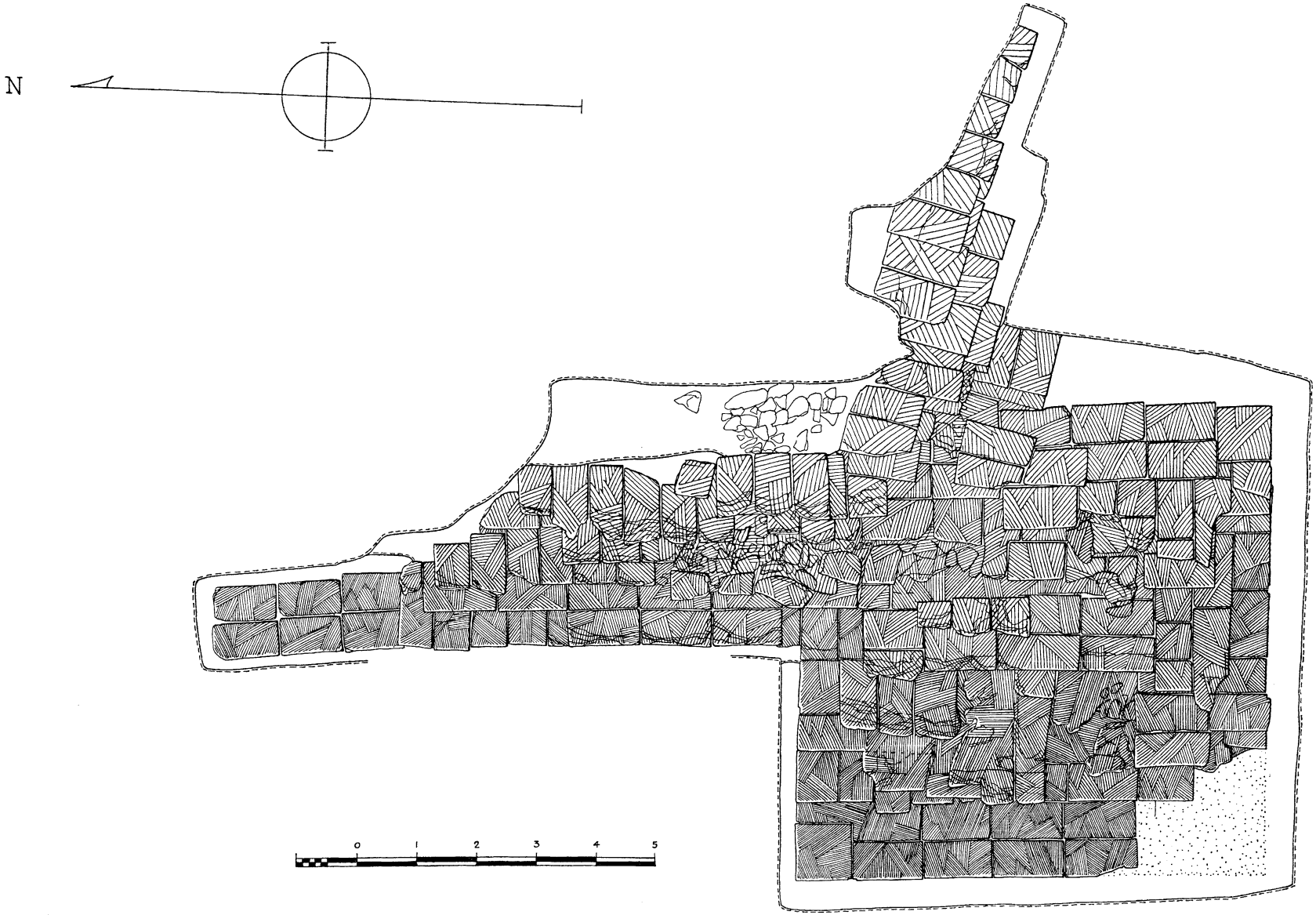

FIGURE 51. WEST CITY-WALL: SQUARE CORNER TOWER NEAR PHLIASIAN GATE

an elbow and projects high above the western ravine, probably very close above the ancient road to Phlius, the gigantic masses of masonry (Fig. 51) are hard to reconcile with the feeble foundation which we have traced down the ridge only a few hundred metres above us. It is of course possible that the builders feared the heavy erosion on such a steep slope above a water-eaten ravine and therefore chose to build this tower of more solid masonry; but it is more probable that the true explanation is psychological and that the intention was to impress the alien approaching Corinth from the interior and here catching his first close view of the wall. The weakness of the more distant sector, up the long slope where he had no occasion to pass and no opportunity to go, would readily pass unnoticed. It is true in a military sense that a wall is no stronger than its weakest portion, but there is another and psychological sense in which a wall may be as strong as its most conspicuous element. A very notable feature in the construction of this great square tower is the relegation to the interior of the structure of the soft red poros, of which the preceding stretches of the West Wall were built wherever poros was used. Around this core, where it was exposed above ground, a much harder and whiter poros was employed. Since the soft stone occurs in the outer facing beneath the ground level where it would be subject to disintegration from moisture, it is possible that the use of the harder stone was again more to impress the beholder than to reassure the builder. The sherds found in the course of excavation here date rather generally from the fourth century B.C. Such casual finds are not a reliable indication of date except in a district which can be proved to have been uninhabited or unfrequented during periods other than that of the actual construction.

The great square tower of figure 51 protects an almost right-angle turn in the wall, which hereafter continues due north through the hillside for the short distance which brings it to the PHLIASIAN GATE. The repeated occurrence of blocks measuring almost exactly 1.20 by 0.60 m. is typical of this stretch of wall, dimensions which obviously approximate 4 by 2 ancient feet. The height of the courses is usually around 0.45 m., or a foot and a half. The natural tendency of builders and contractors in all time to use a foot-rule is abundantly supported by ancient inscriptions specifying building blocks in similar units; but it may be held to be more characteristic of the centuries following the fifth century B.C., rather than of earlier times, thus to standardise the dimensions.

The ancient passageway of the gate must have lain exactly over the modern mule-track, which passes hence up the ravine until it can cross it without loss of height, and thence slowly ascends the opposite slope, finally striking a direction somewhat south of west and leading ultimately toward Mt. Apesas. In antiquity, communication might have been maintained over such a road either with Cleonae or Phlius. The assumption that this is the Phliasian Gate of Xenophon's *Hellenica*, vii, 1, 18, reached by a marauding force which returned from Epidaurus and approached Corinth at "the gates toward Phlius," is more than merely plausible. There is no possible passage through the walls to the south of this gate until the long ridge west of Acrocorinth is reached (which would not be a logical detour for a road from Corinth to Phlius), while the next reasonable passage to the north

falls in the Potters' Quarter, whence any road would inevitably lead out into the broad Sicyonian plain. Any one wishing to travel from the heart of Corinth across the land on either side of Mount Apesas, to Nemea, Phlius, or Stymphalus, would naturally head in precisely the direction taken by the modern mule-track through the ancient gate.[1]

The soft conglomerate in the gate passage has been steadily eaten away by the passage of men and beasts and the action of rain and sun, so that there is no possibility of recovering the ancient levels or the details of the gate itself; but on either side Prof. Broneer's excavations have laid bare the ancient walls and shown (PLATE IV) that the passage was lined on its northern side by a spur wall (to which a similar wall perhaps corresponded on the southern side, although here the steep slope of earth and rock may have made such a structure superfluous). As the plan indicates, it is only the northern side with its square tower which is at all satisfactorily preserved; but the finished southern face of this tower, with the complete absence of any attachment mark for a wall, is adequate proof that the tower stood isolated and therefore framed a gate. The harder and whiter poros is again used as a facing for the tower, with the softer red variety in the interior and in the flanking spur wall within the gate. On the exterior of the tower, the edges of the blocks are bevelled off to a V-shaped mouth in the joints between adjacent blocks. This trait, originating in order to avoid splintering the edges while setting the stone, was perpetuated as a decorative mannerism. It is abundantly common in the fifth and fourth centuries B C., rather less so in later times. On the inside of the gate, at the end of the flanking wall toward the city, there is a small cistern water-proofed with cement lining and set within an inclosing wall. The water may have been intended for the passers-by or, more probably, for the garrison on duty at the gate. Still farther toward the city, on the slope which descends slightly north of east, excavation revealed cuttings in the rock which could not have been intended for a wall, since the bottom of the bedding was not trimmed horizontal but left on the general gradient of the hill-slope. At the bottom of this long cutting were abundant traces of a quarry, whereby the cutting itself was explained as a slide up which was dragged the quarried stone for building the gate and the walls.

The City-wall itself continued its general course toward the north. Even though hardly any traces are discoverable on the slope immediately beyond the gate, there are cuttings in the rock for bedding the wall, while the recurrence of the wall itself and the abundant and striking remains which run through the Potters' Quarter make it impossible to assume any other course. Roman graves containing objects of early-Imperial date were excavated immediately above the bed of the wall and in its very course, so that there is archaeological indication in favor of supposing that this particular stretch of wall was dismantled and destroyed by Mummius. As the west ravine here again becomes steep and impassable, it is very likely that this sector was less securely built, so that its traces could easily have disappeared. If this was the case, rather weak lines of defence through the difficult country

[1] Xenophon's description of the skirmish outside the gate, with the defenders mounting upon the grave monuments and higher ground to hurl their weapons on the adversary, is perfectly adapted to the terrain here.

to north and south would have been interrupted by the magnificently solid walls and towers which the wayfarer to the Phliasian Gate would be able to examine.

In the POTTERS' QUARTER (Fig. 52) in spite of the steep clay banks which served as protection to the west, it was deemed necessary to resume construction in a massive manner and to make this stretch particularly impressive with towers at frequent intervals. The plans and drawings which will accompany Mrs. Stillwell's forthcoming publication[1] of her excavation of this section of the city, makes repetitious any very detailed description here.

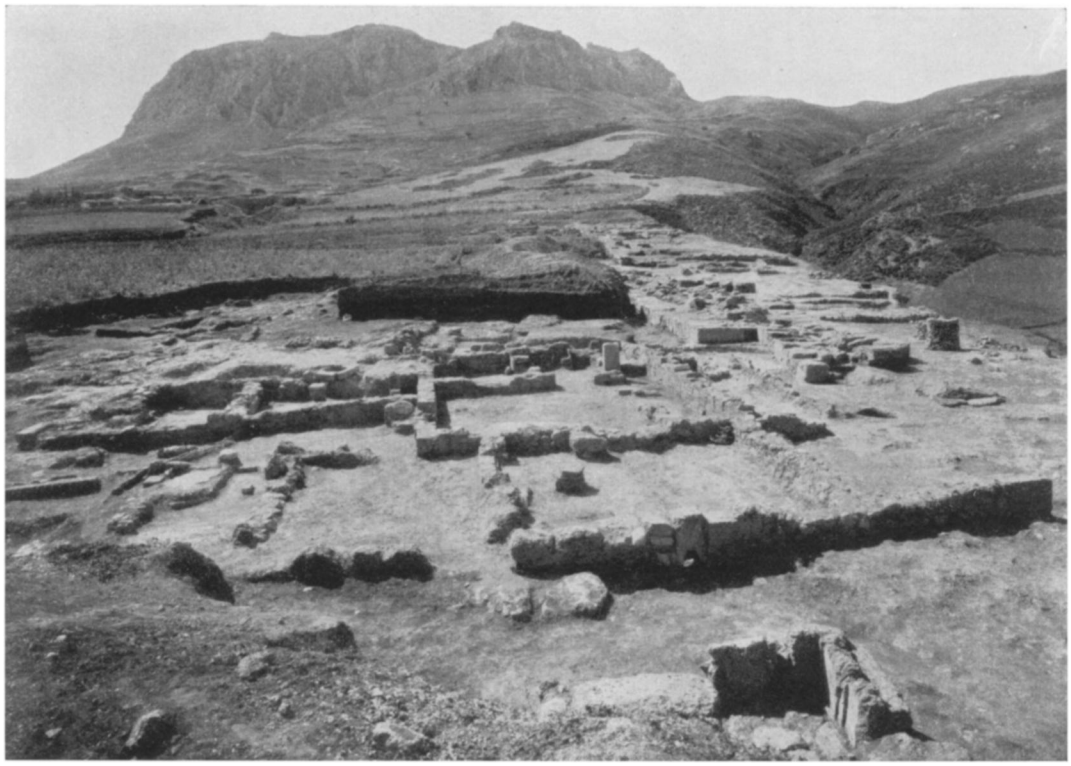

FIGURE 52. POTTERS' QUARTER, SHOWING WEST CITY-WALL

It will suffice to remark that along the entire plateau, the western margin of which was occupied by the workrooms and shops of the ancient potters, the massive foundation of a great wall has cut ruthlessly through everything in its path. This wall (which, because of its massive size and its alignment with the defenses which we have traced, can only be the West Wall of the city) avoids the true edge of the ravine, almost certainly because the mining of the potter's clay which here underlies the limestone ledge had suggested the danger of too close approach. Further, the desire to add towers at intervals along the exterior face of the wall necessitated the retreat of the main curtain, well back from the edge. Of these towers the southernmost was round, but has been entirely removed, leaving

[1] *Corinth*, Vol. XV.

only the cuttings in hard-pan in which its foundations were bedded. The width of the exterior trench, 1.50 m., makes it likely that blocks of the usual dimensions of 1.30 by 0.60 m. were set alternately as headers and stretchers. In a similar tower situated considerably farther to the north, some of these foundation stones still survive and prove to be 1.20–1.35 m. in length and 0.60 m. broad on the outer face. They are trimmed wedge-shaped and laid to radiating joints. The partition wall was made of blocks of similar dimensions set lengthwise, thus making it 0.60 m. wide. The great similarity to the towers already described in other parts of the circuit around the city is apparent.

Behind this tower the main curtain wall is only *ca.* 3.25 m. thick and is characterized by narrow external faces (probably 0.60 m. thick in the higher courses) with a very broad fill of 1.70–1.80 m. between; but this slightly less robust style gives place immediately to a section (Fig. 52, right of centre) possessing the abnormal thickness of 5.20 m., making it comparable in this respect to the most formidable sections of the East City-wall.[1] However, the masonry in the faces is not in the least comparable in scale, since the blocks seldom exceed 0.80 m. in any dimension. Horizontal courses are strictly observed, and there is a strong tendency to true vertical joints; but the irregularity in the dimensions of the stones prevents all approximation to true ashlar work. In the vertical joints, one (but very seldom both) of the adjacent corners have been bevelled, a procedure which prevented the edges from splintering when the stones were laid, but produces a less harmonious effect than the double bevelling previously noted. This abbreviated or single bevel is not uncommon in fourth century masonry. The core of the wall is made of very miscellaneous and loosely piled blocks (visible in the photograph). The resulting wall must have had enormous strength without particular elegance or distinction. The great width is maintained for only a brief stretch, after which it shrinks to the 3.20 m. which remains normal for this section of the city's defenses.

Mrs. Stillwell has already pointed out[2] that the course of this wall, cutting athwart the buildings of the Potters' Factory here, implies that this section of the Quarter was rather thoroughly destroyed before the wall was erected, and that for a considerable stretch there are the remains of a much earlier wall running parallel and in front of the later City-wall along the very edge of the ravine. This earlier structure must have constituted the line of defence at the time that the industry was most flourishing and Corinthian vases most popular (i.e. the seventh and sixth centuries B.C.). But it does not appear whether this much less powerful protection was part of a separate circumvallation around the potters' hill or whether it was the forerunner of the massive wall behind it, already marking the boundary of the city in the seventh century. After the great City-wall was built here, the

[1] It is very probable that such a thickening of the foundations is due to the addition of a stairway leading up along the inner face of the wall to the crowning rampart. The extra 1.20–2.00 m. thus gained would be a very appropriate stair-width. Such stairs are mentioned by Xenophon (*Hellenica*, iv, 4, 11) in his account of the fighting along the inner face of the East Long Wall; cf. *infra*, p. 88.

→ *A.J.A.*, XXXV, 1931, pp. 1ff., A. Newhall, "The Corinthian Kerameikos," cf. esp. p. 5.

potters' industry does not seem to have been very successfully resumed; and, as the latest abundant remains of vases and figurines date approximately from the middle of the fourth century B.C., the City-wall should have been constructed not very long before that date. This evidence, if it can be pressed more closely, will be of obvious importance, since it will furnish a basis of chronology more precise than such indications as the masons' marks in the form of letters on many of the blocks, or the general style of the masonry itself, which are such vague criteria that we can scarcely say more than that they preclude any date earlier than the Peloponnesian War.

Traces of a small gate near the northern end of the Quarter probably represent a postern with only local importance. It led directly to a winding road, the descent of which into the west ravine can still be traced. If a continuance of the industry after the building of the wall was contemplated, it was necessary to leave an opportunity for the potters to emerge in order to mine the clay in the ravine outside.

The northernmost angle of the Quarter is marked by a large square tower, which is immediately succeeded by a semicircular one set on the diagonal of the corner. It is hard to believe that these can be contemporary constructions, since the combination is not merely abnormal but illogical. The complete disappearance of all the stones of the round tower (the plan of which was established by removing the soft fill of later earth from the cutting once occupied by the masonry) suggests that the round tower was the earlier of the two; but it is difficult to say why a well-built round tower should have been destroyed and replaced by a square one of not too elegant construction, unless it was that the round tower proved to be set too far inland from the face of the ravine and therefore failed in its purpose as a lookout in that direction. The primitive original wall of the Quarter is here well preserved; but it is unfortunately impossible to ascertain whether it too included a corner tower, later destroyed by the massive work of the city defenses.

At this point the line turns northeast and then more nearly due east (cf. Fig. 53) in order to reach the gully at the eastern edge of the plateau. Unexpectedly, the line does not run along the crest of the hill but considerably below it. The wall continues to be massively built, with its outer face laid in a deep trench and its inner face, apparently at a considerably higher level, laid directly on the hard-pan. A frequent occurrence of the letter H is probably the initial or the mark of the contractor who supplied the stones. Another common mark is a V (which can also be read as Λ).

The descent of the wall into the gully was determined by Prof. Broneer in 1932 by the excavation of a brief stretch of masonry in which four courses of well-laid poros in unusually close approximation to ashlar style were discovered by following the clue supplied by a small triangle of stone barely 0.20 m. long which projected only a few centimetres above ground on the grass-grown hillside. Figure 53 shows the plateau of the Potters' Quarter as it appears from Acrocorinth, with the course of the ancient wall added in black. The portion to which reference has just been made is marked by an arrow. Here the wall must have descended and crossed the gully (which is none other than the

great Northwest Gully of Acrocorinth, now nearly ready to debouch into the coastal plain). On its opposite margin, the city plateau stretches through nearly level fields. Straight across country to the "Sicyonian Gate" is a distance of some 800 m.; to follow the edge of the gully around the long loop above the Roman Villa and so out to Cheliotomylos Hill is nearly twice as far. Yet the City-wall followed the latter and longer course; for at the right edge of figure 53, where the wall-line disappears beyond the photograph, Prof. Broneer was able to find two long parallel cuttings in the *stereo*, nearly 4 m. apart, with

FIGURE 53. POTTERS' QUARTER, SEEN FROM ACROCORINTH, WITH INDICATION OF COURSE OF WEST CITY-WALL

levelled bedding between; and these could only have been made for an ancient wall of powerful dimensions. A small portion of the loose stone fill survived at the bottom of the excavation trench, but the blocks of outer and inner wall-face had been removed in early Roman times—perhaps as convenient building material for the villas which sprang up in this district.[1]

To the east, beyond the converging modern roads, further traces of the wall were established by Prof. Broneer with difficulty, but with entire certainty. Four parallel trenches revealed *stereo* cuttings for the wall and exposed traces of a round tower. The evidence was taken from the stratification revealed in the vertical faces of the trenches and the

[1] The Roman Villa, the mosaics of which are described in Volume V of this series, is situated immediately under the plateau at this point.

levelling of the hard-pan at the bottom of the trenches. A local proprietor volunteered the information that he had removed wedge-shaped stones from a round building, and a trench cut pursuant to his indications revealed the *stereo*-cuttings of the tower (Fig. 54). The wall follows the edge of the plateau, with a tendency, however, to work down the north slope, as in the Potters' Quarter. All trace was lost about 500 m. from Cheliotomylos Brook; but this final stretch could scarcely have introduced any remarkable features into the outline of the city.

As a result of Prof. Broneer's successful investigations, the circle has been so nearly closed that we may term the whole course of the ancient City-walls established. Some approximate DISTANCES on this enormous circuit may prove of interest:

From the hexagonal tower in the east defenses of Acrocorinth, where the East City-wall begins, it is slightly more than 4 kilometres to the north headland of the plateau (northeast of the amphitheatre).

Thence across the middle plateau and along its edge westward past the Asclepieum to the "Sicyonian Gate" is about $2^1/_2$ kilometres.

Thence around the plateau to the east gully of the Potters' Quarter, skirting this and ascending the long ridge to the west cliff of Acrocorinth is slightly over 3 kilometres.

The whole circuit, excluding the walls of Acrocorinth itself, is thus almost precisely 10 kilometres, which is in English reckoning rather more than 6 miles and in ancient Greek computation some 55 stades.[1] This considerably exceeds Strabo's figure of 40 stades (viii, 6, 21). If we add our computed circuit of Acrocorinth (with 17 stades), the total of 72 stades errs about as much in the other direction from Strabo's figure of 85 stades for the entire perimeter. Yet if we add also the two long walls to Lechaeum, each of which must have been fully 2 kilometres long,[2] our final total, now about 96 stades, again cannot be made to agree with Strabo's calculations. I have no rectification to suggest. Since the line of the wall is now at least as certain as the text of Strabo, we can only prefer the archaeological actuality to the ancient geographer's authority. In any case it is apparent that the enclosed area greatly exceeded in size the actual needs of the city. Hence, though the great wall girdle enclosed the most extensive city domain in mainland Greece,[3] no inferences are thence permissible as to the population of ancient Corinth.

The CHRONOLOGY of the City-wall is puzzling and difficult. The long and well-preserved stretch on either side of the Southeast Gate, continuing to the north as far as the Cenchrean Gate, is uniform in its construction and, as we have seen, might be dated in the early seventh century B.C. by the pottery finds in the apparently undisturbed earth at its foot but must, by comparison with dated examples of similar masonry style in Attica, be relegated to the fourth century B.C. Beyond the Cenchrean Gate most of the wall has

[1] If an ancient foot slightly in excess of 0.30 m. is used for the calculation.

[2] About 12 stades each, according to Strabo, viii, 6, 22, *σκέλη δὲ καθείλκυσται σταδίων περὶ δώδεκα ἑκατέρωθεν τῆς ὁδοῦ τῆς ἐπὶ τὸ Λέχαιον.*

[3] Cf. the list of city areas in Stählin-Meyer-Heidner, *Pagasai und Demetrias*, p. 190.

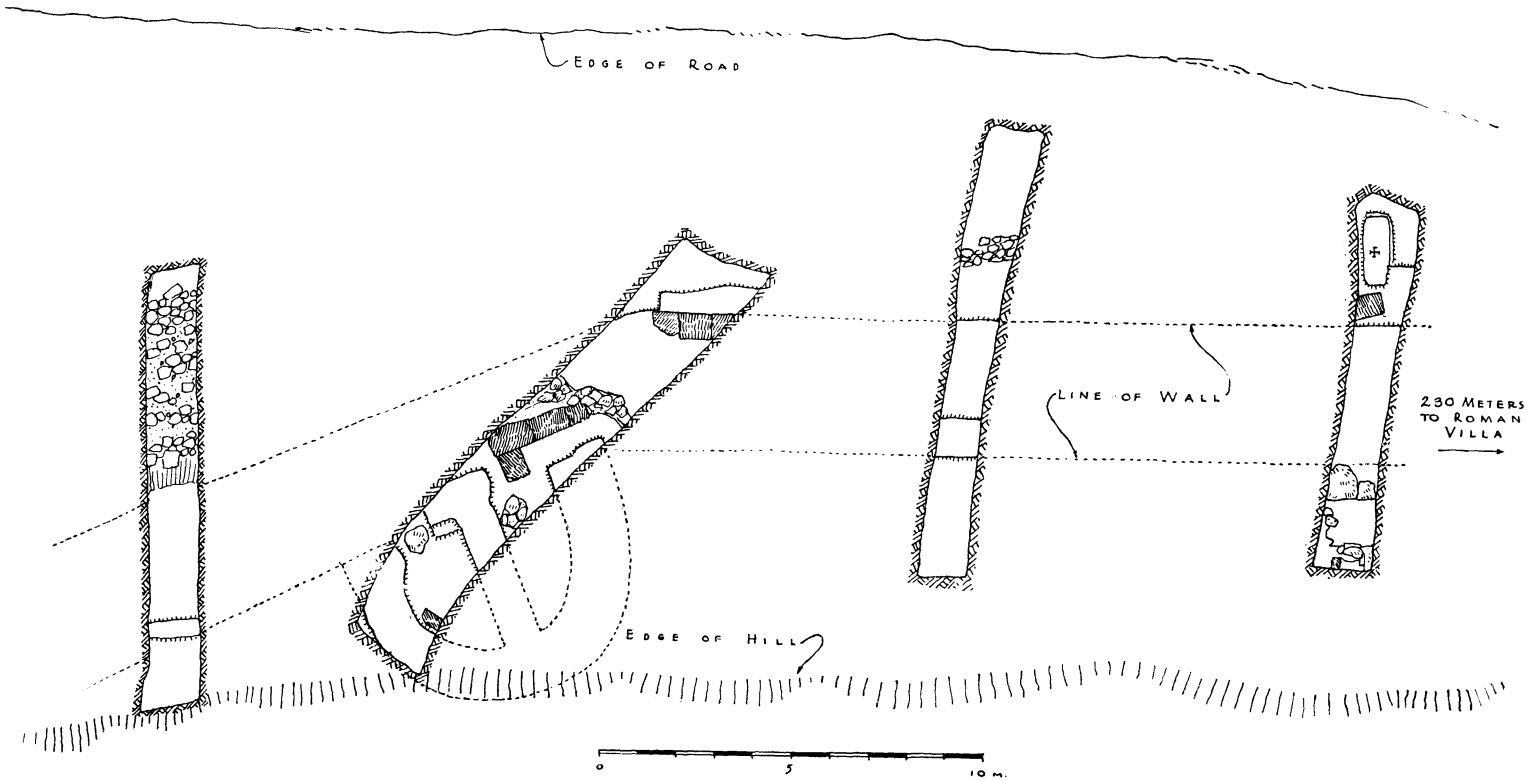

FIGURE 54. WEST CITY-WALL NEAR ROMAN VILLA: WALL AND TOWER DETECTED BY TRIAL TRENCHES

been removed, but the few blocks which survive suggest that this whole stretch on the edge of the river valley is in a uniform style and therefore dates from a single period, very probably contemporary with the preceding sector. But as soon as the wall turns west along the top of the ledge between the upper and the middle plateau, a different style appears, characterized by the use of building blocks of a standard size approximating four feet by two. On the middle plateau there is no archaic Greek, but only fourth century B.C. material in the soil; but here Mr. Parsons' excavations seem to prove that a thoroughgoing rebuilding is to be postulated.[1] The long walls to Lechaeum seem to be a late fifth century construction, with upper and lower limits fixed in any case at 480 and 394 B.C. A style of masonry echoing portions of the City-wall reappears at the Asclepieum, where a great mass of excavational evidence leaves no doubt that the supporting walls here were erected around the middle of the fourth century B.C.; but it is not at present believed likely that these walls belong to the defenses of the city, nor is it obvious how closely the constructional parallel can be pressed for the chronology. The stretch at Cheliotomylos is again similar in style, and here the adjoining road certainly dates back to the end of the fifth century on the evidence of the contents of the graves which line it. The powerful walls through the Potters' Quarter may very plausibly be dated on excavational evidence to the first half of the fourth century. A much weaker wall along the edge of the ravine seems to have preceded the great fourth century structure by several hundred years. The date of the remaining stretch up the long slope to Acrocorinth is completely uncertain; but two wholly different types of wall here appear,—one built massively of poros blocks of fairly uniform size approximating the familiar dimensions of four feet by two feet, while the other seems merely to have been constructed of brick carried on a poorly built outer socle of irregularly hewn stone.

The evidence is therefore ragged and inconsistent, but tends to underscore the period between the Corinthian War and the Macedonian encroachment. This, historically, tends to coincide with the economic and political renascence which the city enjoyed during the second half of the fourth century. The period of a century extending from the Persian Wars through the Peloponnesian War to the Corinthian War is less extensively represented save in the Long Walls to the sea,—perhaps because historically this marked a long term of commercial enfeeblement and political decline. The first age of great commercial prosperity under the Tyrants is represented only in the Potters' Quarter.

An obvious query here finds an obvious answer. Since the girdle of a city's defenses is valueless unless the girdle is complete, there must have been a full circuit of wall from the earliest period. Had that wall been great and powerful, it would have been incorporated in, rather than superseded by, its successors. A socle nearly two metres high, of enormous strength, built of stones most of which weigh more than a ton, such as survives near the Southeast Gate, was clearly too massive for the soldiery of Mummius, just as it has

[1] See his discussion of the evidence, below pp. 121 ff.

clearly been so heavy as to defy the efforts of the peasantry in medieval and modern times, whose enormous hunger for stones was unable to devour these megaliths. Hence this cannot be the survival of a great wall from the Age of the Tyrants accidentally preserved here, but destroyed elsewhere in the circuit. Had there been such a wall and had it fallen into disrepair, how was it that the builders of the fourth century did not base their new construction on the surviving great blocks of the preceding period? The obvious reply must be that there was no such wall. The fortifications of the archaic period must therefore have been of such a nature that it was more natural to destroy and supplant than to rebuild or repair them.

One might venture the hypothesis that the builders of the sixth century walls incorporated the abrupt terrain as an integral part of their defenses and accordingly on top of the rocky ledges, at the edge of the plateaus, and on the sharp ridges between deep gullies, contented themselves with walls of brick based almost immediately on the solid rock. That mud brick was used in sixth century forts may be argued from the Peisistratid walls of Eleusis (Wrede, *Attische Mauern*, pl. 11). The refortifiers of Corinth in the late fifth or early fourth century would then have replaced this less durable material with a solid socle of fitted stone—everywhere except on the long inaccessible ridge leading from the Phliasian gate to the hilltop west of Acrocorinth, where the only trace of ancient walls today is the unimpressive and seemingly inadequate line of small stone, resembling a curbing rather than a wall. But I am convinced that we have no cogent evidence that, in general, the Greek cities on the mainland were surrounded by walls before the Persian invasion. For Athens the pre-Persian situation is still unclear. The immediate capitulation or abandonment of the Thessalian and Phocian and other cities as far south as Thebes, at the mere appearance of the Persian army, is a very clear indication that they were not strongly fortified, since it must have been evident that the Great King would not have paused to lay siege to them one by one. The decision of the Peloponnesian forces to barricade the Isthmus against Xerxes suggests but does not prove that their towns were unfortified; just as the Athenian decision ten years earlier to prevent the Persians from landing by battling with them on the strand at Marathon, may indicate that Athens was inadequately defended by walls at the time. Certainly the Athenian behavior in 480 B.C. is most readily explained if only the Acropolis was properly walled; and the universal panic which seems to have struck Greece at the news of the Persian invasion could hardly be imagined in a land full of cities able to withstand siege. It is thus not at all impossible that at Corinth in the time of the Tyrants only the citadel of Acrocorinth was walled, and that the great girdle around the whole territory of the city was a creation of the times after the Persian defeat. The history of the military defenses of Corinth and Athens may therefore coincide very closely.

But a fuller understanding of the chronological problem involves Mr. Parsons' excavational evidence, to which the next section of this volume is devoted.

III

THE LONG WALLS TO THE GULF

By A. W. PARSONS

Xenophon's very circumstantial account[1] of the battle between the Long Walls in 392 B.C. has made it certain that these were built at least as early as the beginning of the fourth century B.C.; and Strabo's description[2] of the city shows that at the time of his visit, not long after the re-founding in 44 B.C., they were still conspicuous.

These are the only passages in ancient literature, with the exception of one in Diodorus,[3] which throw any light on the location and arrangement of the Long Walls in their relation to the City-walls and the fortifications of Lechaeum. And the information to be gleaned from them is discouragingly meagre. Most useful is Xenophon's statement[4] that the walls were very far apart. This is sufficiently vague; but it is probably safe to read into it the implication of a greater interval than that between the Long Walls at Athens, for example, with which Xenophon would have been most familiar. It is clear from his account that the city was cut off from the space between the walls by its own North Wall;[5] while Diodorus specifically mentions a cross-wall (*διατείχισμα*) at Lechaeum.[6] It was probably immediately south of the cross-wall at Lechaeum that Praxitas destroyed parts of the Long Walls, opening a gap wide enough for an army to pass through,—a gap which the Athenians in the year 391 B.C. rebuilt with their own artisans and at their own expense.[7]

There is little here to help in fixing the actual position of the walls, and Strabo has not much to add. Spur-walls (*σκέλη*), he says,[8] have been built on either side of the road from the city to Lechaeum; their length was about 12 stades each. He makes no comment on the state of their preservation, although he has just described the Acropolis walls as ruinous (*ἐρείπια*).

1 *Hellenica*, iv, 4, 5 ff.

2 Strabo, viii, 6, 20–23.

3 Diodorus, xiv, 86, 4.

4 *Hellenica*, iv, 4, 9.

5 *Hellenica*, iv, 4, 11: [The Corinthian exiles] "*ἐγένοντο ἐγγὺς τοῦ περὶ τὸ ἄστυ κύκλου . . .*".

6 Diod., *l.c.*: "*. . . Βοιωτοὶ καὶ Ἀθηναῖοι . . . . Ἀργεῖοι καὶ Κορίνθιοι . . . ἐντὸς τοῦ διατειχίσματος* [*sc.* of Lechaeum] *εἰσεβιάζοντο.*"

7 Xen., *Hellenica*, iv, 4, 18.

8 Strabo, viii, 6, 22.

Further topographical data could be furnished only by the actual remains. But by modern times the walls had so far disappeared that, until the investigations of 1932, only one serious effort to locate them had been made. Skias' two papers, in 1892 and 1906, embody the results of this attempt. On the basis of a series of trial trenches he proposed [1] to locate the West Long Wall along the line of the wagon-road which today leads northward from the "Baths of Aphrodite" and meets the modern highway close to the sea, just west of the westernmost of the lagoons of Lechaeum. With Xenophon's *πολὺ διεχόντων* . . .

FIGURE 55. TERRITORY TRAVERSED BY EAST LONG WALL

ἀπ' ἀλλήλων in mind, he tentatively identified [2] the East Long Wall with one or the other of two sets of boundary stones in the fields about a kilometre away.

Although it was a totally erroneous theory on the position of the agora of the ancient city [3] which led Skias to look for the walls where he did, and although he certainly misinterpreted the remains which he believed to be those of the West Long Wall and failed to observe the considerable traces of the East Wall and the gate in the slope below the second plateau, yet his apparently dubious conclusions have proven substantially correct.

1 *Πρακτικά*, 1892, p. 116; 1906, pp. 161–163.
2 *Πρακτικά*, 1906, p. 164.
3 *Πρακτικά*, 1892, pp. 111 ff.; 1906, pp. 148 ff.

A spur-wall was discovered departing at right angles from the North City-wall[1] a few metres beyond the northeast corner at which this wall begins. Thence, heading slightly west of north, it descends the slope in a straight line to the wide Corinthian plain (Fig. 55). It was not possible to follow it farther through the deep soil of the vineyard-covered land; but it is likely that at some point in the plain it swings somewhat more toward the east in order to meet the fortification wall of Lechaeum between the eastern hill of the port (Fig. 55, *x*) and the nearby Roman villa (Fig. 55, *y*). The wall reaches the plain almost midway between Skias' sets of boundary stones.

FIGURE 56. JUNCTION OF EAST LONG WALL WITH NORTH CITY-WALL

Circumstances did not permit as satisfactory an investigation of any part of the West Long Wall; but though its meeting with the City-wall is yet to be established, its general character and approximate course were determined beyond reasonable doubt. Trials were made at two points along the line indicated by Skias. One revealed only Roman remains; but the second, close to Skias' T 5,[2] brought to light a bit of wall concerning whose identity there can be little question. Here, in the plain, the direction of the wall is exactly north and south and its distance from the East Long Wall about 1200 m. Its line, continued in

[1] In Trench VI. Cf. Appendix A.

[2] *Πρακτικά*, 1906, p. 163.

both directions, would meet the City-wall toward the south on the point of the bluff just east of the "Baths of Aphrodite," where the natural defensibility is greatest; while toward the north, without appreciable change of course, it would reach the sea an appropriate distance west of the harbor of Lechaeum.

It was evident from the outset that the Long Walls belonged to a totally different system from the walls on the plateau above. Where the East Long Wall and the North City-wall meet (Fig. 56), the rough conglomerate blocks, α and β, of the east face of the Long Wall contrast sharply in dimensions as well as in material with the poros teichobate (δ–δ) of the City-wall, while the remains of a rubble fill behind them is not paralleled in either the North or the East walls of the city proper. The greater height of Blocks α and β indicates that there was no bonding of the courses, as is further attested by the passage of the brick core (B) of the North City-wall uninterruptedly across the junction.[1] While all this suggests that the two walls were not contemporaneous, there was nothing found here to indicate how far apart in time they may have been, nor which was the earlier: one ground level (γ) seems to have served them both. The determination of their chronology must therefore rest on other reasoning.

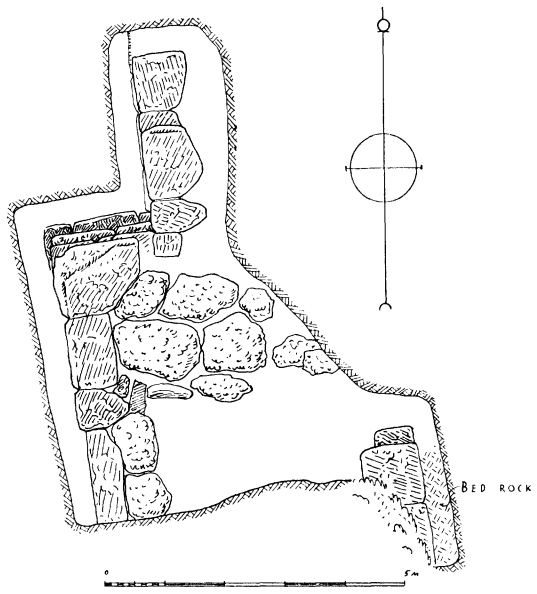

FIGURE 57. TRENCH IX, SHOWING FOUNDATION FOR STAIRS TO RAMPART

The EAST LONG WALL was traced and partly uncovered for a distance of slightly over 250 m. The method of construction indicated by the scanty remains in figure 56 is characteristic for most of this sector. With two heavy rock-bedded faces of stone cut in a style which is perhaps best termed "semi-polygonal," and with a fill of rubble or of hard-packed earth between (the whole being intended as a socle to carry a superstructure of sun-dried brick), the Long Wall is in most respects easily paralleled in Greece. Excellent analogies are to be found at many sites, for example at Eretria and Mantinea.[2]

The wall has survived in varying degrees of preservation; but though it stands nowhere over 3 m. high, there is good evidence for most of the features of its construction. In

[1] The position of the west face of the Long Wall in this trench is certain, though the blocks have vanished. The division between the fill of the footing trench and the late accumulation where the blocks have been taken away was very marked (Figs. 228 and 56, ε), while the west side of the excavator's trench coincides exactly with that of the ancient footing trench.

[2] Eretria: Pickard, *A.J.A.*, 1st Series, VII, 1891, pl. XVIII; Mantinea: Fougères, *Mantinée et l'Arcadie Orientale*, 1898, p. 142, fig. 21.

Trench VIII at the edge of the second plateau just before the sharp descent, there are five courses reaching a height of *ca.* 2 m. The height of the inner face in Trench IX (Figs. 57 and 58) is about the same. Parts of the gateway (Trench X) are excellently preserved: its great south tower is 3 m. high, the north wall of the courtyard over 2 m. North of the gate, the wall has nearly disappeared; a single course is the maximum still *in situ*, while in the northernmost trench (XVI, Fig. 59), where the slope flattens out into the plain, only the beddings were found.

FIGURE 58. VIEW OF TRENCH IX FROM THE NORTH

The wall is generally 4 m. or somewhat less in thickness; but in Trench IX (Figs. 57–58) at the base of a particularly steep drop, a set-back in the inner face brings the thickness to *ca.* 5.45 m. This is presumably the foundation for a ramp or stair which gave access to the rampart from the higher ground above. Such stairs are specifically mentioned by Xenophon[1] for precisely this sector of the wall. The rough finish of the exposed faces and the irregular height of the courses are conspicuous in the larger-scale photograph. Thoroughly typical, too, are the broad drafting of the corners (Block *a*) and the generous bevelling of the vertical and horizontal joints. The isodomic treatment of the courses is distinctive of the inner face of the wall, in contrast to the outer face where

[1] *Hellenica*, iv, 4, 11.

the polygonal feeling is stronger. The approximate ancient ground level is marked by a course (in this case the lowest) which projects slightly beyond the others without bevelling of its upper edge.

Trench XII (Figs. 59–61) marks the last steep incline in the course of the wall. Here the few remaining blocks are set securely in an outcropping ledge of the conglomerate rock of which the wall is made. From the foot of the ledge to the south edge of the plain the

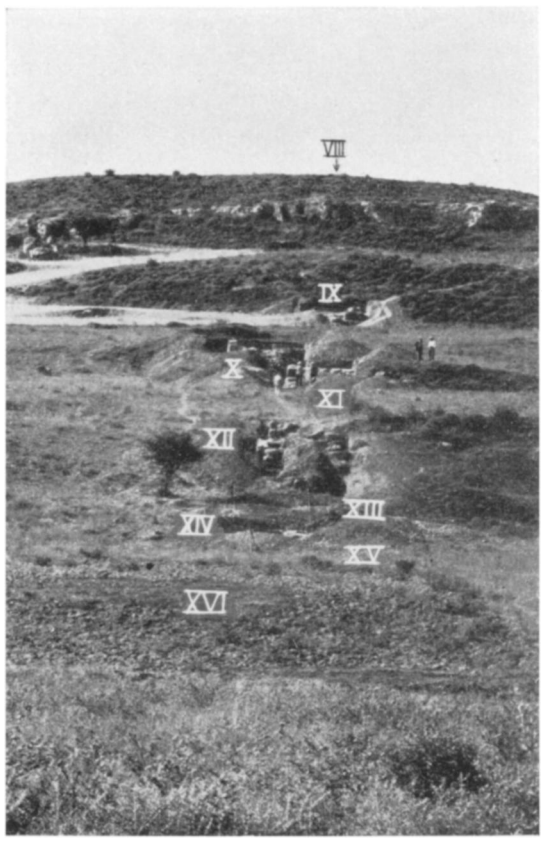

FIGURE 59. TRENCHES DISCLOSING EAST LONG WALL, FROM THE NORTH

slope is very gradual. In the only two trenches on this gentler slope where any blocks were found *in situ* (Trenches XIII and XIV) the style of construction seems definitely to have changed. Especially in Trench XIV (Fig. 62) the foundation course appears to have been carried through the entire thickness of the wall, rather like the teichobate of the East City-wall on the plateau above. But here in Trench XIV there are no visible setting-lines or traces of brick, and it is not apparent how the superstructure differed from that of other parts of the wall or whether, indeed, it differed at all. Differences in style, even within a single wall system, need not, certainly, indicate difference in age; the material used, the nature of the ground, the distance over which the stone had to be brought, all

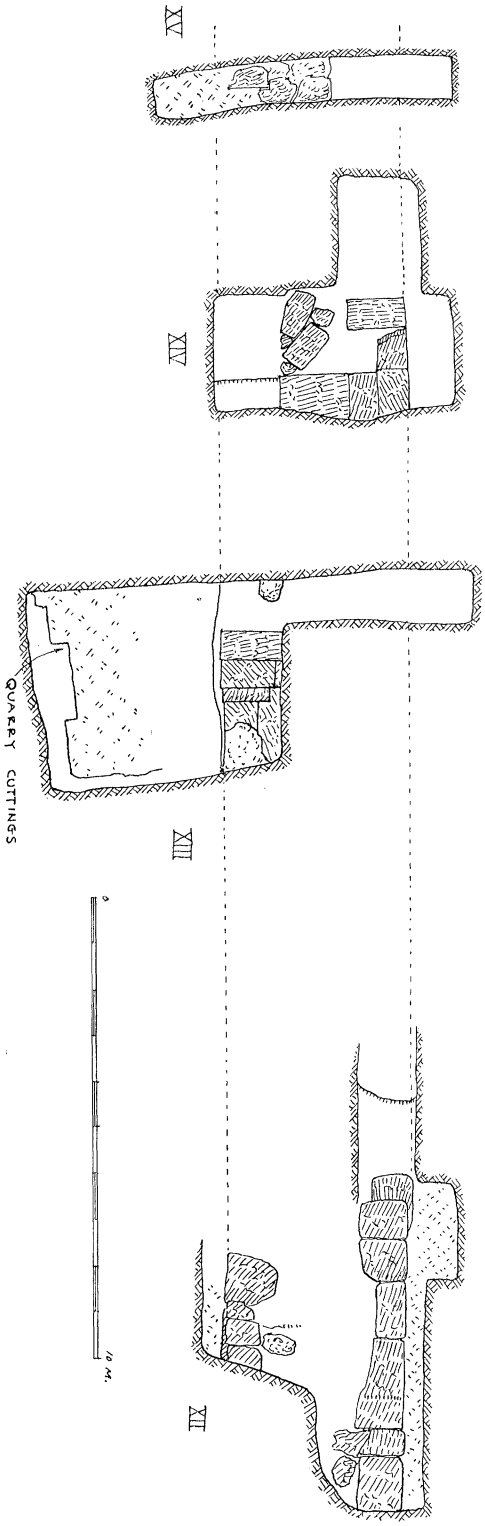

FIGURE 60. PLAN OF TRENCHES XII–XV

are conditioning factors.[1] But the part which each played, in a particular case, it is not always possible to determine. In this section of the wall no inferences can be drawn from the change in style until further evidence is available. Presumably it is too far from Lechaeum to be the work of the Athenians in 391 B.C. It may be noted that some quarry marks in a ledge not 5 m. west of Trench XIII (Fig. 60) are perhaps to be connected with this bit of the wall; the stone is identical.

In Trench X a great gateway came to light; this is identical in style with the section of wall through which it passes, and so closely bonded to it that both are clearly contemporary, but it will be more convenient to postpone its description until after that of the West Long Wall.

Skias' misinterpretation of the remains which he identified as those of the WEST LONG WALL has already been mentioned. His trenches were dug just west of the road leading from the "Baths of Aphrodite" to the sea, at intervals sufficient to insure the investigation of a good part of the distance between the city and the harbor. In each of two trenches, T 3 and T 6, he discovered simply a single course of poros blocks; in T 4, a later structure of re-used blocks. In T 1 he uncovered a solid-built wall of poros, 2.40 m. thick, against which a later building had been set. About 750 m. south of this, in T 5, he cleared an 8 m. stretch of a similar wall 2.60 m. thick. Here a tower, 6.10 m. wide,

[1] The fortifications of Tithorea in Phocis are a good example of contemporary walls built in different styles (Tillard, *B.S.A.*, XVII, 1910–11, pp. 55–60, 69 ff., figs. 10–11). The influence of material on style is frequently obvious, e.g. at Stratus; one must also make allowance for the whims or theories of individual builders.

FIGURE 61. VIEW OF TRENCH XII FROM THE NORTHEAST

FIGURE 62. VIEW OF TRENCH XIV FROM THE EAST

projected 4.70 m. The lowest course and some blocks of the second were preserved. The workmanship, he says, appeared to be of the period following the Persian wars; on the inside the wall had a base-moulding like that in the cella of the so-called Theseum at Athens.[1] Believing that in trenches T 1 and T 5 he had found the wall itself and in the other trenches sufficient evidence that it had once been there, Skias placed the West Long Wall a few metres west of the road, oriented approximately north and south.

While this location was appropriate enough, and while a width of 2.40–2.60 m. was not impossible (though nowhere else in the Corinth circuit is the wall so narrow), it seemed desirable to check Skias' conclusions before accepting them. For a city-wall with an inner base-moulding like that of the Theseum seemed an unparalleled phenomenon and one not to go unquestioned. Most of the spots where Skias dug were no longer available for excavation; but north and south of the church of St. George there was uncultivated land. Here, about 100 m. north of Skias' T 1, a number of trials were made (Fig. 65, *b*), and the foundations of a Roman building or complex of buildings were uncovered at several points, close to the surface. They were built entirely of squared blocks of poros of good size, ranging in height from 0.50 m. to 0.65 m. or more, in thickness seldom less than 0.65 m. and in length from *ca.* 0.90 m. to 1.40 m. Most of the blocks showed clearly the striations of the claw or toothed chisel, generally considered a mark of Roman work at Corinth.[2] But in many cases the claw had not wholly obliterated the marks of the broader flat chisel with which the blocks had originally been dressed. This seems to point to a re-use in Roman times of materials cut at an earlier period, while the dimensions of the blocks suggest that they were taken from a structure of considerable size. Further excavation yielded no additional evidence either for or against the existence of a wall here in Greek times.

But just east of the little church, between the Roman foundations and the modern wagon-road, an incidental discovery deserves mention as possessing more than incidental interest for the topography of Corinth. This is a STREET, certainly OF ROMAN DATE, which runs parallel to the modern road, and at this point just beside it. It is about 6 m. wide; its metal, which has been apparently somewhat disturbed, is of smallish stones and gravel, with a light curbing of small poros-blocks and rubble-and-mortar at either side. Its location and direction strongly suggest that it is part of the road *ἐπὶ Λεχαίου ἡ εὐθεῖα* of Pausanias, whose starting-point at the Propylaea has long been known and whose descent to the plain has been observed on the headland just east of the "Baths of Aphrodite."[3] In any case, a broad Roman street across the plain explains the existence of the buildings which appeared in every trench dug along this line.

[1] Trenches T 1–T 6, *Πρακτικά*, 1906, pp. 161–163; Trench T 5, *ib.*, p. 163: ".. ἡ δ' ἐσωτερικὴ πλευρὰ τοῦ τείχους ἔχει καὶ ἀρχιτεκτονικὴν διακόσμησιν διὰ σπείρας, οἵαν ἔχουσιν καὶ οἱ τοῖχοι τοῦ σηκοῦ τοῦ ἐν Ἀθήναις Θησείου."

[2] It occurs also in Greek times: for example, on blocks of the City-wall in the Potters' Quarter; but it seems to have been used chiefly for contact surfaces, not for exposed faces.

[3] Pausanias, ii, 3, 4; Stillwell, *Corinth*, I, pp. 135–141. This is not likely to be the road of which Strabo speaks in viii, 6, 22, since the Long Walls would scarcely be described as *ἑκατέρωθεν* of a road which lay in

Skias' trench T 5, where the wall with the base-moulding was discovered, lies about 850 m. south of the church and, as nearly as could be determined from his map, perhaps 125 m. out from the foot of the bluff. Here the last trench of the season was laid out (Fig. 65, *a*) with the intention of re-examining a specimen of this wall and establishing if possible its exact nature and function. The trench extended *ca.* 20 m. west from the wagon-road, at a point *ca.* 120 m. north of the cross-roads at the base of the slope. No trace of Skias' wall was found;[1] but close to the road, at a depth of *ca.* 3 m. from the modern surface, below a quantity of late Roman or Byzantine remains, appeared the northwest corner of what seemed to be a building of re-used poros blocks. From it a marked ground level extended eastward. Below this level the Roman potsherds disappeared entirely, giving place to Greek. Finally, 10 m. west of the road, and approximately 4 m. below the surface, a wall was uncovered, the scale and construction of which seem to assure its identification as the West Long Wall (Fig. 63).

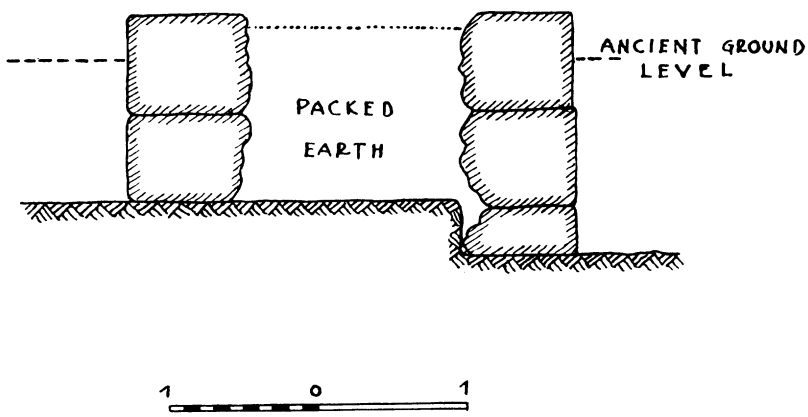

Figure 63. West Long Wall: Cross-section, Looking South

It is 3 m. thick, built of two faces of very heavy blocks of poros (a grayer and harder stone than that used in the North and East City-walls) with a filling not of rubble or brick, but of packed earth.[2] Both faces are based on hard-pan, which drops, or is cut

the very shadow of one wall while the other was a kilometre or more away. Strabo probably used the road which Skias discovered in the plain just west of the modern motor-road (*Πρακτικά*, 1906, pp. 155–156); this is nearly midway between the walls.

[1] I do not mean to imply that it does not exist: probably our trench was dug a little too far south and so missed it. In any case, it should be investigated; it cannot be part of the Long Wall; but a fifth century structure (if that is really its period), perhaps contemporary with the Long Walls, would be worth looking into, whatever its nature.

[2] Packed earth, instead of rubble, is not uncommon as a wall filling. It occurs, e.g., at Eretria (Pickard, *op. cit.*, p. 373) and seems also to have been used at Sicyon. There the wall of the Hellenistic acropolis is built in normal fashion with two faces of conglomerate blocks; but the facing-walls are tied together every 3 to 4 metres by light cross-walls. The compartments so formed, unnecessary for a fill of heavy rubble, are suited to holding an earth fill in place. There is, today, little trace of rubble either inside or outside of these compartments: earth might with time have washed away through cracks and breaks, but rubble under normal conditions would have remained.

down, to the west so that the second course of the inner face and the third course of the outer face are approximately at the same level (Fig. 63). The normal height of a course is 0.65 m., the thickness 0.75–0.85 m., the length of each block at least 1.00 m. The dressing of the exposed face of the West Long Wall is not unlike that of the blocks of the East City-wall; but here the chisel strokes are less marked and the horizontal ridges are larger and less regular. Seemingly, no decorative effect was intended in this case, since the ancient ground level lay within *ca.* 0.30 m. of the top of the wall as it is now preserved. The east (or inner) facing-wall lacks the taeniae; and the backs of the blocks of both faces are not dressed at all, but are left in quarry-state. The third course of the outer facing-wall is set back *ca.* 0.03 m. Both facing-walls seem to be semi-polygonal in character.

The lowest level at which Roman potsherds appeared lies, as has been mentioned, some distance *above* the top of the wall. In the hard-packed filling between the faces and in the undisturbed earth against the lower courses only Greek sherds were found. These cannot be used to date the wall with sufficient accuracy to permit any opinion on its chronological relationship to the East Long Wall; but at least they indicate that the West Wall is pre-Roman. Its size and style are those of a fortification in the same tradition, despite minor differences, as the East Long Wall. Its location and orientation, finally, are conclusive. A wall of this type, in this place, can be only the West Long Wall.

The walls which Skias found can scarcely belong to this system. It is probable that they, like the remains uncovered beside the church, were built of blocks taken from the Long Wall when in Roman times, having outlived its usefulness, it served merely as a convenient source of material for the line of buildings and monument bases which grew up along the road to Lechaeum.

THE ISTHMIAN GATE

An ancient road, slanting upward from the plain to the second plateau, and correctly traced by Mazarakis many years ago,[1] passes through the East Long Wall at a point almost exactly half way up the slope. Here, it seemed certain, there must have been a gate. And just here Mazarakis had noted a low wall of conglomerate blocks, which he took for a retaining wall, with an east-west length of about 10 m. and only its north face exposed. Once the lines of the Long Wall had been established, it was apparent that the east end of this "retaining wall" terminated at the west face of the Long Wall; and a little excavation showed that though the blocks of the Long Wall were no longer in place, the two had originally been bonded together. This immediately suggested that the "retaining wall" was in some way connected with the gate and should be the clue to its exact location. But neither the wall nor the scattering of partially exposed blocks just south of it gave any hint of the size and elaborateness of the structure which was subsequently revealed.

[1] *Πρακτικά*, 1906, pl. E; cf. p. 166.

No less than other parts of the Long Walls, the gate structure has suffered at the hands of later builders who used it as a quarry. But even where the walls have been completely razed, the beddings, cut in the rock of the hillside, have preserved the PLAN (PLATE V).

Where the road climbing from the east reaches it, the Long Wall is pierced by a passage a little over 3 m. wide. This is flanked at either side by a round tower (Towers I and II, PLATE V) and leads obliquely through the wall into a trapezoidal courtyard. The courtyard has a maximum width of *ca.* 12 m., and a maximum length of *ca.* 13.5 m.; its shape, like the angle of the entrance, was clearly imposed on it by the direction of the road, and it therefore probably post-dates the road.[1] Its lateral walls are identical in style with most parts of the Long Wall, two faces of conglomerate blocks with a total thickness of 4 m. or less. At the west, these lateral walls are returned to south and north and their thickness increased to 5.50 m. to form two rectangular towers, between which a second passage gives access to the territory within the Long Walls (Tower III, PLATE V).

This plan, with an outer and an inner gate separated by a fortified courtyard, is a type frequently employed by ancient military engineers. It is most familiar in the Dipylon at Athens and the Arcadian Gate at Messene.[2] A number of the gates at Mantinea,—Gate A, especially,—have been restored to resemble fairly closely the Dipylon and the new gate at Corinth; while a recently discovered gate at Stymphalus, with a circular courtyard, almost repeats the Arcadian Gate in miniature. Even the great gate at Stratus, though its courtyard is really a bay with its whole outer side open, is designed on the same principle,[3] the most essential element of which is the deliberate absence of any provision for closing the outer entrance. This can only mean that the courtyard and the inner gate were not considered as a secondary line of defense but as an open and intentional ambush to draw the attacking force within the courtyard where, subject to fire from three sides at least, it would be practically at the mercy of the defenders. This defensive device, although it was developed at an early period,[4] seems to be most commonly used in the fourth century and later, and it is interesting to find it here in Corinth in the middle of the fifth.

So large and so strong a gate, through which passed a road that was apparently in uninterrupted use from the sixth century B.C. to the fifth century of our era,[5] must have been an important one. There is, however, so little information on the gates of the city that its IDENTIFICATION and ancient name cannot be established with certainty. It can, however,

[1] There is further evidence in the graves under Tower I (cf. below, pp. 116 ff.) and in the fact that the footing trench for Tower III is cut through the road metal (cf. below, p. 105).

[2] The best plan of the Dipylon is by Knackfuß, published in Judeich, *Topographie von Athen*[2], 1931, p. 137, fig. 10; of the Arcadian Gate, that in Blouet, *Expédition scientifique de la Morée*, I, pl. 42.

[3] Mantinea: Gate A, Fougères, *op. cit.*, p. 153, fig. 27; Stymphalus: Orlandos, *Πρακτικά*, 1926, pp. 132–133, and fig. 1; Stratus: Courby et Picard, *Recherches archéologiques à Stratos*, 1924, p. 95, fig. 59, and pl. XVII.

[4] The Megarian gate at Eleusis, which Dr. Kourouniotes assigns to the time of Peisistratus, must be one of the earliest of historic times in Greece. Cf. Kourouniotes, *Ἐλευσινιακά*, I (1932), pp. 203 ff., and plan, p. 207; a better plan accompanies the same author's account of the campaign of 1933 at Eleusis, *Ἀρχ. Δελτ.*, XIV, 1931–32, *Παράρτημα*, pp. 1 ff.

[5] Cf. below, pp. 113 ff.

be argued that in addition to the approach from Cenchreae, the only other route of major importance required by the topography of this quarter is one leading directly from the Isthmus. For though it is reasonable to assume that much of the traffic between Corinth and the Isthmus could have gone by way of Lechaeum or Cenchreae, there must also have been a more direct road which avoided these detours. Yet an Isthmian gate is mentioned but once in ancient literature, where Diogenes Laertius asserts[1] that Diogenes the Cynic was buried at the *πύλη ἡ φέρουσα εἰς τὸν Ἰσθμόν*. And the value of this passage may be

FIGURE 64. ISTHMIAN GATE: TOWER I FROM NORTHEAST

questioned, for, since Pausanias claims[2] to have seen the tomb of Diogenes *πρὸς τῇ πύλῃ* as he came up from Cenchreae, Diogenes Laertius seems to be in error either about the name of the gate or the location of the grave. None the less, just as the shortest road today from old Corinth to Cenchreae is still through the gate which it is assumed Pausanias used, so the most direct route to the Isthmus is the foot-road which passes along the plateau to the south of the gate which we are describing.[3] The ancient road through the Long Wall can be followed without difficulty east from the gate as far as the plain, which

[1] vi, 78.

[2] ii, 2, 4.

[3] Skias gave the name "Isthmian Gate" to an opening in the East City-wall just north of the "Cenchreaean Gate" (*Πρακτικά*, 1906, pl. E). But this is possibly no more than a break caused by the winter torrent in a gully; cf. p. 56.

it reaches within a few yards of the point where this modern foot-road descends; in the other direction, west of the gate, it can be less easily traced nearly to the top of the slope, not far short of the hollow where the motor-road now climbs to the second plateau. Thus it closely parallels the modern route; and since its direction is clearly too far north to lead toward Cenchreae and too far east to lead to Lechaeum, the assumption does not seem unjustified that the ancient like the modern road must have led to the Isthmus and that the gate may therefore be appropriately called the Isthmian Gate.[1]

FIGURE 65. ISTHMIAN GATE: NORTH WALL OF COURTYARD

The same STRUCTURAL FEATURES which have been noted as characteristic of the Long Wall are displayed to particular advantage in the masonry of the Gate. The similarity is not confined to the type of construction and scale of the material, though these are identical, but extends to all the details of finish. The semi-polygonal technique in Tower I (Fig. 64) and in the more protected south face of the north lateral wall of the courtyard (Fig. 65) may be compared with that in Trenches XII (Fig. 61) and IX (Fig. 58). In both tower and wall the blocks are rough-dressed, with broadly bevelled edges, like the blocks of the "ramp foundation" in Trench IX. The ground level is indicated as in Trench IX by a sort of *euthynteria*, made by leaving unbevelled the top edges of the blocks nearest to the desired level.

[1] The practice of naming a gate in this fashion is modern, and was not as a rule followed in antiquity. Cf. Prof. Fowler's useful note on this, *Corinth*, I, p. 83, n. 1.

That the East Long Wall and the Gate were parts of a single scheme and built at one time is indicated not merely by the structural characteristics common to both but by the fact that they are bonded together. At the northeast corner of the courtyard both faces of the lateral wall were, clearly, bonded into the inner face of the Long Wall. North of the junction, the blocks of the Long Wall have been removed; but the last block of the second course of the lateral wall (PLATE V, Block T) projects into the line of the Long Wall about 0.50 m. beyond the last block of the first course. At the opposite angle, where the south

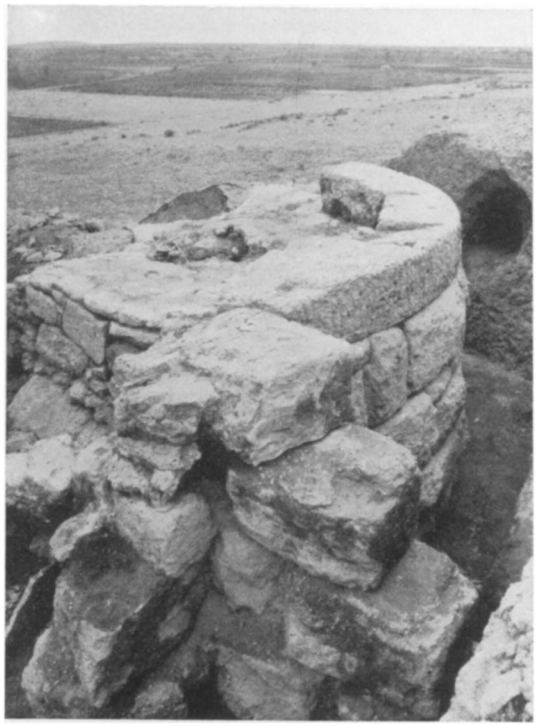

FIGURE 66. ISTHMIAN GATE: TOWER I FROM SOUTHWEST

face of the lateral-wall meets the Long Wall, the bedding (PLATE V, *e*) shows that a block, now missing, originally rested across the joint between Blocks R and S; similar bonding, still in place, occurs also at this angle in at least one of the lower courses. Such bonding could of course have been effected by tearing out entirely the inner face of the Long Wall and inserting the lateral wall. But there is no evidence, either structural or stratigraphic, pointing to any such thoroughgoing rebuilding. Changes in the original scheme seem to have been confined to an alteration of the outer entrance in Greek times and perhaps some minor repairs during the Roman period.

Two details of style have been disregarded, so far, because they could not be illustrated from other parts of the Long Wall, although they almost certainly existed there and are now confined to the gateway only because it is better preserved. The first is the massing

of the heaviest and largest blocks at the most exposed sections of the wall. Tower I affords a particularly good example of this, as a comparison of its north and east sides (Fig. 64) with its sheltered south side (Fig. 66) will show. The same treatment appears in the north courtyard wall (Fig. 65) where the blocks of the highest preserved course, which was the first above the ground, are distinctly more massive than those of the courses below. This is the treatment which has its finest expression in Corinth, and perhaps in all Greece, in the main City-wall near the Southeast Gate (Fig. 43).

FIGURE 67. ISTHMIAN GATE: OUTER ENTRANCE, FROM THE EAST

A second feature, which, though probably characteristic of this type of construction, has also survived only in the gateway, is the vertical channeling which is visible on many of the blocks. These are the marks of the chisel used in the first dressing of the blocks after their cutting out at the quarry. They do not appear on every block and, where they do occur, are in most cases very irregular (Figs. 64 and 65); but in a few instances they are so uniform as to suggest that their number and spacing has been deliberately controlled to produce an effect of fluting.[1] The blocks of the highest course of the tower (PLATE V, G, H, I, and Fig. 66), and the big corner block of the south gatepost (PLATE V, A, and Fig. 67) are excellent illustrations of this treatment.

[1] This seems certainly to have been the case in the walls of the "*Königsburg*" at Demetrias (Stählin-Meyer-Heidner, *Pagasai und Demetrias*, p. 99, pl. XVIII B).

There is one conspicuous exception to the homogeneity of construction which characterizes the gate-complex and the greater part of the Long Wall. The contrast between the rough conglomerate of walls and towers and the carefully cut, smoothly dressed blocks of poros which lay in utmost confusion within and about the outer entrance, was striking. A first impression that these must belong to a rebuilding of a later period than the original structure was heightened by the observation that among them were members of an oblique arch, which had certainly once spanned the outer gate.

Such a rebuilding was not likely to be Roman, although it seems to have survived well into Roman times.[1] The clues to its period are the material and workmanship and a frag-

FIGURE 68. ISTHMIAN GATE: TOWER I FROM THE COURTYARD

mentary mason's mark, all of which suggest, though naturally they do not prove, contemporaneity with the rebuilt city-walls on the plateau above.[2] The poros is of the same color and quality; and there is a strong resemblance in the finish of the blocks. A chisel of the same size was used in both places and, except that the arch-blocks have no taeniae (there was no place for them), the stroking is very similar. Especially, a combination of vertical and horizontal strokes was used on the contact surfaces of blocks of the East City-wall as well as on some blocks of the arch. The curious "plaited" effect which resulted may be seen, for example, both on the south end of the second-course block in Trench V

[1] Cf. below, pp. 123 ff.

[2] Cf. pp. 121 ff. and p. 296.

(Fig. 234, = Block ξ), and on the side of the voussoir block shown, behind the springer, in figure 80. Two mason's marks were discovered on blocks belonging to the arch. The first, on the back of a voussoir (Fig. 69), has no counterpart in the City-wall.[1] The other, on a badly broken and much-weathered fragment, is only partially preserved (Figs. 70 and 236, *a*). It is most easily restored as an "E", with the top bar extended back of the upright, the mark which occurs most frequently in the East City-wall. So restored, the letter on the new fragment is as much like those on Block ζ in Trench V (Figs. 234 and

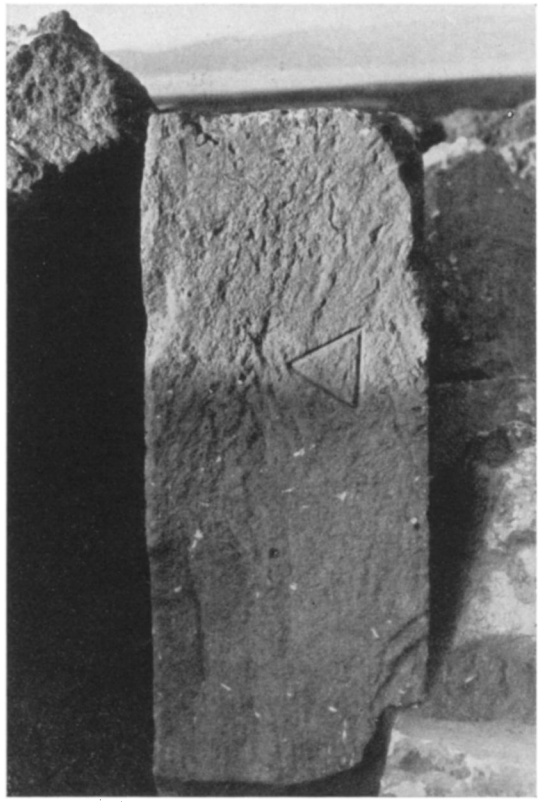

FIGURE 69. ISTHMIAN GATE: UPPER FACE OF VOUSSOIR

236, *c*) and on a block of the teichobate step in Trench I (Fig. 233), as the latter are like each other. Too great weight must not, of course, be attached to resemblances which may be entirely the result of chance. But both the chiselwork and the shape of the letter are sufficiently unusual to make their occurrence in two places arresting. Since there is no evidence whatever for any other conclusion, it is not unreasonable to assume that the period which saw the elaborate rebuilding of the city-walls saw also the equally elaborate if less extensive rebuilding of the Gate.

[1] Whether this letter is to be connected with a Δ on the West Long Wall is doubtful; they are unlike in size, shape and technique.

A detailed RECONSTRUCTION of the Gate, either in its original or in its rebuilt form, is no longer possible. Its general plan is clear and has been indicated; but the effort to determine the details of arrangement leaves unanswered quite as many questions as it solves. Only one of the towers which guarded the entrance is at all preserved. Of the northern tower (PLATE V, II), the rock-cut bedding and a few blocks of its lowest course are all that is left. But its dimensions are the same as those of the tower at the south (I); it projects *ca.* 4.65 m. from the wall, and is a segment of a circle *ca.* 7.10 m. in diameter; it is to be assumed that in other respects, also, it resembled Tower I. This tower is almost unique among the round towers of Corinth in having no median wall. Instead there is a solid fill of very coarse rubble reaching as high as the bottom of the highest course now

FIGURE 70. ISTHMIAN GATE: MASON'S MARK ON FRAGMENTARY BLOCK

preserved. Here there is a level floor of packed clay, which must originally have extended the full width of the tower (PLATE V and Fig. 66). The floor ends at the line of the east face of the Long Wall and is supported by a wall of irregular stones. About 0.90 m. below the floor this retaining wall rests on a second horizontal level formed by the big well-cut Block L (PLATE V and Fig. 71) and the rubble filling of the Long Wall. The care taken to give the retaining wall a neatly finished face and the cutting of Block L seem to indicate that they were exposed. The blocks south of L (Fig. 71) probably belonged to a cross-wall; and there was perhaps a passage of some kind here.[1] It is not possible to say just how it was arranged, but it is to be remembered that within the limits of the courtyard *both* faces of the Long Wall were exposed to attack.

[1] The carefully made bedding on the top of Block L shows that another block probably rested on its southern half. Could there have been a step between the level of Block L and the floor?

The floor is, presumably, an original part of the tower. The odd series of cuttings which appear in the upper surfaces of the two highest courses is probably not. There are five pairs of these. Four of them are in the topmost course, in Blocks G, G′, H, and I, and one of them in the course below, between Blocks J and K (PLATE V and Fig. 66). Individual cuttings are 0.10–0.12 m. square and about as deep. Three of them, in Blocks G, H, and I, are open at one side, notched into the inner edge of the block. The distance between the cuttings in each pair varies slightly, from 0.25 to 0.35 m., but the pairs, except the last two, are nearly equally spaced. The purpose of the cuttings is obscure. They are not dowel-, clamp-, or pry-holes. They could perhaps have held wooden posts as re-

FIGURE 71. ISTHMIAN GATE: DETAIL FROM FIGURE 68

inforcement for the mud-brick superstructure,[1] unless they are contemporary with the beddings on Blocks G, I, and K, which show certainly that other blocks once rested on these. Most probably they belong to some later, perhaps non-military, re-use of the tower at a time when it was already partially destroyed.

The road, as it approaches the entrance between the towers, is deeply worn into the bedrock (Fig. 72: the wheel ruts may be seen at either end of the Block A 26); within the courtyard it is hard-packed gravel, showing no wheelmarks, except for the wear on three or four small stones which project through the metal (PLATE V, μ, ν, ξ). This is of course the condition of the road at the time of its latest use. In the Greek period it was almost certainly about 0.25 m. higher. The five blocks which line the north side of the

[1] I do not know of any parallel for such a construction, unless the *θρᾶνοι* of *I.G.*, II^2, 463, l. 75 could possibly be so interpreted.

entrance (PLATE V and Fig. 72, C–C′) and whose south ends have been wholly worn away, are hard to explain except as paving-blocks. Opposite them, at the south side of the entrance, the blocks of the lowest course are deeply undercut, and they and the two big blocks of the second course (PLATE V, A and B, Figs. 72 and 73) have sagged forward out of position (cf. Fig. 67). It is very likely that the paving once extended right across the entrance, and that the removal of the paving-blocks, which would just have been accommodated by the undercutting, has allowed the whole south side of the gate to slide forward.[1] A higher level would also bring the remarkably deep hub-marks on the south gate-post (Fig. 73) within a more reasonable distance above the road surface—a maximum of *ca.* 0.50 m. instead of *ca.* 0.75 m.[2]

FIGURE 72. ISTHMIAN GATE: OUTER ENTRANCE AND ROADWAY, FROM WITHIN

There is no trace of doors at the outer gate (cf. above, p. 95). The faces of Blocks A and B have no cutting for a bar—which should occur at about breast-height; and Blocks C–C′, which preserve the full depth of the entrance, show no sign of hinge-socket, jamb or threshold. At the west entrance, only one side of the opening is preserved at

[1] The sag must have happened after the collapse of the arch, whose thrust would presumably have kept the blocks in place even after the paving had been taken out.

[2] I can only explain these marks as made by wheel hubs; they are very deep, but the lower part of both gate-blocks was extremely friable, like much of the conglomerate in the walls. Reliable evidence as to the diameter of Greek cart wheels is not easy to find: some notion may be gained from the hub-wear on a post of the Sacred Gate in Athens (Noack, *Ath. Mitt.*, XXXII, 1907, p. 149, and fig. 13), and perhaps from such representations in art as the wagon in the well-known Mesambrian relief (*Arch. Anz.*, XXXIII, 1918, cols. 12 and 90, and fig. 13; Schrader, *Pheidias*, fig. 146). The examples of country carts collected → Miss Lorimer (*J.H.S.*, XXIII, 1903, pp. 132–151), chiefly from vase-paintings, show a wide range of wheel-diameters.

all,--the rectangular Tower III (PLATE V). But from the southeast corner of this, two blocks (Fig. 74, E and F) project into the roadway. These can scarcely be accounted for except as the foundation for a door jamb. If there was also a threshold here—as there undoubtedly was—nothing of it remains. Its disappearance can be explained, however, by the lowering of the road-level.[1] In connection with this entrance it is worth noting that the footing trench for the south wall of Tower III is cut through the lower layers of the road metal, further proof that the road is older than the gate.

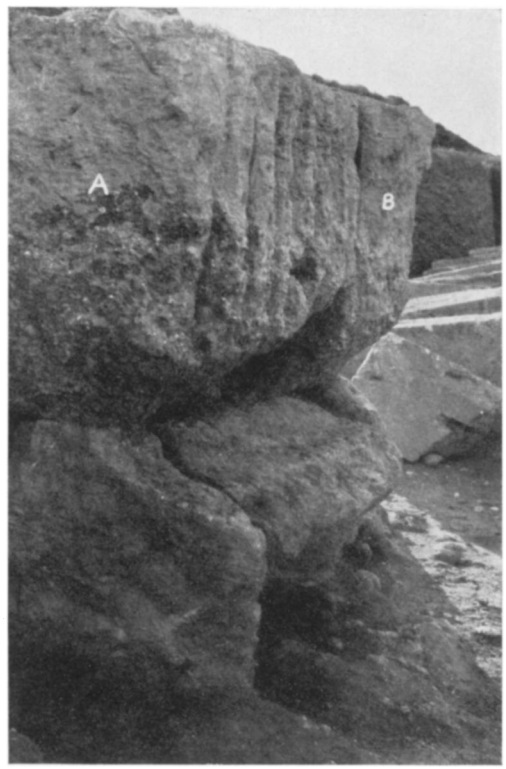

FIGURE 73. ISTHMIAN GATE: OUTER ENTRANCE.
BLOCKS A AND B

Within the courtyard the pitch of the land toward the north was originally as steep as elsewhere. Between the road and the south lateral wall there is a cistern set deep into the bedrock (Figs. 74 and 75). It is lined with good heavy stucco against a rubble backing and is certainly Greek. It now has a maximum depth of *ca.* 1.40 m.; but the roughly rectangular centre post, the lower half of which is *in situ* (the upper half lies on the floor of the cistern) shows that it was originally at least 1.70 m. deep and was covered over. It must once have been completely underground, with only the small

[1] Some arrangement there had to be, to hold the catches of the double doors; instead of a threshold, it may have been simply a small central block such as occurs, e.g., at the south gate of the Eleusinian sanctuary (Kourouniotes, *Ἐλευσινιακά*, I, 1932, p. 194, fig. 2).

opening at the south with its two steps allowing entrance for cleaning or repairs. It is interesting to recall that a very similar cistern occupies much the same position relative to the entrance and the road at the Phliasian Gate in the West City-wall.[1]

North of the road, the foot of the north lateral wall rests on bedrock well over a metre below the road-level. The original ground level was only about 0.50 m. higher. But it was the intention of the builders from the start, as the placing of the *euthynteria*

FIGURE 74. ISTHMIAN GATE: COURTYARD AND TOWERS SEEN FROM INNER ENTRANCE

of the wall shows, to fill this hollow approximately level with the road. This was done, and below the new-made level the stratification has survived almost undisturbed until today. Figure 65 shows a partial section through this artificial fill (the line indicated by *x*–*x* on PLATE V). The dark stratum (I) first above bedrock, is the nearly virgin pre-wall fill below the ground level of the building period (II). The latter was easily identified by the building chips and some fragments of sun-dried brick of which it is largely composed. These were not only deeply packed above stratum I, but formed

[1] Cf. PLATE IV. It would be interesting to know whether there were such cisterns at other gates of Corinth. They might be expected wherever the gate was at a distance from the ordinary city water-supply, or where the gate-keeper might otherwise have to go outside the walls for his water, a danger against which Aeneas Tacticus warns (xviii, 20 ff.). Elsewhere in Greece provision for water at the city gates does not seem to be the rule; but cf. the fountain at the Dipylon (Judeich, *l.c.*), and the "wash house" at the east entrance of Olynthus (Robinson, *Excavations at Olynthus*, II, 1930, pp. 11–14, figs. 60, 63–65).

also the filling of the narrow footing trench for the wall which had been cut through it. Above level II the unstratified filling (III) thrown in by the builders of the gate raises the ground approximately to the height of the *euthynteria*. Here is the firm, well-tramped ground level of the Greek period (IV).[1] Above this a number of hard but ill-marked strata have accumulated up to the last undisturbed level found (V). In this were fragments of late Roman pottery, and on it lay, at irregular intervals along the east and north courtyard walls, a half-dozen slabs of poros perhaps cut from blocks which had once belonged to the piers of the arch in the outer gateway.[2] This highest stratum was apparently formed at a time when the gate-building was extensively used as a quarry.[3]

The rebuilding, which removed the original framing of the outer entrance and substituted the skilfully made ARCH, seems to have been confined to the superstructure,

FIGURE 75. ISTHMIAN GATE: CISTERN IN COURTYARD

since it has left no record which can be read in the stratification against the foundations. But the arch itself can be restored, though not a block of it remains in place, with more certainty than any other part of the whole complex. Two factors are responsible for the preservation of many of its members. Its collapse seems to have been due rather to some natural cause, such as earthquake, than to deliberate destruction; this is suggested by the manner in which the blocks lay tumbled one on another in and about the gate (Fig. 76). And, once it had fallen, the awkward shape of many of the blocks discouraged their re-use in other structures; the blocks which have been removed are for the most part those of the piers and side-walls of the passage.

[1] Here as in so many parts of the Long Walls the sherds were unmistakably Greek, but without sufficient character to make them readily datable.

[2] These are the slabs which are seen, removed from their find-spots, lying on level V in Fig. 65.

[3] A still later quarrying project, never completed, is suggested by a narrow trench against the courtyard face of the Long Wall north of the gate, extending from the gate to the corner, cutting through all the strata down to the top of the lowest course. The only recognizable objects found in the fill were fragments of a scyphus of 4th century B.C. shape; but the trench seems to have been made after the formation of Stratum V, and so cannot date before the late Roman period.

The reconstruction must necessarily be sketchy, but the arch shows adequate command of a difficult technique, and is of a type sufficiently rare in Greek times to justify an effort to determine the major points of its design.[1] At least eight voussoir blocks are preserved, most of them whole or nearly so. They are carefully and accurately cut to fit into an arch with its vault at an angle of about 10° with the façades. In such an arch, only the keystone (which is in this case missing) can have a right angle and each voussoir will differ in its angles from every other except the one which occupies a position corresponding to its own in the opposite leg of the arch. The dimensions of the blocks are fairly regular; each is approximately 1.10 m. long and 0.65–0.70 m. high; the ends are 0.46–0.48 m. wide at top,

FIGURE 76. ISTHMIAN GATE: FALLEN VOUSSOIRS IN OUTER ENTRANCE

and 0.34–0.36 m. at the bottom (Figs. 77–79). Fifteen voussoirs like these will form, with allowance for irregularities, a semicircular arch with a chord of 3.35–3.40 m. Taking into account the 0.15 m. displacement of Blocks A and B, this suits very accurately the requirements of the gateway as far as they can be determined. The place of the lowest voussoir at each side is taken by a pair of springers, laid stretcherwise. Two of these are preserved. Their short faces are cut to the same curve as those of the voussoirs and are *ca.* 0.35 m. wide, and *ca.* 0.55 m. long (Figs. 80–82). The angle made by these faces with the long sides and the backs shows that the two springers belong together. Both have *anathyrosis* at the joint where they meet (visible in Springer II, Fig. 76). Of the two which belonged at the opposite side only fragments were found.

[1] The only other obliquely arched gates of Greek period of which I know, are those at Oeniadae and at Heraclea. Neither is adequately publishe → Oeniadae: Powell, *A.J.A.*, VIII, 1904, pp. 161 ff., and fig. 13; Heraclea: Krischen, *Die Befestigungen von Herakleia am Latmos* (Milet, III, 2), p. 21.

The restoration of the arch does not depend solely on determination of the angles of each block. Lewis-holes in every stone and two sets of cuttings in the ends of the voussoirs facilitate the placing of the blocks. The lewis-holes, undercut at one end only, indicate at once which side of a block should be uppermost. At one end of each voussoir, 0.60 m. back from the curved face, a rebate, 0.18 m. deep, has been cut (Figs. 77, 78). These are arcs of a circle concentric with that of the vault. Restored, these rebates become a continuous broad shelf, its plane exactly vertical to the façade of the arch, framing the opening (Fig. 83, *a*).

On several blocks, the end opposite the one with the rebate is diagonally divided and the surface toward the top of the voussoir has been left *ca.* 0.01 m. higher than the rest (Fig. 79). The position of these cuttings differs in the various blocks, but the line

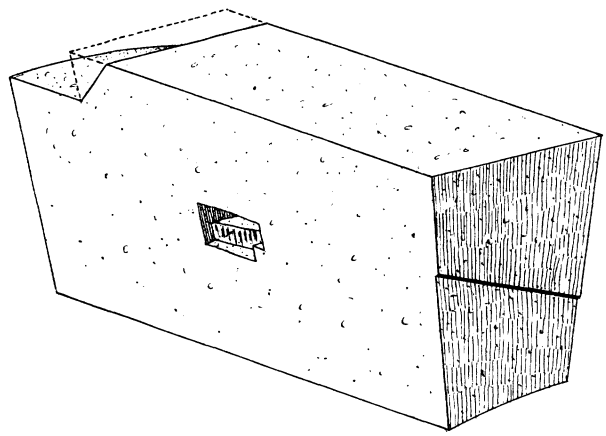

FIGURE 77. ISTHMIAN GATE: VOUSSOIR I (ISOMETRIC). SCALE 1 : 20

carries through from one block to the next. When the blocks are put in place, the cuttings form at either side of the opening a slightly raised fascia, tangent to the intrados at the impost and rising vertically across the façade (Fig. 83, *b*).

Neither rebates nor fasciae appear on the springers. The longer side of Springer II (Fig. 81) is finished smoothly, like the contact surfaces of the voussoirs. The outer corner, however, is so battered that had the fascia been carried across it, it would have been broken away. The shorter side of the other springer (I, Fig. 82) has a deeply cut drafting at the corner and a kind of rustication quite unlike the dressing of the other blocks.

So few fragments of the blocks of the imposts and the passage walls have been preserved that no information can be derived from them as to the position and arrangement of the arch. But it is most plausibly restored as spanning the outer end of the entrance passage. The rusticated side of Springer I probably belongs to the exterior, where it would harmonize with the conglomerate of the facing-wall. It must be placed therefore at the northeast corner of the entrance. Next it will lie the second springer (II), its smooth-dressed side toward the west, to receive the blocks of the passage-wall (Fig. 83, *c*). The vertical fasciae are probably to be put at this side, marking the line of contact where the

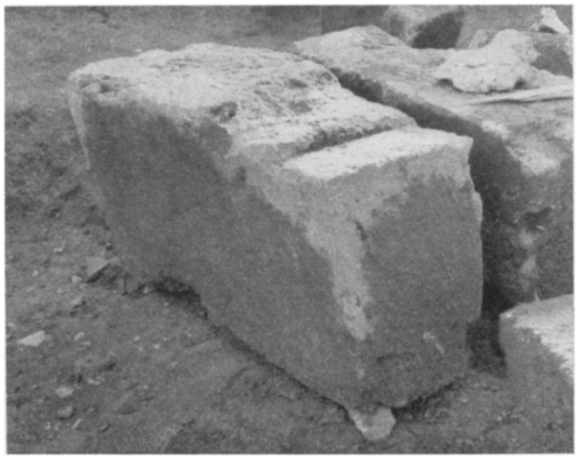

FIGURE 78.
ISTHMIAN GATE: VOUSSOIR I, EXTERIOR FACE

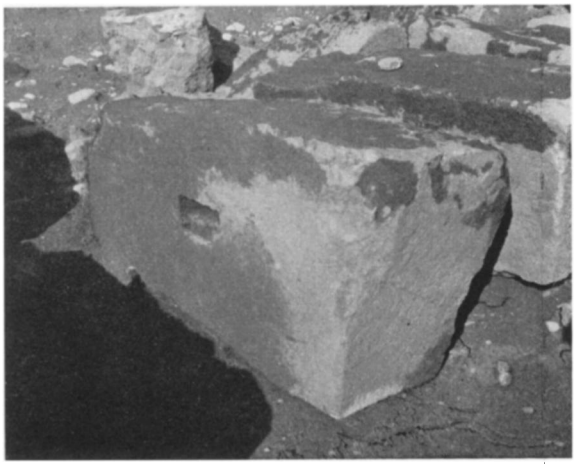

FIGURE 79.
ISTHMIAN GATE: VOUSSOIR I, INTERIOR FACE

FIGURE 80.
ISTHMIAN GATE: SPRINGER I, EXTERIOR FACE

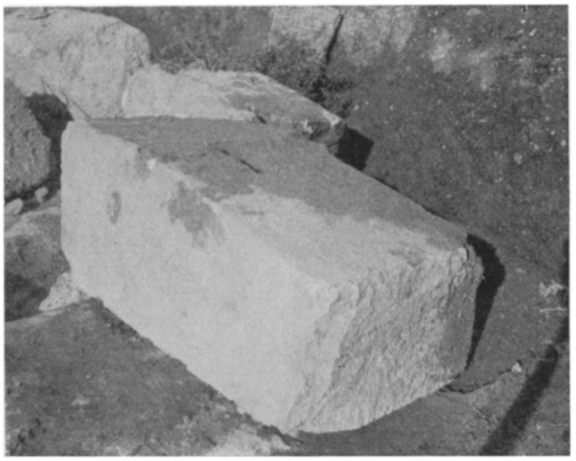

FIGURE 81.
ISTHMIAN GATE: SPRINGER II, INTERIOR FACE

walls of the passage meet the inner face of the arch. The rebated ends of the voussoirs, then, form the exterior and perhaps carried a semicircular revetment of wood or terracotta.

It has been assumed throughout this discussion that the SUPERSTRUCTURE of the Long Walls and the Isthmian Gate was of sun-dried brick, raised a safe distance above ground by the stone socle. No brick was found *in situ* at any point, but we have already mentioned the discovery of some fragments in the construction débris lying against the north courtyard wall. There are two other reasonably conclusive indications that brick formed the upper part of the walls. No backers of any sort for the voussoirs appeared among the remains of the arch; the tops of the voussoirs, moreover, were clearly left in too rough a state ever to have made contact with other stones. Brick is the only alternative, as the weathering does not suggest that the blocks stood exposed for many centuries. The discovery of six geison blocks of poros, whose finish shows that they could not have

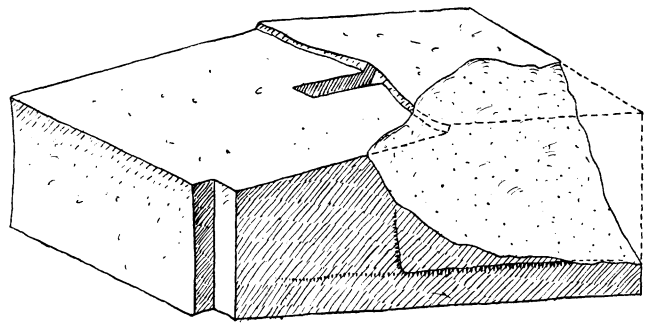

FIGURE 82. ISTHMIAN GATE: SPRINGER I (ISOMETRIC). SCALE 1 : 20

topped a stone-wall, is perhaps still more convincing. The blocks are carelessly cut, so that the dimensions and even the profile vary slightly from block to block, but they belong to the same series. The block chosen for illustration (Figs. 84 and 85) is, though broken in two pieces, the best preserved and entirely typical. It has a width at the top of 0.83 m., at the bottom of 0.81 m., and a length of about 1.28 m.; the fascia is 0.18 m. high, the drip 0.03 m., the soffit *ca.* 0.29 m. wide. The top of the block, though not very smoothly finished, shows no signs of weathering and was certainly covered. There is a rude *anathyrosis* at each end. The under contact surface is curious: around three sides it has been dressed down slightly to form a fairly smooth band, a minimum of 0.07 m. wide at the sides and a maximum of 0.13 m. at the front, leaving in the centre of the block a raised (not over 0.01 m.) surface *ca.* 0.40×1.15 m. This surface is extremely roughly finished, with broad irregular chisel strokes and no attempt at smooth dressing. So rough a contact surface could not well have rested on stone; but it is admirably suited to grip the top of a brick wall. Three of these blocks lay against the inner face of the Long Wall in Trench VIII, well below the modern surface and rather above the ancient ground level. Two were found with a number of fragments of roof-tile below the north face of the north lateral wall of the gate. The last was picked up in a field where it had been used as a

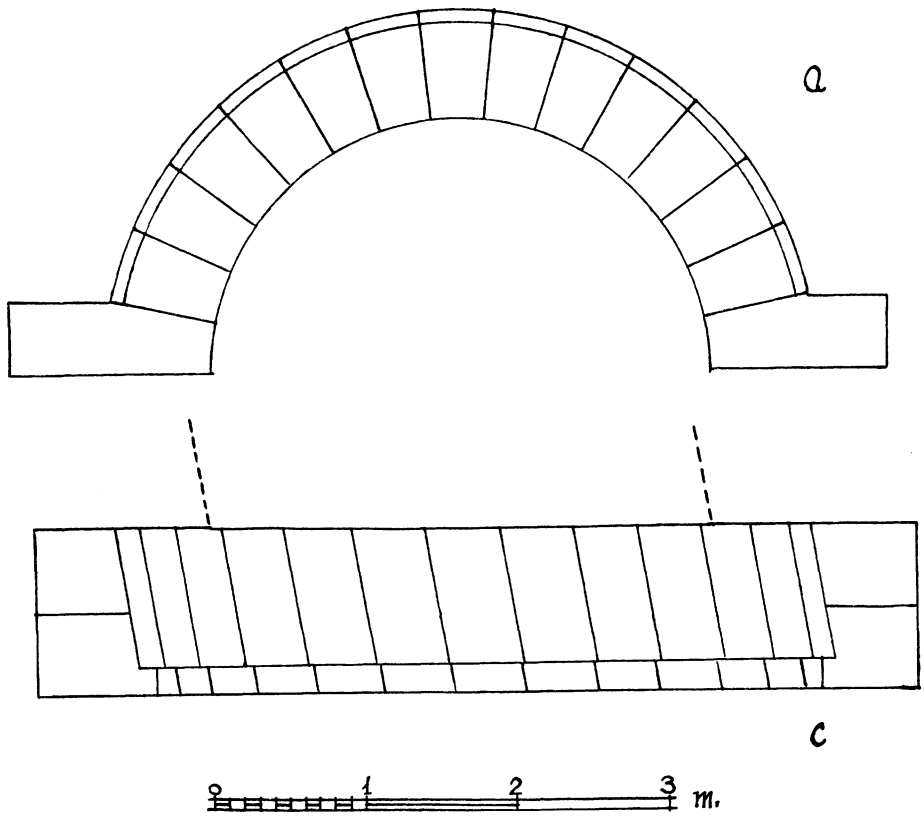

FIGURE 83. ISTHMIAN GATE: RESTORATION OF ARCH

boundary stone, some 250 m. to the north, but directly in the line of the wall. It is doubtful whether significance can be attached to the fact that both in Trench VIII and at the gate the geisa were found at the inner face of the wall. But the use of a very similar simple overhang in the walls of Messene (though the construction there is, of course, of stone throughout) is suggestive.[1] The material and the chisel-work of the blocks are very reminiscent of those of the arch. It is possible that, at the time when the outer gate was rebuilt, the whole (or parts) of the brick structure was renewed and new geisa added.

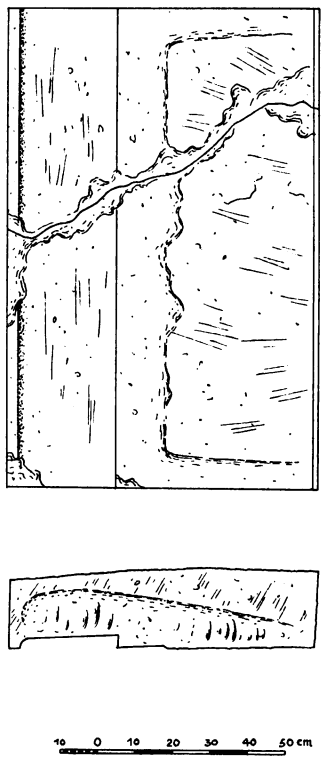

FIGURE 84. ISTHMIAN GATE: GEISON BLOCK; PROFILE AND SOFFIT

FIGURE 85. ISTHMIAN GATE: TWO GEISON BLOCKS

CHRONOLOGY

The accepted criteria for determining the date of a city-wall have been—have had to be, in lieu of other evidence—the style of the masonry and such chance references as could be found in ancient literature. But recent investigations have shown how little these are to

[1] Blouet, *op. cit.*, I, pl. 39. A tower at Heraclea has a still simpler cornice (Krischen, *op. cit.*, pp. 41–42, figs. 32–33). With these may be compared Müller's reconstruction of the walls of Athens on the basis of *I.G.*, II^2, 463 (*de munimentis Athenarum*, Göttingen, 1836). Müller's drawing is most accessible as reproduced → Caskey, *A.J.A.*, XIV, 1910, p. 298, fig. 1.

be relied upon. It is no longer possible, as Krischen pointed out ten years or more ago,[1] to draw the old easy distinctions between the Cyclopean, the polygonal, and the ashlar styles and to date a wall on this basis. The use of the polygonal and the semi-polygonal styles well into Hellenistic times is proven or highly probable for many sites. The genuinely polygonal walls on the island of Prote must be placed, if the evidence of the sherds be reliable, after the beginning of the fourth century.[2] The massive retaining wall of the Sicyonian stadium can scarcely be dated earlier than the end of the fourth century, when the city was moved from the plain to the old Acropolis.[3] Parts of the very archaic-looking polygonal walls of Asine are shown by the pottery to be certainly Hellenistic.[4] The fine semi-polygonal masonry at Neo-Pleuron is fixed to a date after the year 235/4 B.C., when Demetrius II destroyed the older city;[5] some other Aetolian town-walls of similar type are also probably of the third century.[6] An exceedingly well-preserved tower at Troezen, with lower courses in ashlar, upper in semi-polygonal masonry, is part of a cross-wall plausibly connected with the steps taken "for the safety of the city" mentioned in a Troezenian inscription of the second century B.C.[7] On the other hand, it must be said that ashlar masonry is still, as a rule, an indication of later construction. But it cannot be regarded as proof of it, for city-walls which are datable on other grounds to the fifth century do exist in this technique.[8]

Consequently, style must for the present be ruled out as a test of age. Nor is the testimony of ancient authors always of greater assistance. Even though a given passage may provide a terminus *post-* or *ante-quem* for the original walling of a town, it is seldom of use in solving one of the investigator's hardest problems: whether the wall which has actually survived is the one to which the author refers or is a rebuilding of a later period. And even where such a rebuilding is specifically mentioned, the question is only half-answered—witness the still unsettled problem of Philip's activity at Oeniadae.[9] The existence, side by side, of two styles of masonry cannot yet be considered, of itself, a proof of difference in age,[10] while there is always the possibility of other and still later

1 *Op. cit.*, p. 49. Consult also Wrede's important study, *Attische Mauern*.

2 Valmin, N., *Études topographiques sur la Messénie ancienne*, Lund, 1930, pp. 141 ff., especially p. 144 and fig. 27.

3 Paus., ii, 7, 1.

4 Persson, *Årsberättelse*, 1922–23, pp. 41 f.; Persson and Frödin, *ib.*, 1924–25, p. 28.

5 Strabo, x, 2, 4.

6 Rhomaios, *Ἀρχ. Δελτ.*, IV, 1918, p. 107. Chalcis has solid curtain-walls pierced by windows, instead of battlements (Noack, *Arch. Anz.*, XXXI, 1916, cols. 237 f.). Krischen (*op. cit.*, p. 51) considers this a definitely Hellenistic type of construction.

7 *I.G.*, IV, 757; Frickenhaus and Mueller, *Ath. Mitt.*, XXXVI, 1911, pp. 31–32, and fig. 4; cf. also Legrand, *B.C.H.*, XXIX, 1905, pp. 277 ff., and pl. XVII.

8 E.g., Stratus: beside Courby and Picard, cf. Rhomaios, *op. cit.*, p. 108.

9 Polybius, iv, 6 → Powell, *A.J.A.*, VIII, 1904, pp. 166 ff. summarizes the evidence.

10 This is the conclusion reached by Noack (*B.P.W.*, XVII, 1897, col. 700); the apparently contemporary semi-polygonal and ashlar techniques at Tithorea have been referred to above, p. 90, note 1; at Zarax in Laconia, Wace and Hasluck found "towers and angles of good squared work even where the curtains between are roughest polygonal" (*B.S.A.*, XV, 1908–09, pp. 167 ff.).

repairs. Hence, such literary evidence is of real value only when it can be combined with other data. And these must in most cases be supplied by excavation. Data so acquired may be scanty, since a town-wall is not the place for small finds; but properly controlled they form our most reliable source of information.

There does not exist for Corinth the mass of literary and documentary sources which, supplemented by excavation, has made possible at Athens a comparatively complete reconstruction of the history of her walls. So far as they go, however, the Corinthian sources are clear, and the results of the excavation are, within their limits, satisfactorily definite. Together they not only provide upper and lower termini for the Long Walls, and for the rebuilding of the City-wall and the Isthmian Gate, but throw some light on the later history of the whole system.

The year 392 B.C. is the earliest date for which there is direct literary evidence for the Long Walls or for any part of the Corinthian circuit;[1] but the familiar passage in the *Hellenica* contains merely the information that they were standing at that time and gives no suggestion as to when they had been built.

An upper terminus for their construction, however, not earlier than 480/79, if nowhere directly stated, is certainly implicit in the history of the defense of the Isthmus.

When, in 480 B.C., the defeat at Thermopylae made a Persian advance into the Peloponnese seem imminent, the Lacedaemonians and their allies scurried panic stricken to the Isthmus.[2] Encamped there, they broke out, as a preliminary measure, the road across the Scironian rocks and then set about the construction of their chief work of defense—a wall from sea to sea across the Isthmus. Although this seems the natural point for a defense of the Peloponnese against invasion from the north, it is noteworthy that it was not again selected in Greek times, nor, indeed, during the Roman period until Valerian put a wall there in A.D. 253.[3] When, for example, the Athenians and Corinthians tried vainly to stop Epaminondas in 369 B.C., they made no attempt to hold the Isthmus but preferred to fall back on the line Lechaeum–Corinth–Cenchreae.[4] This is certainly the line the Peloponnesians counted on to protect them from the barbarians in 279 B.C.,[5] and it is the one that Cleomenes chose half a century later, in anticipation of Antigonus' attack.[6] The reason for the choice is obvious. A wall at the Isthmus is quickly built and easily defended; but it can be turned with no trouble at all, as Herodotus himself observed.[7] The other line is long, but the defender's left (some 20 stades of it) is sheltered by the

[1] The remark attributed to Agis of Sparta by Plutarch (*Apophth. Lacon.*, 215 D) can scarcely be admitted as evidence: similar remarks are also attributed to Theopompus, Agesilaus, Panthoidas, and a Spartan.

[2] Herod., viii, 71 (cf. viii, 40, and ix, 7).

[3] Zosim., i, 29 (p. 29, Bonn). On the date of the existing remains, the recent work of Megaw (*B.S.A.*, XXXII, 1931–32, pp. 69 ff.) must replace all others.

[4] Xen., *Hellenica*, vii, 1, 15.

[5] Paus., vii, 6, 7; cf. the comment of Tarn on this, *Antigonos Gonatas*, pp. 150–151.

[6] Polyb., ii, 52, 5; Plut., *Cleomenes*, XX.

[7] Herod., vii, 139.

East Long Wall and the East City-wall of Corinth; while from Acrocorinth east to Cenchreae he can put his back against the solid bulk of Mount Oneum, with only the narrow passes at its east and west ends as danger spots. It is equally obvious that this line did not exist as a defensible position before the building of the Long Walls. The inference seems justified, that in 480/79 the Peloponnesians fortified the Isthmus because, in an emergency, they had no practicable alternative, since there were not as yet any Long Walls.

The terminus *post quem* so deduced from literature is more than borne out by the excavation data. The lack of datable small finds in most parts of the excavation was disappointing, but is compensated for by two significant discoveries made in connection with the great south tower of the Isthmian Gate. Under the tower, where the western facing-wall is completely gone, are three stone sarcophagi (PLATE V and Fig. 68, S 1, S 2, S 3). Their position shows that they must antedate the tower, and the west ends of two of them have actually been hacked away, to make room for the blocks of the inner facing-wall: their contents, therefore, are incontrovertible evidence for the upper limit of the wall. The fragment of a red-figured vase found in the footing trench is equally valuable. It lay a metre or more below the ancient ground level, against the southeast foundations of the tower. The fill here had very clearly not been disturbed since the construction period; the sherd could have got there only at that time.

The sarcophagi are of normal Greek type, each hewn from a single block of poros, with a slab of the same material as a cover. The interior walls, including the under sides of the lids, are thickly coated with fine white stucco; they lack the cuttings for strap-hinges which occur frequently on Corinthian sarcophagi of the Greek period. One grave (S 2) had been robbed; the contents of the other two were found broken but otherwise untouched.

The southernmost of these three graves (S 3) proved the most interesting. The sarcophagus is preserved to its full length but has otherwise suffered badly from fallen stones. The lid was broken in several pieces and forced down into the box, smashing every piece of the furniture into fragments. Some of these fragments were missing, fallen or washed through the break in the south side of the sarcophagus, and not all of them were recovered. The rest, however, could be pieced together; and except for the neck and mouth of the lecythus, no significant part of any object is missing:

Fig. 86. *a*) Terra-cotta figurine. H. 0.065 m.; L. 0.07 m. Corinthian clay, unglazed. Traces of red pigment on face and ears of the horse. Fragments of two other horsemen, identical in size and fabric, were found.

b) Scyphus. H. 0.063 m.; rim diam. 0.079 m. Pink Attic clay. Good black glaze, a little rough. Below the handles two narrow bands of purple encircle the body; above the foot a reserved band is hatched with fine vertical lines in black. The bottom of the foot has a dot within two concentric circles in black.

c) White-ground lecythus. H. 0.12 m.; diam. 0.063 m. Attic clay. Buffy white slip badly preserved. The bands of ornament cover only the front of the vase; below them the black zone circles the vase, cut by two pairs of narrow reserved lines, outlined in relief. Concave profile of the foot decorated with a band of thin glaze.

d) B. f. scyphus. H. 0.066 m.; rim diam. 0.094 m. Attic clay. Black glaze, not very good. Below the offset rim, a narrow handle zone, reserved, with figures. Below this, a narrower black band and reserved band. The bottom of foot is reserved, with a dot and circle in black. The drawing very careless, with a broad brush; no incision, no accessory colors.

e) Miniature scyphus. H. 0.021 m.; rim diam. 0.035 m. Yellow-green Corinthian clay. Black glaze, largely flaked off.

FIGURE 86. ISTHMIAN GATE: CONTENTS OF SARCOPHAGUS S 3

In addition, the sarcophagus contained fragments of a bronze strigil. No certain remains of bones were found.

The central grave, S 2, was empty, save for a tiny piece of a bronze strigil in the northeast corner which had somehow escaped the robber.

The third, S 1, had been broken at the west end, evidently to allow the placing of the west face of the wall. But its contents seemed to have been undisturbed. The grave furniture included two b. f. lecythi (Fig. 87) as well as three strigils of bronze and one of iron. The bones, better sheltered than those in Grave S 3, were recognizable, but considerably decomposed: the skull was found intact, though in a very fragile state. In the condition of the grave was apparent the effort of the wall builders to avoid profanation beyond what was absolutely necessary.[1]

[1] I do not know of any evidence for this period as to the ethics of disturbing graves in this fashion, but the robbery of Grave S 2 must certainly have taken place at a much later date, probably at the time when the wall was destroyed.

The contents of the sarcophagi suggest that the burials were made not earlier than the first years of the fifth century, but probably before the end of the first quarter.[1] Of the two pieces of Corinthian manufacture in Grave S 1 (Fig. 86, *a*, *e*), the terra-cotta horseman has no value for dating. In the Potters' Quarter at Corinth this type "was found in the earliest deposits and in all the others down to that which contained fourth century figurine moulds."[2] The tiny scyphus, however, is shown by the sharpness of its profile to belong to the early fifth century.[3] This is, approximately, the date which seems most appropriate also for the two Attic scyphi. Cups of the type of Fig. 86, *b*, have a very long history—reaching certainly from the sixth century into the fourth.[4] During this time there is a steady development toward slenderness and increased height; the base becomes narrower, the foot flatter, the in-curve of the lip is accentuated, and the handles are dropped slightly below the rim. This one, by comparison with some from the Athenian Agora which belong to the last quarter of the sixth century and one which by its context is to be placed near the middle of the fifth, must have been made fairly early, not long after the beginning of the fifth century. The b. f. scyphus (Fig. 86, *d*), from the lack of incision and the careless drawing, might be expected to be late. The only real attempt at a chronological arrangement of scyphi of this type is that which Mrs. Ure made on the basis of the graves at Rhitsona in Boeotia.[5] Although there are slight differences in the proportions and the handles are perhaps heavier, the cup seems to be most nearly related to her Class O.[6] In shape of foot, in arrangement of figured and reserved zones, in style of decoration, there is a close correspondence. Class O "appears to begin about 500 B.C."[7] The white ground lecythus (Fig. 86, *c*) is more difficult to date. It is a type which is extremely common (found more often perhaps with a band of ivy than with laurel leaves), and is generally dated simply "5th century B.C."[8] Lacking evidence to the contrary, this one must be assumed to be contemporary with its companion objects whose chronology can be more accurately fixed.

Grave S 3 presents more of a problem. Its proximity to Grave S 1 proves nothing. The date of its lecythi is scarcely easier to determine than that of Fig. 86, *c*. Vases decorated like Fig. 87, *a*,[9] or with a double row of palmettes, are frequently ascribed, like

[1] Prof. Shear was good enough to compare these photographs with those of grave groups from his own excavations at Corinth. The Isthmian Gate groups resemble in every way the contents of graves which he would date to the end of the sixth or to the early fifth century.

→ Newhall, *A.J.A.*, XXXV, 1931, p. 24.

[3] I am indebted to Mrs. Richard Stillwell (Agnes Newhall) for the dating of this vase.

[4] Payne, *Necrocorinthia*, p. 324, no. 1341; Beazley, *C.V.A.*, *Oxford*, II, pl. LXV, 17 and 24, and p. 118; Schaal, *Gr. Vasen aus Frankfurter Sammlung*, pl. 58, c.; Robinson, Harcum, and Iliffe, *Greek vases at Toronto*, pl. LII, 347 (Teisias cup).

[5] *Sixth and Fifth Century Pottery from Rhitsona*, ed. P. N. Ure, 1927, pp. 39 ff.

[6] *Ibid.*, p. 71, and pl. XXII, 18, 75.

[7] *Ibid*, p. 40.

[8] E.g., Robinson, *op. cit.*, pl. L, 328; cf. the remarks of Miss Lamb, *C.V.A.*, *Cambridge*, I, p. 26.

[9] Attic. H. 0.127 m.; diam. 0.042 m.

those of the preceding type, to the "5th century." But they were found at Rhitsona in a context indicative of an *early* fifth century date, and in the burial mound at Marathon.[1] There is no good evidence, other than its association with the first lecythus, for the date of the vase in Fig. 87, *b*.[2] A lecythus at Corinth of almost identical shape, but red-figured, is attributed by Luce to the early fifth century;[3] but the significance of lecythus shapes in determining date has yet to be established, at least within the limits of the fifth century and for the commoner types.

FIGURE 87. ISTHMIAN GATE: TWO LECYTHI FROM SARCOPHAGUS S 1

The bit of red-figured ware from the footing trench still further limits the upper terminus of the building period:

Fig. 88. H. 0.045 m.; w. 0.035 m. Pink Attic clay. Black glaze. Of the scene there remains only a human foot, in front view, broken off just above the ankle; there is no other trace of the figure to which it belonged. Relief contours but no inner relief lines.

From its shallow convexity and its thickness, the fragment must have come from a very large vase, perhaps a krater. So little of the figure is preserved that the distinctive features of the style are lost; but on general grounds of glaze, fabric, and drawing, it must belong

[1] Ure, *op. cit.*, p. 54, Class O, and p. 39; Marathon: *Ath. Mitt.*, XVIII, 1893, pp. 50 f.

[2] Attic. H. 0.102 m.; diam. 0.041 m.

[3] *A.J.A.*, XXXIV, 1930, p. 338, and fig. 3, no. 5.

somewhere near the middle of the fifth century.[1] A further clue may be sought in the cross-and-meander border. The combination of the Greek cross with the meander appears certainly to occur more commonly in the first half of the fifth century than in the second, when the St. Andrew's cross and other variations are favored.[2] Naturally, this does not prove that the sherd under discussion must have been made before 450, but in the absence of other evidence it favors that presumption.

On the basis of the literary evidence and the material from the graves, the construction of the Long Walls could have occurred as early as about 475 B.C. The sherd shows that it cannot safely be put much before 450.

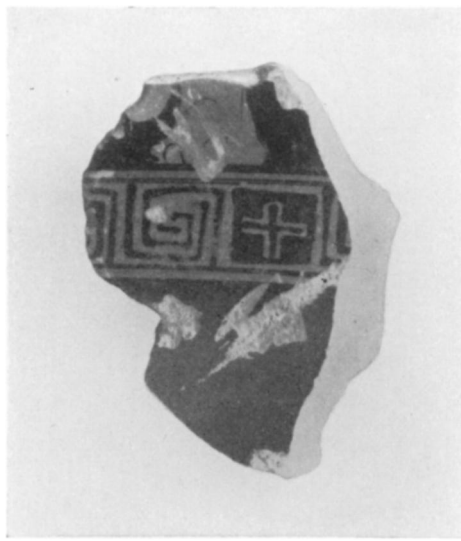

FIGURE 88. ISTHMIAN GATE: FRAGMENT OF VASE FROM TOWER I

The excavation thus adds to Xenophon's testimony the practical certainty that neither the Isthmian Gate nor the wall immediately adjacent to it had been rebuilt or extensively repaired by 392 B.C., but that they were parts of the original structure. Narrower limits for the date of construction cannot be legitimately deduced from the available evidence. None the less, if we turn to the ancient historians' accounts of Corinth, we may hazard a guess as to the events with which the construction of these walls were connected.

Thucydides' summary of the years preceding the Peloponnesian War contains suggestive passages.[3] The decade of 460–450 B.C. was an especially critical period for Corinth. Long the undisputed mistress of the Corinthian Gulf and of traffic with the Greek West,

[1] Prof. D. M. Robinson, who was kind enough to examine the photograph for me (he has not seen the sherd), suggests 460 B.C. or later.

[2] Of the twenty-six vases, e.g., illustrated in *C.V.A., Oxford*, I, which are decorated with the Greek cross and meander, twelve are dated by Beazley before 460, two between 460 and 450, seven *ca.* 450, and only five after that date.

[3] Thuc., i, 103 ff.

with a good share in the control of the oriental trade besides, she now saw her dominance, in a brief ten years, lost to the rising power of Athens.

The Athenians' first blow, at Naupactus, was followed by the defection of Megara from the Peloponnesian alliance. Then came a series of reverses for Corinth in Saronic waters. She suffered defeat at Cecryphalea and in the Megarid; Argos went over to Athens, Troezen was taken; and when, finally, Aegina fell, Corinth's last hope for her eastern waters was gone. Yet, in spite of Naupactus and Pagae and the coast of Boeotia, lately acquired by Athens at Oenophyta, the Corinthian Gulf was still Corinthian. But not for long. In 453 Tolmides, and two years later, Pericles himself sailed from Pagae into the gulf. The Sicyonians were beaten in a land battle, Oeniadae was attacked, Corinthian Chalcis was made an Athenian possession, and the towns of Achaea brought over to the Athenian alliance. There must have been, though there is no record of it, Corinthian resistance to these encroachments; but it must have been futile. Certainly, when Pericles returned from his expedition in 451, Corinth seems to have been as helpless in her own gulf as she had already become in the Saronic.

For the first time in her history, Corinth's commanding position was taken away; and worse than that, her own territory was threatened. The Long Walls of Athens had been built toward the end of the '60s or the beginning of the '50s, those of Megara at the same time or a little after: Thucydides is witness to the resentment roused among the Corinthians by the building of the latter. It would not be surprising if a part of Corinth's unrecorded answer to Athenian success was the construction of her own Long Walls.[1]

An examination of the blocks in Trench VI showed that the East Long Wall and the northeast corner of the City-wall were not of contemporary construction. Within the bricks of the City-wall were found several bronze coins[2] which cannot have been struck before the fourth century B.C., and as we have already seen reasons for assigning the construction of the Long Walls to the second quarter of the fifth century, and as the Long Walls presuppose the existence of a city-wall, we must conclude that the East City-wall discovered in our trenches is a reconstruction. The identity of mason's marks further led to the belief that this reconstructed section of the City-wall was contemporary with the arch thrown across the outer passage of the Isthmian Gate; and general architectural history is strongly disinclined to admit the existence of such a feature much before 300 B.C. To be sure, no proper study of the use of the true arch by the Greeks has yet been made; but it is not likely that such a study would alter the generally accepted notion that it begins only with the Hellenistic period. The arched gates of such northwest-Greek towns as Oeniadae and Palaerus are commonly dated to the fifth or fourth centuries and hence are pointed out as exceptions to the rule. But the dating cannot be considered reliable because it is based almost entirely on the polygonal style of the masonry. On the other

[1] Leake's suggestion (*Topography of Athens*, I[2], p. 415) that the Long Walls of Corinth preceded and were the pattern for those at Athens and Megara obviously can no longer stand.

[2] These are discussed in Appendix A, pp. 294 f.

hand, it is certain that the third century was a time of especially great military activity in Acarnania and Aetolia, and it is by no means out of the question that excavation would show that the arches at Oeniadae and Palaerus, like those at Neo-Pleuron and other sites, should be brought down to this period. Elsewhere in Greek lands, certainly, the arch does not appear much before the third century. On the mainland the earliest true arches seem to be the vaulted passages in the theatres at Sicyon and Eretria, the one built about 300 B.C., the other perhaps slightly later.[1] Outside of the Northwest, no use of the arch for a city gate has been previously known on the mainland; but beginning with Priene, about 300 B.C., it is of frequent occurrence in Asiatic Greece.

An upper terminus, then, toward the end rather than the beginning of the fourth century is very probable; a lower terminus is less obvious. But the rebuilding certainly did not take place after the destruction of 146 B.C. Strabo is witness to the fact that the Acropolis walls, at least, were in ruins when he came to Corinth a decade after the foundation of the Roman colony in 44 B.C. It cannot, of course, be argued from this that the City-walls necessarily were also fallen or destroyed. But since neither the City-wall nor the arch shows a trace of Roman workmanship, and not one of the seven trenches on the plateau produced a fragment of Roman pottery under conditions which could connect it with the construction period, there is every reason to insist that the rebuilding must be dated before Mummius stormed the city.

A consideration of some of the implications of the repair to the City-wall may help to narrow these limits still further. It is not an emergency work; the careful construction and the attention to detail show that it must have taken time. And so thorough a rebuilding—from the ground up—meant, whatever precautions were taken, a considerable weakening of the city's defenses during the time of building. While its strength argues that attack was feared, it is clear that it could not have been imminent. The wall was costly: every aspect of it, from its length of half a mile to the elaborate dressing of its blocks, indicates that no expense was spared.

Peace and prosperity were by no means Corinth's lot throughout the last two centuries of her life as a Greek city. But it is well established that both were hers to a considerable extent from, roughly, the middle of the fourth century, to about the middle of the third.[2] It is reasonable to seek in these years for the occasion of the rebuilding. For later, during the hundred years preceding her destruction, Corinth's political (and with it her commercial) significance steadily declined. Her importance was primarily military, and her successive masters were content to control the Acrocorinth without too much concern about the town at its foot. The upper terminus has already been brought well

[1] Sicyon: on the date cf. Fiechter, *Antike griechische Theaterbauten*, iii, Sikyon, p. 32, who rightly concludes, against Fossum (*A.J.A.*, IX, 1905, p. 272) and Skalet (*Ancient Sicyon*, p. 14), that the theatre is to be dated at the time of, or after, the removal of the city from the plain, not before it. Eretria: Bulle, *Untersuchungen an gr. Theatern*, p. 91.

[2] The evidence is conveniently summarized by Lenschau, P.-W., *Realencycl.*, Supp. IV, *s. v. Korinthos.*

down towards the end of the fourth century by the coins inside the bricks of the City-wall and the type of arch across the gate. For the years that follow, the choice of a construction period is not difficult. In 303 B.C. Demetrius Poliorcetes took Corinth from Prepelaus and occupied the city. Its strategic importance, both political and military, was not lost upon him. He re-established Philip's defunct Hellenic League with Corinth again at its head and "at the request of the Corinthians" put a garrison of his own troops on Acrocorinth.

Demetrius has come down in history as a "besieger of cities"; he might well claim renown as a fortifier. As a pioneer in the development of siege engines, he knew the strength his own cities must have in order to withstand them. It was surely as part of his program against Cassander that the extensive repair of the fortifications of Athens—Asty, Long Walls, and Peiraeus—was undertaken in 307/6.[1] At his instance the people of Sicyon moved their entire town from the coast to the security of their cliff-walled acropolis. And his own name-city Demetrias, built beside the older Pagasae in Thessalian Magnesia, was designed to resist any sort of attack.[2]

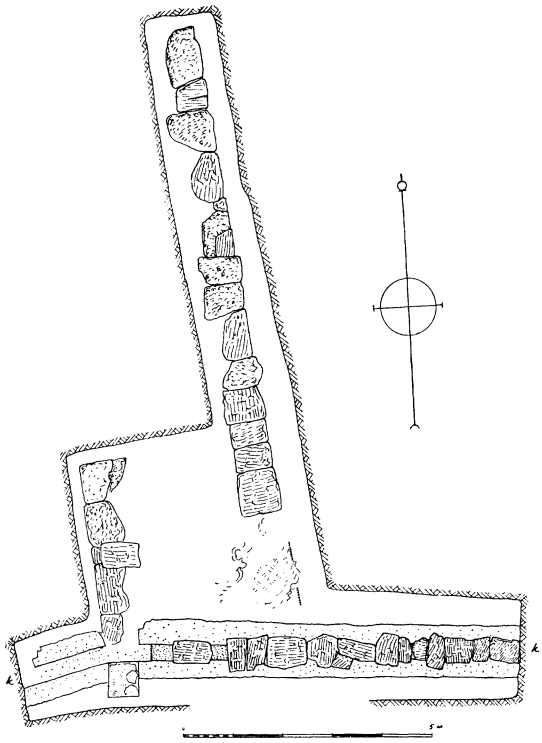

FIGURE 89. EAST LONG WALL: PLAN OF TRENCH XI

During the years of Demetrius' occupation there were times of peace for Corinth—peace always with war in the offing, but more than she was to know again until she became a Roman colony. And money was certainly available. If any conjecture as to the date of the rebuilt City-wall and the arched gate is to be seriously considered, a time very close to 300 B.C. is certainly the most likely.

Just what happened to the walls during the Roman occupation it is difficult to say. The City-wall seems to have been wholly neglected, to judge from the almost complete absence of Roman remains in its neighborhood. But at the Isthmian Gate there are evidences of activity for many centuries. Parts of the wall and the gate complex were, apparently, destroyed at a fairly early period. Immediately north of the gate, in Trench XI, the wall-blocks were removed to bedrock and a water-channel was laid across the line of the wall (Fig. 89, K–K). It is *ca.* 0.30 m. wide and *ca.* 0.25 m. deep, lined with stucco

[1] *I.G.*, II^2, 463; Tarn, *C.A.H.*, VI, p. 498.

[2] The fortifications of Demetrias have now been thoroughly studied and elaborately published by Stählin, Meyer and Heidner, *Pagasai und Demetrias* (Berlin, 1934), pp. 26 ff., and pls. VII–XVII.

laid against a backing of fair-sized stones. Its drop is from west to east, and it is covered with irregular slabs of conglomerate and poros. The stucco is of good quality, waterproof, with a fair proportion of lime, and has a very slight pinkish tinge from the particles of terracotta incorporated in it. The quality of the stucco and the careful workmanship suggest a fairly early date. How early is not certain; but if a lamp (Fig. 90) discovered lying on the débris of the wall some two metres to the south may be brought into connection, a date as early as the first century of our era is possible.[1]

Further evidence of activity at this time is provided by several coins of the same period, including a Sicyonian bronze with the head of Nero as Zeus Eleutherius and the name of the Corinthian magistrate, C. Julius Polyaenus.[2] This must be dated in the neighborhood of A.D. 68. It was discovered lying on the easternmost of the surviving half-dozen blocks of the south lateral wall of the courtyard.

FIGURE 90. ISTHMIAN GATE: ROMAN LAMP FROM NORTHEAST CORNER

All this, together with the total absence of anything that looks like Roman repairwork, confirms the obvious assumption that the walls were not kept in condition during the Roman era. But the city flourished and traffic still entered and left the city, for the most part apparently, by the old roads. The gates remained in use: Pausanias' *πρὸς τῇ πύλῃ*,[3] of the Cenchrean Gate, is explicit; and there is evidence that the Isthmian road was open and the arched gate standing until the end of the fourth century after Christ. The blocks of the arch, when it collapsed, fell upon a road surface which was clean of any accumulation resulting from disuse. Under two of the blocks, where the road surface was irregular, there lay three small bronze coins. Two of these are legible and bear the portrait and name of Honorius (A.D. 393–423). The third, being of similar size and fabric, is probably identical. The coins may conceivably have come there after the blocks fell, but this must

[1] The shape of the nozzle, the profile, and the clay place the lamp in Group 3 of Type XVI of Broneer's classification (*Corinth*, IV[2], pp. 58 f.).

[2] Münsterberg, *Jahreshefte*, XVIII, 1915, *Beiblatt*, p. 309; Polyaenus at Corinth: West, *Corinth*, VIII[2], *Latin inscriptions*, p. 33, and p. 121, no. 180; Edwards, *Corinth*, VI: *Coins*, p. 23, nos. 61–62.

[3] Paus., ii, 2, 4.

have occurred before the interstices between and under the blocks had begun to fill up. If the arch was destroyed by the great earthquake of A.D. 375,[1] the coins may well have been dropped in the course of the next few years by peasants trying to get at the more usable stones.

With the collapse of the arch the career of the Isthmian Gate was ended, as the careers of the rest of the Long Wall and the City-wall had been long before. The road was not used again; but a coin of Alexius I (A.D. 1081–1118), an anonymous Byzantine bronze of the tenth or eleventh century, and the fragment of a bowl with a vitreous green glaze suggest that the eternal search for ready-cut building material was carried on here well into the Middle Ages. By modern times, however, even these scanty remains of the Byzantine era were buried deep beneath the accumulation of earth which obliterated almost all traces of the gate.

In conclusion, we recapitulate the results which this investigation may be considered to have established beyond doubt:

The course, in part, and the main features of the Long Walls have been determined. The walls themselves were found to be examples of fifth century semi-polygonal technique, were built perhaps as early as 450 B.C., and stood until 146 B.C., after which they seem to have fallen into decay. A great Isthmian Gate, with a plan which is an interesting commentary on fifth century strategy, has been uncovered, and shown to have remained in use at least until the end of the fourth century after Christ. The missing northeast corner of the City-wall has been found and shown[2] to be a rebuilding in a style of construction hitherto unknown, to be dated between *ca.* 325 and 146 B.C., most probably about 300 B.C. in the time of Demetrius Poliorcetes. Finally, the outer entrance of the Isthmian Gate was spanned by an arch, constructed at the time of the rebuilding of the City-wall and hence one of the earliest arched town-gates in Greek lands. Outside of the Northwest, it is the only one known on the Greek mainland.[3]

[A. W. P.]

[1] Zosimus, iv, 18 (p. 192, Bonn).

[2] See the description in Appendix A.

[3] G. Säflund's article on *The dating of ancient fortifications in southern Italy and Greece* (*Opuscula Archaeologica* of the Swedish Institute in Rome, I, 1935, pp. 87–119) appeared after these pages were in print. Although its general position is acceptable, not all of the details, in so far as they concern mainland Greece, can be approved.

If we seek to combine these conclusions, derived from archaeological and historical sources, with the much less firmly founded suppositions derived from our inspection of Acrocorinth and the remaining City-walls of Corinth, we may venture, under all possible reserve, the following summary of the military architectural history of the city:

The earliest fortification of the great mountain stronghold of Acrocorinth does not date farther back than the seventh century B.C. and more probably falls under the first great commercial prosperity of the town under the Cypselid Tyrants, early in the sixth century. Its obvious purpose was that of refuge and storehouse for the inhabitants and possessions of a rich community liable to raid or hostile incursion.

At the time of Xerxes' invasion, Corinth, like most of the other towns of mainland Greece, possessed no city-wall, but, profiting by the obvious lesson of the burnt towns of Phocis and Attica, proceeded to build one as soon as immediate peril from the Persian had receded. It is probable that herein Corinth merely followed the Athenian example, as she did again a generation later when she guaranteed her communications between navy or merchantmen and town by constructing parallel long walls down to her port on the Corinthian Gulf.

During the period of renewed prosperity in the late fourth and early third centuries, and the great advance of military engineering at that time, particularly under the influence of Demetrius Poliorcetes, much of the City-wall was rebuilt,—probably piecemeal, rather than in one gigantic enterprise,—and a second or inner line of defense was added to the west approach of Acrocorinth. A long stretch above the Phliasian Gate through very difficult countryside seems never to have been modernised; whereas the most vulnerable sector of all, the half mile of level plateau just above the East Long Wall, was lavishly reconstructed to resist the siege machinery of Hellenistic times.

The Roman capture of the defiant city in 146 B.C., which, possessing almost the finest walls in the whole of Greece, must have thought itself impregnable, occasioned the dismantling and removal of certain strategically crucial sectors, notably at the road-heads, but not a systematic levelling of the entire vast circuit. Time and the inclemencies of the seasons brought the ramparts into disrepair and washed away the brick wherever it was not faced with stone, thus reducing most of the great wall to a masonry socle. The search for building stone, commencing with the Roman re-occupation of the site and continuing into contemporary times, completed the disintegration of one of the mightiest defenses of classical antiquity.

During Imperial times the theory of the *Pax Romana* and the legions on the distant frontiers of the empire served in lieu of individual defenses for the Greek cities, no longer permitted to wrangle and war with one another. But the great frontier barrier could not successfully shut out the barbarian and non-Roman world for ever; and the failure of the legions was necessarily followed by permission to build locally and defend each city once more with walls of its own.

At Corinth the late-Roman line of protection for the capital city may be readily traced across the main plateau in a long line of dilapidated wall running roughly north and south about half way between the modern village and the Cenchrean Gate. This has never been properly studied or investigated. But in 1930 the excavation, *exempli gratia*, of a short stretch revealed a powerful structure built with two stone faces of re-used material and equipped with towers. The main result of the excavation was the important information that the back-filled soil against the foundations contained, numismatically, nothing later than the fourth century of our era. The obvious supposition that this refortification was due to Justinian, whose constructional and military engineering activities are so much vaunted by his biographer Procopius, is therefore erroneous. The *Pax Romana* had already been jettisoned two centuries earlier.

But we are still so far from a proper comprehension of this period, abundantly represented though it is in nearly all the excavations of Corinth, that we are forced to terminate with this vague notice our survey of the classical defenses of citadel and town. With the Byzantine revival of the sadly decadent and plundered district we enter into a wholly different phase.

[R. C.]

IV

THE MEDIEVAL FORTIFICATIONS OF ACRO-CORINTH AND VICINITY

By ANTOINE BON

A. THE HISTORICAL BACKGROUND[1]

Not until the end of the Roman period could Corinth have been allowed to rebuild its walls and re-assume its ancient rôle of an important military stronghold.[2] From the administrative capital of the Roman province of Achaia it naturally became in the Byzantine period the capital of the Peloponnese; and during these and the still more troubled times which followed, the great rock of its acropolis, large enough to shelter an entire army, once more became of supreme strategic significance. Not until really modern times with the development of long-range high-power artillery fire did this significance disappear. Yet the historical documents for this long period with its ambitious military constructions are far from abundant and even, for the earlier portion, wholly lacking. What we have succeeded in discovering among the texts of the medieval historians may be most conveniently arranged under three main periods:

I. Byzantine (sixth–thirteenth centuries),
II. Frankish (thirteenth–mid fifteenth centuries),
III. Turkish and Venetian (to the Greek War of Independence).

THE FIRST PERIOD: BYZANTINE

Our earliest mention of military construction near Corinth occurs in Procopius and refers to the reign of Justinian (527–565). Lauded by his chronicler as a great builder, this sovereign caused defenses to be constructed or reconditioned in numberless cities to form a system of defence which was by no means confined to the frontiers of his empire, but included inner lines as barriers across the path of the ever more frequent and ever more daring barbarian invader. Such work had become particularly urgent in Greece proper, where earthquakes had worked havoc, and not least of all in Corinth itself.[3] Cognisant

[1] Cf. the sketch → J. H. Finley, Jr., "Corinth in the Middle Ages," *Speculum*, VII, 1932, pp. 477–499.

[2] On the rebuilding of Roman city-walls cf. Rostovtzeff, *Social and Economic History of the Roman Empire*, pp. 207–21 → E. Lauer, *Speculum*, VI, 1931, pp. 77 ff.

[3] Procopius, *de Aedif.*, iv, 2, p. 272; *Ἀνέκδοτα*, 19, pp. 111 f.

of the geographical problem, Justinian had decided upon two capital lines of resistance, the first at Thermopylae, the second at the Isthmus, where a great wall, re-enforced with towers and strongholds (φυλακτήρια and φρούρια),[1] was drawn from sea to sea. But nothing is said of Corinth itself or of Acrocorinth, unless by inference from Procopius' statement that the emperor fortified the Isthmus in order to avoid the excessive cost and time involved in piecemeal fortification of each of the Peloponnesian towns.

Yet it is hardly imaginable that the capital city would not have been included in the neighboring defenses of the Isthmus, nor that Acrocorinth,—so admirably and so obviously suited as lookout-post, reserve camp, refuge, and final point of retreat,—could have been neglected. For Justinian took thought not merely for the immediate military barrier to invasion, but also for the more strategic needs of supplies and provisions, food and water.[2] We must accordingly suppose that Acrocorinth served as a garrison post and general base and that inevitably, by the middle of the sixth century, the walls of the citadel had been restored. What we do not know, however, is whether the late-Roman defenses were adequate and still in condition; so that the extent of Justinian's repairs remains obscure. We must take into account that the invading hordes which assailed the empire did not reach the Isthmus until 540 A.D. nor pass its defenses until later.[3] When Procopius says[4] that earthquake had overthrown the walls, we can hardly refer this remark to the classical structure damaged or destroyed by Mummius in 146 B.C., but must infer a late-Roman construction from the period in the fourth century when the impaired state of public security apparently led to a rebuilding of local protecting walls.[5] Just such a construction has, in fact, been proved to exist for the lower town;[6] but the contemporary situation on Acrocorinth is conjectural. On architectural evidence it may be shown that a Christian church had by this time replaced the temple of Aphrodite on the highest peak[7] and that the great underground cistern with its curious and beautiful vaults of brick can be ascribed to this same period of the sixth century.[8]

In any case, Justinian's system of defence for mainland Greece was not able to stem the ever rising flood of barbarian (and especially Slavic) invaders who after his death

1 *Ibid.*, p. 273; Ch. Diehl, *Justinien*, p. 240. These works are mentioned by Phrantzes, p. 108, in connection with those which Manuel II Palaeologus executed at the same spot in the fifteenth century. Phrantzes notes that the workmen at that later time uncovered an inscription with the name of Justinian and "his servant" Victorinus; cf. Zakythinos, *Le Despotat grec de Morée*, I, p. 169. The inscription has survived and is published by Skias in *Ἀρχ. Ἐφ.*, 1893, p. 123; cf. Sp. Lambros, *Νέος Ἑλληνομνήμων*, I, 1904, p. 269 and II, 1905, p. 438.

2 Diehl, *Justinien*, p. 238.

3 Vassiliev, I, p. 173.

4 Procopius, *de Aedif.*, iv, 2, p. 272.

5 The late-Roman walls of defence in lower Corinth, at Eleusis, at Athens, and many other places, both in Greece and in other Roman provinces, seem to belong uniformly to the fourth century after Christ. [R. C.]

6 See above, p. 127.

7 *Corinth*, III[1], pp. 21 ff.

8 Procopius more than once records the construction of cisterns in strongholds (*de Aedif.*, ii, 2, p. 214; ii, 10, pp. 236 and 239; iv, 2, p. 269, at Thermopylae, and p. 271 in Greece generally). Cf. Diehl, *Justinien*, p. 238.

succeeded in passing the line of the Isthmus. The Peloponnese was first invaded in the years 583–6. Two centuries later, as a sequel to the great plague of 746, a second wave swept the land.[1] Not until 783, under the Empress Irene, did the government attempt to cope with the foreign invaders. Her general, Stavrakios, in spite of various successes, never penetrated as far as the Peloponnese. But in 807, at Patras, the Slavic control was broken and its further spread definitively checked.

There is no occasion to re-open the controversy on the Slavonization of medieval Greece, except in so far as it affects our judgment on the history of Corinth between the end of the sixth and the beginning of the ninth centuries. It is, however, important to know whether Acrocorinth remained in the Byzantine power throughout the period of Slavic invasions. Is it true, as the Patriarch Nicholas wrote to the Emperor Alexius I, that for two hundred and eighteen years not a single Greek (*Ῥωμαῖον ἄνδρα*) could set foot in the Peloponnese because it was held by the Avars?[2] At least it is certain that the government of Byzantium was constrained to admit the reality of the barbarian presence and power. On the other hand, Slavic occupation did not lead to a total elimination or absorption of the native Greek element. Certain towns, particularly those along the coasts, must have maintained their Hellenism:[3] Patras, still able to hold out in 807, is a case in point. Certain passages in the medieval sources have been urged in support of complete Slavonization,—notably the synodal letter of the Patriarch Nicholas already mentioned. Constantine Porphyrogenetus declares[4] that after the plague of 746–7 the peninsula was entirely Slavonicized. And as early as the first half of the eighth century a pilgrim landing at Monemvasia locates it *"in Slawiniae terra."*[5]

But against such indications equally good counter-evidence may be advanced. In 807, at the time of the final onset of the Slavs against Patras, the inhabitants of the town appealed for help to a general in residence on Acrocorinth[6] (who, to be sure, came to their assistance too late, since the miraculous intervention of St. Andrew had already saved the town). Hopf[7] sees in this a proof of the continuous presence of a Byzantine commander at Corinth, arguing that if there was one there at the end of the period there must have been one throughout. The inference is hasty, since Stavrakios' expedition in 783, even if it failed to subdue the Slavs of the Peloponnese, might have re-introduced a commandant into the Corinthian citadel. The numismatic finds on Acrocorinth[8] bear on this question. The excavations there have not yet yielded a single coin between the

[1] Hopf, I, pp. 89, 91, 96.

[2] J. Leunclavius, *Juris gr.-rom. tam canonici quam civilis tomi duo*, I, pp. 278 f. (cf. Hopf, I, p. 99).

[3] Hopf, I, pp. 105 f.; Gregorovius, I, p. 120.

[4] *De thematibus*, ii, 6. Cf. Hopf, I, p. 96; Vassiliev, I, pp. 215 and 293.

[5] Life of Willibald, in Pertz, *Monumenta Germaniae historica*, XV, p. 93; cf. Vassiliev, I, p. 293.

[6] Constantine Porphyrogenetus, *de adm. imp.*, ch. 49, p. 217.

[7] Hopf, I, p. 105.

[8] *Corinth*, III[1], p. 66.

reigns of Constans II and Leo VI, or 668–886. Coins of the period between 610 and 668, bearing the effigy of Heraclius and his successors up to Constans II, have been found in considerable number on Acrocorinth, but are rare in the lower town, where on the contrary there have been found coins of Nicephorus I (802–811), Theophilus (829–842), and Basil I (867–886). The available evidence thus indicates that in the first half of the seventh century the Greek population of Corinth sought refuge in the hilltop citadel,[1] while in the following period, though the complete absence of coins does not actually prove the disappearance of the Hellenic element, the relations with Byzantium seem to have been tenuous, if not entirely suspended. Contact was again established after the expedition of Stavrakios and during the subjugation of the Slavs; but as the coins of this period have turned up in the lower town and not on the hilltop (where the earliest to occur after the break belong to Leo VI at the end of the ninth century), doubt is cast on the accuracy of Constantine Porphyrogenetus' statement that a Byzantine commander resided on Acrocorinth, *ἐν κάστρῳ Κορίνθου*, at the time of the siege of Patras. If we follow the (perhaps inadequate and inconclusive) numismatic evidence and assume Acrocorinth deserted during most of the ninth century, the most probable explanation is the insufficient state of repair which made the citadel an unsafe refuge. Similarly, if the fortress was re-inhabited under Leo VI,[2] we may conclude that the defenses of Justinian or his predecessors, having lain ruinous throughout the eighth and early ninth centuries, were now rehabilitated, the remnants of the Byzantine buildings destroyed by the Slavs furnishing the necessary materials.

In the tenth century Corinth regained its place of importance in the Byzantine empire. It became the capital of the Theme of the Peloponnese,[3] residence of the general (who ranked nineteenth on the imperial list and belonged to the highest class of state functionaries),[4] and was not merely a metropolitan city but until Frankish times the most important ecclesiastical centre in the peninsula.[5] The excavations of the American School, though concentrating on the classical levels, have uncovered abundant evidence of tenth and eleventh century Byzantine activity. In our historical sources for this period the

[1] The names of several metropolitans of this period are recorded; cf. Hopf, I, p. 105.

[2] The restoration of Byzantine power in the Peloponnese was accomplished in the period between the reigns of Leo V (813–820), under whom the peninsula first is mentioned as a separate Theme, and Leo VI (886–912). An inscription (*C.I.G.*, 8620) mentions the erection of a watch-tower in the Peloponnese by the emperor Leo. Hopf (I, p. 105) identifies this as Leo III or V (cf. Bury, *History of the eastern Roman Empire*, p. 378, n. 5). We suggest that Leo VI is more likely; and, without overstressing the conjecture, consider that there might be concealed here a reference to the watch-tower on the highest summit of Acrocorinth, whose erection entailed a rebuilding of the Christian church on this spot (cf. *Corinth*, III[1], pp. 28 f.).

[3] This Theme, first mentioned in the year 813, does not seem to have enjoyed a prolonged independent existence; after the middle of the eleventh century the Peloponnese and Central Greece are united under a single Strategos; cf. Psellos, *Ep.* 103; Nicetas Choniates, *Manuel Comnenus*, I, 3; Gregorovius, I, pp. 178 f.; p. 184, n. 2.

[4] Const. Porph., *de thematibus*, II, 6, p. 52; *de adm. imp.*, 50, pp. 220 f.; cf. Hopf, I, pp. 130 f.

[5] Zakythinos, *Le Despotat grec de Morée*, I, p. 79, gives numerous references in a footnote.

town finds frequent mention. Under Basil II, about the year 914–5, St. Luke of Stiris fled thither from new barbarian incursions.[1] A little later, in 981, when Corinth was threatened by Samuel, chief of the Bulgars, who had passed the Isthmus, the general Basilios Apokaukos succeeded in defending the town, thanks to St. Nikon's miraculous response to his appeals.[2] Even the renewed and rapid inroad of the Bulgars in 995 failed to put Corinth in barbarian power.

Yet though these references show the military importance of the town, unfortunately they make no mention of the state of the defenses of city or acropolis. We may take it as certain that Acrocorinth remained fortified from the ninth to the twelfth century; yet we cannot fix the dates of the various constructions of this second Byzantine phase nor determine the amount of repairs, alterations, and improvements undertaken. We may only conjecture that the expenditure of energy must have been considerable, the execution adequate, and the result durable. Much of it therefore should still survive to-day.

By the middle of the twelfth century Corinth enjoyed an established reputation as a great stronghold. The earliest description is due to Nicetas Choniates[3] who, in opening his narrative of the Norman raid under Roger II of Sicily in 1147, recounts the richness of the lower town and the commercial activity due to its ports upon two seas, and then proceeds to relate how at Roger's approach the inhabitants fled from the city to its lofty citadel, which its natural advantages, powerful defenses, and abundant supply of water should have made impregnable.[4] But being under the command of a most incapable leader, Chalouphis Nicephorus, "weaker than a woman, fit only to rule a band of spinners," its stronghold was soon penetrated by the Normans. Such a raid must have caused considerable material damage and temporarily impoverished the town, especially as Roger deported its best silk-workers, its "band of spinners." Yet the effects seem to have been neither serious nor lasting, for two travellers at the close of the century again depict the town's prosperity: the geographer Edrisi asserts[5] that Corinth had recovered from Roger's visit; and Benjamin of Tudela records[6] that in 1173 there were three hundred Jews there, thus making it the largest Israelite centre in the Peloponnese. As at Thebes, these must have devoted themselves to the production of silk; but we are not told whether they formed a community apart in a special quarter. Commercial intercourse was now continuous and active, with Venice enjoying treaty rights of free trade.[7]

[1] *Acta Sanct. Febr.*, II, pp. 83 f.; cf. Hopf, I, pp. 134 f.; Gregorovius, I, pp. 144 f., p. 159.

[2] *Vita S. Niconis*, 49, p. 867; cf. Hopf, I, pp. 124 and 137; Gregorovius, I, p. 160.

[3] Nicetas Choniates, *Manuel Comnenus*, II, pp. 99–101; cf. Hopf, I, pp. 156 f., p. 161; Gregorovius, I, p. 99; Diehl, *Histoire de l'empire byz.*, p. 152; Vassiliev, II, p. 72.

[4] Nicetas Choniates, p. 100. *ἔστι δὲ ὁ Ἀκροκόρινθος . . . νυνὶ δὲ φρούριον ὀχυρόν, αὐτὸ δὲ ὄρος ὑψηλόν, εἰς ὀξεῖαν τελευτῶν κορυφήν, αὖτη δὲ εἰς τραπεζῶδες χωρίον ἀποτελευτῶσα ἐπίπεδον, τετειχισμένον ἀσφαλῶς. Ἔνδοθεν δέ εἰσι ποτίμου ὕδατος καὶ διαυγοῦς οὐκ ὀλίγα ῥρεάτια καὶ ἡ Πειρήνη κρήνη.* Cf. *Urbs Capta*, p. 807.

[5] Edrisi, *Géographie*, trad. Amad. Jaubert, II, p. 122; cf. Hopf, I, p. 162.

[6] Benjamin de Tudela, ed. Adler, p. 10; cf. Hopf, I, p. 165; Miller, p. 5.

[7] Hopf, I, p. 174; Gregorovius, I, p. 193; Miller, p. 5.

The closing episode of the Byzantine period is the occupation of Corinth by Leon Sguros in the early years of the thirteenth century; but this is so intimately connected with the Frankish conquest that it more naturally forms the introduction to our Second Period. Meanwhile it may be useful to recapitulate our conclusions from the meagre data available for our First Period. Owing to the Slavic invasions, the reconstruction of the ancient classical lines of defence (due most probably to Justinian) was again in ruins and was either repaired or perhaps almost entirely rebuilt at some time late in the ninth or early in the tenth century. Except for occasional patching, more specifically after the Norman raid, the stronghold maintained its character unchanged until the coming of the Franks. For the opening of the thirteenth century, accordingly, we must postulate a purely Byzantine fortress of tenth century type of masonry, based on ancient classical foundations and incorporating essential elements as early as the Justinian period of the sixth century and more casual repairs as late as the twelfth century.

THE SECOND PERIOD: FRANKISH (1204–1460)

Violent perturbations and changes overtook the Peloponnese as a result of the coming of Occidental conquerors (promiscuously called "Franks" by the native Greeks) in the wake of the Fourth or Latin Crusade. The ensuing longdrawn struggle between Rhomaic Greek and European "Frank" for the lordship of the Morea was ended only by the Turkish conquest.

As the period opens, on the eve of the Fourth Crusade, the entire region showed striking symptoms of political dissolution, due apparently to the alternating laxness and severity of the imperial Byzantine administration from which the populace sought escape. Local chiefs everywhere took advantage of these conditions to carve out for themselves fiefs or *seigneuries*,—a curiously feudal movement well fitted to prepare the soil for that organisation which the new western overlords were soon to force upon it. In the Peloponnese the most characteristic event was Leon Sguros' bid for power. Having inherited from his father the title of Archon of Nauplia, he managed to make himself master of Argos by trick and of Corinth by force in 1203.[1]

In the following year he sought to extend his power beyond the Isthmus and marched upon Athens, only to find that town too well defended by its valiant prelate, the metropolitan Michael Akominatos, whose valor and virtue are much extolled by his brother, the historian Nicetas Choniates. However, he managed to take Thebes. Thereafter, becoming ambitious of the rôle of national hero and leader, he led his forces against the strangers who by that time had begun to invade northern Greece. For after the Crusaders had

[1] Nicetas Choniates, *Urbs Capta*, pp. 800 f., cf. p. 841, represents Sguros as violent and cruel. The capture of Corinth was marked by an act of infamy, the death of the Metropolitan Nicholas, whom Sguros caused to be seized during a dinner to which he had invited him, then blinded and thrown from the cliffs. Cf. Hopf, I, p. 183; Gregorovius, I, pp. 291 f.; Miller, p. 10; Diehl, *Histoire de l'empire byz.*, p. 174.

captured Constantinople, Boniface de Montferrat had been designated King of Salonica and had tried to enforce acknowledgment of his title by marching on Greece. Sguros' attempt to repulse him was futile: when the Frankish knights broke into Thessaly in the autumn of 1204, the Greek forces took to panic flight and Sguros himself to ignominious refuge in his safest stronghold, Acrocorinth. Boniface advanced, but was ultimately held up by the three fortresses of the citadel of Corinth, the Larissa of Argos, and the Palamidi of Nauplia. At Corinth it was an easy matter to capture the lower town. Jacques d'Avesnes laid siege to the hilltop while his lord, the King of Salonica, moved on to camp beneath the equally unyielding walls of Nauplia.[1] And here a little band of crusaders arrived by a different route to join the army,—Geoffroy de Villehardouin, nephew of the Maréchal de Champagne, with his comrades, who had been cast on the Messenian coast.[2] Villehardouin struck up friendship with one of his compatriots in the following of Boniface, a certain Guillaume de Champlitte, and told him of the Peloponnese, a territory easy of conquest, a venture wherein he stood ready to assist. Thus it was that Guillaume de Champlitte obtained from the King of Salonica the lordship of a still-to-be-conquered fief and he and his friend Villehardouin with a following of some hundred knights undertook to subjugate the country which was to become the Principality of Achaea and Morea.[3]

The tale of this conquest has been too often told to permit repetition here. Progress was rapid. Yet a certain number of fortresses held out against the Frankish knights, Corinth among them. Boniface was recalled north by insurrections in Macedon and Thrace. But the siege of Acrocorinth, begun in 1205, continued for several years. Sguros, now allied with another enemy of the Franks, the despot of Epirus, resisted stoutly. He had already caused considerable loss to the besiegers by a sortie. Jacques d'Avesnes had been wounded.[4] To ensure their watch on the beleaguered mountain, the Franks built a tiny fort, an *antikastro*, "*en une montagne aguë qui est encoste le chastel devers miedi*," calling it *Mont Escovée* (or in some of the records *Malvesmo*).[5] This can only be the ruined stronghold called nowadays, in apparent corruption of an alien speech, "*Penteskuphi*," situated on an eminence but little lower than the main entrance to Acrocorinth and some 1200 metres to the southwest (Fig. 91; cf. Fig. 144).

[1] Nicetas Choniates, *Urbs Capta*, p. 807; G. de Villehardouin, *Histoire de la conquête de Constantinople*, ed. de Wailly, §§ 301, 324; cf. Hopf, I, pp. 211 f.; Gregorovius, I, p. 305; Miller, pp. 35 f.

[2] G. de Villehardouin, *op. cit.*, §§ 325–327; cf. Hopf, I, pp. 212 f.; Gregorovius, I, pp. 306 f.; Miller, p. 36.

[3] G. de Villehardouin, *op. cit.*, §§ 328–330.

[4] *Ibid.*, §§ 324 et 332; *Χρονικὸν τοῦ Μορέως*, ed. Schmitt, 1528–38; *Livre de la Conquête*, ed. Longnon, §§ 101, 102.

[5] "*Mont Escovée*" is generally considered to be a corruption of "*Montesquieu*," and "*Penteskuphi*" ("Five-Cap") a Greek interpretation (*Volksetymologie*). Dragumis, *Χρονικῶν Μορέως τοπωνυμικά*, pp. 59 f., perhaps out of patriotism, tries to show that on the contrary the French name derives from the Greek. "*Malvesmo*" (in *Libro de los Fechos*) is a corruption of "*Malvicino*" ("bad neighbor"). The latter occurs as the name of a castle near Corinth in an Italian list of the fiefs of Morea in 1364 (Hopf, *Chroniques gréco-romanes*, p. 229). The *Cronaca di Morea* calls it "*Monte Stuffè detto S. Baseggio*," which involves a confusion of some sort. The current spelling is *Πεντεσκούφια*, a puristic modernism, *πέντε* demanding a plural form. But the lone peak in Fig. 91 confirms the theory that *πέντε* is itself a corruption.

The Chronicle of the Morea adds that the Duke of Athens caused another watchpost to be built over against Acrocorinth on the north, to which however no name is attached. The existence of this second *antikastro* has been called in question,[1] inasmuch as the Aragonese version of the Chronicle, the *Libro de los Fechos*, fails to mention it. But a small-scale exploratory excavation in the spring of 1928 showed that the tiny eminence which we have called the "East Hill,"[2] lying due east of the highest peak of the mountain, about 300 metres from the nearest walls and a full 150 metres lower, was occupied for

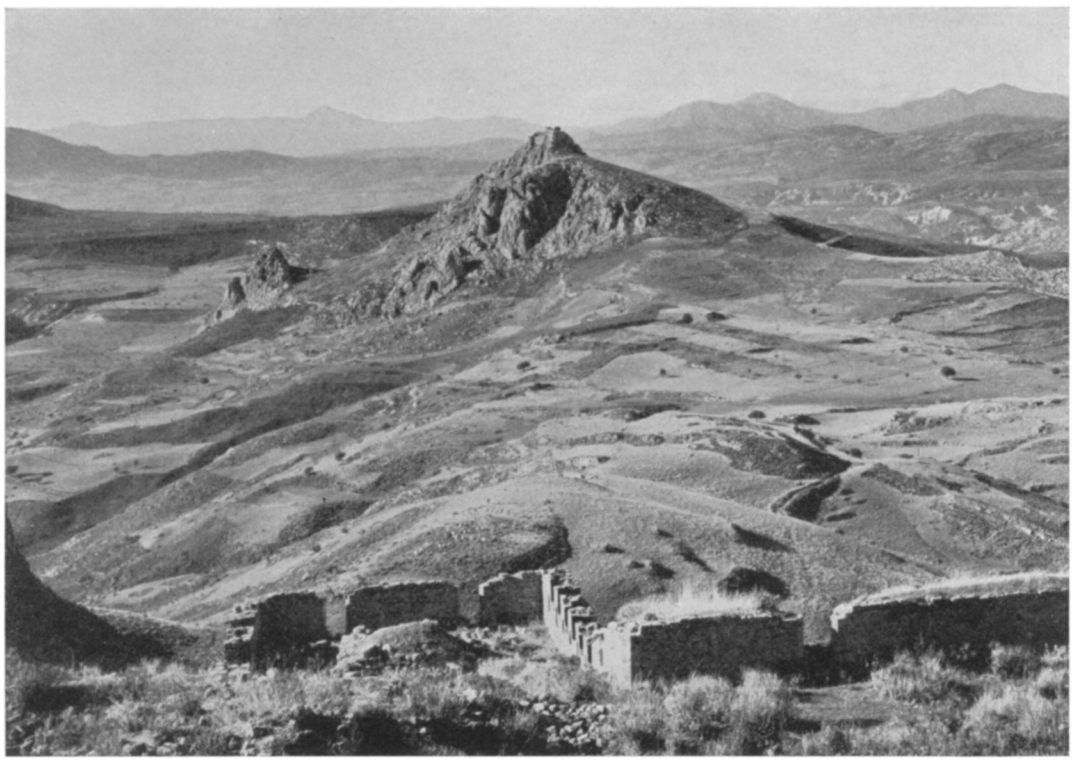

FIGURE 91. PENTESKUPHI, SEEN FROM ACROCORINTH

military purposes in the Middle Ages. Re-used Byzantine material of the eleventh century gave the earlier, while the absence of all characteristically Venetian traits of construction set the later, limit. A burial of two skulls with only a single skeleton seemed to preclude

[1] Dragumis, *op. cit.*, pp. 55–59, holds the error explicable through the interpolation of verse 2806 in the *Χρονικὸν τοῦ Μορέως*: if it be suppressed, the castle built by Othon de la Roche becomes the same one which that prince had erected on Mont Escovée. The French version would then be only an amplification of the Greek; the Italian the same (Hopf, *Chron. gr.-rom.*, p. 436). But the latter version calls the spot "*Ainori*," which must be the same as the *Ἅγιον Ὄρος* mentioned in another connection by the *Χρονικὸν τοῦ Μορέως*, 1498, and this in turn must be the modern village of Hagionori, situated some 10 miles south of Acrocorinth. This shows that, as remarked in the previous footnote, the Italian version is confused on the subject of Penteskuphi.

[2] Cf. the key to the air-photograph, figure 2.

peaceful occupation. The site was too eroded and the original construction too unimportant to yield further information. The same confusion of the chronicler, who imagined Penteskuphi south of the citadel, while it is actually much more westerly, would have led him to describe this second hilltop, which lies almost on the diametrically opposite side of the mountain, as north, even though the compass sets it east,—especially as it commands the ascent which leads around to the northern side of the walls of Acrocorinth. We may therefore feel entirely certain that Mont Escovée or Malvicino, the post to the "south," was the Penteskuphi of to-day, and reasonably sure that the nameless "*antikastro*" to the "north" was set on the East Hill, guarding a steep but passable (and as we shall later see, an actually used) ascent to the acropolis, wholly invisible to the garrison in Penteskuphi (cf. Fig. 92).

To return to the historical record. As the Frankish siege, based on Penteskuphi and the East Hill, obstinately persisted, Greek resistance became ever more despairful, until Sguros finally chose death at his own hands, leaving Acrocorinth to his ally the despot Michael and its defence to Michael's brother Theodore.[1] The Frankish siege was actively pressed by the second in command, Geoffroy I de Villehardouin, with the assistance of the Duke of Athens, Othon de la Roche. Early in 1210, shortly after the Parliament of Ravenika, Acrocorinth fell into Frankish hands.[2]

Such a prolonged resistance through five full years substantiates our contention that the fortress which the Byzantines rebuilt must have still been in good condition at the beginning of the thirteenth century; but the account yields us otherwise no information about its architectural defenses. Yet at least we learn the period of the original construction of the castle of Penteskuphi and gather from Nicetas Choniates' mention that it dates from the beginning of the siege and not from the time of Geoffroy II de Villehardouin, as the Chronicle pretends.[3]

Such was the importance which the Frankish prince attached to the possession of his newly captured fortress, perhaps the most powerful in his entire domain,[4] that he would

[1] In a MS. of Henri de Valenciennes, continuator of G. de Villehardouin (quoted by Buchon, *Mémoires et Matériaux* . . ., II, p. 209, but neglected in de Wailly's edition) we read "*le signour de Chorynte*." This title is also recalled by Innocent III, *Ep.*, XV, 77, cf. Gregorovius, I, p. 364, n. 2. On the death of Sguros see Sp. Lambros, *Νέος Ἑλληνομνήμων*, XII, 1915, p. 288; Hopf, I, p. 225; Miller, p. 42; Dragumis, *Χρονικῶν Μορέως τοπωνυμικά* . . ., p. 52.

[2] Hopf, I, pp. 231, 236, 240; Miller, p. 62; Dragumis, *op. cit.*, pp. 51–54, appeals to the sources, Henri de Valenciennes, ed. de Wailly, § 669; *Χρονικὸν τοῦ Μορέως*, 2805–08, *Livre de la Conquête*, § 189, *Libro de los Fechos*, § 188; cf. Zakythinos, *Le Despotat grec de Morée*, I, p. 14.

[3] Nicetas Choniates, *Urbs Capta*, p. 807; cf. *Χρονικὸν τοῦ Μορέως*, 2805–08; *Livre de la Conquête*, §§ 191–192; *Libro de los Fechos*, §§ 99–101; cf. Hopf, I, p. 214; Gregorovius, I, p. 305; Miller, p. 36.

[4] Cf. *Χρονικὸν τοῦ Μορέως*, 1445–50, 1459–62:

H. 1445. *διατὸ ἕνι κάστρον φοβερόν, τὸ κάλλιον τῆς Ῥωμανίας,*
καὶ ἕνι τὸ κεφάλαιον, ὅπερ γὰρ ἀφεντεύει
ὅλην τὴν Πελοπόννησον ὅσον κρατεῖ ὁ Μορέας . . . .

H. 1459. *τὸ κάστρον γὰρ τῆς Κόρινθος κεῖται ἀπάνω εἰς ὄρος·*
βουνὶν ὑπάρχει θεόχτιστον καὶ ποῖος νὰ τὸ ἐγκωμιάσῃ;

Cf. 1586–90, 2085, 2801–02; *Livre de la Conquête*, § 94.

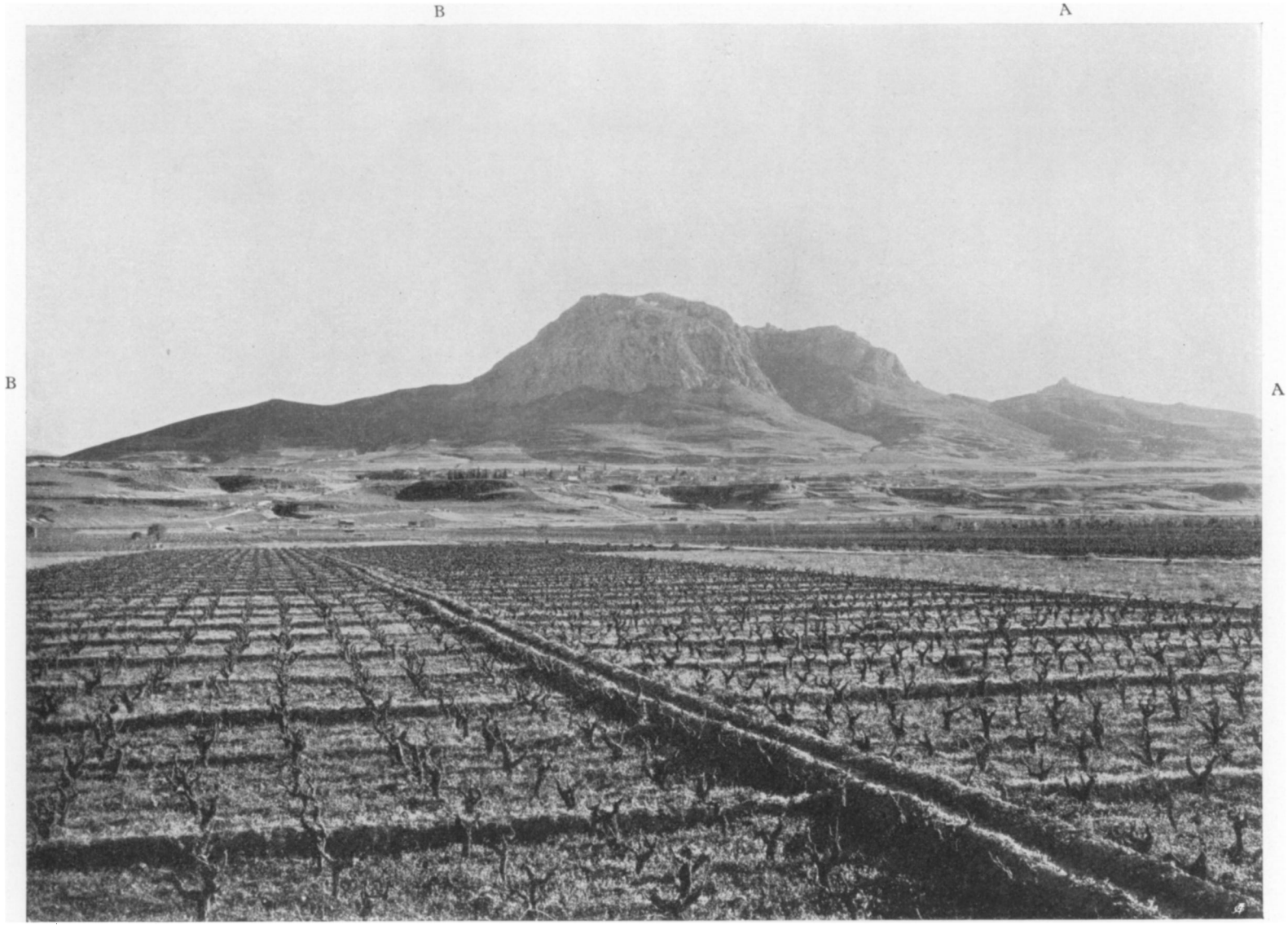

FIGURE 92. ACROCORINTH FROM THE NORTH
(At A, A Penteskuphi; at B, B the *Antikastro* on the East Hill)

not entrust it in fief to any of his comrades, but kept it directly under his control with a permanent garrison of his own. The Duke of Athens was rewarded for his aid by the gift of Argos and Nauplia in 1212; but from Corinth he was permitted only certain revenues.[1] A Frenchman, Gautier, was appointed archbishop in the Latin rite.

Naturally it was one of the principal cares of the new masters of Acrocorinth to strengthen its system of defenses, which the long siege may have impaired. According to the Aragonese version of the Chronicle,[2] Guillaume de Villehardouin, who in 1245 succeeded his father Geoffroy II, made repairs and did further construction on the hilltop early in his reign. This is the earliest historical record of such work. Unfortunately it is quite indefinite, recording neither its scale nor its character. Nevertheless we may well suppose it to have been considerable, since the prince of Achaea was then at the height of his power.

Corinth saw also the establishment of the first Frankish mint, where all the coins of the princes of Achaea which antedate the year 1250 were struck. Denarii and obols, they

FIGURE 93. FRANKISH COINS OF ACHAEA (THIRTEENTH CENTURY)
(From Schlumberger, *Numismatique de l'Orient Latin*)

are of two types: one bearing on the obverse a crenellated castle surmounted by a cross and surrounded by the word CORINTUM, the other bearing on the reverse a gateway also surmounted by a cross and with the legend CORINTI (Fig. 93). There can be no doubt that the pictorial reference is to Acrocorinth; and it is possible that the distinction in type was due to a desire to commemorate some construction completed by Prince Guillaume.[3]

The defeat of Pelagonia dimmed the lustre of the Frankish rule when, after three years of captivity, the prince was constrained in 1261 to cede a portion of the Peloponnese to the Byzantine emperor Michael VIII Palaeologus. At Mistra, Geraki, and Monemvasia the Byzantines once more held tenure in Greece; but Corinth remained in Frankish

[1] Marino Sanudo Torsello, *Istoria del Regno di Romania* (Hopf, *Chroniques gréco-romanes*, p. 100); cf. Hopf, I, p. 240; Gregorovius, I, p. 364.

[2] *Libro de los Fechos*, § 216. A great many castles were built or repaired in all parts of the Peloponnese about the middle of the thirteenth century; cf. *Χρονικὸν τοῦ Μορέως*, 3142–50; *Livre de la Conquête*, §§ 218 f.; *Cronaca di Morea*, p. 438.

[3] Cf. Schlumberger, *Numismatique de l'Orient Latin*, pp. 312 f. and pl. XII, Nos. 7–10. Several of these coins were found during the excavations on Acrocorinth; see *Corinth*, III[1], pp. 65 f., where Bellinger attempts the classification of these types, relating them to Guillaume's work on the fortress. Hopf, I, p. 360, mentions that Philip of Savoy, prince of Achaea from 1301–07, minted coins at Corinth, but offers no evidence.

hands, in spite of the assertions of the Aragonese version of the Chronicle[1] to the contrary. The town is frequently mentioned as a place of assembly or point of passage for Frankish troops. We know the names of some of the keepers of the castle, such as Gautier de Liederkerke, who made himself renowned for the hatred which he inspired in the native population.[2] The garrison is mentioned; in 1280 it demanded its pay.[3] On February 7, 1301 the Princess Isabelle made a present of the "Keep of Corinth" to Philip of Savoy, whom she married five days later.[4] These references show beyond dispute that Acrocorinth remained a Frankish fort.[5]

Just at this time its military importance was still more increased by the Catalan victory at Lake Copais in 1311, which caused the disappearance of many of the Frankish lords and the destruction of the French Grand-duchy of Athens. With the power of Achaea in abrupt decline and dangerous neighbors installed close by, Corinth became the frontier post responsible for the defence of the Peloponnese against the Catalans. Menaced by these and by others,—Franks, Greeks, and Venetians surrounding him,—the prince must needs look to the maintenance of his strongholds. Accordingly we find that John of Gravina (1318–33) spent large sums for provisioning and reconditioning the forts of the Morea in 1322–3 and particularly Corinth in 1324.[6] A few years later, toward the close of the first half of the fourteenth century, we have the testimony of a German pilgrim on his way to the Holy Land that Corinth was at that time a fortress so powerful as to be impregnable, abounding in water, well furnished with grain, wine, and oil.[7]

But as the century advanced, conditions in the peninsula became more and more lamentable and confused. The power of the Prince of Achaea weakened, anarchy spread and increased, while the Turkish threat grew ever more menacing and ever more imminent. Various factions disputed the Peloponnese. There was the Byzantine despot of Mistra, and later the Company of Navarre, and the Order of the Knights of St. John, the Hospitalers installed in Rhodes. In the midst of these uncertainties, through favor of Catherine of Valois and her son Robert, heir to Achaea, a family of Florentine bankers, the Acciajuoli, acquired extensive tracts of land in Greece. Among these Corinth was included.

The circumstances leading to this change of suzerainty are easily summarized. In 1356 the Corinthians had expressed to Prince Robert their fears that they were inadequately protected against the Turks who were pillaging the land and carrying off its inhabitants,

[1] *Libro de los Fechos*, § 307; cf. Zakythinos, *Le Despotat grec de Morée*, I, p. 17.

[2] *Livre de la Conquête*, §§ 662 f.; cf. Hopf, I, pp. 344 f.; Miller, p. 187; Zakythinos, *op. cit.*, I, p. 64.

[3] Hopf, I, p. 318, using the Angevin archives.

[4] Hopf, I, p. 351, using the archives of Turin.

[5] The most celebrated of the great feudal gatherings at Corinth was the parliament in the spring of 1305, which was followed by fêtes and tourneys; *Livre de la Conquête*, 1007–09, 1014–24; Pachymeres, ii, p. 450. Cf. Miller, pp. 202 f.

[6] Hopf, I, pp. 407 f., following the Angevin archives.

[7] Ludolf of Suchem, *De itinere Terrae Sanctae Libri*, cap. XVII; cf. Hopf, I, p. 436.

leaving famine behind them. To meet this demand for protection, Robert by an act of April 23, 1358, bestowed the entire chatellany upon Nicolo Acciajuoli, grand seneschal and Count of Malta.[1] Such a transfer to a rich and powerful family was an event of importance for our study. With the great resources at his command the new chatelain exerted himself to repair the old fortifications and add new ones. He even repeopled the district by recalling the peasants who had fled and by installing new colonists.

We cannot here unravel the family succession of Nicolo, who died in 1365, but pass to the unscrupulous Nerio Acciajuoli, who by 1385 had made himself Duke of Athens as well as lord of Corinth. Thereby Acrocorinth lost much of its military and political importance, being no longer a crucial frontier post. Besides, in the course of his intrigues Nerio had given his eldest daughter to the despot of Mistra with a promise of Acrocorinth for dowry; and after Nerio's death in 1394, and in spite of violent opposition by the true heir, fulfilment of the promise had been exacted.[2] After nearly two centuries of foreign domination, Acrocorinth passed once more into the hands of the Greeks, who celebrated the event as a national triumph and set up a statue of Theodore Palaeologus, the despot of Mistra, at the main gate with a commemorative inscription.[3] Alas, fortress and countryside had been so ravaged by Turks and Albanians that the glory of this triumph was but dim.

It was during these exciting events, in the springtime of 1395, that the Italian notary Nicholas of Marthoni passed through Greece on his return from a pilgrimage to the Holy Land. He has left us a picturesque account of the hardships of travel in those days of armed turmoil and piracy and, therewithal, a brief description of Corinth. According to this eye-witness, the town lay wholly on the mountain top within a two-mile circuit of walls and consisted of small houses, many of which stood vacant. He estimated that there were not more than fifty families in all and that very little of the soil was under cultivation for grain (which is scarcely surprising in view of the terrain, but interesting as showing that agriculture was attempted within the fortress walls). As for the military defenses, our pilgrim emphasizes the wretched condition of the encircling walls as well as the castle keep, though he acknowledges the intrinsic strength of their position.[4] Obviously such testimony is inadequate; but it is at least noteworthy as the first instance of a traveller or historian deprecating the defenses of this great stronghold. Previously Benjamin of Tudela, Ludolf of Suchem, the Greek chroniclers, the Chronicle of the Morea had all

[1] Buchon, *Nouvelles Recherches*, II, pp. 143–155; cf. Hopf, I, p. 456; Miller, pp. 285 f.

[2] For the events during the Florentine tenure of Acrocorinth see Hopf, II, pp. 6–58; Miller, pp. 322, 340 f., 344 f., 350; Chalcocondyles, pp. 208, 213; Zakythinos, *op. cit.*, I, p. 144.

[3] Sp. Lambros, *Νέος Ἑλληνομνήμων*, II, 1905, pp. 443 f. and *Παλαιολόγεια καὶ Πελοποννησιακά*, I, XXVI f.; cf. Miller, p. 353; Zakythinos, *op. cit.*, I, p. 145.

[4] Nicolai de Marthono, *Liber peregrinationis ad loca sancta*, ed. Le Grand, in *Revue de l'Orient Latin*, III, 1895, pp. 658 ff.: "*nunc vero ipsa civitas est posita super quemdam montem excelsum et mons ipse est fabricatus in circuytu turpibus meniis . . . In quodam tartarecto intus civitatem est quodam turpe castrum, licet sit difficile.*" Cf. Miller, p. 352; Zakythinos, *op. cit.*, I, pp. 144 f.

extolled the richness of the land and the inexpugnability of its fortress. Perhaps the change in tone may be partly due to an unfavorable contrast with the rapidly advancing military science and standards of living among the contemporary European nations; but it is more probably a direct reflection of the misery and decadence which henceforth mark the darkest period of Greek medieval history, when general anarchy, the unceasing inroads of Albanians and Turks, the scourge of famine and pestilence were more and more to impoverish and depopulate the wretched Peloponnese.

Still, the despots of Mistra, holding in Corinth the key to the whole peninsula, strove to defend the land against its most dangerous adversary, the Turk; and at crucial moments in this struggle even their rivals, the Knights of St. John and the ambitious Venetians, were to lend the Greeks their aid. An old project was revived. Justinian had barred the Peloponnese by a wall across the Isthmus; early in 1396, and counting on the assistance of Venice, Theodore of Mistra began the construction whose ultimate length of six miles was to give it its appellation of *Hexamilion*.[1] It was inadequate to stop the formidable Turkish force which arrived on the scene next year under Evrenos-bey; so that the peninsula which had already been invaded by the Turks in 1387, 1388, and 1395 was again given over to plunder. The fortress on Acrocorinth served only to shelter a few fugitives who had escaped the Turks.[2] Venice, suiting her own convenience, had refused to break openly with the Sultan in spite of her promise of aid to the despot of Mistra. Worn out and discouraged, Theodore looked about him for a more effective ally.

He discovered that the Order of St. John, securely entrenched in Rhodes, was only too willing to set foot in the Morea. The Grand Master, Philibert de Naillac, sent five envoys in February of the year 1400 with power to negotiate with Theodore the cession of Corinth and Megara to the Order. With the assent of the Byzantine emperor, Manuel, the act was accomplished that same spring.[3] But the knights were not to remain long in Greece. When the Sultan Bajazet died in 1402, the despot of Mistra was emboldened by this disappearance of his worst enemy to reclaim Corinth and the other ceded strongholds, having the support of the Greek populace, who were instinctively hostile to the foreign knights. By an agreement reached on May 5, 1404, he gained his ambition and resumed possession of his territories against an indemnity which he succeeded in paying off in 1408.[4] During this short tenure, did the Knights of St. John have time and energy to amplify or strengthen the fortifications of Acrocorinth? We have no record that they did; but anyone who weighs the historical probabilities will conclude that this powerful and ambitious Order would have lost no opportunity of consolidating its hold on its first possessions on Greek soil. We must therefore seriously reckon with the four brief years between 1400 and 1404 as a possible period of architectural importance for Acrocorinth.

[1] Hopf, II, p. 61; Miller, p. 353.

[2] Hopf, II, pp. 63 f.; Zakythinos, *op. cit.*, pp. 156 f.

[3] Hopf, II, p. 66; Delaville-le-Roulx, *Les Hospitaliers à Rhodes*, p. 277; Miller, p. 368; Zakythinos, *op. cit.*, p. 159.

[4] Hopf, II, pp. 68 f.; Delaville-le-Roulx, *op. cit.*, p. 301; Miller, p. 369; Zakythinos, *op. cit.*, p. 160.

The death of Sultan Bajazet and the intelligent diplomacy of the Emperor Manuel II brought a truce into the conflict between Greek and Turk. By the accidents of inheritance, after Theodore's death the emperor's personal attention was drawn to the Peloponnese, which he himself visited in 1415, landing at the Corinthian port of Cenchreae. After inspection he determined to repair and improve the Hexamilion; 150 towers along the wall and a powerful fort at either end, large enough to serve as refuge for the surrounding populace, were the fruit of twenty-five days of strenuous work.[1] But this great barrier could be effective only if properly manned and maintained,—a potent source of conflict between the despot and his subjects. And worse, the Turkish truce was not to endure. The new sultan, Murad II, ordered his general Tura-khan to resume the assault on the Morea. In May of 1423 an army of 25,000 men appeared at the Isthmus. Greek resistance lasted for only a single day, and Tura-khan hastened to destroy the wall which had proved such a brief obstacle to his advance.[2]

It is possible that in the midst of the ruin and confusion caused by this raid the lord of Athens, Antonio Acciajuoli, found occasion to make himself temporarily master of Corinth; for a Florentine document of the period calls him "*Signore di Corinto in Romania*";[3] but other proof is absent, and in any case his occupancy can hardly have left any important trace on the fortifications of which we are interested in recovering the history. It must suffice to say that the Morea immediately became almost entirely Greek domain again, being ruled after 1443 by two brothers, the despots Thomas and Constantine Palaeologus. Corinth belonged to the latter of these; and he was responsible for once more rebuilding the Hexamilion[4] and for reaching out beyond the Isthmus in a successful attempt to extend his dominions.

Not unnaturally the Sultan was annoyed. Late in 1446 he marched once more against the Peloponnese. At his approach the two brothers massed their troops,—60,000 men according to Ducas,—in the shelter of the restored Hexamilion, determined to defend this rampart of their domain. Negotiations were idle; for the Sultan demanded the immediate unconditional demolition of all the fortifications, and this Constantine refused, preferring to take his chances of resistance. The attack began on December 3, preceded and supported by artillery fire, and on December 10 the Turks were once again masters of the Hexamilion.[5] Dividing his forces, Murad sent a part under Tura-khan southward while

[1] Mazaris, *Νεκρικὸς Διάλογος* (Boissonade, *Anecdota graeca*, III), p. 178; Hopf, II, p. 77; Miller, pp. 377 f.; Sp. Lambros, *Τὰ τείχη τοῦ Ἰσθμοῦ τῆς Κορίνθου κατὰ τοὺς μέσους αἰῶνας*, in *Νέος Ἑλληνομνήμων*, II, 1905, pp. 444 f.; Zakythinos, *op. cit.*, I, pp. 168 f.

[2] Phrantzes, I, 40, p. 117; *Chronicon breve*, p. 516; Sanudo, apud Muratori, XXII, 970–978; Ciriaco of Ancona, quoted by Sp. Lambros, *Νέος Ἑλληνομνήμων*, II, 1905, p. 471. Cf. Hopf, II, pp. 82, 85; Miller, p. 387; Jorga, *Notes et Extraits*, I, p. 335; Zakythinos, *op. cit.*, I, pp. 196 f.

[3] Buchon, *Nouvelles Recherches*, II, p. 287; cf. Zakythinos, *op. cit.*, I, p. 198.

[4] Hopf, II, p. 110; Miller, p. 410; Zakythinos, *op. cit.*, I, p. 226.

[5] Chalcocondyles, pp. 341 f.; Ducas, p. 223; Phrantzes, p. 202. Cf. Hopf, II, p. 114; Miller, pp. 412 f.; Zakythinos, *op. cit.*, pp. 232 f.

he himself followed the coast westward to take possession of the fort of Basilicata on the site of ancient Sicyon; thence he rejoined Tura-khan and finally left the Morea, ravaged and depopulated, taking with him some sixty thousand prisoners. Strangely enough, no mention is made of Corinth in the account of this campaign. Perhaps its importance had diminished with the shift of emphasis to the Hexamilion. Was the citadel left empty and undefended? did the Turks occupy and promptly abandon it? or did it remain outside of their activities? In any case the defeat of the despots made a vast impression on the Greek mind;[1] and Corinth now could not long fail to fall definitely and lastingly into Turkish power.

In 1452 Tura-khan returned and passed the Isthmus without difficulty.[2] The Peloponnese became tributary to the sultan; and when the tribute failed to materialize, a great campaign of subjugation and collection was initiated. On May 15, 1458 the army of Mahomet II entered the Morea and encamped near Corinth. Mathew Asan, brother-in-law of the despot Demetrius, chanced to be absent and a certain Nicephorus Lucanes was in command of Acrocorinth. Judging that the resistance of a citadel so strongly set and well defended might be protracted, Mahomet detailed a portion of his army under the Grand-Vizier Mahmud to press the siege while he himself brought the rest of the peninsula to submission. Mahmud set up his artillery; but this could not have done much damage to the walls so far above it nor, even had it breached them, would the storming of the citadel by so steep and hazardous an ascent have been easy. And just as the populace confined within the fortress began to show signs of suffering and discouragement from the siege, Mathew Asan succeeded in returning by boldly penetrating the Turkish lines and climbing the rock in the dead of night with grain for the beleaguered forces. And so it was that when the Sultan came back from his expedition into the interior of the Morea he found the siege still on and nothing apparent accomplished. Accordingly he attempted to parley with Asan; but the Greek was now so sure in the strength of his triple wall that he rejected all advances. There was nothing for it but to attack with greater vigor. When the artillery assailed the outermost wall it found it none too solid and, in spite of sorties from within, made possible its capture. The second line of defence was better built. Besides, the position of the assailants was distinctly uncomfortable, since they were dominated on both flanks by high walls from which projectiles were showered upon them. However, after several days of bombardment with stone cannonballs, the Turks managed to make a breach. And now the populace within, growing more and more rebellious through privation and fear, discovered that their metropolitan was unsympathetic to Asan's desperate resistance; so that when the Sultan, apprised of this situation, again sent his emissaries, he was told that his terms would now be accepted.

[1] An echo thereof may be heard in Scholarios' funeral oration for the despot Theodore II; cf. Sp. Lambros, *Παλαιολόγεια καὶ Πελοποννησιακά*, II, p. 7; Scholarios, like Ducas, attributes the Turkish success to the treachery of the despot's Albanian soldiers rather than the inadequacy of the fortifications.

[2] Phrantzes, p. 235; Chalcocondyles, p. 381; cf. Zakythinos, *op. cit.*, p. 246.

The siege had lasted from May to August.[1] By a treaty concluded in Corinth itself, the citadel was ceded to the Sultan, who promptly installed a garrison of 400 men,—the very number which, so many centuries earlier, the Macedonian intruder had used to defend the selfsame height. So little had the fundamental factors of attack changed the military problem of this mountain stronghold in nearly two thousand years.

Before three years were up, the entire Peloponnese had passed under Turkish rule. The life of Mistra was finished. But a brief Venetian attempt in 1463 to break the Turkish hold on the Morea deserves a passing mention here. Under the *condottiere* Bertoldo d'Este a foreign force had managed to capture Argos on August 5. Thence it marched to the Isthmus, put the Hexamilion into some sort of shape in a few days' effort, and turned its attention to the citadel of Corinth, defended by only 400 janissaries under Sinan-bey. But in the course of a desperate sortie the Turks mortally wounded Bertoldo, whose subsequent death on November 4 put an end to this three months' exploit.[2]

The period which closes with the Turkish conquest thus covers two and a half centuries of troubled and changing rule under a strange variety of masters. As we have seen, Corinth was first and for long a dependency of the Frankish principality, was thereafter entrusted to the Florentine family of the Acciajuoli, and was finally returned into Greek hands, with a brief interlude under the knights of Rhodes. From this motley record, gleaned from chroniclers and travellers, what concrete conclusions can be drawn for the history of the fortifications?

We know that the Franks, in addition to the "*antikastra*" which they erected during the siege, were responsible for repairs and additions toward the middle of the thirteenth century. Early in the fourteenth century Prince John of Gravina may have contributed to the repair of the castle. Much more certainly, Nicolo Acciajuoli put the entire precinct into good military condition on taking it over in 1358. At the end of the same century, Corinth was once more decadent; yet by the time of the Turkish assault it had been

[1] Critobulus of Imbros, *De rebus gestis Mechemetis II*, ed. Ch. Müller, *Fragmenta historicorum Graecorum*, V, pp. 121–125; Ducas, pp. 339 f.; *Chronicon breve*, p. 520; Chalcocondyles, pp. 442–452; Phrantzes, pp. 387 f.; Stefano Magno, *Annali Veneti*, in Hopf, *Chroniques gréco-romanes*, p. 200; cf. Hopf, II, p. 127; Miller, pp. 432 f.; Jorga, *Geschichte des Osmanischen Reiches*, II, pp. 90 f.; Zakythinos, *op. cit.*, pp. 257 f. Ἄνθος of Kartanos, in Hopf, *Chron. gr.-rom.*, p. 267, merely cites the capture, dating it in 1457. The exact length of the siege is disputed. According to Phrantzes, p. 387, the Turks appeared on May 15, 1458, and the town surrendered August 6 (cf. *Chronicon breve*, p. 521), which seems to contradict Critobulus' assertion that the town resisted for four months. Critobulus may, however, be counting both ends of the term, *more antico*. The historians in general accord their admiration to this "brilliant" resistance. Asan clearly displayed great energy both in penetrating the besieged town and in the subsequent conduct of its defence, though one may agree with Hopf in wondering why the stronghold did not hold out longer.

[2] Miller, pp. 465 f.; Jorga, *op. cit.*, II, p. 128. Stefano Magno, *Annali Veneti* (in Hopf, *Chron. gr.-rom.*, p. 203), lists among the towns which the Turks kept in their possession Corinth with a garrison of 1500 men "*in la Roca*," i.e. on Acrocorinth. This figure, in disagreement with that quoted by Jorga, seems very high when compared with other garrisons listed by the same Stefano Magno and ranging from 25 to 200. In any case, Acrocorinth appears to have been numerically better defended than any other stronghold, which shows that it still enjoyed its old strategic importance during the early years of the Turkish occupation.

sufficiently restored to make its capture an arduous exploit. During these years of the first half of the fifteenth century the task of rebuilding and maintaining the long wall across the low-lying Isthmus must have diverted attention from Acrocorinth; yet the mountain stronghold seems never to have been seriously neglected at this time. It would seem that the Knights of St. John put the fortress in repair during their brief control of 1400–1404. Its strength toward the middle of the fifteenth century is attested by a long letter sent from Rome by Cardinal Bessarion to the despot of Mistra, seriously advising him to shift to Corinth the capital of his domain.[1]

Thus we may claim to know the phases of constructional activity for the two periods so far reviewed, underscoring as particularly important the sixth, tenth (or eleventh), middle of the thirteenth, first quarter and middle of the fourteenth, early part of the fifteenth centuries. But we have no specific information, no details of Where or What or How, nothing to tell us the appearance of the great stronghold at each or even at any of these dates. Not until the very end of the Second Period, in the accounts of the Turkish siege recorded by Critobulus and Laonicus Chalcocondyles, is there anything like a definite verbal picture of Acrocorinth. By that time the citadel already resembled its modern successor: the town, or rather village, is on the height of a rocky hill[2] surrounded by a wall, difficult to attack because the siege-engines cannot be brought near enough; from one side only is there a feasible approach, and here is the sole entrance, defended by a triple line of fortifications; a "*πάροδος*" leads up to the first wall, which was less strongly built and much damaged during the siege by the artillery, presumably placed on a slight eminence to the southwest. The second wall was much more powerful, built of large blocks of stone;[3] but this, too, the Turks were able to breach with their cannons and their engines capable of hurling stone balls as much as seven talents (900 lbs.) in weight.

This is all that we know from literary sources about the appearance and condition of Acrocorinth in 1458 when the Turks took it over after the great siege.

[1] Sp. Lambros, *Νέος Ἑλληνομνήμων*, III, 1906, pp. 16 f.; cf. Zakythinos, *op. cit.*, pp. 226 f.

[2] For this we have the testimony of Nicholas of Marthoni. Critobulus, however (*op. cit.*, p. 121), seems to draw a distinction between the village and Acrocorinth: *ὑπερύψηλόν τε γὰρ ἦν τὸ χωρίον καὶ ἀπότομον καὶ κρημνῶδες κύκλοθεν, καὶ μίαν μόνην πάροδον ἔχον τὴν ἐπὶ τὴν πόλιν, καὶ αὐτὴν ἀνάντη τε καὶ τριπλῷ τείχει τετειχισμένην καὶ πεφραγμένην· ἡ δέ γε Ἀκροκόρινθος καὶ πάντῃ ἀπόμαχος, ὑπερανῳκισμένη τε τῆς κορυφῆς τοῦ λόφου καὶ τείχεσιν ἰσχυροτάτοις ὠχυρωμένη.* But the difficulty disappears if we recognize that his "high, sheer village surrounded by cliffs and with only a single approach" must lie on Acrocorinth, while his "Acrocorinth" is the castle on the southwest peak. In no account of the siege is there any mention of a lower town, such as is recorded for the Frankish siege of 1204–1210. Scattered houses or groups of houses may well have remained in the plain; but there is no compact town protected by walls.

[3] Critobulus, *loc. cit.*; Chalcocondyles, p. 449: *Ὁρᾶτε γὰρ ὡς κύκλῳ ἡ πόλις ἐρυμνή τε οὖσα εἰς τὰ μάλιστα ταύτῃ μόνον ποιεῖται τὴν εἴσοδον, τετειχισμένην τρισί τε ἅμα τείχεσιν ὀχυρωτάτοις καὶ τρισὶ πύλαις*, etc. Cf. p. 450. Chalcocondyles, p. 450: *καὶ τὸ μὲν τελευταῖον τεῖχος ἀσθενὲς ὂν καὶ οὐ πάνυ ἐχυρὸν . . . . . παίοντες οἱ τηλεβόλοι κατέβαλλον ἐπὶ ἡμέρας τινὰς τὸ ἐκτὸς τεῖχος. Ibid.: τὸ δεύτερον τεῖχος . . . ἐχυρόν τε ὂν λίθοις μεγάλοις.*

THE THIRD PERIOD: TURKISH AND VENETIAN (1458–1821)

Though it endured for nearly 400 years, the Turkish domination of Greece was so uneventful that the history of the country under Turkish rule is practically a blank. We can only suppose that this vacuity is a reflection of the monotony and aridity of the life of the time. The closing fifteenth, the entire sixteenth, and the greater part of the seventeenth centuries have not left us a single document, if we except the brief notice that in 1612 Corinth was seized and held for ransom by Vaqueras, commander of the Order of the Knights of Malta.[1] Toward the end of the seventeenth century comes the first break, with the accounts by European travellers who visited Corinth a decade or two before the Venetian capture of the town and its citadel in 1687.

It was in February of 1676 that an English gentleman, Wheler, and a French doctor from Lyons, Jacob Spon, while travelling together in Greece arrived in Corinth. In the memoirs of both[2] there is a description of the visit, assuredly based on notes made in common and yet involving certain discrepancies. Coming from Athens they saw while crossing the Isthmus at "*Examiglia ... quelques restes d'une muraille qui traversoit d'une mer à l'autre.*"[3] On the site of the ancient city they found an agglomeration of houses in the midst of gardens, separated by tilled fields, about a central "bazar" of some hundred dwellings, a small church and two mosques.[4] After examining the meagre ruins of antiquity and calling upon the cadi, the two travellers were granted permission to enter the castle on making a small present to the aga in command.[5] After an ascent of an hour on horseback, leaving to the southwest the hills whence Mahomet II bombarded the castle,[6] they reached the only entrance to Acrocorinth, closed by two gates in line. And here, according to the best of their recollections, is what they respectively beheld:

Wheler,

p. 441 "The first Gate we came to, is plated with Iron... This side of the Rock is well covered with Houses: For not only those who still reside there, as well *Turks* as *Christians*, have their Houses and Families

Spon, II,

p. 299 « Il n'y a qu'une seule entrée, mais il faut passer deux portes avant que d'être tout-à-fait dedans. Elle contient trois Mosquées avec leurs minarets, et cinq ou six petites Eglises de Grecs. S. Nicolas est la Metro-

[1] Pouqueville, *Voyage de la Grèce*, IV, p. 449, n. 3.

[2] Wheler and Spon, *A Journey into Greece* ..., London, 1682, pp. 439–443, with a sketch of the region twice reproduced (p. 439 and p. 442); Spon and Wheler, *Voyage d'Italie, de Dalmatie, de Grèce et du Levant*, II, Lyon, 1678, pp. 295–305.

[3] Spon, II, p. 293.

[4] Wheler, p. 439; Spon, II, pp. 295 f.

[5] "A couple of dollers," according to Wheler, p. 440; "*cinq ou six livres de café*" according to Spon, II, p. 299.

[6] Wheler, p. 441; cf. Spon, II, pp. 301 f. Both narrate that the fortress held out for fourteen months, which is an error for the recorded, but exaggerated, four (cf. p. 144 n 1).

there; but for the most part, even those that dwell below in the Town, have Houses also in the Castle; where they keep all their best Goods safe from the frequent, but very uncourteous Visits of the *Corsairs*; and hither, upon the least Alarm, they come flocking, with all they can bring with them . . . There are abundance of Cisterns for water, hewn into the Rock, and some Springs; especially one ... which was called ... *Pyrene* ...

There are three or four Mosques in the Castle, and five or six small Churches; but most of these ruined. The *Catholica* is kept in repair. In
p. 442 it we saw two old Manuscripts... From the first Gate we mounted yet higher, and come to a second which is well and strongly built, with two Towers on each side of it. This wall I guess to be about two Miles in compass, having some Houses inhabited, but many more ruined within them. The two principal Points of the Rock are inclosed in them also. On the one, situated South-West of the other, is a Tower built; and on the other, being the highest Point, a little *Mosque*. To the Top of this last we mounted (*there follows a description of the view from the peak*) ...

p. 443 Under this western Top of the Hill, is a place walled in: which they say was the place where the Jews lived, when *Corinth* was under the *Venetians*. They make four distinct quarters of this Castle, each governed by a distinct *Haga*. But their Forces consist now only of the Inhabitants, *Turks* and Christians; no

p. 300 politaine, et nous y vîmes quelques manuscrits... Quand nous fûmes tout au dessus, nous eûmes une des plus belles vûes du monde... (*there follows the description*) . . . Ce château étoit apparemment bien peuplé, et comme une petite Ville du tems qu'il étoit possedé par les Venitiens ; car il y reste quantité de maisons, quoy qu'une partie tombe en ruine. C'est le refuge des Turcs contre les descentes des Corsaires. Ses murailles qui suivent les contours du rocher ont environ trois milles de circuit. Il y a vers le plus
p. 301 haut de l'eminence une belle source d'eau, et qui en fournit beaucoup. C'est la fontaine Pirene,... Il y a encore une autre moindre, et plus de deux cent puits ou cîternes.

Au Levant et au Nord du Rocher il y a deux petits châteaux attachez au grand, qui ont chacun leurs Agas particuliers qui les commandent; mais il ne s'y tient personne. Le premier qui n'étoit que comme un bastion resista long-tems apres la prise de la principale Forteresse. L'autre est appelé *Hebraeo-Castro*,

Jews are now amongst them. The number of Turks and Christians seem to be equal, and are esteem'd not to exceed fifteen hundred in number, both in the Town and Castle; but there are many more dispersed up and down in the *Zeugaries* or Villages."

parce que c'étoit le quartier des Juifs, qui sont maintenant chassez de Corinthe. Les murailles sont bien entretenuës, mais nous vîmes peu de canons, et encore moins de soldats.»

We have reproduced the pertinent parallel passages from both versions in order to suggest that too much confidence should not be placed in the details of either. Wheler is the more communicative, Spon (partly for that reason) seems the more reliable. For instance, Wheler sets the whole village with its mosques, churches, cisterns, and spring of Peirene between the two gates, which is manifestly impossible. We may, however, accept as accurate the statement that the populace, which had retired to the protection of the mountain during the fifteenth century, had now redescended to the plain and that Turkish rule had made life less precarious, if not more fortunate. Yet there was still the necessity of abandoning the lower town with its villas of the Turks, its farms and little shops of the Greeks, and flocking up to the citadel at every threat of piracy. Acrocorinth still boasted three mosques[1] and five or six churches, while the lower town had only two mosques and a single church.

Two difficulties beset Spon and Wheler's description of the actual fortifications. Firstly, the travellers mention only two gates. Shall we conclude that the outermost line, badly battered in the siege of 1458, was razed or allowed to collapse (which would not necessarily be inconsistent with Spon's impression that the defenses were in good state, "*les murailles sont bien entretenuës*"); or was the outermost wall so negligible in comparison with the powerful inner lines that it left no impression on the visitors? In any case we are not entitled to assert off-hand on this authority that there was no outermost line of defence in 1676. The second difficulty turns on the identification of the two outworks, which here find their first mention. Wheler records one to the west of the highest peak, while Spon speaks of two, one to the north and the other to the east. Today there are still clear traces of *three* exterior structures, as the Survey Plan indicates. All three lie along the eastern stretch of the main circuit wall. That to the north (numbered 29 on the key-plan) is of considerable extent and guards an ascent up the east of the mountain leading to a walled-up postern protected by a triangular barbican, 28; the second, 34–35, near the middle of the east circuit wall, is also fairly extensive; while the third, situated farther south at 38 opposite Peirene, is tiny. Was Wheler with his

[1] These three mosques, mentioned also by other documents, can be identified; but there do not seem to have been four of them, as Wheler imagined.

"under the western top of the hill is a place walled in, which they say was the place where the Jews lived," referring to the first or the second of these? Did he mistake north for west under the same persistent confusion which has made so many travellers believe that the main approach to Acrocorinth faces south; or, since he correctly places the keep, 44, southwest of the main summit, has he simply miswritten "*western*" for "*eastern*"? And which two out of the three are to be identified with Spon's pair? The phrase "*qui n'étoit que comme un bastion*" and the orientation "*au levant*" seem to fix the first as the small outwork opposite Peirene. The other, Spon's *Hebraeo-Castro*, will then be the central outwork at 35,—an identification confirmed by a Venetian plan of slightly later date,[1] which shows these two, but entirely omits the north screen wall at 29, which was apparently of older construction and already abandoned when the postern-gate behind the barbican was walled up. But a different interpretation of Spon's text is possible. In short, the descriptions by the two travellers embarrass as much as they enlighten. Making all necessary allowance, we are left with this residue of information: that Acrocorinth was commanded by four captains or agas,—one for the main fortress itself, two for the outworks, and one apparently for the southwest castle with the keep,—and that the walls in general were in good repair but scantily defended and particularly lacking in cannon.

This is the extent of our knowledge of the state of Corinth at the time when the Venetians entered it unresisted on August 9, 1687.[2] Their success was due to that numerical weakness of the Turkish garrison which Spon and Wheler had noted. Two Turkish attempts at recapture in 1689 and 1692, though the second bottled up the *proveditore* Marino Michele within the defenses, were equally vain; and in 1699, by the Treaty of Carlovitz, Corinth with the "ruins of the ancient wall" Hexamilia was recognized as Venetian territory. The adroitness of Morosini had secured more for Venice than she had ever dared expect,—the entire Peloponnese.

The peninsula was administered by two *proveditori generali* who submitted reports after their two-year term of office.[3] These reports, preserved in the Venetian state archives, are documents of extreme value and include our most important information for Corinth during the period. Particularly interesting are the illustrative plans and sketches now preserved in the Library of St. Mark's and here reproduced in figures 94 to 99. All the reports insist on the crucial importance of the fortress of Corinth, most exposed to the danger of Turkish attack and taken over in such a deplorable state of deterioration.

[1] Venice, Bibl. Marc., MSS. Ital., Cl. VII, No. 94, *Collocazione* 10051, *foglio* 52. Strangely, this plan (reproduced Fig. 95) indicates only two gates at the west approach.

[2] Hopf, II, p. 178; Jorga, *Gesch. d. Osman. Reiches*, IV, p. 210. New details on this occupation have been added → J. M. Paton, *A Florentine Officer in the Morea in 1687*, *A.J.A.*, XXXVIII, 1934, pp. 65 ff.

[3] These reports have been published by Sp. Lambros in *Δελτίον τῆς ἱστορικῆς καὶ ἐθνολογικῆς Ἑταιρείας*, II, 1885–89, pp. 282–317, and V, 1896–1900, pp. 228–251, 425–567, 605–823. Our account rests on this publication.

Proposals are made for strengthening the fortifications, and account is rendered of the work actually carried out.

The first *proveditore generale* (1688–90) was Giacomo Corner. After preliminary remarks on the situation of the peninsula, its almost uninhabited condition, his own efforts to repopulate it and organise its defenses, he passes to the problem of fortification and thus specifically to Corinth. This he describes as a fortress having a circuit of three miles, set on a steep mountain rising to three peaks, the highest of which bears a castle capable in former times of holding out long after the rest of the town was taken. (But such a description only adds bewilderment to our investigations; for there are only two peaks to Acrocorinth and it is the lower of these which is crowned by a castle!) The report proceeds to characterize the citadel as inaccessible from every side, except that on the somewhat gentler slope toward the Isthmus there is an approach guarded by an outpost. (Again an error, since the reference is unmistakably to the west entrance!) To this outpost a tower should be added, and further construction is needed to protect the undefended gateway. In spite of the false orientation, we can be dealing only with the gates of the western defenses; but we well may ask which gate is intended,—that in the outermost line, not even noticed by Spon and Wheler, or the Second Gate, which must have been damaged in 1458 during the Turkish siege and still bears clear signs of Venetian rebuilding in its outer face and flanking tower? The report next emphasizes the abundant water within the fortress and the size of the garrison which it could maintain. Although its batteries could not possibly protect a Venetian fleet in the gulf or command the Isthmus, Corner recommends that it be well equipped with artillery, the eight existent pieces being wholly inadequate, since no pains should be spared to make impregnable a position so naturally suited for defence. Finally he requests the Senate to consider the problem of defending the Isthmus, the barrier wall of which had been built at a time before artillery had become so powerful a weapon. The garrison of Corinth consisted of 786 men, of whom 124 belonged to the *militie dei presidii*, while the remaining 662 constituted two regiments of the *armata* and three companies commanded by a Greek named Polycalas.

Corner's immediate successor, Tadio Gradenigo (1690–92), similarly draws attention to the importance of Corinth and the need for adequate fortification and provisioning. He deems the walls in bad condition and the now reduced garrison totally inadequate. He recommends storing wheat, building a windmill, constructing barracks, collecting cannon, cannon-balls and other munitions. There should be a strong detachment of cavalry at Corinth with its own barracks, storerooms, and stables, if the Isthmus is to be defended properly.

In his report under date of 1701 Francesco Grimani refers to the engineering work accomplished on Acrocorinth, where the defenses had been in danger of collapse. Unfortunately the drawings originally attached to his report, showing the fortifications to be built, have not survived. Similar discussion occurs in the reports of Angelo Emo

(1708) and Marco and Antonio Loredan (1714). The latter mention a storeroom which they built.

To atone for the lost drawings of Grimani's report, the Library of St. Mark's preserves the highly interesting material here reproduced.[1] Two of these drawings (Figs. 94 and 95) are older than the rest. They show the Venetian army encamped in the plain to the north of Acrocorinth. The first includes in its sketchy general survey Acrocorinth, the lower town, and "*l'antico Recinto di mura con le sue torri rovinate*" of the Hexa-

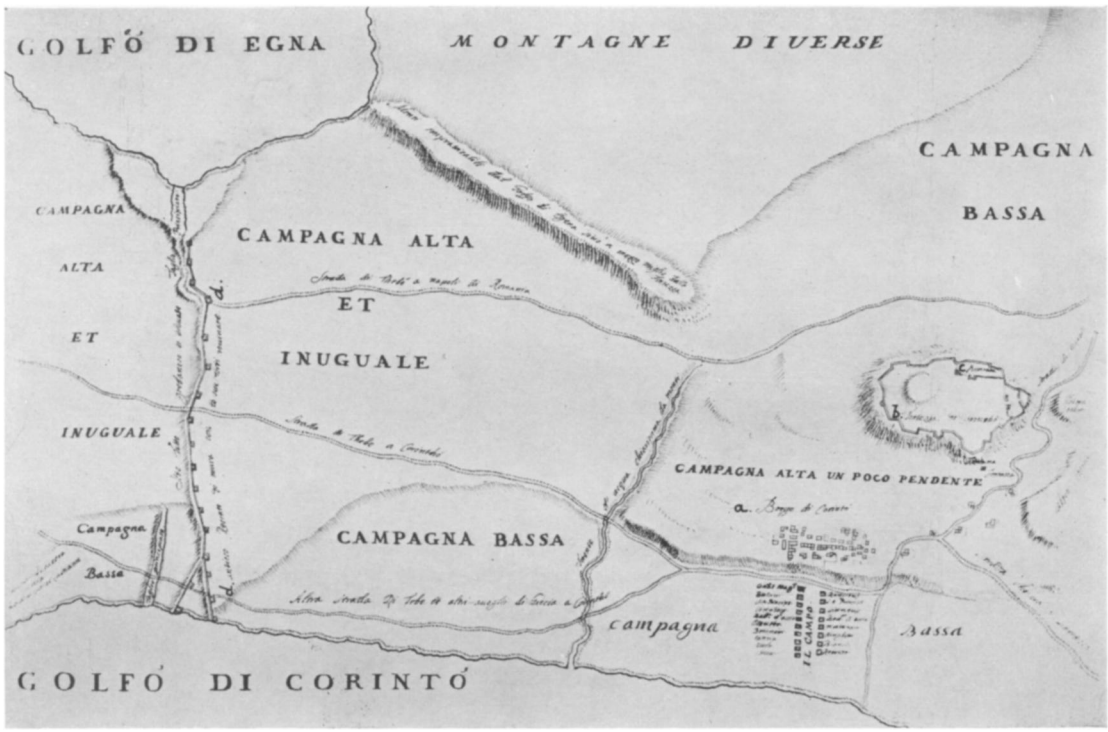

FIGURE 94. VENETIAN PLAN OF CORINTH AND THE ISTHMUS
(Library of St. Mark's; *Foglio* 51. End of Seventeenth Century)
"a. Borgo di Corinto. b. Fortezza di Corinto. c. Rettirata. d. Antico Recinto di mura con le sue torri rovinate."

milion. Acrocorinth has three lines of defence, with gates, at the west and a redout ("*Rettirata*") with a tower keep. The second drawing (Fig. 95) gives a picturesque bird's-eye view of the little lower town, which should be compared with the descriptions in Spon and Wheler and the *Chronique de l'Expédition des Turcs en Morée* from 1715.

[1] We owe our reproductions of these documents to Dr. James M. Paton. They do not, however, appear for the first time, as they have already been published by Coronelli, who is responsible for so much of the illustrative material for the Venetian forts of Chalcis and the Peloponnese. (Cf. his *Morea, Negroponte ed Adiacenze*, Venice, 1686.) The official listing in St. Mark's Library at Venice is "MSS. Ital., Cl. VII, No. 94, *Collocazione* 10051, *fogl.* 49–53." We shall refer to them merely under the folio number.

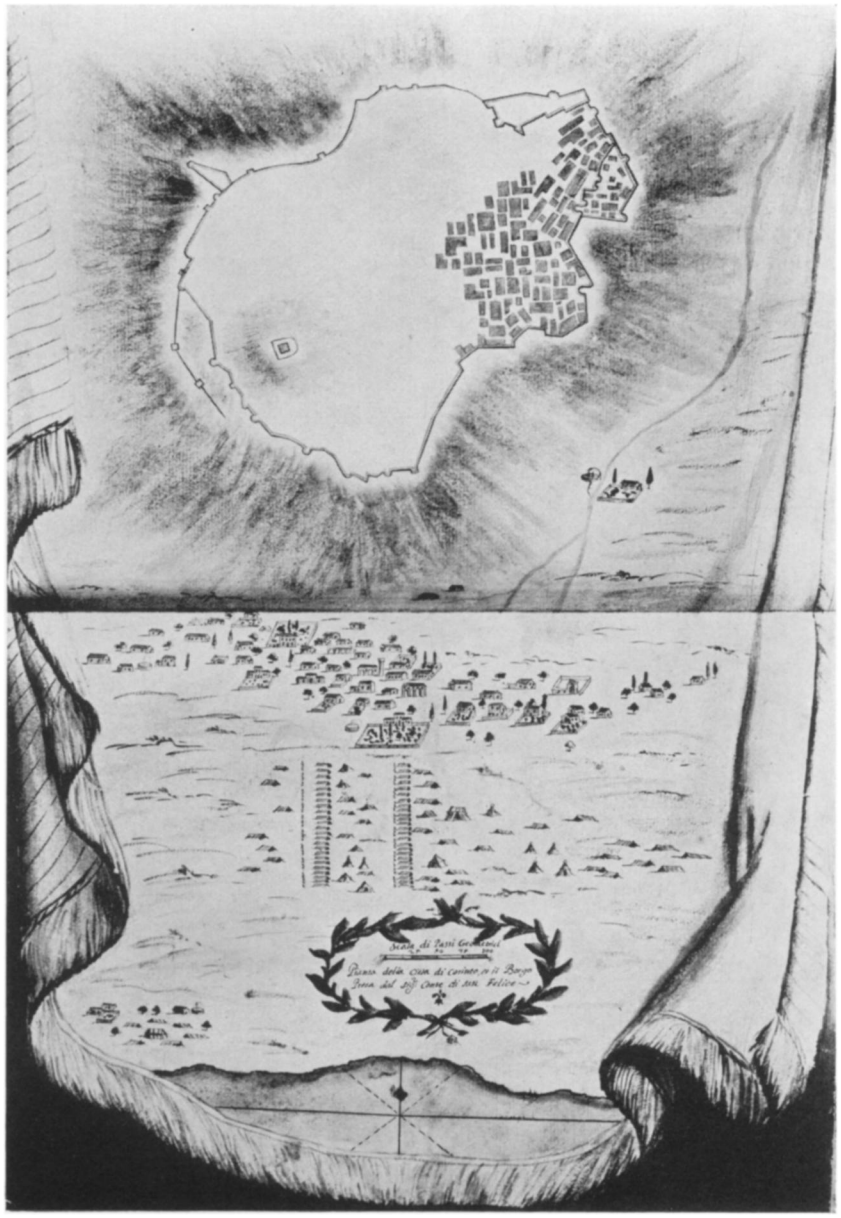

Figure 95. Venetian Plans of Acrocorinth and Corinth by the Count of San Felice

(Library of St. Mark's; Cl. VII, etc., *Foglio* 52)

The plan of Acrocorinth shows only two lines of defence at the west, herein agreeing with Spon's account. There are only two outworks, the northeast barrier being omitted.

Two other plans (Figs. 96 and 97) show the earthworks thrown up by the Venetians in the coastal plain and on the foothills. On the first of these the "*Linea delle fortificazioni in pianura*" runs from a fort on the edge of the gulf straight for Acrocorinth, ending on the ledge of the plateau on which the lower town lay. Traces of these entrenchments may still be seen, particularly well in the late afternoon from the heights of Acrocorinth,

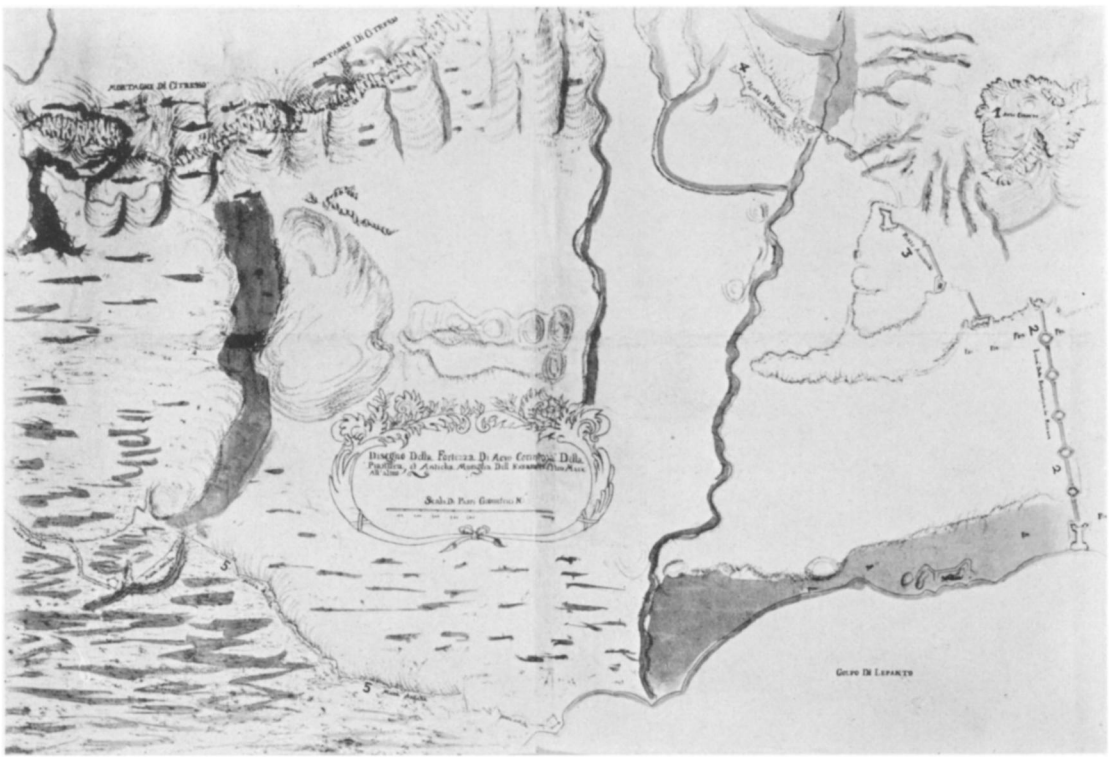

FIGURE 96. VENETIAN PLAN OF THE DISTRICT BETWEEN ACROCORINTH AND THE ISTHMUS
(*Foglio* 49)
"1. Acrocorinto. 2. Linea delle Fortificazioni in Pianura. 3. Posto Avanzato. 4. Monte Fortificato. 5. Mura Antiche."

when the shadow from the raised mounds of earth draws across the fields and vineyards a long line of lozenges connected by straight strokes. Even in a photograph (Figs. 166 and 219) this pattern appears.[1] The same Venetian plan further shows a line of earth-

[1] Dioecetes, *Chronique de l'Expédition des Turcs en Morée*, § 65, gives a description of these fortifications: "*La redoute est faite comme une forteresse, avec un haut mur de terre, des créneaux, des emplacements pour les canons et les couleuvrines. Et plus haut que la redoute, il y a une hauteur de terre accumulée qui s'étend en travers jusque près de la ville, où on a d'autres redoutes, mais pas de la même grandeur que celle d'en bas, et entre la grande redoute et les redoutes d'en haut il y a un large fossé. Et les redoutes sont aussi entourées d'un fossé auprès duquel il y a un terrain aquatique pour donner l'eau nécessaire à la défense.*" The forts are still shown on the French map of the Kingdom of Greece at 1 : 200.000, revised in 1852.

works cutting diagonally across the city plateau under the eastern slopes of Acrocorinth and marked "*3. Posto Avanzato,*" and finally a barrier to the passage of the Leukon stream, continuing up into the Onean hills beyond ("*4. Monte Fortificato*"). All of these indications seem actually to have been realized, and as such they are entered on the second drawing (Fig. 97), where in addition there is shown a much more ambitious program for a line of defenses along the Leukon, whose channel is appropriately provided

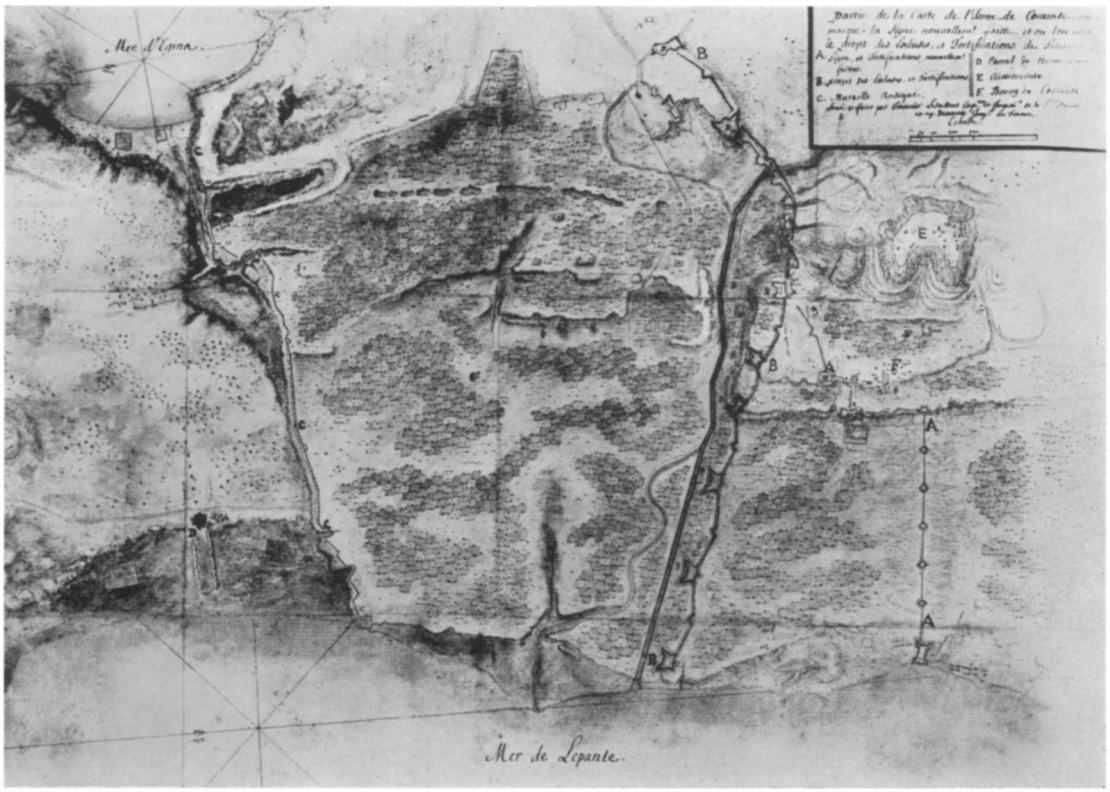

FIGURE 97. VENETIAN PROJECT FOR FORTIFYING DISTRICT OF CORINTH

"*Partie de la carte de Corinthe ou il est marqué la Ligne nouvellement faitte et ou l'on voit aussi le projet des Escluses et Fortifications de François Levasseur.*

A. Ligne et Fortifications nouvellement faites. B. Projet des Escluses et Fortifications. C. Muraille Antique. D. Canal de Néron commencé. E. Acrocorainte. F. Bourg de Corainte."

with dams and sluices to allow it to serve as a moat. But this scheme, the project of a French engineer, François Levasseur, in the service of the Most Serene Republic, was never executed.

Finally, there are perspective views of the mountain (Figs. 98 and 99), once seen from the northeast and twice from the west. This latter pair is important, since the three successive lines of wall are clearly distinguishable, along with a number of other identifiable details such as the decorative arches over the gates, the relieving arches in the ramp to the outermost gate, the short unconnected screen beneath the north end of the second

wall. In figure 99 the village is shown between the Second and Third Gates and on the slope within; and there are two minarets and a legend naming various buildings.[1]

Clearly there are inaccuracies and oversights on these drawings. Thus, in figure 99 the Second Line of defence carries towers, though the extant wall is unbroken to the north of the Second Gate and there is no possibility that it was otherwise in Venetian times. None the less the combined evidence of these drawings is sufficient to prove that the

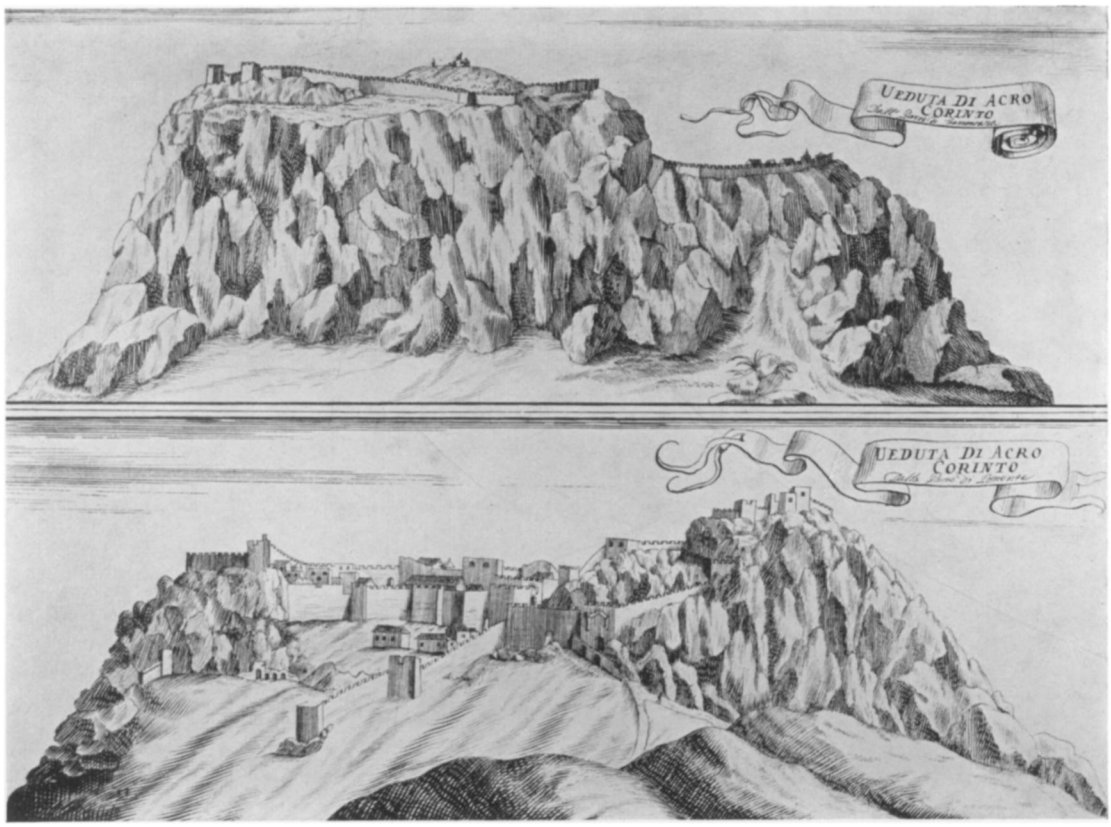

FIGURE 98. VENETIAN DRAWINGS SHOWING ACROCORINTH FROM THE NORTH(EAST) AND THE WEST

fortifications about the year 1700 were already essentially those which still exist to-day. Subsequent repairs seem therefore to have inaugurated no important changes. We are led to the highly important conclusion that the Venetians actually carried out a constructional program on a large scale and that this imparted to Acrocorinth the final form in which, except for the ruin and collapse of time, it appears to-day.

In 1715 the Turks recaptured Corinth. In June of that year an army under the Grand-Vizier Djin Ali-pasha passed the Isthmus without hindrance and moved against Acro-

[1] In figure 98 there is visible on the highest peak of the mountain a small building from which there waves a flag. According to Dioecetes, *op. cit.*, § 65, this should be a windmill, such as was recommended by the *proveditore* Tadio Gradenigo. However, figure 99 (" H ") makes of it a tower labelled " *Posto San Michiele.*"

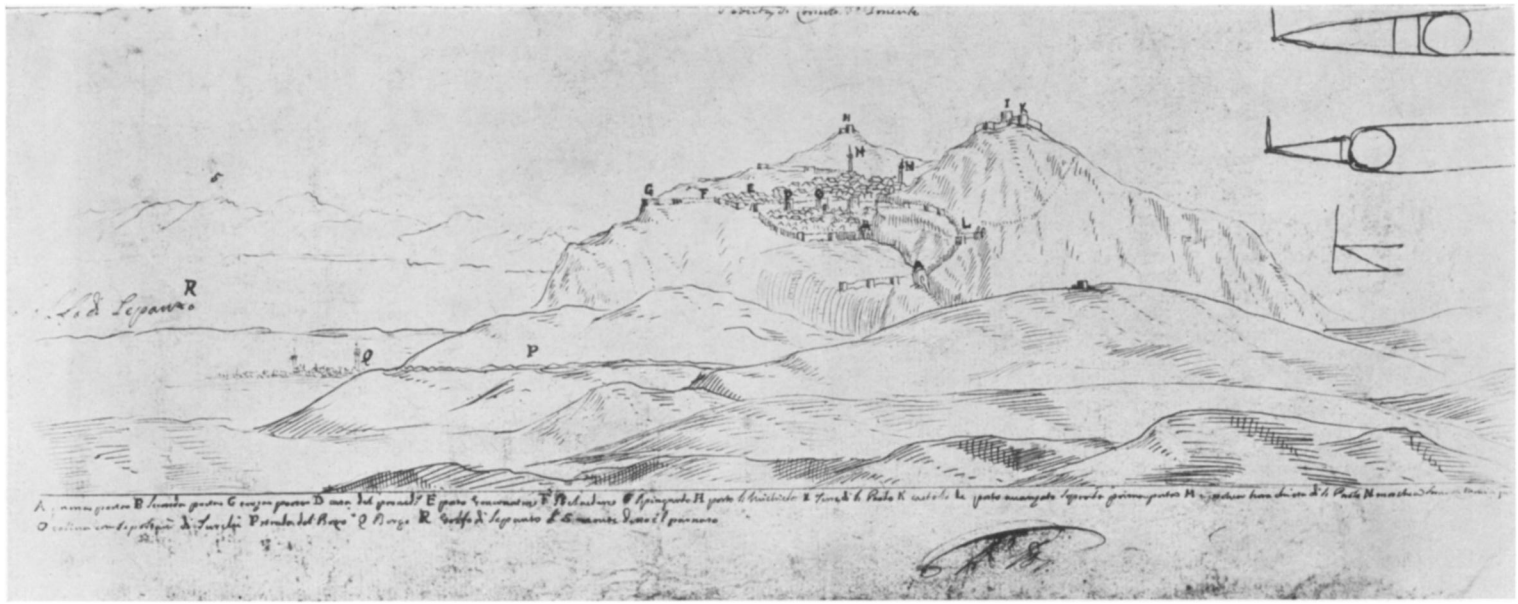

FIGURE 99. VENETIAN SKETCH OF ACROCORINTH FROM THE WEST

"A. prima porta. B. seconda porta. C. terza porta. D. casa del proved(itore). E. posto Governatorio. F. Belvedere. G. Spingardo. H. posto S. Michiele. I. Torre di S. Paolo. K. castello. L. posto avanzato sopra la prima porta. M. moschea hora chiesa di S. Paolo. N. moschea serve p(er) municione. O. colina con sepoltori di Turchi. P. strada del Borgo. Q. Borgo. R. Golfo di Lepanto. S. monte detto il parnaso."

corinth, which was garrisoned with 400 men and defended by 35 pieces of artillery. The changing fortunes of the ensuing siege have been related by a French interpreter in the Turkish camp, Benjamin Brue by name, and by a native chronicler.[1] Little is to be gleaned about the fortifications from their accounts: Brue notes the existence of a moat in front of the fortress, and Dioecetes records that the bombardment split the wall beside the outer gate.[2] At the end of only thirteen days the *proveditore* Giacomo Minotto, fearing treachery of the Greek-speaking populace, negotiated terms of surrender for the "Franks" (foreigners), leaving the native Greeks to the mercy of the conqueror. Despite the formal agreement, it proved impossible to restrain the janissaries when the gates were thrown open, and scenes of pillage and massacre occurred, in the course of which a powder store exploded, with a considerable number of victims. The Rhomaic population, 200 men and many women, was sold into slavery.

With the restoration of Turkish rule, darkness again descends over Corinth and the rest of Greece for half a century, until in 1765 Chandler visited the region. His brief account[3] of the history and antiquities of Corinth betrays no striking change from the days of Spon and Wheler. The walls of the fortress enclose a village on the hilltop, with churches and mosques, almost wholly in ruins and nearly abandoned. The travellers who succeeded Chandler,—Dodwell,[4] Hughes,[5] Pouqueville,[6]—were not permitted to ascend Acrocorinth. Pouqueville alleges as reason his belief that the fortress was garrisoned by only six men under a *disdar* and these were at the moment busy with the harvest. The keys had been entrusted to Theocaris Rhengis, Greek mayor and foster-brother of the powerful Kyamil-bey, and this gentleman explained that the Turks did not wish it to be known how weakly the citadel was defended.[7]

[1] B. Brue, *Journal de la campagne que le Grand-vesir Ali pacha a faite en 1715 pour la conquête de la Morée*, ed. A. Dumont, pp. 13–21; Dioecetes, *Chronique de l'Expédition des Turcs en Morée*, ed. N. Jorga, §§ 65–78. Cf. Hopf, II, p. 179; Jorga, *Gesch. d. Osman. Reiches*, IV, pp. 331 f.

[2] Brue, *op. cit.*, p. 17; Dioecetes, *op. cit.*, § 69.

[3] Chandler, *Travels in Greece*, pp. 234–240. The sketch of the region attached to p. 234 gives no details of the fortifications.

[4] E. Dodwell, *A classical and topographical Tour through Greece*, II, pp. 189–190 and 292–297, covering November, 1805, and January, 1806. He beheld Acrocorinth from the south, from an eminence crowned by a chapel of the Virgin (p. 189). His illustration (p. 188) shows no details. On p. 184 he also notes the ruins of the Hexamilion wall.

[5] T. S. Hughes (*Travels in Sicily, Greece and Albania*, I, pp. 238–242) visited Corinth in 1813. A vignette on p. 237 shows Acrocorinth seen from Penteskuphi, amusing but imaginary. The author had, however, visited Penteskuphi, where he saw "the remains of a Venetian fortress" (p. 242).

[6] Pouqueville, *Voyage de la Grèce*, IV, pp. 449–468. He made two sojourns in Greece. In the course of the second (1806–16) he visited Corinth.

[7] Hughes, *op. cit.*, I, pp. 240 f., had already suspected the state of affairs. Pouqueville, *op. cit.*, IV, p. 454,—after having referred to the earlier accounts by Desmonceaux (1668), who estimated the circuit at 2350 paces, Fourmont (1730), who beheld only some thirty houses, Spon, and Chandler,—himself reports the description which he had from Theocaris Rhengis. We summarize the more important elements: "*Arrivé à l'entrée de l'Acrocorinthe après avoir traversé « deux épaulements en maçonnerie construits par les Vénitiens », on trouve une porte*

If such was really the extent of the Turkish garrison, it is not reasonable to suppose that there had been any considerable outlay for new construction during the eighteenth or early nineteenth century. A few unavoidable repairs would be the utmost to be expected of such an administration. Our previous conclusion that the Acrocorinth of the final decades of Venetian rule was already essentially the fortress of to-day is thus substantiated. By the early nineteenth century the hilltop had been almost entirely forsaken by its inhabitants in favor of the lower land, where Pouqueville counted 377 houses dispersed throughout the plain amid fields and gardens. The place, he held,[1] had grown prosperous under the century-long rule of Kyamil-bey's family. Peaceful times would inevitably have led to a desertion of the unfertile and inconvenient mountain top. In addition, the fort had ceased to possess for the Turks the same unique strategic significance which it had enjoyed in the eyes of the old masters of the Morea, Greeks or "Franks," for whom the Isthmus was only too often the frontier.

In the Greek struggle for independence Acrocorinth played its final rôle; but an account of its vicissitudes would add nothing new to our knowledge of the place.[2] Corinth suffered extensively from the war, as a perusal of Prokesch von Osten's memoirs will show. By 1825 the lower town was nothing but "a heap of ruins where fifty or sixty beggars wandered about."[3] Prokesch obtained permission to visit Acrocorinth. He describes three gates, a destroyed village within, mosques and churches in ruin, a castle on the south peak, and on the highest summit the remains of a tiny mosque. The defenses were in very bad condition and relied on only 24 cannon still able to function.[4]

With the close of the war and the liberation of Greece the historic career of Acrocorinth comes to an end.[5] With attention shifted to a far more northern boundary, the

entre deux tours qui est celle de la citadelle. On remarque à la base des « substructions cyclopéennes » sur lesquelles on a bâti des remparts crénelés qui sont bastionnés à des distances égales. En arrière de cette entrée on a construit deux espèces de « caponnières », au delà desquelles on aperçoit une mosquée. Un peu plus loin on remarque une mosquée qui repose « sur la cella d'un temple antique ». Une quantité de débris entassés sur une plateforme soutenue par des voûtes fait présumer que cet édifice fut peut-être le Sisyphéum." One recognizes the three gates readily enough; but it is hard to identify the "*caponnières.*" The mosque is nowadays represented only by its minaret, on a platform supported by a great underground reservoir (cf. below, pp. 257, 262).

[1] Pouqueville, *op. cit.*, IV, pp. 466 f.

[2] Pouqueville, *Histoire de la régénération de la Grèce*, III, pp. 345 ff.; IV, pp. 105 f., 126 f., 367 f., 429, 437 f., gives a detailed account of these events. Cf. also Jorga, *op. cit.*, V, pp. 265 ff., 285 ff.

[3] Prokesch von Osten, *Denkwürdigkeiten und Erinnerungen aus dem Orient*, II, pp. 291 f. (12 mai 1825).

[4] *Op. cit.*, II, pp. 296–307. Like Dodwell, he mentions a tiny church on a rocky height to the southwest, where Mahomet II took his position. It is an open question whether he is referring to Penteskuphi or to the ridge between Penteskuphi and Acrocorinth: nowhere is there to-day any trace of a chapel. Prokesch also noted the ruins of the Hexamilion, *op. cit.*, II, pp. 324 f.

[5] The *Expédition scientifique de Morée* has little to say about Acrocorinth, which it characterizes as a large and well fortified citadel with 300 cisterns and the ruins of a town which must once have been extensive (*op. cit., Architecture, sculpture, etc.*, III, pp. 36 f.). The general view of the village and Acrocorinth (pl. 76) is uninformative.

Isthmus lost all strategic significance and the great rock beyond it was deserted by soldier and peasant alike. Even the lower town was not destined to survive, since an earthquake completely destroyed it in 1858 and led to the settlement of the new town on the gulf. But even if political fortune had not deprived Acrocorinth of its importance, it is easy to prophesy that the modern development of warfare during the nineteenth century would in any case have led to the same result. The medieval fort could not serviceably survive into modern times: the national stronghold was doomed to sink into a national monument.

If, as for our other periods, we pause to summarize our results for the exactly four centuries which lasted from the Turkish entry in 1458 to the destruction of Old Corinth by earthquake in 1858, by far the most important part is played by the Venetian builders shortly before and after the year 1700. Their potent constructions are readily apparent to-day, both because the style of masonry is distinctive and because the Turks did little more than keep the Venetian fortress in repair. Yet there remains one important source of perplexity.

Just because the Turks felt no need to improve on the constructions which they took over from the Venetians, it does not follow that in a previous period they were equally inactive after they had seized a much less powerfully defended Acrocorinth from the Byzantine despot in 1458. The only documentary evidence is the negative testimony of Spon and Wheler, who by failing to mention the outermost wall tacitly suggest that this, which we know to have been destroyed by the Turkish assault, was not rebuilt by the victors. And yet is it logical to suppose that such powerful newcomers, installing themselves as masters of the land, would have neglected to restore and strengthen so crucial a stronghold? The question must for the present remain unanswered.

All in all, the history of Acrocorinth, as it can be pieced together out of the available documents, only emphasizes the poverty, obscurity, and contradictoriness of our sources. If we confine ourselves to the clearly attested and certain evidence, we shall at most be entitled to assert that we have ascertained which were the periods of great constructional activity on this millennial citadel; but we have not thereby identified these constructions themselves. Only by examining the extant remains in detail and by equating the archaeological with the historical periods can we hope for further illumination. Modest and uncertain as these results may be, they are here attempted for the first time and hence cannot fail to mark an advance, however slight, on previous knowledge.

We turn accordingly to a detailed description of the ruins themselves.

B. THE ARCHAEOLOGICAL EVIDENCE

The geophysical characteristics of the mountain of Acrocorinth have already been described on an earlier page of this volume,[1] where it was pointed out that the slopes and contours made it essential to accumulate defenses on the west (Fig. 100), while elsewhere it was in general sufficient to carry a single curtain wall around the steepest margin of the uneven hilltop. The medieval builders did not depart from the classical line of walls for two adequate and obvious reasons: methods of warfare remained sufficiently similar to make the intelligent and well-conceived ancient plan still the best solution, and the surviving blocks of the classical wall formed an admirably solid and durable socle on which to base mortar masonry. Only, the greater range of the engines of attack led to the construction of outer defenses,—an additional gate with a new line of wall in front of the west approaches, and three outposts along the eastern circuit. Finally, upon the southwest peak, lower but more defensible than the actual summit of Acrocorinth, there rose an inner citadel consisting of two closed courtyards and a keep formed by a great square tower.

Our description commences with the accumulated lines of defence at the west, the normal point of entry and approach, with their three successive gates, and thence follows clockwise around the circuit of the main wall, through north, east, and south, pausing to include the three outposts on the east, and reaching at the very end the citadel or "castle" on the southwest peak. To this comprehensive description is appended a briefer survey of other medieval ruins inside the walls and, finally, the largely obliterated defenses lying outside of Acrocorinth entirely.

Everywhere the constructional materials are constant:

(1) stone: the soft poros underlying the ancient city at the foot of the mountain; more sparingly, the hard limestone of the mountain itself; re-use of ancient building material, including occasional fragments of marble.

(2) brick: in considerable variety of shapes and sizes, but tending to two chief types which we shall distinguish as (a) tile,—large, flat, and roughly square in plan (most frequently ranging from 0.25–0.30 metres with a thickness of 0.025–0.030 metres), and (b) brick,—much smaller, broken up and used in fragments. Both are kiln-baked. The tiles are of the older form, like those in use in the Roman and Byzantine periods.

(3) wood: in the form of beams; more frequent in Turkish construction, where their use imbedded in masonry is typical.

[1] See above, p. 1.

FIGURE 100. ACROCORINTH, SEEN FROM PENTESKUPHI

(4) mortar: of many kinds; among all the materials the one most susceptible to variety and hence to classification. The lime base is scarcely to be differentiated; but the aggregate varies greatly according to the source of the sand or gravel.

We shall distinguish,—

(a) gravel from the gullies beneath the cliffs, with small water-worn pebbles, light in color, running from crystal into grey or pale blue;

(b) gravel dug on the hilltop itself, adding fragments of miscellaneous friable material, mainly brown in color, to the variety of pebbles;

(c) débris of the crumbling rock at the southwest edge of the mountain, where the closegrained limestone is replaced by eroded hornblende,[1] usually brown, sometimes greenish in tone;

(d) pounded brick, imparting a pink rather than red hue to the mortar;

(e) tiny splinters of marble.

The complete color-range is surprisingly extensive; especially the mortar with brown ingredient is capable of assuming unexpected tints. Unfortunately, these distinctions of fabric do not automatically involve a corresponding differentiation of date or period. Yet certain types of mortar seem to be characteristic of their users, so that our description will everywhere include some mention of the type of mortar employed.

The modern path from the lower village ascends past the Turkish fountain of Hadji Mustapha and skirts the north slope of the mountain, at times approaching its cliffs, and accompanied by a deep ravine which separates it from the broken ground to the northwest. This path follows the remains of a paved Turkish road or *kalderim*, made of stones of uneven size rather crudely laid, which is mentioned by several of the early travellers and is still easily identified to-day. After crossing the head of the great ravine or Northwest Gully, almost immediately beneath the north bastion of the lowermost line of defenses of the mountain, the Turkish road cuts directly across and through the traces of another and therefore older road which has ascended the farther ridge of the ravine along the line of the ancient classical west city-wall, leading up from the site of the Phliasian Gate.[2] If this is the ascent indicated in the Venetian sketch reproduced in figure 99 ("*P. Strada del Borgo*"),[3] it explains the presence of a small arched bridge which straddles the narrow bottom of the ravine about opposite the Phliasian Gate. Up this now almost vanished road the Venetians may have hauled the cannons with which they filled the artillery embrasures of Acrocorinth. Not far above their intersection, Turkish and Venetian ascents come together again at a stone ramp which leads to the edge of a dry moat. Beyond the moat rises the First Gate of the defenses of Acrocorinth.

[1] Cf. Philippson, *Der Peloponnes*, p. 33; Expédition scientifique de Morée, *Sciences physiques*, II[2], p. 204.

[2] See above, p. 68.

[3] This seems also to be the road indicated in the Venetian plans in figures 94 and 95, descending past the Anargyri chapel and not, like the Turkish track, past Hadji Mustapha.

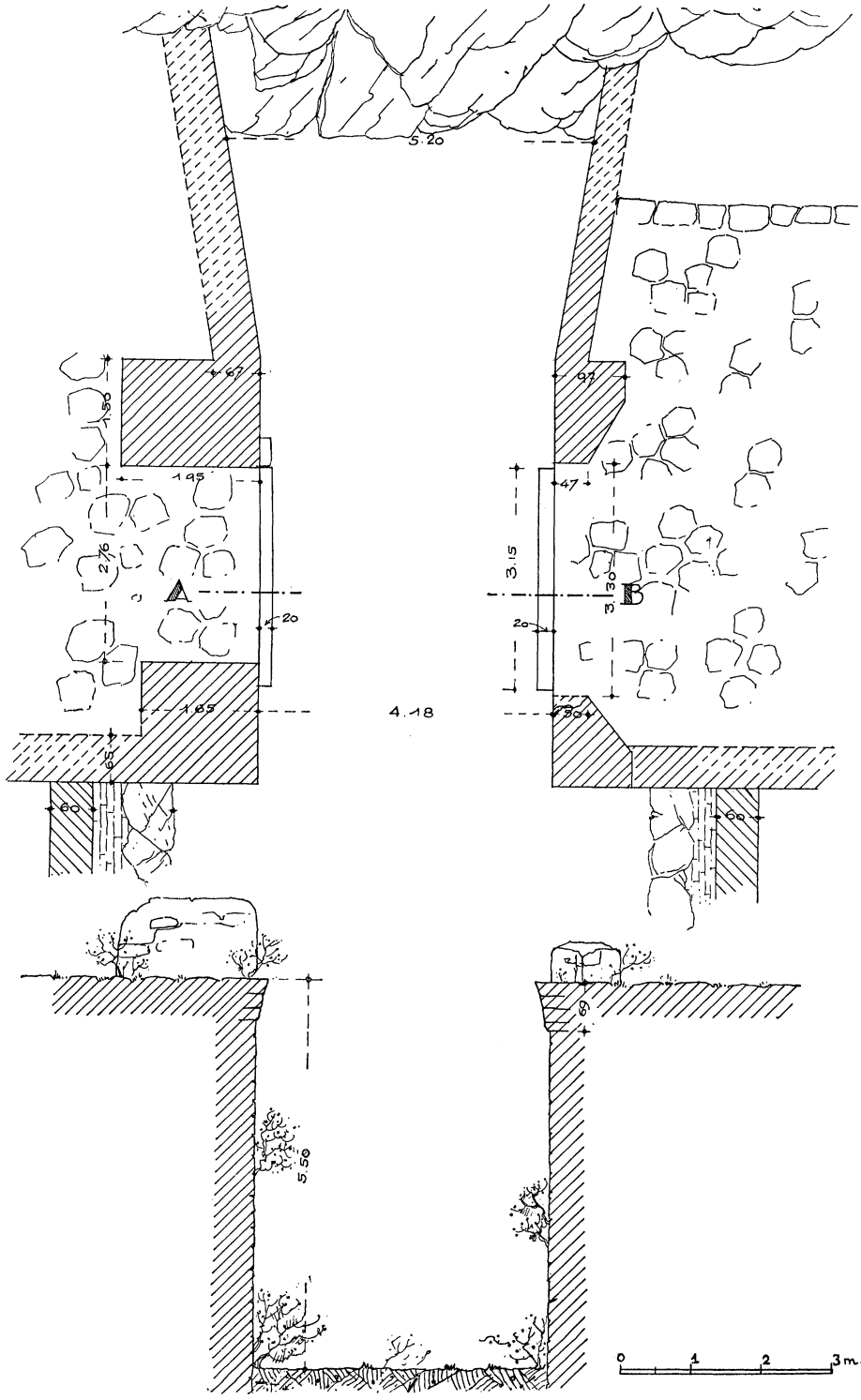

FIGURE 101. PLAN AND SECTION OF MOAT BELOW OUTER GATE

1. The Outermost Line of Defence: the Moat

The first obstacle to an invader from the west was a dry ditch cut in the brown shaly rock which here underlies the main limestone mass. This moat does not run with the outermost wall but projects from it in an ell, leaving a roughly trapezoidal area of considerable size (almost 2000 sq. m.) and appreciably steep slope, leading up to the wall which completely commands it (Fig. 106, right of centre). The moat seems to have followed the course of a small water-channel, which was actually the head of the deep Northwest Gully; but the pitch is so steep that the moat could never have held water,

Figure 102. South Wall of Moat, Showing Bridge Support

despite its sloping lining of masonry, the purpose of which must have been solely to prevent the collapse of the crumbling rock through which the moat is hewn.

The moat commences under the steep overhanging west cliffs, remains narrow enough to be easily bridged at the paved ramp, and then widens to about 7 metres. After running straight for some 50 metres, it turns northward at right angles, still descending sharply, with its trench less deeply bedded in the rock and its outer lip built up ever higher above the ground level till it rises as much as 3.50 metres in air (Fig. 106). Here, directly underneath the end bastion of the outermost line of defence, which is securely perched on the outcropping limestone sheer above it, the moat abruptly ends, as it began, against the cliff (cf. Survey Map).

The scarped lining is coarsely built of small ashlar blocks with occasional broken brick, set in a rose-grey mortar made of the crumbled rock. The scarp is rather more carefully built than the counterscarp.

The modern visitor crosses the moat by a breach in its two walls; but the original approach led over a bridge, 4.18 metres long by 3.15 metres wide, presumably of planks laid on timbers, which in turn rested on the projecting corbelled crown of the masonry lining the moat (Fig. 101). These overhanging stones are not the springers of a vaulted bridge in masonry, since the joints are horizontal (Fig. 102); and their lightness and the absence of the necessary supports exclude the possibility of a drawbridge. The masonry piers at either side are purely decorative and not uncommon for Venetian gateways.[1] The re-used Byzantine marble moldings visible in the photograph similarly satisfy a rather naive sense for architectural adornment. We infer, therefore, a simple removable bridge of planks and timbers, marked by four ornamental corner piers. The portion of the moat wall which supported the bridgeway was built with considerable care, whereas the piers and the low parapets lacked solidity and are to-day in very dilapidated condition.

Each arm of the moat was surveyed and defended by a bastion of the outer wall placed squarely above its end. The moat is presumably contemporary with these bastions, one of which would otherwise have little reason to exist; while the bastions in turn, being an integral part of the first wall, should be of the same period as the whole outermost system of defence, to the description of which we may accordingly turn.

2. The Outermost Line of Defence: the Wall

The general appearance and arrangement are shown in figures 103 and 106. The general Survey Map will clarify the details. The numerals in the margin of figure 103 should be used to align the conspicuous features, which are located at the intersection of the horizontals and verticals projected from the pertinent numerals. Thus, 1, 1 locates the bridge over the moat, 2, 2 the gate in the First Wall, the south bastion of which is marked by 3, 3, while 4, 4 locates the hollow tower.

This barrier is wholly independent of the inner lines of defence or the general circuit wall of the mountain. It centres on a gateway, some 60 metres on either side of which it terminates in the bastions which overlook the moat. The southernmost of these (Height 413 on the Survey) is perched on a ledge of rock, some 20 metres vertically above the bridge and ramp and almost as much above the gateway (Fig. 103, 3, 3); while the northernmost bastion, built square like a tower (Fig. 107, left), is based correspondingly lower (Height 379 on the Survey), yet rises none the less powerfully and even more conspicuously upon the outcropping limestone against which the moat terminates.

The gateway is approached from the bridge by a paved ramp supported by a retaining wall on its west, in which two relieving arches are employed.[2] This First Gate

[1] E.g. the gate at Coron (Expéd. scient. de Morée, *Atlas*, pl. XIX, fig. 2). Similar piers may still be seen at the gateway of Acronauplia.

[2] These two relieving arches are indicated in the Venetian drawing reproduced in figure 98, but shown as unfilled with masonry.

FIGURE 103. WEST DEFENSES OF ACROCORINTH

1, 1. Bridge-head over Moat. 2, 2. First Gate. 3, 3. South Bastion of First Line. 4, 4. Hollow Tower, First Line. 5, 5. Terrace Bastion, First Line. 6, 6. Second Gate and Tower. 7, 7. Third Gate. 8, 8. Southwest Bastion, Third Line. 9, 9. "Balcony" Spur, Third Line. 10, 10. Artillery Platform at West End of Redout

is a simple round arch flanked by large, steeply battering buttresses (Fig. 103, *2*, *2*) and surmounted by a decorative blind arch, the crown of which has fallen.[1] In the space between the two superposed arches, instead of the ornamental relief or inscription which one might expect, there is set a blank Byzantine marble plaque. Threshold and jambs of the portal are made of ancient material re-used; the rest is of ashlar poros blocks,

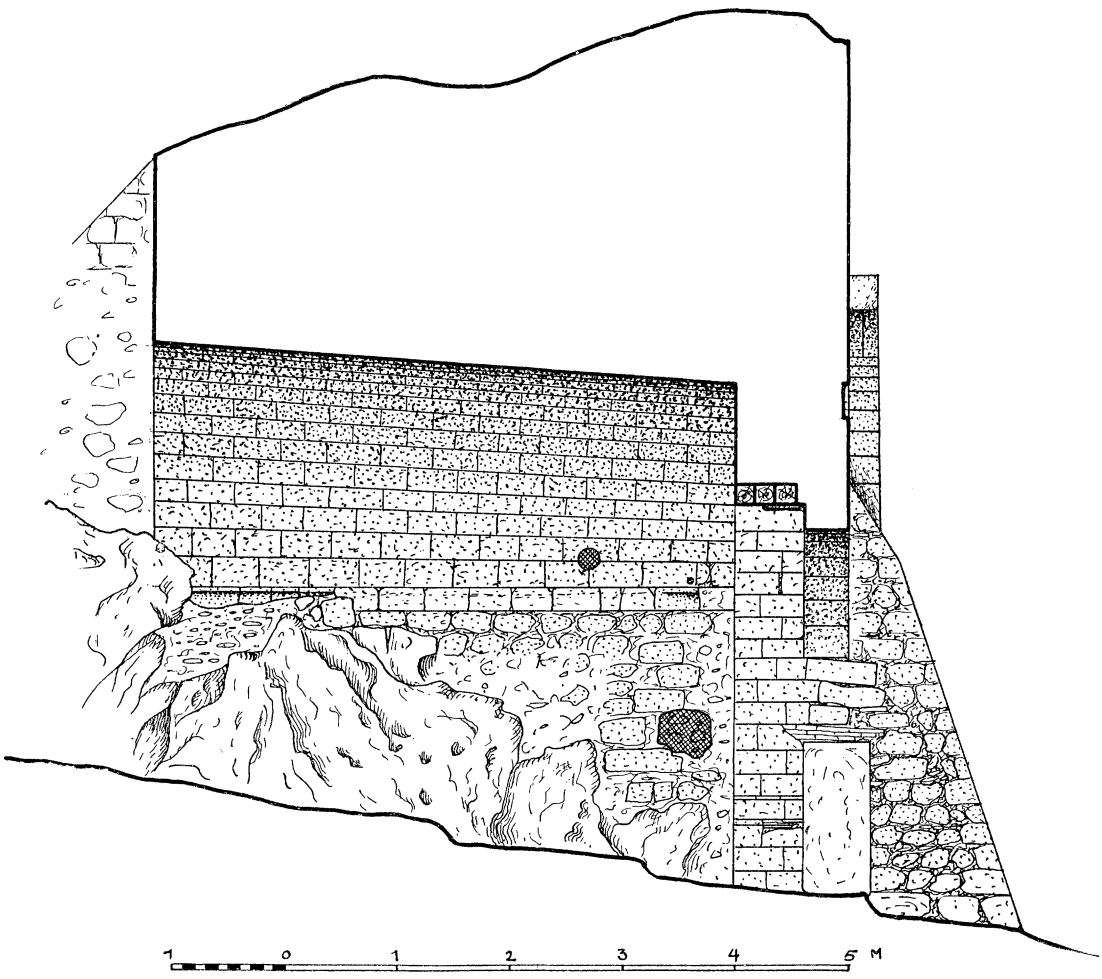

FIGURE 104. CROSS-SECTION OF FIRST GATEWAY

well cut and still showing the marks of the toothed dressing-tool. Bits of small yellow or red brick have been inserted here and there. The keystone of the arch carries a rosette carved in relief. The gateway behind the arch is a passage 5 metres long, which expands as it proceeds and is covered by a flattened vault constructed of small regular poros blocks springing from a minute cornice (Fig. 104). Just inside the portal there was once a simple door held fast by a wooden bar, the wall-bed for which is visible in the drawing.

[1] The gate façade is shown intact in the Venetian drawing (Fig. 98), but none too accurately.

The construction furnishes an excellent example of the variety of mortars and complexity of building periods which complicate the study of medieval Acrocorinth. The main body of masonry employs a mortar of poorly slaked lime containing small brown stone; the exterior buttresses and piers exhibit a mortar of lighter color with river pebbles of darker hue; this in turn is here and there covered by still another mortar, reddish, with sparse brown stone, badly applied and now cracked and scaling; the lintel beams behind the arch are set in still another, very white mortar.

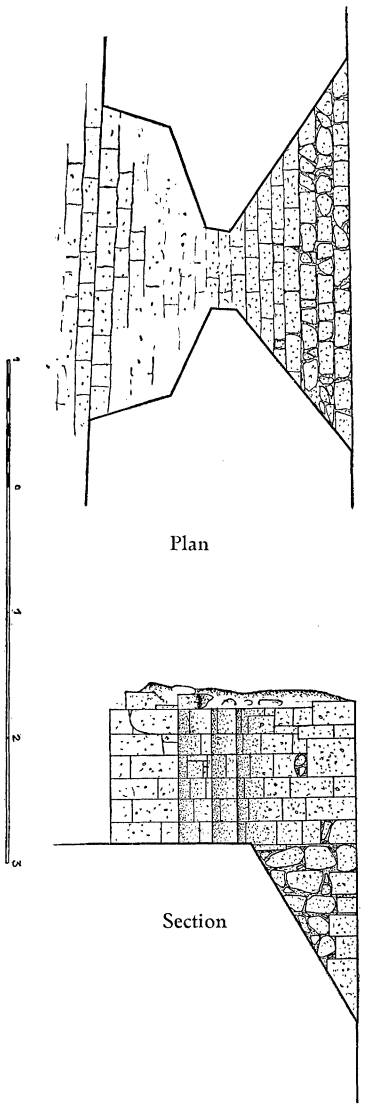

FIGURE 105. EMBRASURE OF SOUTH BASTION, FIRST LINE

On top of the gateway there is a paved platform, to which a small outside stair leads from the north. The parapet has disappeared. To the south, continuing the type of masonry of the gateway, the lofty wall climbs the steep rocky slope to the bastion. The lower face of the wall is broken back in a series of retreating terrace-like curves (Fig. 103, to the right of the gate *2, 2*), each carrying a small cornice. The main parapet above, pierced with loopholes, ignores these curvatures of the thickened wall-base; and its regularity of line argues against its antiquity. A surface coat of pebble mortar over various parts of this wall confirms the suspicion of repair; and this is further substantiated by the observation that there are two pierced round openings in the wall, situated lower than the present interior ground level, but manifestly intended once for small-caliber short-range artillery. The original level behind the wall, in order to make these usable, must have been considerably lower than the surviving parapet would indicate.

The high-lying bastion, in which the wall ends (Fig. 103, *3, 3*), is carefully constructed of regular poros blocks, well hewn and sharp, mixed with occasional brick. The scaffold holes are regularly formed and spaced. The markedly pink mortar, containing brown grit, compactly fills the joints and adds to the general air of careful workmanship. The main feature of the bastion is a solid platform to which cannon could be dragged up a paved ramp to an embrasure of a shape unique on Acrocorinth (Fig. 105). As may be seen from the plan and the cross-section, it is calculated for both a very wide and very deep angle of fire, the former in order to sweep the opposing slope as far as Penteskuphi, the latter in order to enfilade the southern arm of the moat immediately beneath it. Adjoining this gun platform there is a hollow portion of the

FIGURE 106. FIRST AND SECOND LINES OF DEFENCE, SEEN FROM WITHIN

FIGURE 107. NORTH BASTION AND HOLLOW TOWER, FIRST LINE

bastion, intended for munitions, and probably covered by a wooden ceiling giving access to the running parapet with its musketry loopholes, which once crowned the bastion.

To return to the First Gate once more and follow the wall in the other direction, the First Line of defence runs north and then northwest on a much gentler slope without much sign of cliff or rock. After a somewhat longer course, it also ends in a bastion, the careful construction of which in sharply cut, well-fitted poros blocks recalls the south bastion just described and like it enfilades an arm of the moat below. The tower-like bastion (Fig. 107, left) is well preserved and presents some unusual features. On the exterior, above a slight batter, the solid lower story terminates with a half-round molding marking the floor-level of the interior. Above, the even more regularly built second story

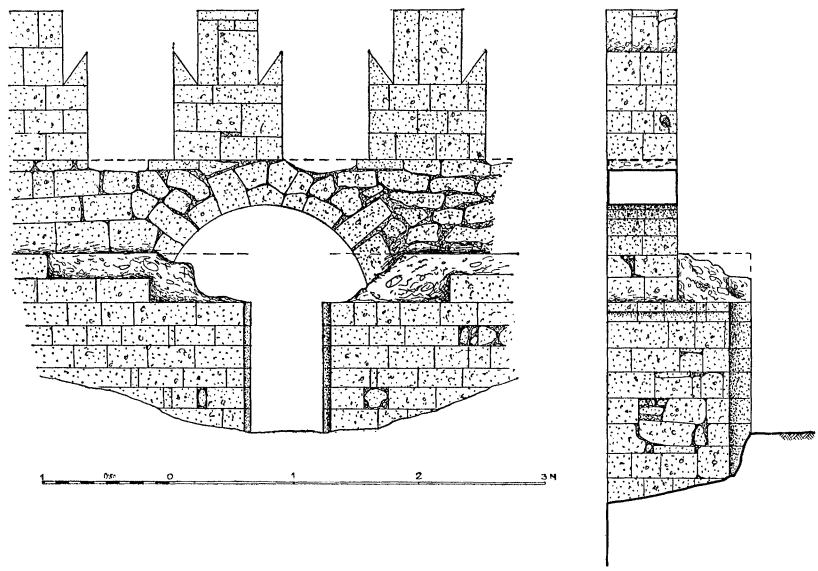

FIGURE 108. NORTH BASTION OF FIRST LINE: INNER FACE OF MAIN PARAPET

is pierced by an arched embrasure for cannon and crowned by battlements of striking design (restored in Fig. 108). Three false cannon of stone are built into the wall for further ornament. The northwest face of the bastion is less regular in construction than the main façade just described and the half-round stops short under the next to the last crenellation; yet its termination marks no change in the general fabric which, except for the more carefully assembled parapet with its six merlons of simple profile (Fig. 109), seems to be all of one piece. There are loopholes at the interior floor-level. The opposite, or southeast, face of the bastion, marking the projection from the main curtain, is only long enough to carry a battlement of two merlons; but these are not both of the same type, and crown two distinct phases of wall structure, distinguishable by a dividing line which can be traced down to the point at which the returning half-round molding ends. The portion which includes the south angle of the "tower" exactly agrees in masonry style with the main façade, while the other part, which abuts on the main curtain, is much

more crudely put together of blocks of unequal size, mixed poros and limestone in a less solid mortar (Fig. 110). The bastion consequently gives the impression of an addition attached to an older projection of the wall.

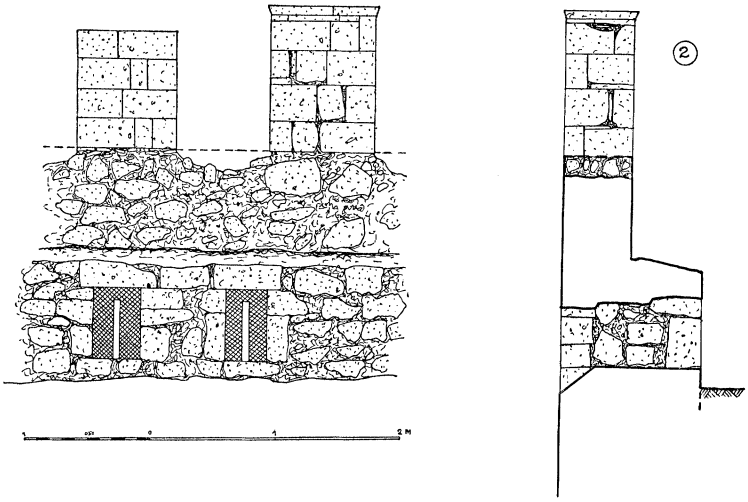

FIGURE 109. NORTH BASTION OF FIRST LINE: INNER FACE OF NORTHWEST PARAPET [1]

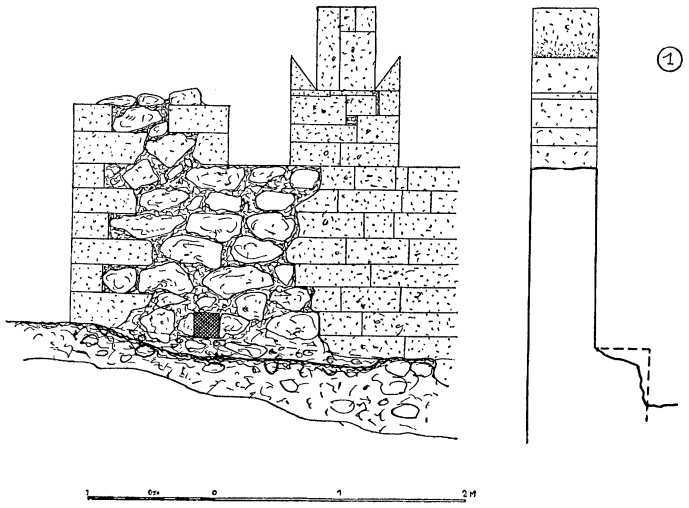

FIGURE 110. SAME: INNER FACE OF SOUTHEAST PARAPET [1]

If we retrace this wall back up the slope toward the First Gate, we shall find first a stretch of some 40 metres of uniformly ragged construction, forming a fairly straight line, but interrupted near the middle by a projecting hollow tower (Fig. 103, *4*, *4*; Fig. 107,

[1] The numbers within a circle refer to the corresponding details on PLATE VIII showing the various types of crenellations occurring in the fortification.

right). The materials are extremely miscellaneous,—of varying shapes and sizes, poros, limestone, even marble, helped out with broken brick. The lower courses include some larger blocks and, at one point, several courses of heavy brick set in a pink mortar containing brown grit. The tower, almost equally disorganised, naturally exhibits a more careful working of its quoins. Besides being hollow, it interrupts the rampart (Fig. 106). Its walls are thin relatively to their height of roughly 7 metres, being only 1.60 metres thick at the base and with this width still more diminished in the superstructure by two setbacks to carry floor timbers. The exterior shows a bull's-eye near the bottom, like the pair of circular piercings in the wall to the south of the gate; and there are two more in the wall, one on either side of the tower. The parapet was not crenellated but merely

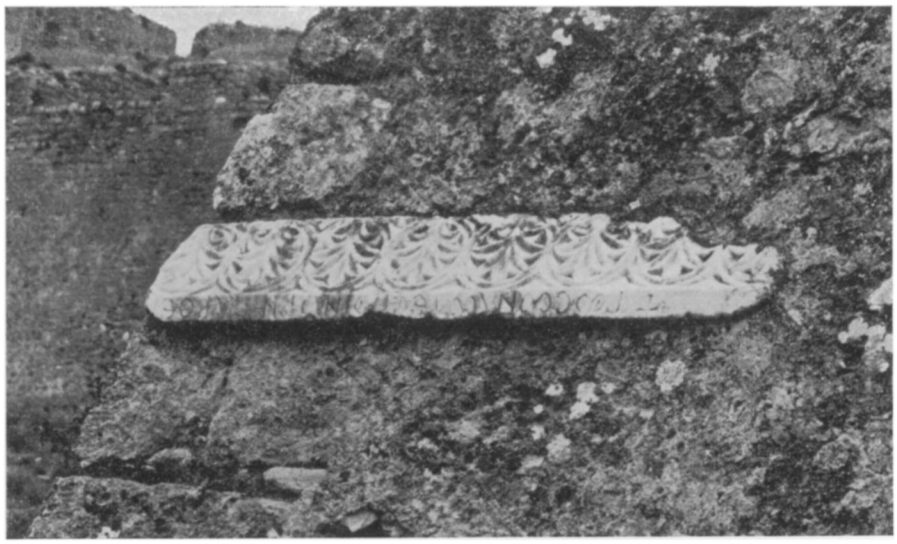

FIGURE 111. INSCRIPTION EMBEDDED IN TERRACE BASTION OF FIRST LINE

pierced with loopholes irregularly spaced. On the exterior the only mortar visible is the familiar one containing brown grit; but a breach near the north bastion reveals in the interior of the wall a whiter mortar with a more miscellaneous aggregate, while in another break occurring farther south in the parapet the mortar contains large round light-colored pebbles.

Between this stretch of wall and the gate the outline is complicated by a bastion-like projection, bounded nowadays by two huge breaches where most of the wall has collapsed (Fig. 103, *5*, *5*). This structure served the double purpose of flanking the wall and enlarging the triangular terrace platform behind the gate. It is built of small material without brick, embedded in a copious but not very strong brown-stone mortar, and includes wooden tie-beams which are concealed on the exterior by a course of small flat stones. The whole appearance suggests a recent repair. The base batters heavily and seems more substantial. Conspicuously built into it upside down there is a Byzantine marble

cornice[1] (Fig. 111) bearing the inscription: + ΤΩCΩΝΑΩΔЄCΠΟΙΝΑΑΓΝΗΠΑΡΘЄΝ . . . This must be portion of the dedication of a chapel to the Virgin, commencing, *Τῷ σῷ νάῳ, Δέσποινα ἁγνὴ παρθέν*[ε].

Such is the general arrangement and character of the outermost line of defence of Acrocorinth. The obvious complexity of materials and construction implies at least two clearly distinct periods. Thus the north bastion and the hollow tower cannot be contemporary. Even without essaying the difficult subject of dates and periods, it is immediately apparent that the bastion is characteristically Venetian[2] with its tell-tale half-round molding and its poros ashlar blocks, toolmarked, sharp-edged, closely and well set. The combination of moat and terminal bastions may therefore be attributed to the Venetians and dated about the year 1700. We are entitled to conclude that the Venetians made use of a mortar in which they mixed minutely broken brown stone, such as for convenience we shall hereafter call brown grit. On the other hand, the entire line of wall between the two end bastions (subsequent repair apart) must be pre-Venetian, since the bastions presuppose the wall and not *vice versa*. Yet we can hardly push the construction of the gate as far back as the Byzantine period or even the thirteenth century. Hence it dates from the time of the Turkish invasions, especially since such an ascription admirably suits the hollow tower, parallels for which from the thirteenth to the fifteenth centuries may be found at Karytaina, Geraki, and Mistra. The wall must have suffered seriously from the Turkish assault in 1458 and again in 1715; hence the extensive repairs.

Near the gate and behind the wall there is a small single-storied structure (Fig. 112, lower left corner) of two rooms with a fireplace, showing a small exterior cornice at the eaves. This is presumably a guard-house of relatively recent date.

3. The Second Line of Defence

Beyond the guard-house the passage contracts from a relatively broad triangular space to a narrow paved ascent protected by a retaining wall and parapet with loopholes on one side and rough ground rapidly giving place to almost sheer cliff on the other (Fig. 112). The retaining wall is of very indifferent construction with ill-hewn blocks and crumbling mortar of varying fabric. Two relieving arches with slightly pointed heads adjoin one another at the foot of the wall (Fig. 113) and, as is natural, exhibit more careful workmanship. Farther to the right in the same photograph may be seen an opening covered by two tilted slabs, presumably for drainage. To the left (beneath the white patch) just before the great tower there is a small opening flush with the ground. This gives access to a large chamber underneath the ramp of the gateway, lighted only by this

[1] White marble; length, 0.89 m.; height, 0.155 m.; height of letters of the inscription, 0.025 m.

[2] Compare, e.g., the Venetian fortifications of Crete illustrated in Gerola, *Monumenti Veneti di Creta*, I^1, figs. 71–73, etc. In the Peloponnese identical details may be found in the forts at Nauplia, Coron, Modon, and in the Venetian portions of the forts at Calamata, Navarino, and Patras.

FIGURE 112. THE SECOND LINE, WITH PART OF THIRD LINE ABOVE
(In the foreground, the paved ramp to the Second Gate)

entrance and the tiny narrow loophole discernible at the top of the same patch of masonry. From this chamber beneath the ramp there leads a passage which broadens out underneath the gateway into a second and very irregularly shaped chamber, whence a steep narrow stair leads up to the higher ground level behind the gate. In the three-level plan in PLATE VI this subterranean system appears in red.

The paved ascent or ramp to the second gate, well shown in figure 112, offers only one other noteworthy detail, a square pier, chamfered below, pyramidal above, built against

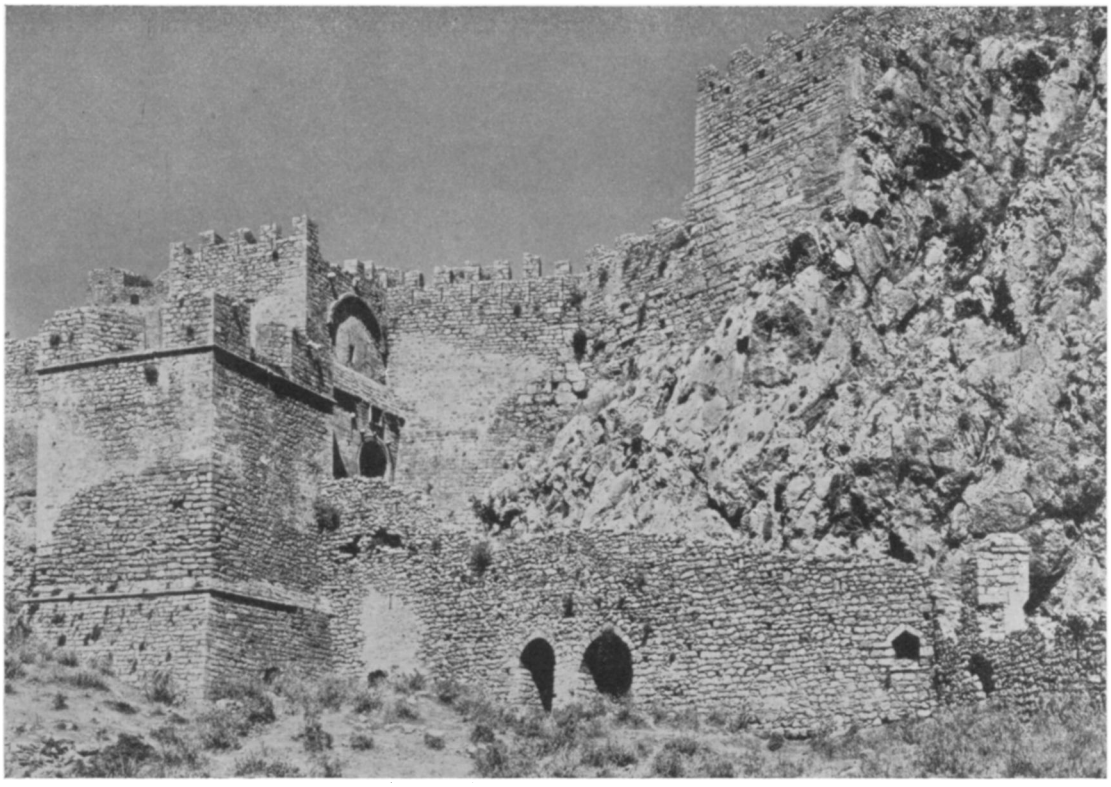

FIGURE 113. GROUP OF CONSTRUCTIONS AT SECOND GATE

the parapet near the point where it changes direction. Its use—for lantern or standard or mere ornament—remains obscure; yet it is perhaps important to note that it was carefully built, even while forming an integral and contemporary part of the poorly constructed retaining wall. This is by no means a unique instance on Acrocorinth of the combination of various masonry styles in work which must be assigned to a single period.

The SECOND GATE is an imposing and important complex, adjoined on north and south by powerful walls which tie the Second to the Third Line of defence to enclose a huge space of open terrain (approximately 10,000 sq. m.). We have already indicated the only approach to the gate, the paved ramp some 5–6 metres wide with steep wall-crowned cliffs on the right and a great square tower flanking it on the left (Fig. 113).

The façade (Fig. 242 on p. 281) is in two distinct stories agreeing neither in style nor period. Below, a wall in good poros ashlar is pierced by a round-arched doorway framed with a double molding and topped by the projecting mouths of two false cannon of stone, a broken ornament above the keystone, and above this an empty rectangular niche also framed by a molding and intended for an ornamental plaque or relief now missing. A large marble cannon-ball is embedded in the wall to the left of the niche. A string-course cornice runs across the façade at the top of the niche and this marks the beginning of a sharply retreating batter in seven courses of the same careful ashlar, tying the lower story back to the much less finely built superstructure, the irregular stones of which are

FIGURE 114. SECOND GATE, SEEN FROM THE REAR

largely hidden beneath a heavy coat of mortar. This upper story shows a tiny rectangular window with a narrow loophole left and right, above which projects a sprawling and much deformed blind arch, topped by decorations of false cannon and a sort of crude protome.

We have thus far described only the exterior front of the second gateway, so conspicuous a feature in most photographic illustrations of the west ascent to Acrocorinth. The structure behind this façade is much less easily grasped, and only a careful study of the plan and cross-section of its four levels (PLATES VI and VII) will make its arrangement intelligible. Beneath the battlemented crowning platform lies an upper story consisting of a single room, roughly square and encased in heavy walls from 1 to more than 4 metres thick (shown in black in the upper centre of PLATE VI). This chamber or guard-room is lighted by the small rectangular window already noted in the south façade and

a somewhat larger one through the opposite wall (Fig. 114, at the right), and is entered from the higher ground-level to the east (Fig. 114, centre) or from the top of the great square tower to the west (Fig. 112) through small doors crowned with flat lintels made of re-used Byzantine columns. The doorway in the enormously thick east wall is continued by a broader passage under a corbel vault[1] (cf. Fig. 114). The interior is covered with modern stucco; but wherever we can penetrate beneath this to the original wall surface, both here and in the main passage through the gate below, we encounter a mortar not

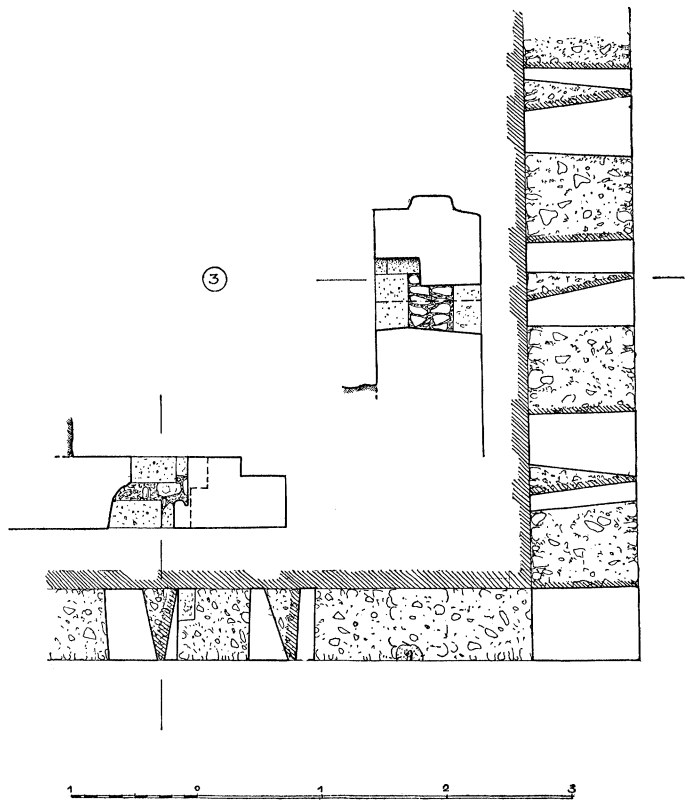

FIGURE 115. PARAPET CROWNING PLATFORM OF SECOND GATE

hitherto described. It has a strong and very white fabric containing very miscellaneous matter, notably pale blue or clear round pebbles, occasional chips and splinters of marble. On the crowning platform overhead, the high battlements with their narrow embrasures between plain merlons pierced with steeply pitched round-headed loopholes (Figs. 114, 115; PLATE VIII, 3) do not employ this type of mortar, but resemble the lower story of the exterior façade in the use of well-squared ashlar and a mortar containing brown grit. We are entitled to conclude that an earlier construction still survives in this square two-

[1] The cover-stone was wantonly dislodged in June, 1932. Though a national monument, the mountain top is difficult to protect from such vandalism.

storied tower gateway, but that it has been reconditioned, refaced, and crowned with battlements. On technical grounds—the mortar, the well-hewn and well-fitted poros ashlar characteristically dressed with toolmarks still apparent, the false cannon of stone—this reconstruction may be legitimately ascribed to the Venetians, whose emblem, the lion of St. Mark, must once have occupied the empty niche hard above the entrance-way. In the covered passage which constitutes the ground floor of the structure, in addition to the half dozen huge ancient wall-blocks still in place and as many more re-used blocks in the base of the passage wall, we shall find that the small and well-cut poros blocks in the side walls and the overhead vault differ from the Venetian in having no *bretture* or marks of the dressing-tool. On the inner face of the gate the arch of the vault is repeated in large tile, 0.025—0.030 metres thick; and this same material is freely used in the horizontal courses. There can be no question that the whole construction is technically very good and must derive from a period of considerable architectural activity and ability.

Beyond the inner opening of the vaulted passage-way a narrow opening in the ground, not always noticed by the modern visitor, gives access to a steep stairway, now lacking its lower steps, leading down to the series of vaulted semi-subterranean chambers already mentioned (PLATE VII). The first or higher room is wedge-shaped and its barrel-vault accordingly is built with sloping crown. A portion of the vault undermines the ancient classical polygonal wall, the lowest blocks of which lie nearly 5 metres overhead. A narrower passage, also wedge-shaped but opening in the other direction as it descends, leads to a second chamber of very irregular plan, abutting on one side against the native rock of the hillside and opening on the other through the tiny sally-port upon the much lower slope of ground below the gateway ramp and the great square tower (Figs. 112, 113). There was thus a direct communication through the Second Line of defence without passing through its gate. The date of this construction is impossible to determine on archaeological grounds, since it need not antedate the gateway beneath which it passes. But on historical grounds we may claim that such a device for allowing the defenders of an outer line of wall to retreat safely within an inner line without opening the main gate and thereby jeopardising the entire citadel in case of a close pursuit by the invader,—this whole conception is characteristic of West European military architecture of the thirteenth century.[1] We should assume it to be "Frankish" (using the term broadly), much earlier than the Venetian occupation, and more or less synchronous with the establishment of an outer system of defence beyond it.

The great square FLANKING TOWER on the west of the gate remains to be described. This stands on a pyramidal base or talus, with sides battering from 12.50 metres to 10.50 metres and terminating with a string-course of characteristic Venetian profile. A large relieving arch enlivens the base of the south side (Fig. 113). Above this talus the main mass of the tower, solid within, rises in 36 more courses of poros, amid which

[1] Enlart, *Manuel d'archéologie française*, 2e éd., 2e Partie, II, p. 537.

appear considerable brick and some Byzantine marble. A second and identical string-course molding marks the level of the crowning platform, which is surrounded by a thick parapet pierced by two cannon embrasures and six loopholes and decorated with projecting false cannon. These details are all unmistakably Venetian.[1]

But this tower, Venetian and therefore dating from the close of the seventeenth century, replaces an earlier one, the surviving traces of which show that it was very considerably larger, at least in area. In figure 112, to the left of the extant tower, a terrace-like foundation is plainly visible. Its length of 12.80 metres is unappreciably more than that of the Venetian structure; but its greater projection is very apparent. To the north the foundations may be traced for 8.80 metres out from the great wall; and through almost the whole height of this wall may be seen the scar where the earlier tower has been torn away. This demolished north wall of the tower was 2.60 metres thick at the base, battered slightly on the exterior, was built of large poros blocks with occasional tile, and was bound with a tenacious rose-red mortar of mixed content. The section of main wall extending between the north wall of the earlier and that of the Venetian tower should have served as part of the east wall of the early tower (which was hollow); it is therefore significant that this particular section of wall, underneath the more recent surface mortar, is of identical composition with the pre-Venetian elements in the gateway, with which it should therefore be contemporary. The presence of a Venetian parapet with two large loopholes atop of this portion of wall obviously does not invalidate this dating, especially as the whole wall-top is patently of different period. From the historical records it would seem that it was here that the breach in the second line of defence, mentioned by Dioecetes,[2] occurred during the Turkish siege of 1458. We shall be safe in dating the earlier tower before the fifteenth century.

The adjoining wall (Fig. 112) is a magnificent and conspicuous stretch of unbroken homogeneous masonry which swings to the north in a gently concave arc for more than 50 metres. Its function is that of a retaining wall to the vast and heavy mass of soil behind it, the level of which is 8.50 metres higher than the outside ground at the foot of the wall. The material is poros of uniform size with some small admixture of brick and marble. There are a few drainage holes low in the wall near the southern end; but there are no scaffold holes, and the absence of these argues against a late date of construction. The exterior is lightly coated with a reddish mortar containing small brown stone and admirably preserved; cannon balls have only grazed, not broken it. If we neglect the

[1] In consequence it is tempting to connect it with the first *proveditore*, Giacomo Corner, and his observation that a tower and further construction were necessary for the undefended gateway (cf. *supra*, p. 150). Although the vague and inaccurate terms of his report could be applied to the First Gate, we prefer to think that the reference is actually to the Second Gate, which had also suffered severely in the Turkish assault of 1458.

[2] The greater size of the earlier tower lends more point to the remark of Dioecetes, p. 121, that the assailant was dominated left and right by the defenders of the second gate. The Venetian addition of a façade to the gateway further reduced the projection of the flanking tower.

cannon embrasures which crown it, this wall is not Venetian in type and hence must be earlier; yet it is later than the original Second Gate with its now vanished flanking tower, since these show a different mortar and admit fragments of tile. But the juncture and limits of the two structures are no longer discernible and it is impossible to discover how the original gate and tower were continued toward the north.

The extant wall-crown (Fig. 106, left foreground) is an obvious reconditioning in typical Venetian manner, producing a powerful artillery platform whose five cannon embrasures are the deepest to be found on Acrocorinth. Behind each is a paved gun-emplacement, protected at the rear by a rather poorly built retaining wall beneath the sloping hillside, which leaves the guns as though within a trench (Fig. 117, lower left). The embrasures have relatively wide mouths, with a slight batter spreading them still more at the top, and converge upon Penteskuphi. Throughout, the familiar mortar with brown grit is visible. On the platform there still lies a broken Venetian cannon, bearing the legend "TW 29–2–7" and the date "MDCLXXXV."

From the northern end of the artillery platform a thin and weakly built screen runs back to the northwest bastion of the innermost line of defence (Fig. 117, left). Because of its position topping a steep fall of rock, it was adequate against attack; and it helped to hold back the terrain above. A few remnants of a running parapet pierced with loopholes are still preserved.

This is the appropriate point to mention a minute outwork lying among the rocks immediately below the spot which we have reached (cf. the Survey, at 20 metres northwest of the bastion at Point 12 of the Key). Its apparent function is to seal the one easy passage by which an invader could have slipped inside the outermost line of wall, which otherwise relies wholly on the natural steepness of the northwest cliffs to close the return from the last (Venetian) bastion of the First Line to the main north circuit wall. This outwork (Fig. 116; also visible in the left background of figure 112) consists of a short ascending wall abutting against a rectangular half-tower built into the cliff. The large rectangular blocks at the lower end of the wall, with smaller blocks in the higher courses, the interpolated tile, the strong mortar containing round white pebbles and fragments of brick and marble, all identify it as a construction contemporary with the pre-Venetian phase of the Second Gate. The base of the south corner of the half-tower consists of a large block of poros and several long Byzantine window mullions of marble,—an indication that its construction should fall in a period when the Byzantine monuments were in recent ruin. We may choose between the period of the tenth–eleventh centuries just after the Slavic invasions and a slightly later time at the close of the mid-Byzantine renaissance. Granted the excellent quality of mortar and the isolation of position, the wellnigh perfect state of preservation does not militate against so early a date. The original purpose must then have been to prevent a surprise attack on the Second Gate or its wall by an enemy slipping in unseen to its base. Later, it simplified the problem of an outermost line of defence by closing its only natural gap at the north.

Returning to the Second Gate, we shall now trace the SECOND WALL southward, where it dominates the approach to the gate with battlements some forty feet sheer above the invader (PLATE VII, Fig. 242 on p. 281) and thence turns uphill at right angles, forming a bastion-like corner, to ascend steeply through bed-rock to the Third Line of defence. The first portion of this wall, close to the gate (Fig. 242), is important for our chronological study. At the base, a scarp of well-cut and well-laid poros, identical with the adjoining Venetian façade of the gate, masks an earlier state behind. At the top, the battlements with steeply pitched, narrow loopholes continue the Venetian treatment atop of the gate. But at mid

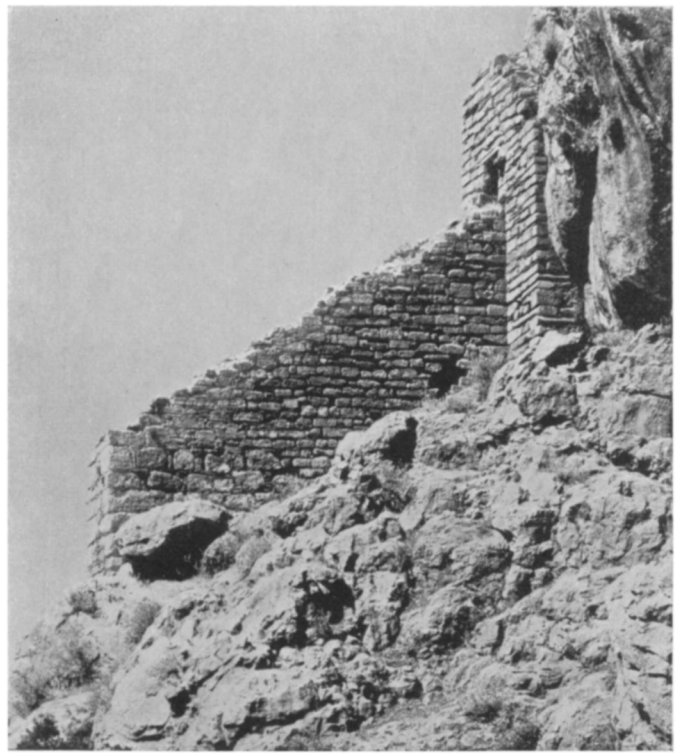

FIGURE 116. OUTWORK NORTH OF SECOND LINE

height, at some distance from the gate, the older wall comes to the surface (Fig. 113) with large blocks of poros and marble re-used from classical times and smaller new blocks set alternately with heavy tile, producing a wholly different aspect, not unlike the half-tower of the small north outwork just described. The entire corner bastion is in this technique, though the effect is sometimes disguised by a subsequent coat of "Venetian" brown-grit mortar. And here the battlements are integral with the rest of the masonry and display a type quite other than the Venetian, with broader merlons (0.85 metres) more widely spaced (0.75–0.80 metres), (PLATE VIII, *4*). Instead of loopholes there are three square holes (0.30 metres) in the main face, for hurling missiles down on the invader (visible in Fig. 113, upper right).

The steep curtain wall which ascends from this bastion to the Third Line of defence (at height 450 m. of the Survey) varies greatly in thickness and height with the nature of the slope. It is of poor quality, of very small stones, scarcely hewn, and set in a weak brown-grit mortar. The top has crumbled so badly that it is no longer possible to determine the type of its parapet, save that it seems to have been double, facing both out and in, and hence ranking as a projecting spur of the Third Line as well as an integral element of the Second. The direction in which the defenders on top of the wall were to face would thus depend on whether the enemy had penetrated within or were still outside the Second Gate.

We have herewith completed our description of the SECOND LINE OF DEFENCE and have found that various types of masonry, probably distinctive of various periods, may be distinguished:

(1) directly contiguous to classical remains, a use of large poros blocks with conspicuous flat tile in strong mortar of variable content,—the main structure of the gateway, the foundations of the ruined flanking tower, and the south corner bastion, including its battlements;

(2) less regular masonry, with small broken brick and pink mortar,—the great wall beneath the artillery platform;

(3) work of characteristic Venetian type, with marks of the dressing-tool on the carefully hewn blocks, decorative string-course molding, narrow merlons with loopholes, large gun-emplacements, mortar containing fragments of brown stone,—the extant tower beside the gate, the façade applied to the lower story of the gateway building, all the wall-crown with its parapet except on the south bastion, most of the end walls tying the Second to the Third Line. This type of construction must date from about 1700, while Type (1), although it is nowhere marked by embedded Byzantine fragments, is almost certainly Byzantine of the tenth–eleventh centuries, like the little Outwork Screen. As for the second type, it must obviously be intermediate; but it has not yet afforded any more precise clue to its date.

4. THE THIRD LINE OF DEFENCE

The innermost wall, extremely imposing with its towers and bastions, forms the curved bow to which the Second Line is the bowstring. The horns of the bow are marked by powerful bastions, situated at 5 and 12 of the Key Plan,[1] while the curve of the bow is studded with four towers, the central pair flanking the gate which alone allows passage into the hilltop citadel from the west side of the mountain. The extensive remains of classical masonry add to the suggestion of strength; and the relatively recent repairs have

[1] PLATE I, to which throughout our text all such numerals refer.

FIGURE 117. THE THIRD LINE, SEEN FROM HIGHER GROUND TO THE SOUTH

spread a coat of mortar sufficiently extensive to unify the whole effect. Figure 117 will give a stereoscopic impression, to make more vivid the details of the Survey's general plan. In addition, like a tassel or ribbon to the bow, there runs a long straggling line of thin wall from the tip of the southern horn, following a sloping band through the southwest cliffs of the mountain (Fig. 103, from *8, 8* to *9, 9*) and ending upon a tiny plateau or eyrie (Height 434 of the Survey) perched straight and sheer above the bridge, moat, and south bastion of the outermost line of defence.[1] Here there is a cannon-platform with its

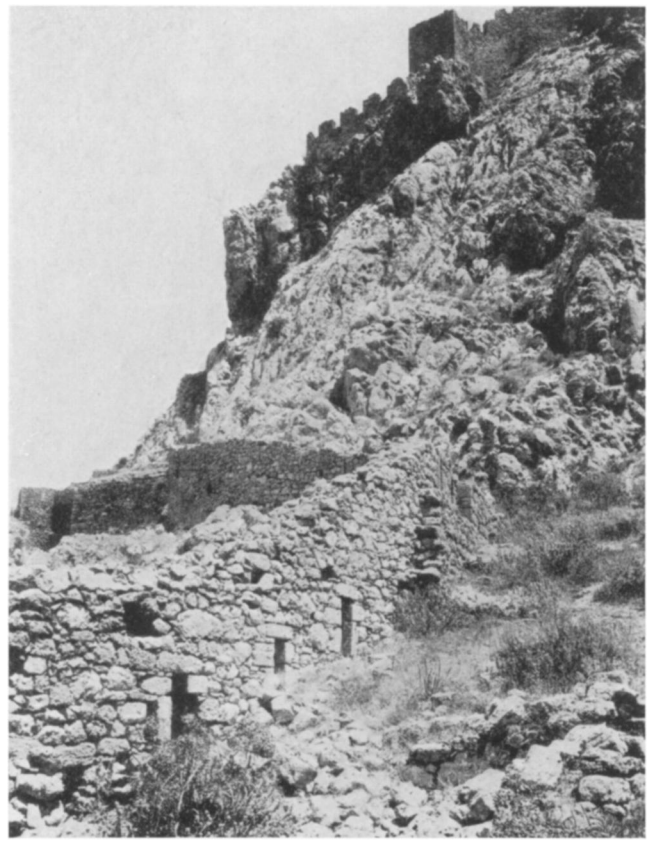

FIGURE 118. THIRD LINE: WEST EXTENSION, NEAR 4

embrasure oriented on the nearby hilltop west of the moat. The most plausible explanation of this curious "balcony" outpost is not the need to overlook the bridge and moat or to bombard its approaches, but the simple observation that the ancient classical circuit wall ran here; so that it was obvious and natural to follow its lead and utilise its still surviving socle of large and finely fitted limestone blocks even though the altered course of the great circuit wall (which in medieval times cut straight down the steep slope from the redout on the southwest peak to the sheer cliff above the Third Line,—cf. Fig. 103, upper

[1] Designated "*posto avanzato sopra la prima porta*" on the Venetian sketch reproduced in figure 99 ("L").

right, and Fig. 118) [1] made this particular stretch illogical and superfluous. This explanation is supported by the further observation that the portions of the wall which rest directly on the ancient base are themselves built in a very early technique with small bricks consistently mingled with the poros blocks, and that the wall as a whole shows that it has endured through many periods, each of which has made some contribution in mortar

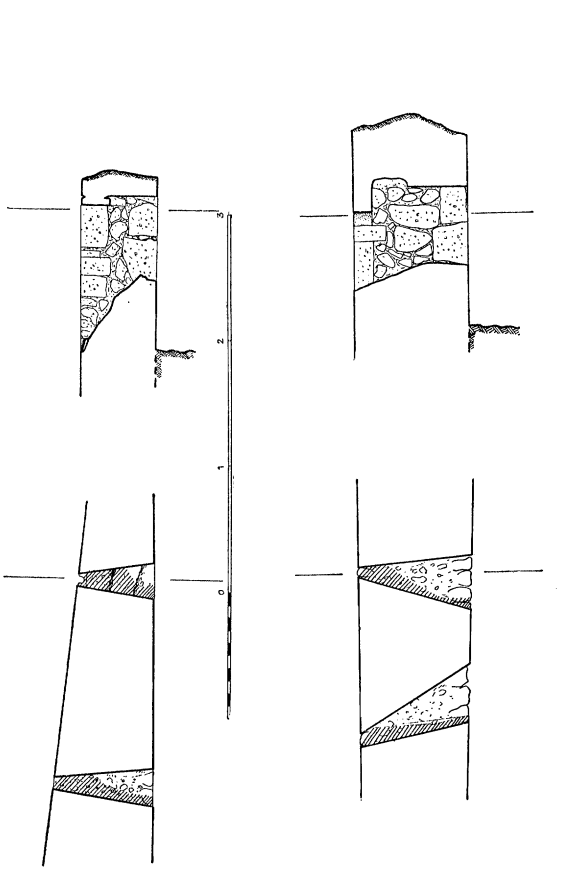

FIGURE 119. LOOPHOLES IN PARAPET OF "BALCONY"

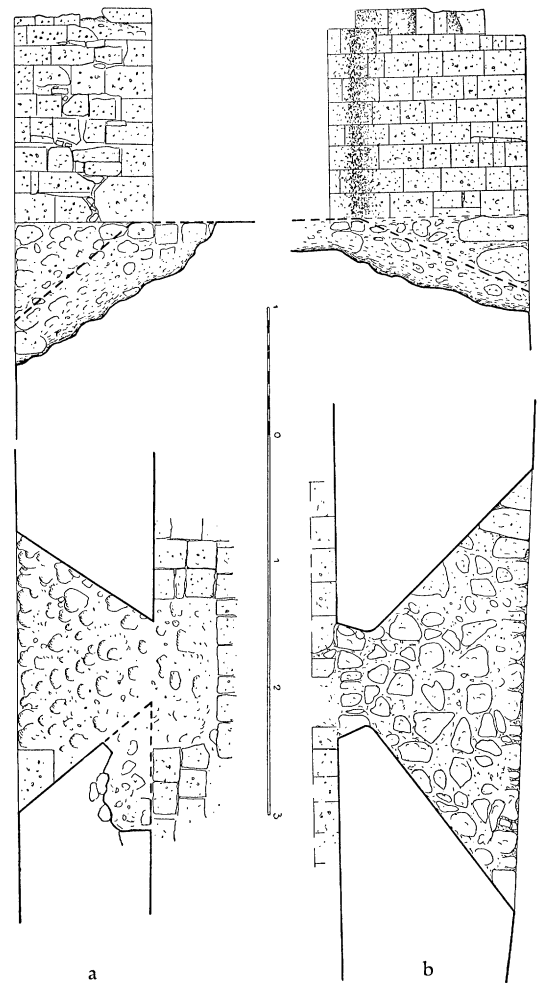

FIGURE 120. CANNON EMBRASURES IN PARAPET OF "BALCONY"

or repairs. In its final state the "balcony" (Fig. 118) was merely an uncrenellated parapet with steeply pitched loopholes (Fig. 119). At two places a thickening of the wall supports

[1] A curious pretence at closing the circuit may be observed in the existence of a low barrier, pierced by a doorway, which shuts off the "balcony" from the rest of the defenses. It occurs just where the main circuit wall might be imagined to resume again after a giddy leap down the cliff, which it thus ties to the Third Line of the west defenses. The doorway to the "balcony" is 1.10 m. wide and covered by a poros arch adorned with a rosette in relief.

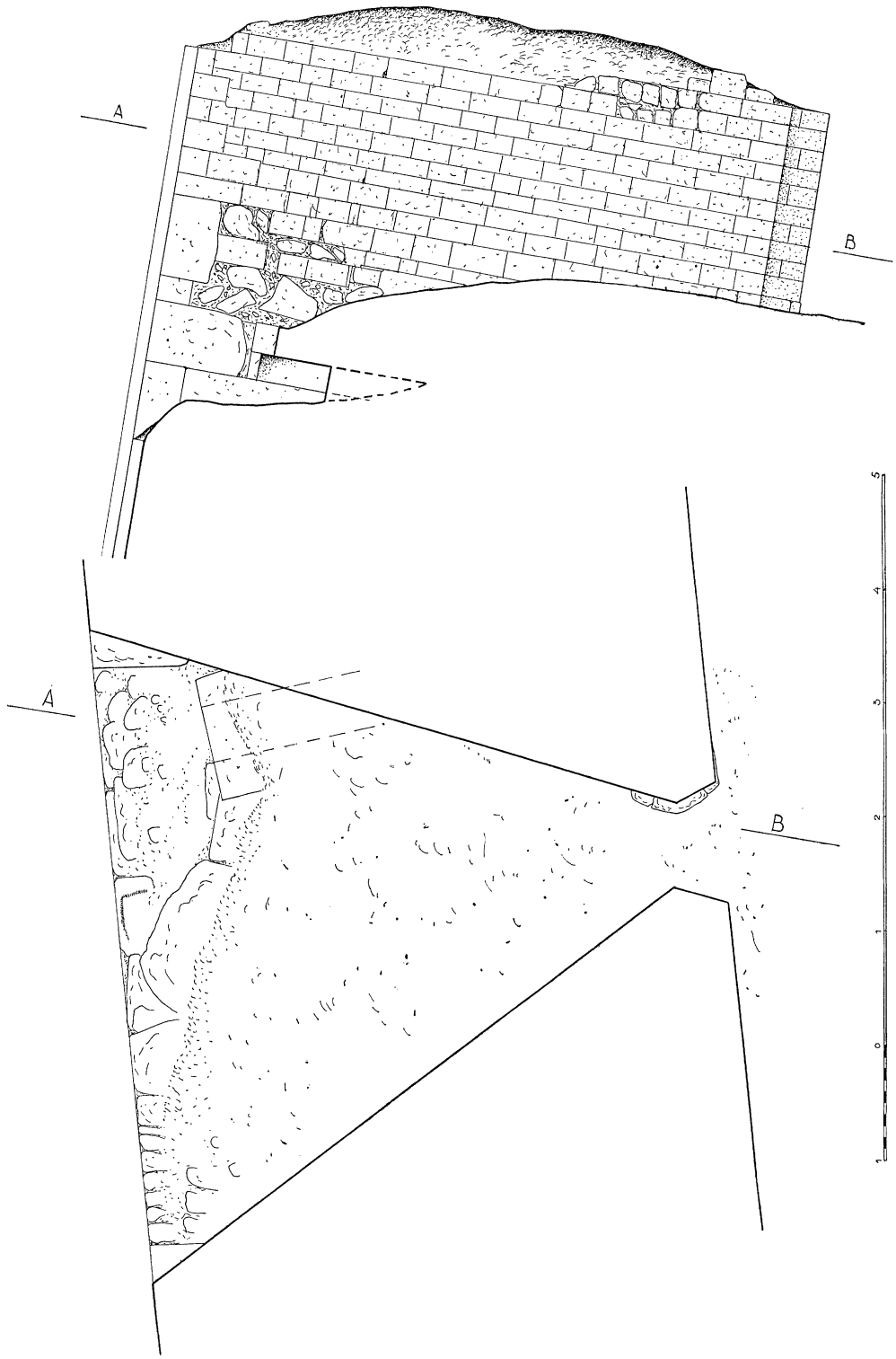

FIGURE 121. CANNON EMBRASURES, SOUTH BASTION OF THIRD LINE

a cannon embrasure, oriented to flank the second wall (Fig. 120 a). A final embrasure close to the bastion at 5 is oriented toward the west and constructed much more carefully than the other two, with which it agrees only in its steep angle of fire, due to its high perch on sheer rock (Fig. 120 b).

More careful description is due the main part of the Third Line of defence, which closes the great curvilinear and roughly rectangular area to which the Second Line forms the western side. We distinguish the main arc of the "bow" (nearly 170 metres long, made up of broken lines approximating the arc of a circle whose centre would fall close to the north bastion of the outermost line of defence) and the lateral walls which run out to the tips or horns of the bow, ending in powerful bastions. We shall begin with the bastion at the southern end.

The base of this SOUTH BASTION, at Point 5 of the Key-plan, is entirely ancient and carries medieval masonry of large blocks of re-used poros surmounted by smaller material bonded in brown-grit mortar. A huge embrasure (Fig. 121), nearly 5 metres deep, opens toward the west. A square cutting in its floor, which penetrates horizontally into the wall, is a survival of the ancient construction. On the south the bastion is backed by a second smaller embrasure and cannon emplacement (Fig. 122); but here there are no traces of the classical condition, the whole construction being an integral part of the long "balcony" already described.

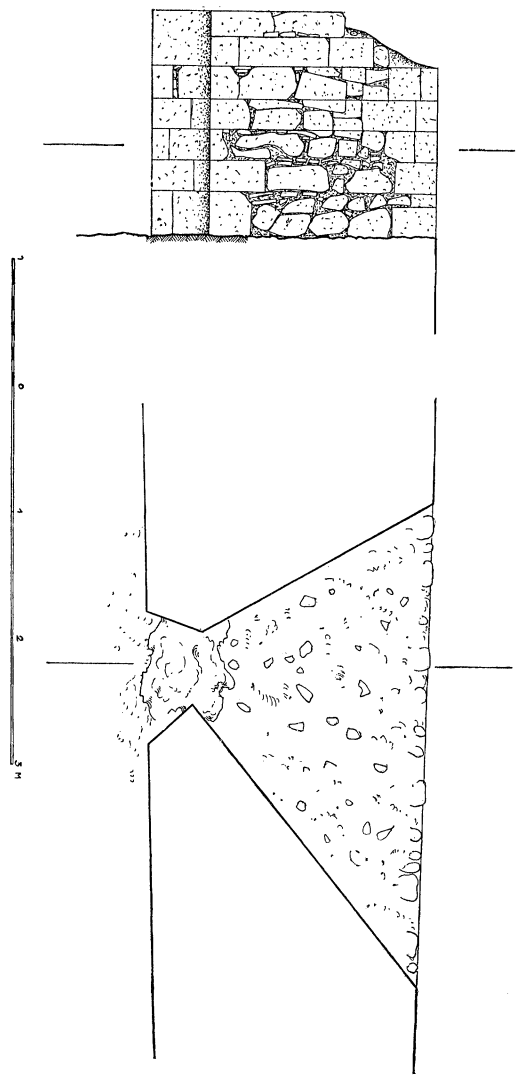

FIGURE 122. CANNON EMBRASURES, SOUTH OF THE SOUTH BASTION, THIRD LINE

To the east, where the great ancient blocks were no longer founded on bed-rock and hence have not survived, there is a long and almost perfectly straight stretch of the SOUTH LATERAL WALL 5–6, the uniform appearance of which is largely due to the numerous square scaffold holes disposed at fairly even intervals and the consistent coloring imparted by the grey lichen which is very apt on Acrocorinth to cover walls with a north exposure. Yet this impression will survive closer scrutiny of the construction, with its well-set courses of poros levelled by inserting flat tile,—though the regularity is perhaps rather less marked toward the eastern end. A mortar

of reddish fabric containing brown grit covers the wall so effectively that it is impossible to discover whether it is also the bonding material used within. At the base there are signs of frequent repair, a consequence of the crumbling layer of hornblende in which it is bedded. The crown shows two distinct periods of construction:

(1) The western half is remarkable for its three cannon embrasures. Their unique profile (Fig. 123) is due to the violent batter of their lateral walls. These are built of weathered poros with small bits of brick and stone; the mortar is grey and contains brown stone fragments. As these emplacements were calculated to flank the whole arc of the Third Wall, they demanded a range up to 140 metres; but the absence of a paved platform

FIGURE 123. CANNON EMBRASURE, SOUTH LATERAL WALL OF THIRD LINE

behind two of them shows that the artillery employed could not have been very heavy. We conclude that these unique constructions are the oldest cannon emplacements on Acrocorinth.

(2) The eastern half of the same stretch of wall (visible in the centre background of figure 146) bears a rampart behind a parapet of familiar type, such as occurs above the Second Gate, with narrow embrasures (0.70–0.78 metres) between merlons which are pierced by loopholes framed by poros blocks neatly set amid coarser masonry (Fig. 124). Though the mortar is much the same, only small pieces of brick occur instead of the large tile used in the lower part of the wall. We conclude that this rampart, like the crown of the South Bastion nearby, is Venetian work, whereas the cannon embrasures adjoining it on the west are older; and the main mass of the wall, in spite of its surface mortar, is likewise considerably older than the end of the seventeenth century.

At the end of this stretch of wall, in the angle which it makes with the main arc of the Third Line, at 6, there once stood a large square hollow tower, aligned on the bisector of the angle; for one may still remark the beginning of the walls 1.70 metres thick, containing large hewn blocks and tile, as well as the cutting in the rock for an interior vaulted room once entered through a still surviving but now meaningless little door with a marble column for lintel. The Venetian reconstruction ignored this older element of defence.

The long MAIN ARC of the Third Wall with its four great projecting towers is thoroughly unhomogeneous. The most irregular masonry occurs almost always at the

FIGURE 124. PARAPET AT EAST END OF SOUTH LATERAL WALL, THIRD LINE

very base in patches of small and highly miscellaneous material,—poros, limestone, brick; but these are merely repairs where more substantial elements have collapsed or fallen out. It may at first sight seem strange that the base should disappear and its superstructure endure; but where the wall is not bedded in native rock it is precisely at the base that the forces of erosion do their greatest damage. The lateness of these repairs is indicated by the brown-grit mortar in which they are laid: elsewhere the mortar is generally much whiter and contains a mixture of ingredients, such as river pebbles of various colors, splinters of marble, and chips of brick. Where it has not been patched, the base of the wall is at many points remarkable for the amount of imbedded Byzantine fragments of columns, pilasters, mullions, etc.; and this is a sure proof that the whole original construction cannot antedate the Slav invasions, during which the Byzantine monuments were destroyed, but also a reasonably certain indication that its period is pre-Frankish.

The SOUTH TOWER, at 7, appears in the lower right foreground of figure 117 and at the extreme right of figure 6. Although one cannot at present enter it, so great is the accumulated débris, it is evident that it was not solid but contained two barrel-vaulted rooms separated by a partition parallel to the main façade. Like the other towers of the Third Wall, it was defended by cannon on its façade and by a parapet on the two sides, where narrow embrasures (0.76–0.77 metres) separated merlons with steeply pitched loopholes (Fig. 125). But if these latter are closely examined it will be seen that on the south side (Fig. 124, extreme right) the extant parapet surmounts an older one, disused and built up, with wider embrasures (0.90–0.92 metres) devoid of loopholes, set in mortar of whiter fabric containing mixed pebbles. This same mortar recurs under the paving of the tower platform; and it, as well as the type of the built-up parapet, agrees with the bastion south of the Second Gate. The technical similarity to the little North Outwork confirms the belief that the South Tower must be essentially Byzantine.

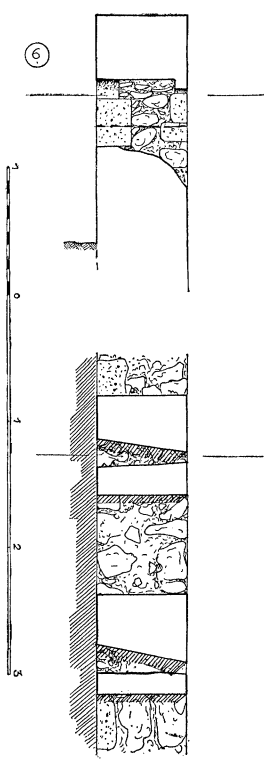

FIGURE 125. SOUTH TOWER OF THIRD LINE, PARAPET ON SOUTH

Between this and the next tower to the north, a tiny spring breaks from the base of the wall. It once fed a small Turkish fountain, unimportant remains of which lie close at hand. A few paces farther south, a long low and narrow tunnel penetrates the hornblende bed and passes underneath the wall. Its purpose was obviously the exploitation of the meagre but precious natural supply of potable water which accumulated here. There are large ancient blocks of marble and limestone in the base of the wall in this section. The parapet resembles that on the South Tower at 7, though set somewhat lower and employing slightly broader merlons (Fig. 126).

Much greater interest attaches to the next tower, at 8, the only important survival from the ancient classical system of defence. We have already characterized its medieval elements: at

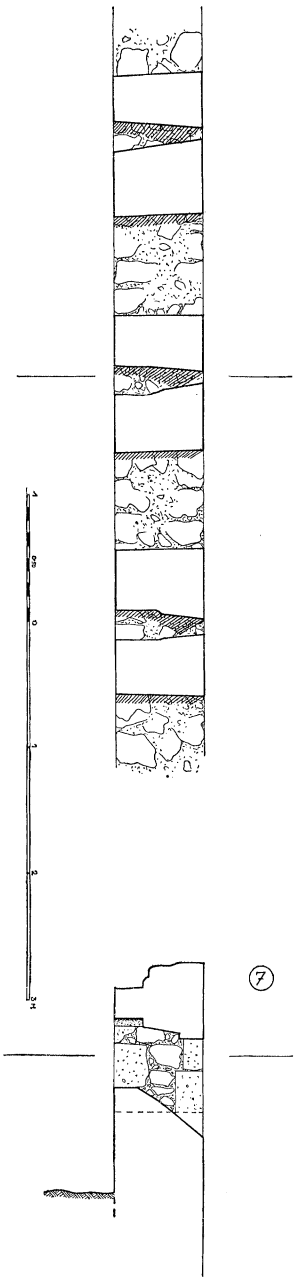

FIGURE 126. PARAPET OF THIRD LINE, 7–8

the bottom, ancient blocks reset with tile; in the main mass, a more uniform arrangement of poros blocks of medium size, though seemingly small in contrast with the ancient blocks, showing no visible bond except where subsequently patched or repaired; at the top, a crenellated parapet incompletely preserved. The paved platform behind the parapet serves a cannon embrasure in the main façade (Fig. 127), and covers a hollow interior arranged like that of its neighbor, the South Tower, in two vaulted rooms separated by a partition parallel to the main façade (Fig. 128). The interior is accessible still; but the classical construction is nowhere visible, being concealed by masonry of Byzantine character identical with that of the exterior. The vaulted ceilings, however, are of later type and indicate that the superstructure has been entirely rebuilt since Byzantine times.

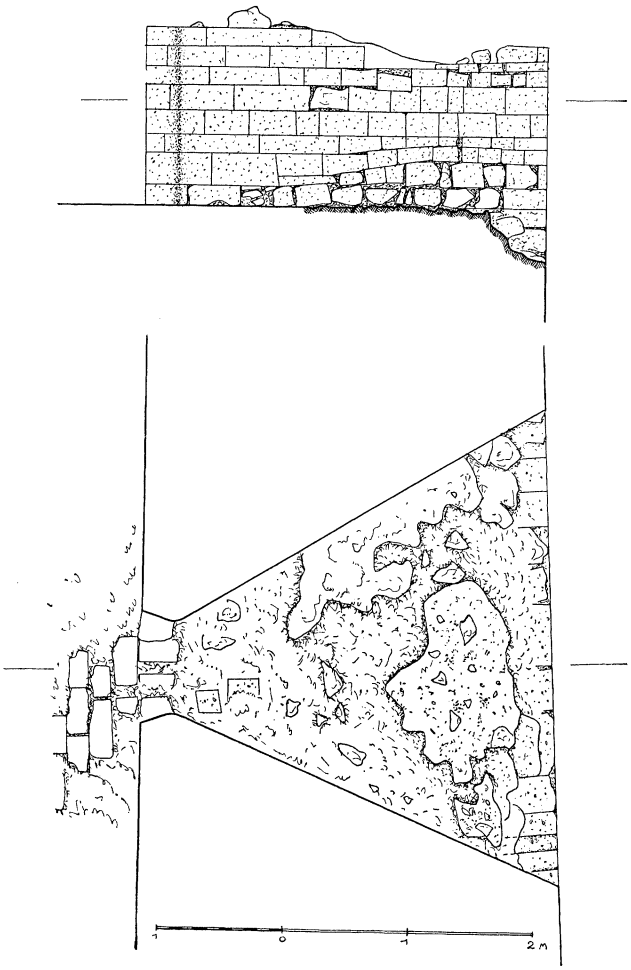

FIGURE 127. CANNON EMBRASURE, SOUTH GATE-TOWER, THIRD LINE

Between the two central towers of the Third Line and closely flanked and protected by them, rises the THIRD GATE (Fig. 6), with its passageway pierced in a wall essentially similar to the masonry which we have been describing, though resurfaced with brown-grit mortar, and ornamented with a tall blind arch whose curvature approximates the horseshoe form. The doorway is constructed of large ancient blocks, re-used, and covered with a horizontal lintel of marble columns backed by wooden beams. Two re-used Byzantine mullions, one porphyry, the other marble, break the surface ornamentally on either side. The passage itself is a simple barrel-vaulted corridor with sharply rising floor, running for 7 metres through the thickness of the wall and closed at its inner end by a second doorway similar to the first (Fig. 129). It is interrupted at about the mid-point by a portcullis. The wall slots in which this descended and the housing into which it was raised are well preserved; but there is no upper room or free space from which the portcullis could have been operated, since all the masonry over the passageway is solid

(Fig. 130). We must suppose that the platform over the gate is not in its original state and that the use of the portcullis had been discontinued by the time the cannon embrasure was added. The general construction of the interior lining of the passageway is excellent,

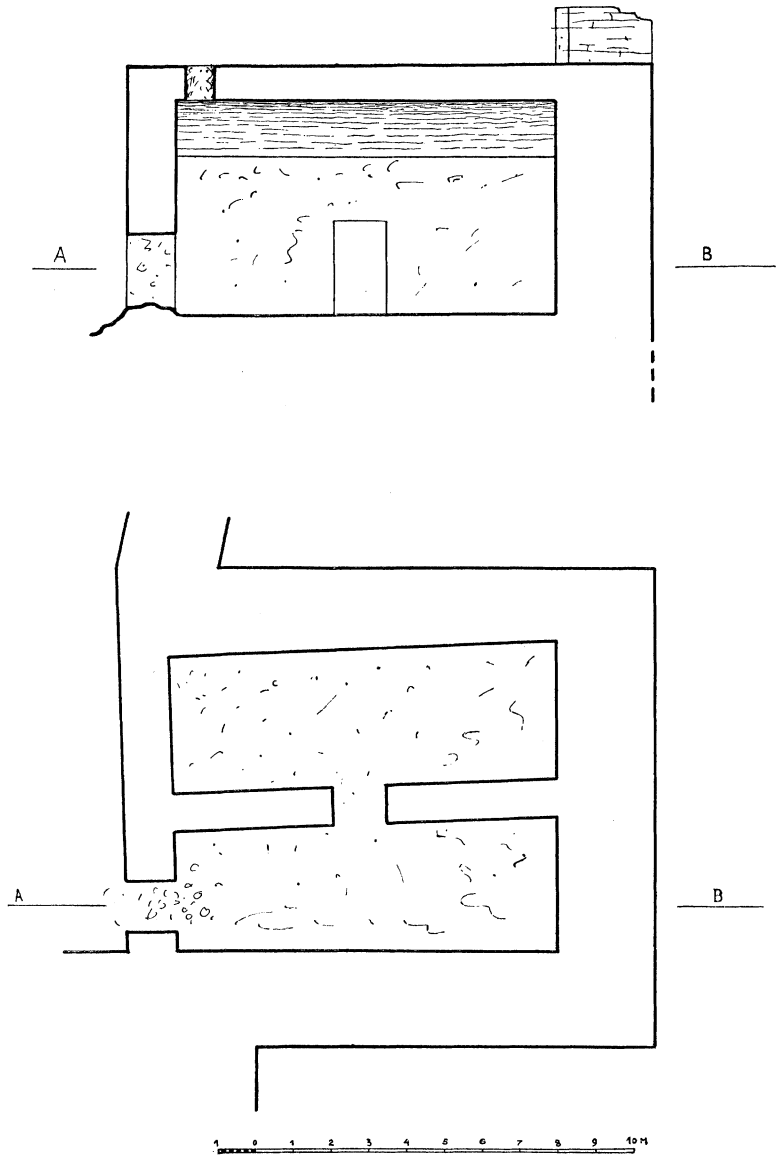

FIGURE 128. SOUTH GATE-TOWER, THIRD LINE: CROSS-SECTION AND PLAN

the regular poros blocks being especially well trimmed and fitted in the vault, which exactly resembles that of the Second Gate. It should be remarked, however, that inside the inner door there is a prolongation of the passage in a very different and inferior style of masonry (Fig. 130, extreme right) employing fragments of brick and a mortar of yellower fabric. Our illustration suggests that, if this is a subsequent addition, it involved

considerable work in the superstructure as well. It is therefore likely that the gate has at least two building periods of importance.

The North Flanking Tower, at 9, though not a classical survival, is even more imposing in its dimensions, with a front of 13 metres, a north face of 19 metres, and a preserved height of more than 15 metres (Figs. 117 and 6). The façade seems uniform in construction, with its regular spacing of scaffold holes, its careful pointing in pale rose-red mortar containing brown stone, and its smooth surface; but beneath this homogeneity of surface

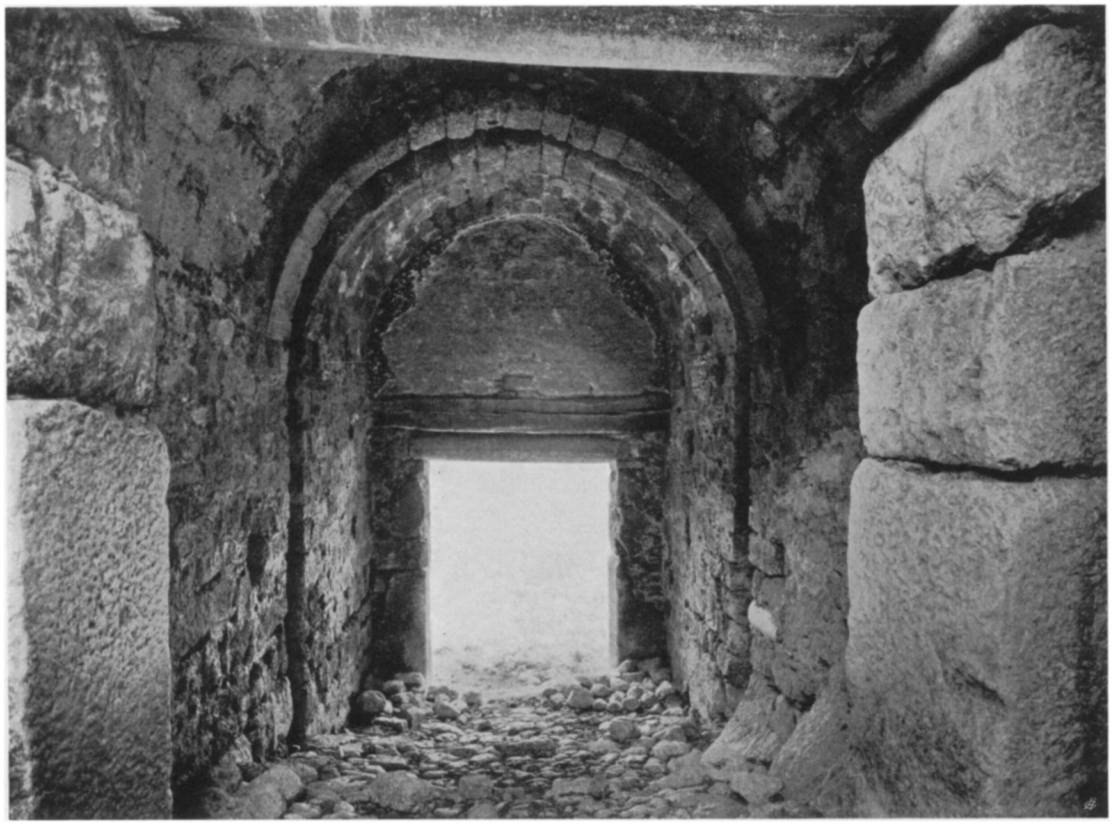

FIGURE 129. PASSAGEWAY OF THIRD GATE, LOOKING WEST

an attentive eye will detect the same periods apparent elsewhere in this sector,—the large ancient or Byzantine blocks used at the base; higher up, the smaller poros with occasional tile; just above half height, the ends of three smoothly built-in Byzantine colonnettes; lastly, the cannon embrasures set slightly back from the rest of the tower (Fig. 131) and with exterior decoration of false cannon of stone. The bulk of the tower is contemporary with the main mass of the Third Wall, while the crown and the repointing and surfacing are later, as may be proved by noting beneath the gun-platform the white mortar with variegated pebbles at a lower level than the brown-grit mortar in which the platform is laid.

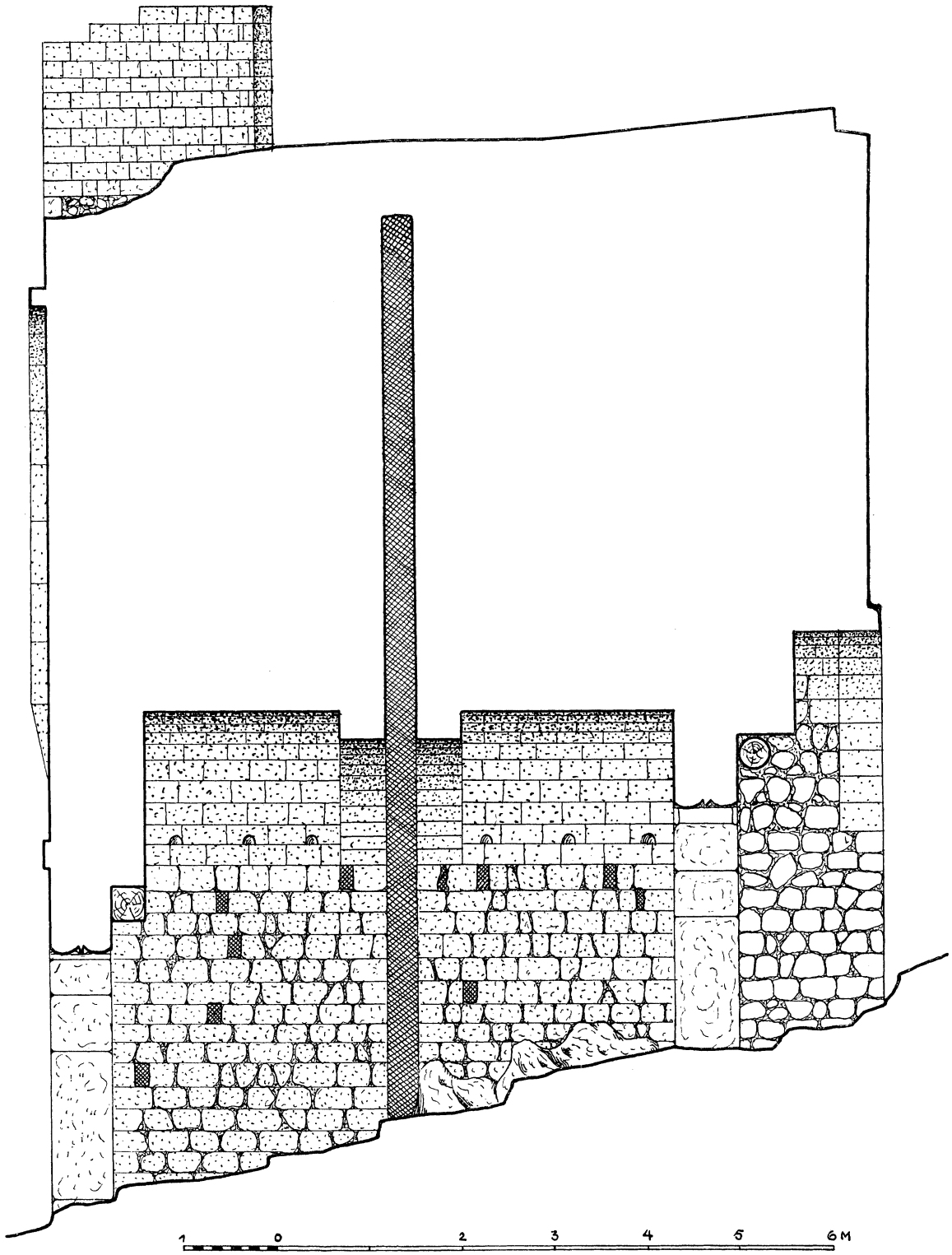

FIGURE 130. CROSS-SECTION THROUGH THIRD GATE

In the main façade (Fig. 6, left) there are two tall and narrow archer-slots in the lower part and just beneath the cannon embrasures two windows of unequal size and varying construction. The hollow interior of the tower (Fig. 132), with its two parallel rooms like those of the other Gate-Tower (cf. Fig. 128), connected by a small door with flat lintel, is important for its undestroyed and original vaulting. The archer-slots, deeply splayed beneath a whole series of Byzantine colonnettes, combine with the windows close beneath the vaulted ceiling to light these rooms. The mortar with brown grit does not appear anywhere in the interior.

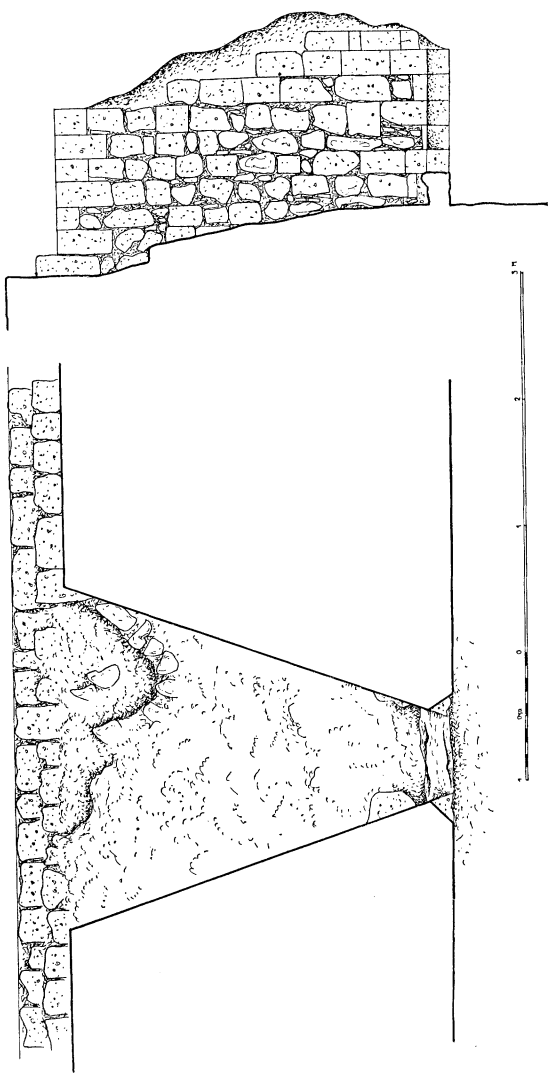

FIGURE 131. CANNON EMBRASURE, NORTH GATE-TOWER, THIRD LINE

To the north beyond the gate-tower, the Third Wall is considerably less in height; but this lack is largely due to the recent and enormous rise in the exterior ground occasioned by the collapse of buildings once standing above the wall as well as below it. Between the two north towers, 9–10, the wall has nothing of interest to distinguish it from the preceding sections.

The NORTH TOWER, at 10, is squatter and smaller than its neighbors, with a front of 10.80 metres and a projection on the south of 13 metres. It is distinguished by a rolled molding below its equally evidently Venetian cannon embrasures (Fig. 133). The substructure is just as obviously of an earlier period, with its re-used blocks set upon an ancient classical socle, its two built-in Byzantine capitals, and its pair of tall narrow archer-slots (from which it follows that the interior, at present inaccessible, must have been built hollow).

Beyond the North Tower the wall thickens to accommodate three large cannon emplacements (Fig. 117) converging their fire toward the southwest. In the foreground of figure 91 the parapet of this tower and the adjoining wall with its three cannon embrasures are well shown. Figure 134 notes a detail not readily apparent in the larger photograph, a low step or platform of masonry on either side of the interior opening of the embrasures

(cf. Fig. 133). The main face of the wall is interesting for its powerful white mortar with river pebbles, which is unusually compact and smooth and is stained slightly yellow where exposed. In several places (Fig. 135) the shaft of a Byzantine colonnette is built into the wall as a centre to a rosette of thin stones, all set in this strong white mortar.

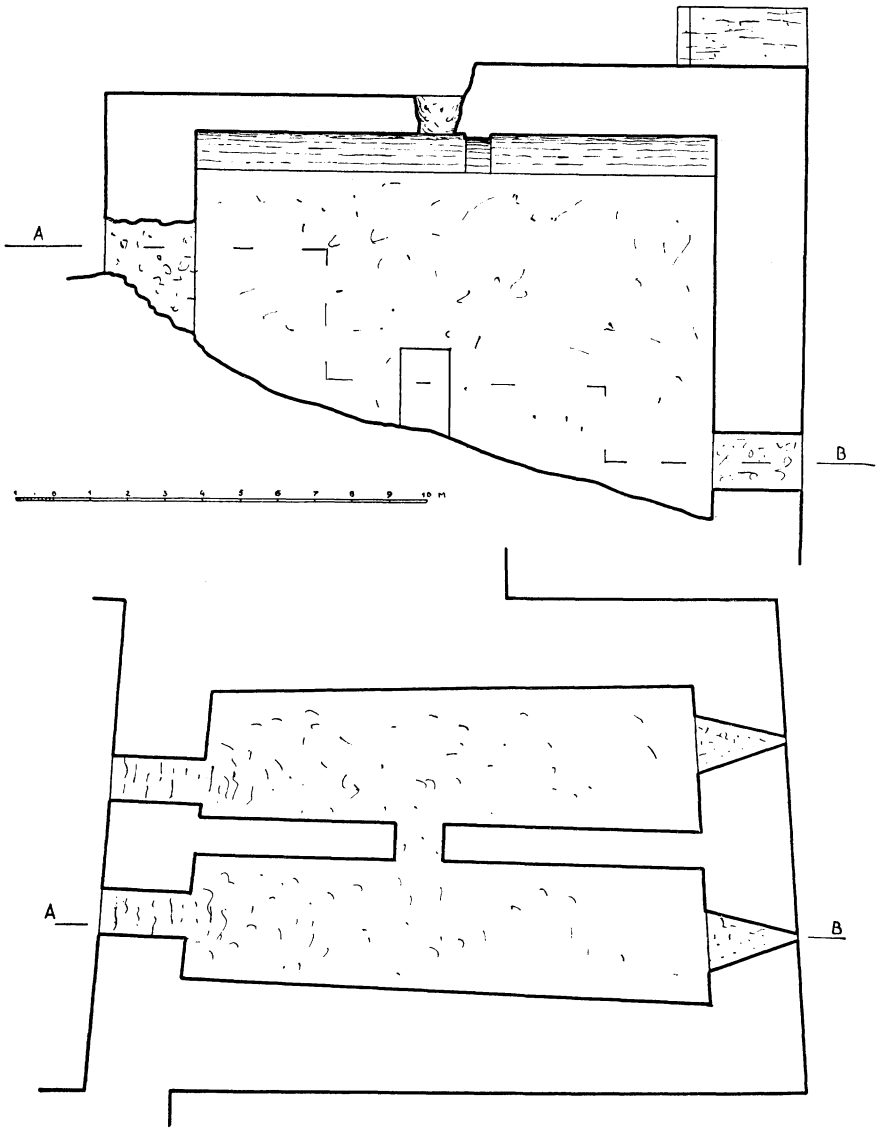

FIGURE 132. NORTH GATE-TOWER, THIRD LINE: CROSS-SECTION AND PLAN

It is not apparent whether these designs are due to the imagination of the original builder or, as is more likely, are repair plugs for damage done by cannon fire, such as is also visible in the same photograph. The white mortar is not the chief one in this sector, but secondary, and hence indicative of repairs; nor is it connected with the Venetian rampart work, in which the characteristic brown-grit mortar often forms a final but not very ad-

herent coat over the earlier ones. Actually there is also a fourth mortar discoverable, so that at least four building periods are represented in this single stretch of wall.

The re-entrant angle at the north end of the great arc of the Third Wall is blocked by a small bastion to correspond to the ruined one in the angle at the opposite end of the arc. It is based on ancient blocks no longer *in situ*, with a superstructure of extremely miscellaneous material. The quoins are carefully set. Some of the scaffold timbers were left imbedded in the masonry, as in the tower flanking the Second Gate. On the southeast there are crenellations of Venetian type and on the southwest a cannon embrasure (Fig. 136) flanked by ornamental stone cannon such as we have already met repeatedly in Venetian work.

From this point the NORTH LATERAL WALL, or northern horn of the bow to which we have likened the Third Line, stretches in a straight curtain for 37 metres. Its eastern portion seems homogeneous with the corner bastion, in spite of minor deviations in the size of the crenellations. There follow three cannon embrasures (Fig. 137) echoing those on the opposite South Lateral Wall, yet differing in style and orientation, since instead of flanking the main stretch of the Third Wall with parallel fire they open outward with increasingly divergent angle toward the Second Gate. Their masonry seems cruder and more battered than that of the Venetian emplacements, and there is little of the characteristic brown stone in the mortars, among which a very white and firm fabric with river pebbles predominates. As in the opposite battery, the paved platforms for the cannon, invariable in the Venetian period, are lacking.

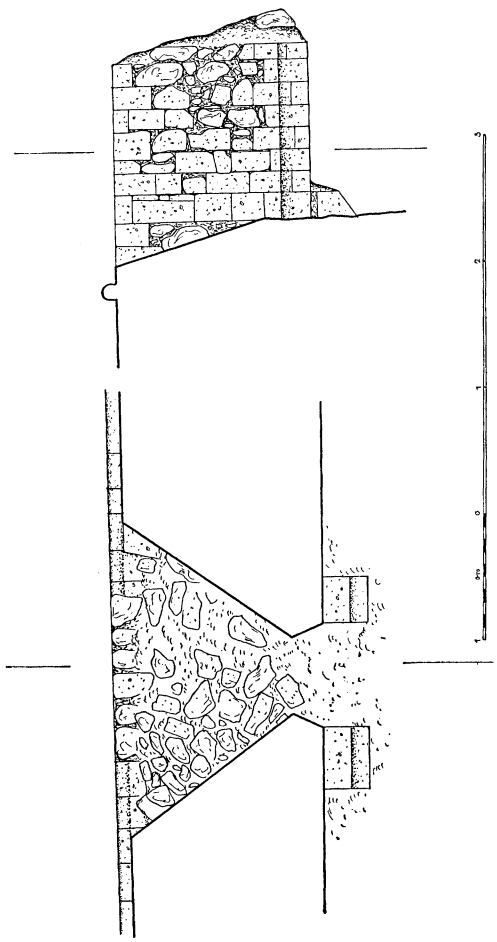

FIGURE 133. CANNON EMBRASURE, NORTH TOWER, THIRD LINE

The North Lateral Wall ends at the tip of the horn with a small bastion, at 12, of peculiarly complicated outline, an ell with a quarter-circle intruded into its inner angle (Fig. 138; cf. the Survey). This complication seems comparatively modern, since the quarter-circle is actually the sheathing of a small round well (Fig. 139), which would scarcely have been constructed originally so as to lie outside the wall. Hence the wall must once have followed its classical predecessor along the broken curve apparent at the bottom of the photograph, thereby producing an irregularly shaped tower room with the

well inside it. When the high exterior wall crumbled, leaving only the powerful and solid southwest corner intact, later defenders of the citadel found it easier to scarp the fragmentary wall at the breach (producing the purposeless spur of great wall prominent in

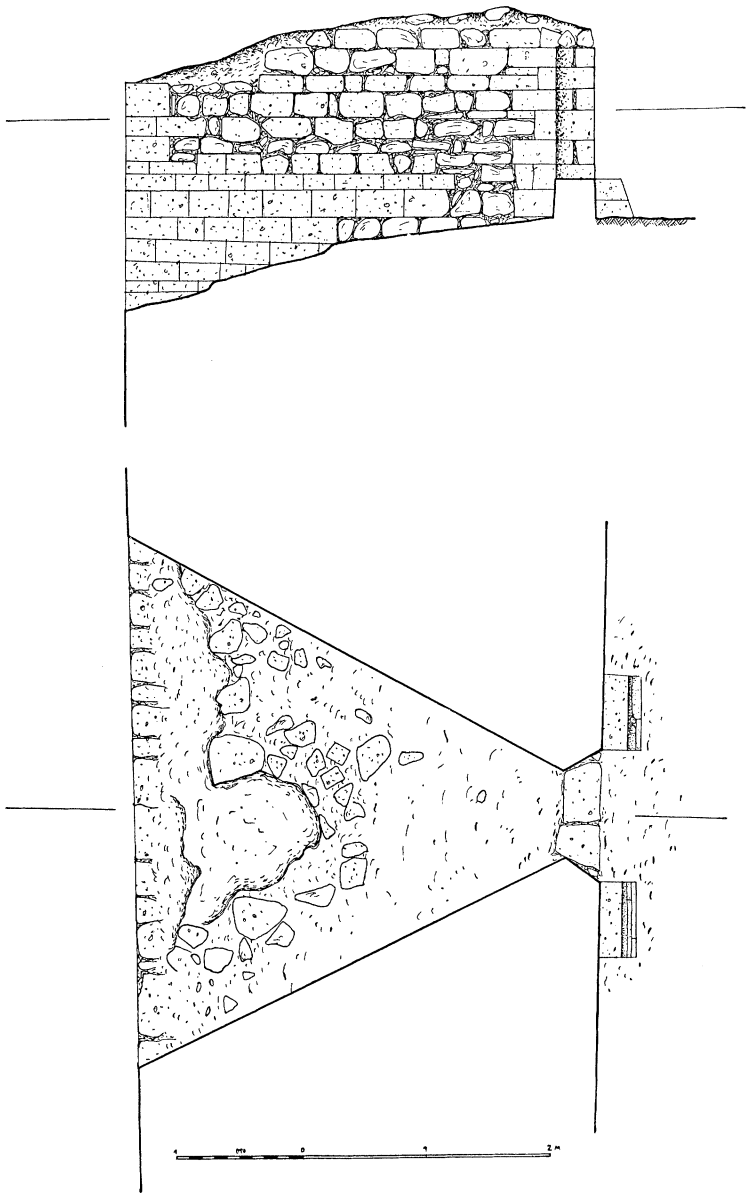

FIGURE 134. CANNON EMBRASURE, THIRD LINE, BETWEEN 10 AND 11

figure 138) and to attach the main wall to the inner partition of the tower room, thus producing the curious plan which would never have been evolved in and for itself. The well, thus surviving, may actually be a reconstruction of a much more ancient cistern, a sort of *klepsydra* ultimately dating back even to classic times. In the Venetian sketch (Fig. 99)

it appears to be this bastion which is labeled "*posto governatorio*"; and so far as one can judge, it has already taken on its characteristic later outline. The returning wall behind the cistern (Fig. 138, centre back) must then be pre-Venetian, but later than the main medieval period of construction here; and this conclusion is supported by the unusual aspect of the mortar, with its cream-colored base and pale gravel aggregate.

We may pause to review our findings for the Third Line of defence, the description of which is now complete. From the military aspect we may emphasize the skill with which the assailing force is enveloped, primarily within the great bow or crescent, and

FIGURE 135. DECORATIVE REPAIRS TO THIRD LINE WALL

more specifically within the awkward dovetailed spaces in which alone the wall could be approached between the towers; but the traces from the classical epoch strongly suggest that the credit for these devices does not belong to the medieval architects. The number of towers,—six, if we count the destroyed bastion in the southern and the abbreviated one in the northern angle,—is remarkable. Despite minor differences, the four main towers are intimately related, inasmuch as all are hollow and three have narrow archer-slots almost certainly copied from those of the ancient classical tower at 8, while the internal arrangement of the two which can still be entered is essentially identical (compare Fig. 128 with Fig. 132). The strength of these towers and their nearness to one another show the supposed vulnerability of this west slope, not less in antiquity than in the period of Venetian cannon.

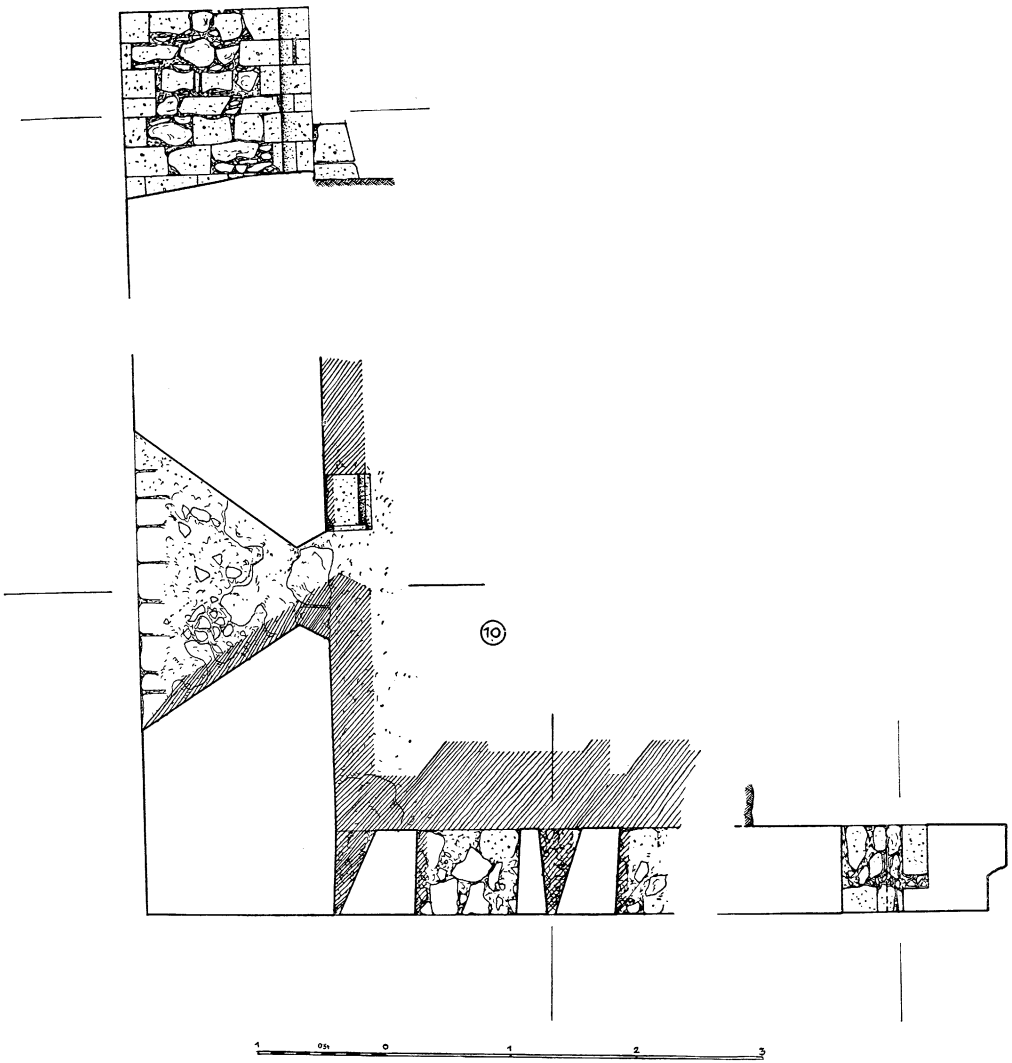

FIGURE 136. PARAPET OF BASTION, THIRD LINE, AT 11

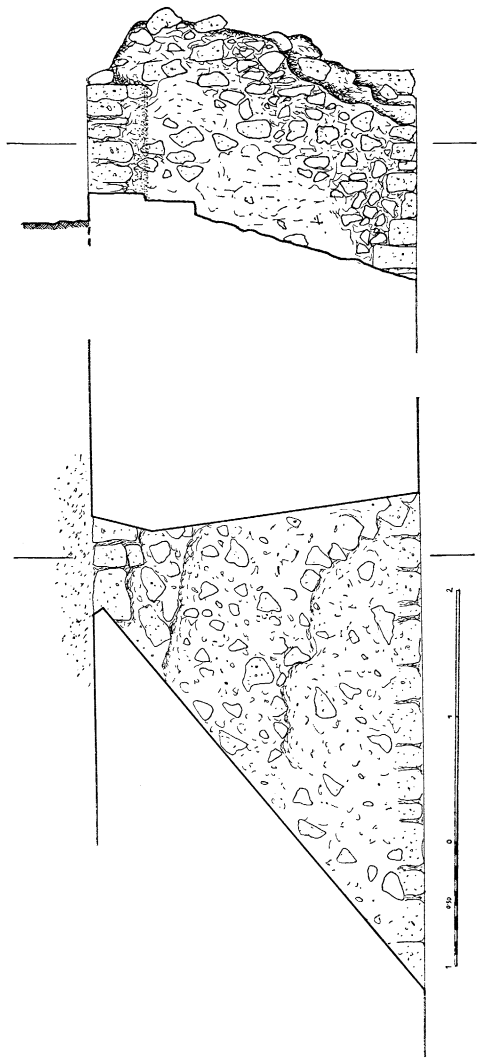

FIGURE 137. CANNON EMBRASURE, NORTH LATERAL WALL, THIRD LINE

For the chronology, it is clear that there are everywhere traces of two periods, one of which is marked by a solid mortar of mixed content, the use of tile, vaults of regularly cut poros ashlar, and merlons of older type without loopholes; while the second is

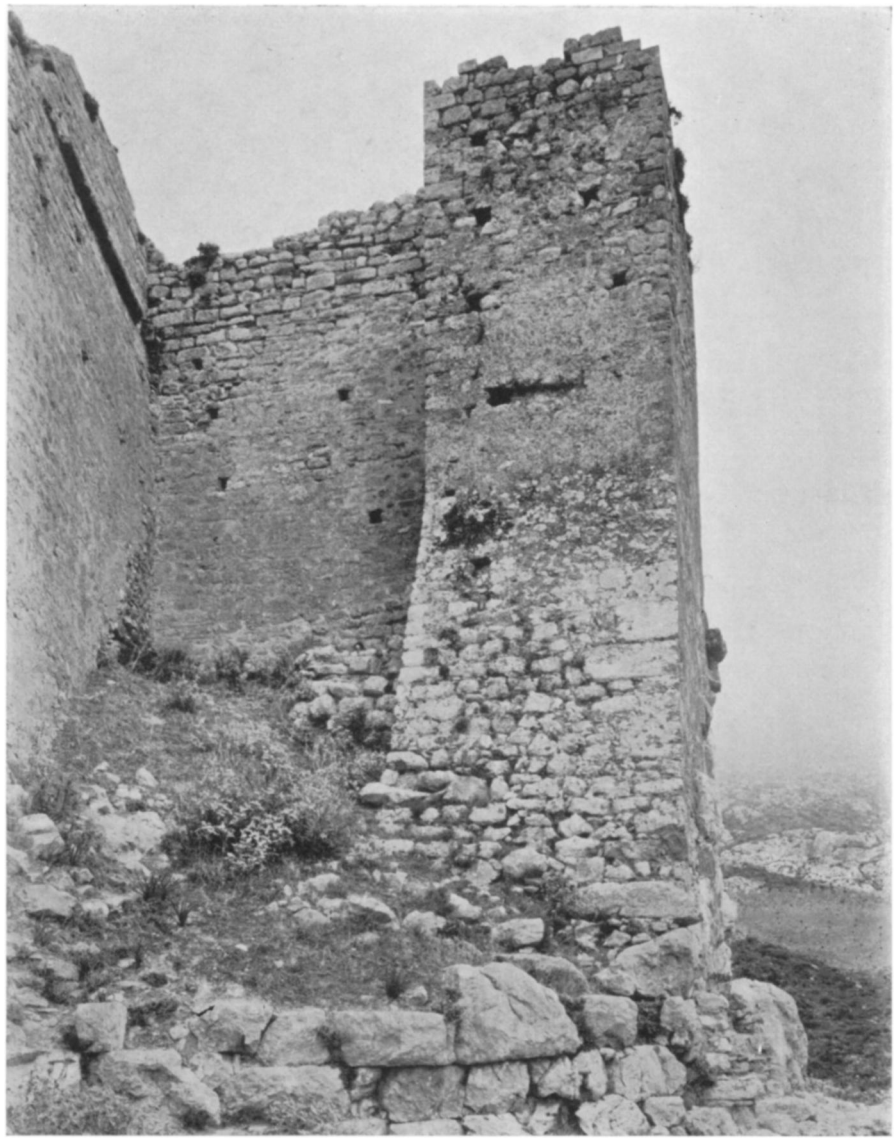

FIGURE 138. NORTHWEST BASTION, THIRD LINE, SEEN FROM THE NORTHWEST

characterized by less enduring mortar containing fragments of brown stone, vaults built of rubble over a centering of wooden planks, parapets pierced by cannon embrasures, and narrow crenellations between merlons pierced by loopholes. Since this second period is patently Venetian, while the first reposes directly on ancient remains, we must imagine this earlier period to be Byzantine, though of course subsequent to the Slav invasions, since

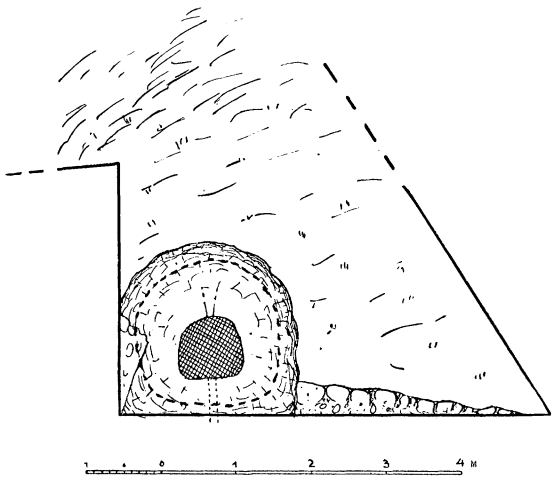

FIGURE 139. WELL-HEAD IN ANGLE OF NORTHWEST BASTION, THIRD LINE

so much re-used Byzantine material has been incorporated. But there must also be other intermediate periods represented; and to these must be assigned the non-Venetian cannon embrasures on the two lateral walls (which also differ from each other), the wall repairs between 10 and 11 with prominent pointing in smooth mortar which has aged yellow, and the wall behind the little cistern of the North Bastion at 12 with its unusual gravel mortar.

5. THE CIRCUIT WALL: THE NORTHWEST SALIENT

Beyond the ell-shaped bastion at 12, at which the Third Line rejoins the Second, the defence of Acrocorinth was effected by a single girdle wall. After making the entire circuit of the mountain top, this wall finally ends abruptly on the edge of a sheer cliff above the South Bastion at the opposite terminal of the Third Line, thus relying on the mountain itself to close the circle (cf. Fig. 146, upper centre, and Fig. 118). It remains to describe this great Circuit Wall, following it clockwise through north, east, south, and west.

In the first sector, enclosing the conspicuous Northwest Salient, a rocky head culminating in the comparatively low height of 490 metres, an obvious distinction may be drawn between the actual curtain wall and the series of artillery platforms, of which those at 12 and 16 comprise only two or three cannon embrasures each, while the conspicuous intermediate one at 14–15 accommodated a battery of seven guns.

The first set of embrasures occupies the amended wall-line behind the bastion at 12 and thus supplements the three older emplacements on the North Lateral Wall of the Third Line with three more of characteristically Venetian con-

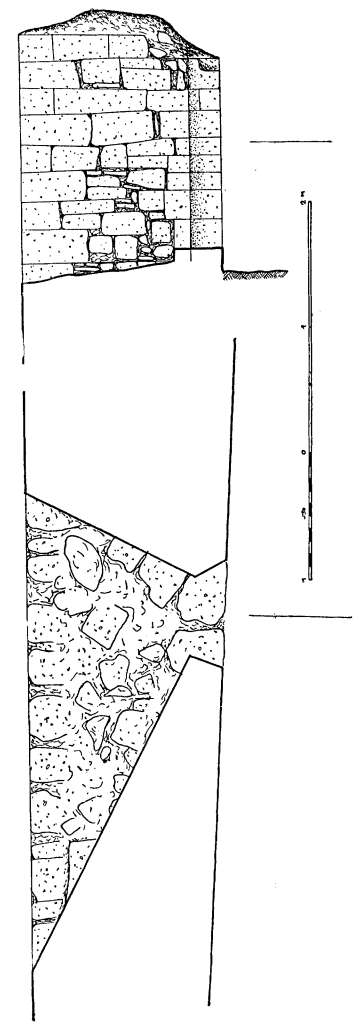

FIGURE 140.
SMALL CANNON EMBRASURE BETWEEN 12 AND 13

struction. Two of these are oriented toward the west, while the smaller third one (Fig. 140) points northwest. The first or southernmost of the series is the most interesting (Figs. 141 and 142). Above the string-course which, as always, marks the ground level for the embrasures, the carefully assembled poros in brown-grit mortar is a typical example of the Italian masonry of the period. The photograph also shows a false stone cannon built in at the left and a drainage channel at the right.

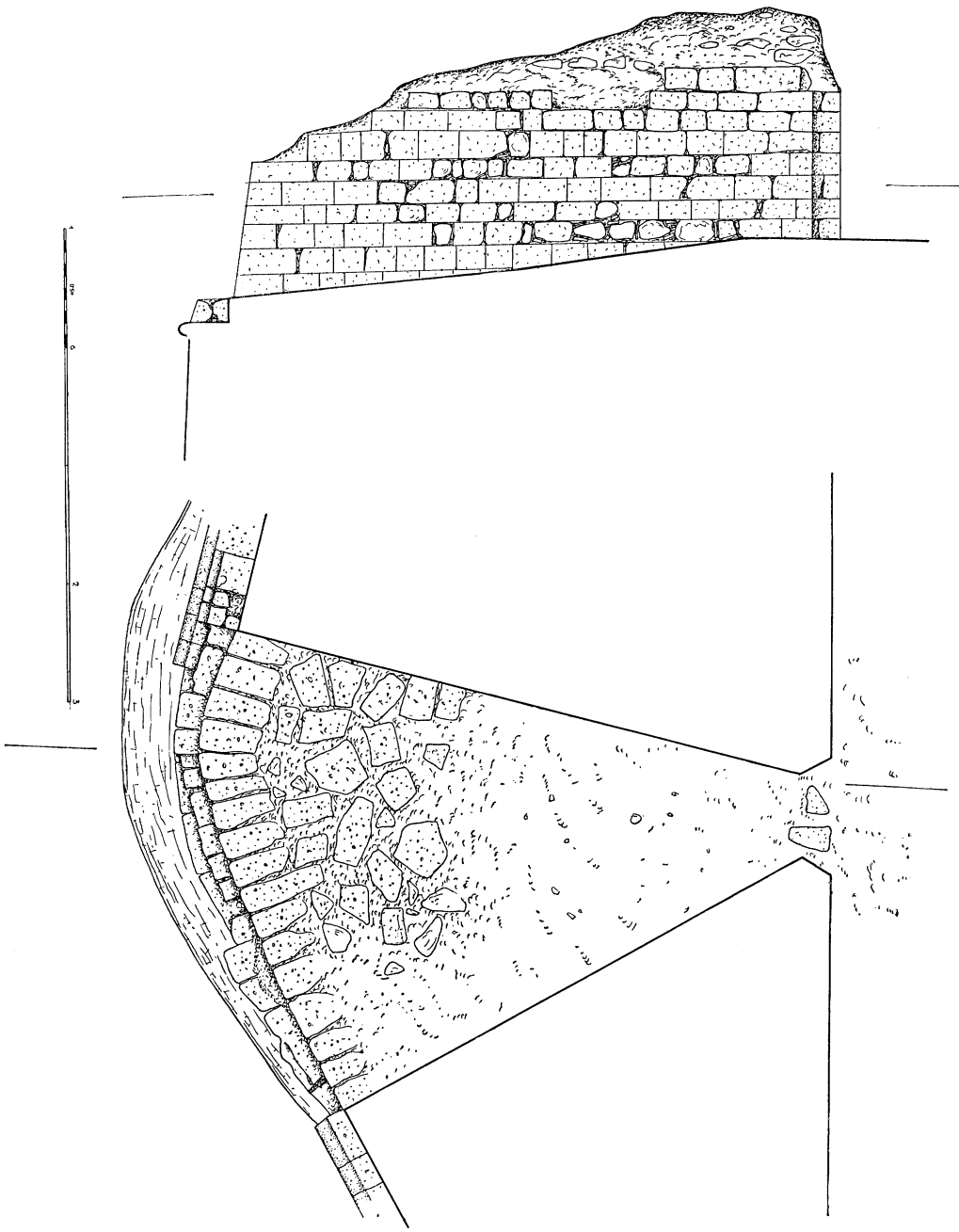

FIGURE 141. CANNON EMBRASURE, PLATFORM BEHIND NORTHWEST BASTION, THIRD LINE

The second artillery platform, 14–15, which we may for convenience call the "Northwest Battery," is of precisely similar though perhaps of slightly more careful construction (Fig. 142, top centre; Figs. 143–144). Of its seven embrasures oriented on Penteskuphi (which at 1500 metres distance would have been well out of range) the three southernmost are set at a slightly higher level, to which the external string-course makes the necessary corresponding ascent. The well-hewn and well-fitted poros with the marks of the dressing-tool still fresh upon it (Fig. 144) ranks among the finest Venetian masonry on Acrocorinth. On the exterior of the wall beneath this battery the reddish mortar with

FIGURE 142. PLATFORM BEHIND NORTHWEST BASTION, THIRD LINE

brown stone is merely a superficial, though generous, addition to unify the older masonry underneath and cannot be cited as evidence that the main mass of the wall is also of the Venetian period. At the very bottom, the socle of the classical wall appears.

At the northernmost point of the salient there is a small projecting platform supported by a not very thick but strongly battering wall which ends abruptly at the interior ground level. Here there are traces of two small gun-embrasures (Fig. 145) commanding the long north slope of the mountain. In spite of the absence of the usual string-course this construction belongs with the preceding; but the miscellaneous materials and mortar show that this exposed corner has been frequently repaired. To-day it is once again threatened with dissolution.

The wall connecting these various batteries is sufficiently complex, even though it is merely a curtain with a ruined crenellated parapet. On the inner side it barely projects above the ground and occasionally even fails to do so, where adjacent houses and similar structures have collapsed across the rampart (cf. Figs. 124, 142, 146). The terrain through which it runs is steeply sloped (Fig. 117). Throughout, the classical socle shows that the medieval builders merely followed the ancient line of defence. But the architectural history, as revealed in the exterior face, is far from simple.

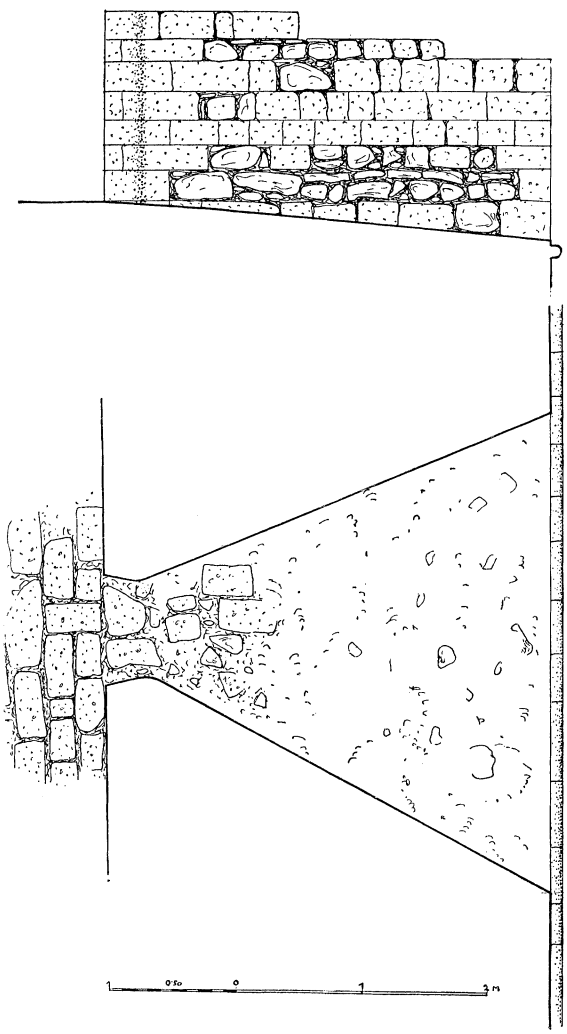

FIGURE 143. CANNON EMBRASURE, NORTHWEST BATTERY

The materials include poros, hewn but much weathered, limestone, uncut and very miscellaneous, and a small amount of marble; the setting is rather helter-skelter, with occasional pieces of broken brick. As for the mortar, the irrelevant surface-coat of pinkish fabric with brown grit hides at least two varieties beneath it,—one containing river pebbles, employed with large tile and without trace of scaffold holes, the other containing brown grit and perhaps of later date. In addition there are numerous traces at the foot of the wall, in immediate contact with the classical socle, of a third type of construction, very irregular, employing numerous blocks of limestone and a mortar with brown grit in it. These distinctions are reflected in the wall crown. The first type carries a rampart ascending by steps behind a parapet with merlons sometimes narrow (0.73–0.75 metres, Fig. 147, left), but generally rather wider (0.80–0.85 metres, Fig. 147, right), and always without loopholes. Many of the merlons have been repointed, repaired, or even entirely rebuilt with brown-grit mortar. The second type uses a narrower rampart rising without steps in a continuous ramp, with very well preserved parapet showing merlons ranging from 0.75 to 0.92 metres in width (Fig. 148), frequently pierced by loopholes and with crenellations uniformly narrow (0.56–0.58 metres). This latter type may be identified as Venetian, while the former resembles that noted on the South Bastion of the Second

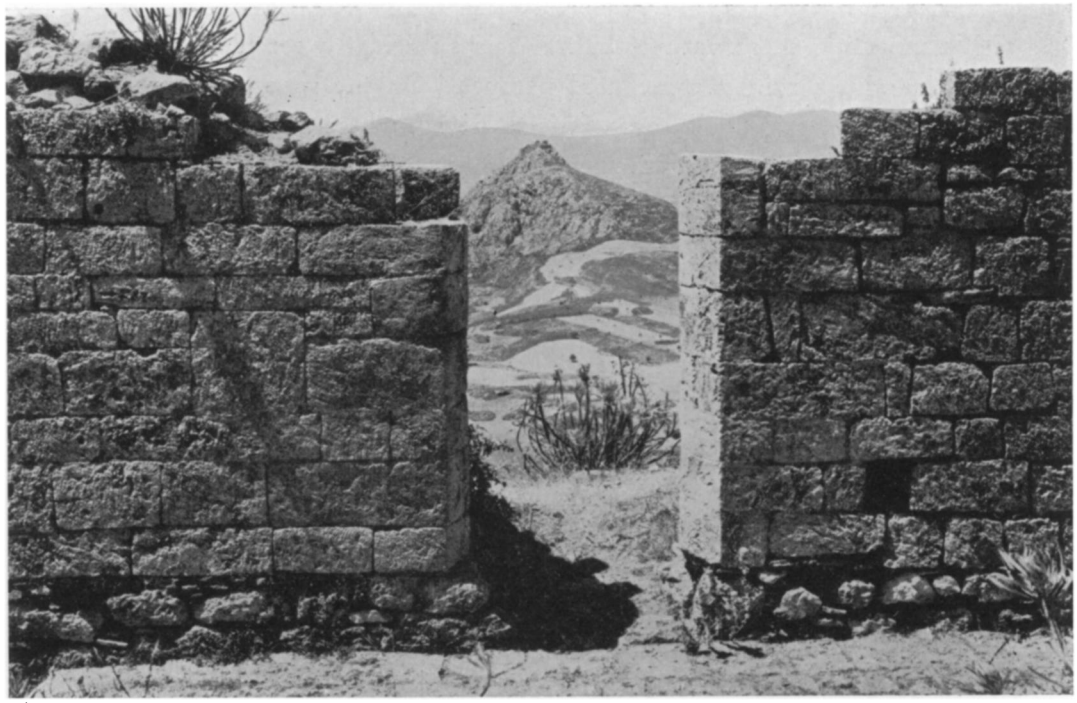

FIGURE 144. PENTESKUPHI, SEEN THROUGH CANNON EMBRASURE OF NORTHWEST BATTERY

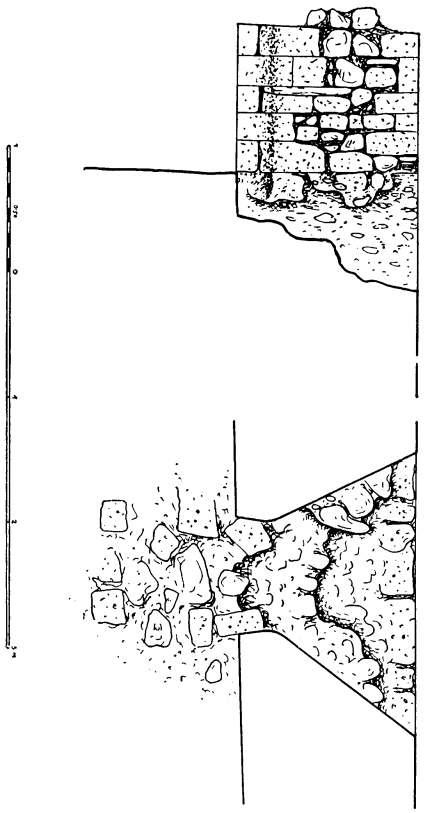

FIGURE 145. CANNON EMBRASURE AT 16

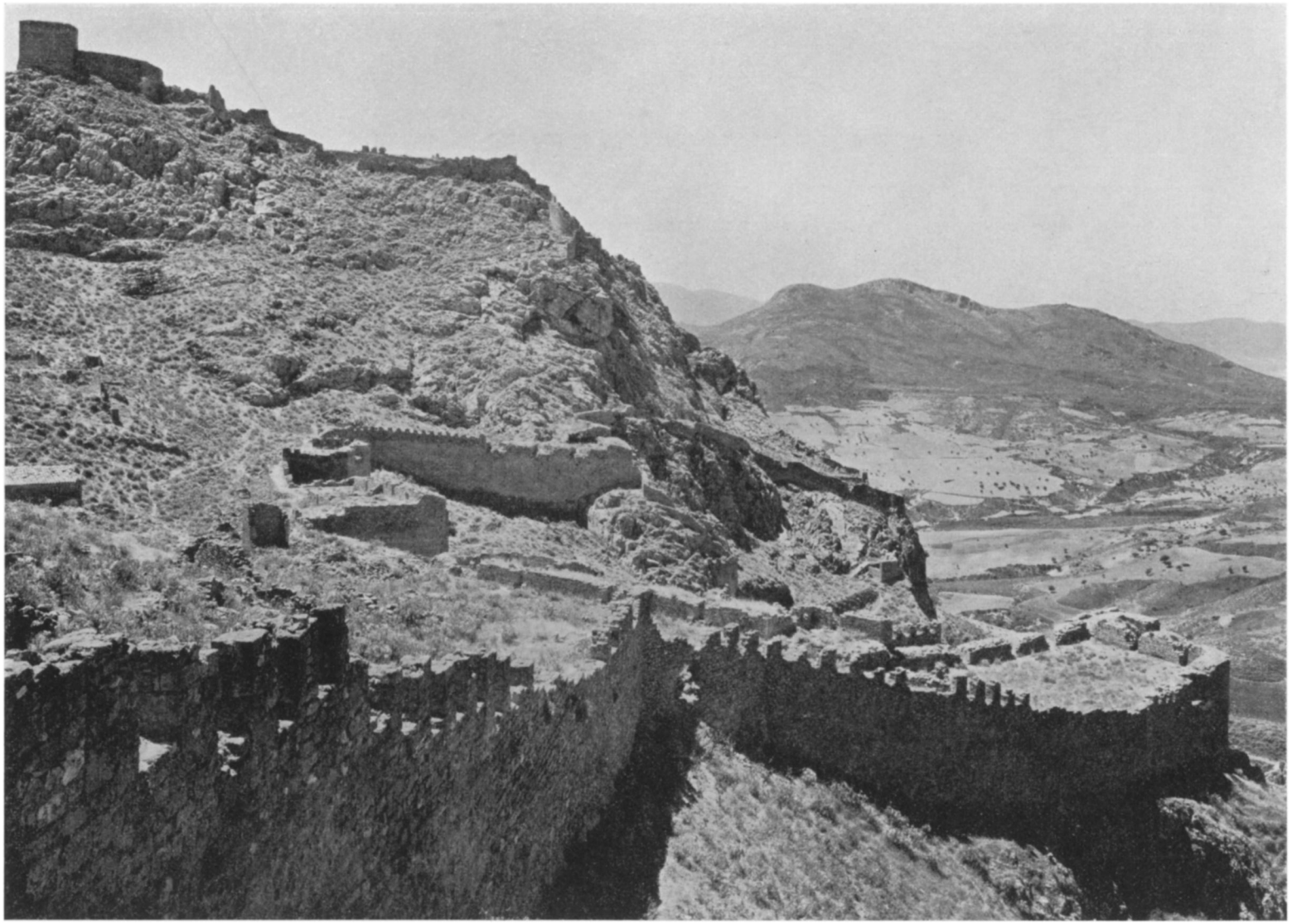

FIGURE 146. NORTHWEST SALIENT; THE THIRD LINE; REDOUT WITH CASTLE

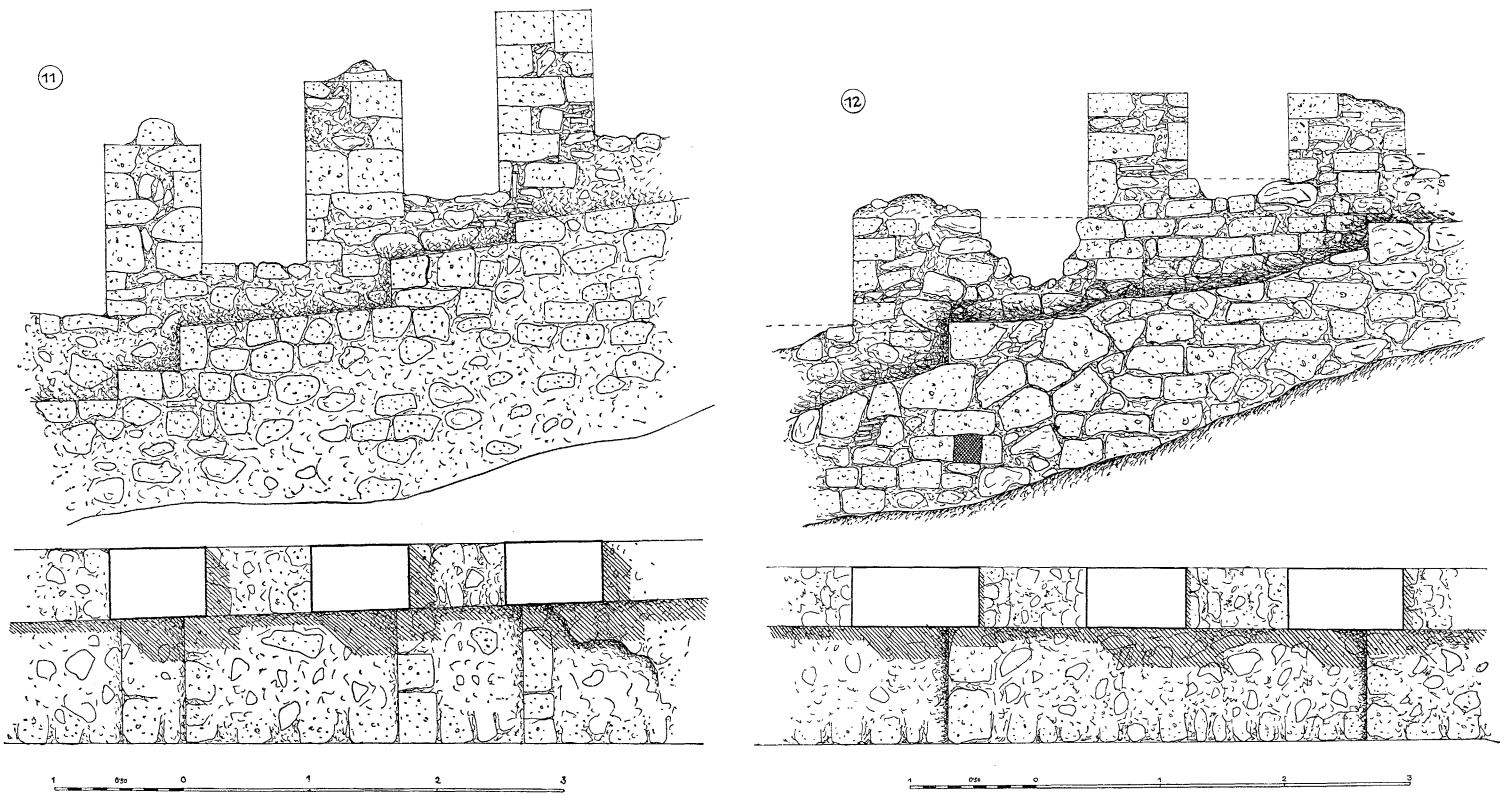

FIGURE 147. PARAPET OF WALL, BETWEEN 12 AND 13, FROM WITHIN

Line, just south of the Second Gate, although it is not quite so homogeneous. It is certainly earlier than the Venetian period; yet it occurs above and immediately upon work of the third type which, like the Venetian, employs a brown-grit mortar and yet cannot be classed as a mere subsequent repair to the wall base. The intricate chronological

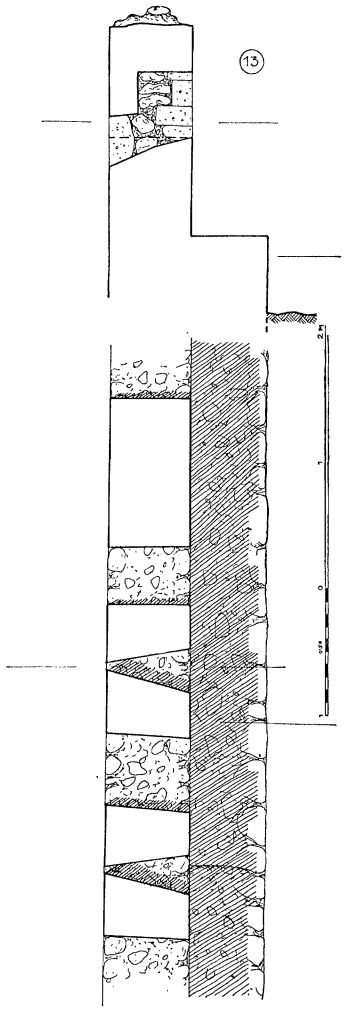

FIGURE 148. PARAPET AT 13

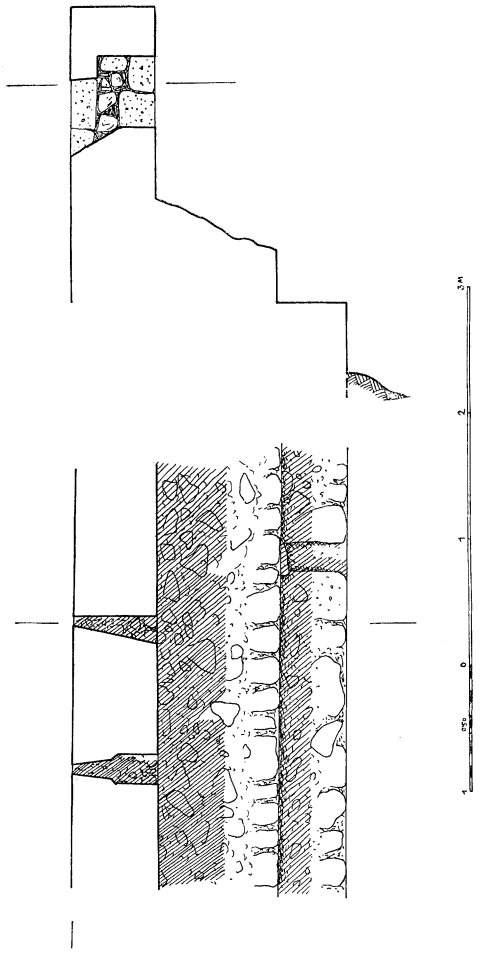

FIGURE 149. CONTINUOUS PARAPET WITH LOOPHOLES, WEST OF 18

problem here involved must occupy our attention later, after the description of the entire circuit.

Beyond the northernmost battery at 16 the wall swings east and south through broken rocky terrain. The irregularities of the ground determine the highly varied plan with its abrupt changes of level as far as 18. From this point, however, the bed-rock disappears and the survival of a much older line of fortification completely alters the character and appearance of the defenses.

In the first stretch of wall, 16–18, three types of mortar occur: one, in contact with the classical socle, contains green as well as brown fragments of stone; a second is grey in tone, with brown grit; a third is the familiar pink "Venetian" brown-grit mortar. This last occurs in connection with scaffold holes penetrating the entire wall and a peculiar construction of the rampart in two courses laid at an incline upon the horizontal courses of the wall beneath. Beyond the beautiful ancient fragment at 17 the wall skirts a gully head, ascending steeply over bed-rock in a badly built stretch which is little more than a thin parapet with loopholes, which accommodates itself to the breaks in the cliff (Fig. 17), while the rampart parts company with it and mounts separately by a little stairway of its own (cf. the Survey). In the succeeding sector, which is extremely ragged and irregular in plan and barely projects above the interior ground level, breaches in the carelessly built wall have been repaired with mortar of the second, or grey, type which is here very abundant and marks a late (but important) period readily distinguishable from the Venetian.

6. The Circuit Wall: the North Bay (Fig. 150)

Our survey has reached the deeply indented North Gully. Here the top of the broad ravine is closed by a long line of ancient poros, pierced by a small postern, from which steep but open slopes descend directly into the lower town. The level behind the wall has almost everywhere been brought up close to the rampart by the accumulation of soil amongst the ruins of the village which in Turkish times extended hither up the long declivity from the Third Gate. The exterior of the wall, on the other hand, is high and imposing (Fig. 151). It is remarkable for the abundance of ancient squared poros blocks and, on closer inspection, for the use of a white mortar of river pebbles and other elements. The exposure to the north has encouraged the growth of lichen, so that except under scrutiny the masonry between 18 and 19 tends to disappear beneath a uniform grey cover. The wall-top, however, with its smaller stone and more open joints clearly displays its construction in courses of brick appearing between the level courses of weather-eaten poros. The parapet has nearly everywhere disintegrated; but three surviving merlons show a familiar type (Fig. 152, cf. with nos. 4 and 12 of Plate VIII) frequently occurring with mortar of mixed aggregate.

At 19 the wall-line breaks forward slightly and the fine courses of ancient poros give place to large re-used blocks amid small-stone fill (Fig. 151); and this advance of the wall face together with the cruder technique betrays a repair, none too skillfully effected. The rampart overhead has narrowed, shows only brown-grit mortar, and has a loophole in one of the two surviving merlons of its parapet (Fig. 153). This patchwork is immediately followed by a stretch of more regularly fitted poros, keying into a brief passage of ancient limestone still intact for a height of several courses (Fig. 19). The poros blocks here are, as would be expected, re-used from elsewhere and are surmounted by the usual small-stone masonry, set in white mortar containing river pebbles and other material. The wall crown has vanished completely, presumably with the collapse of the buildings behind.

FIGURE 150. THE NORTH BAY, WITH NORTHWEST SALIENT BEYOND

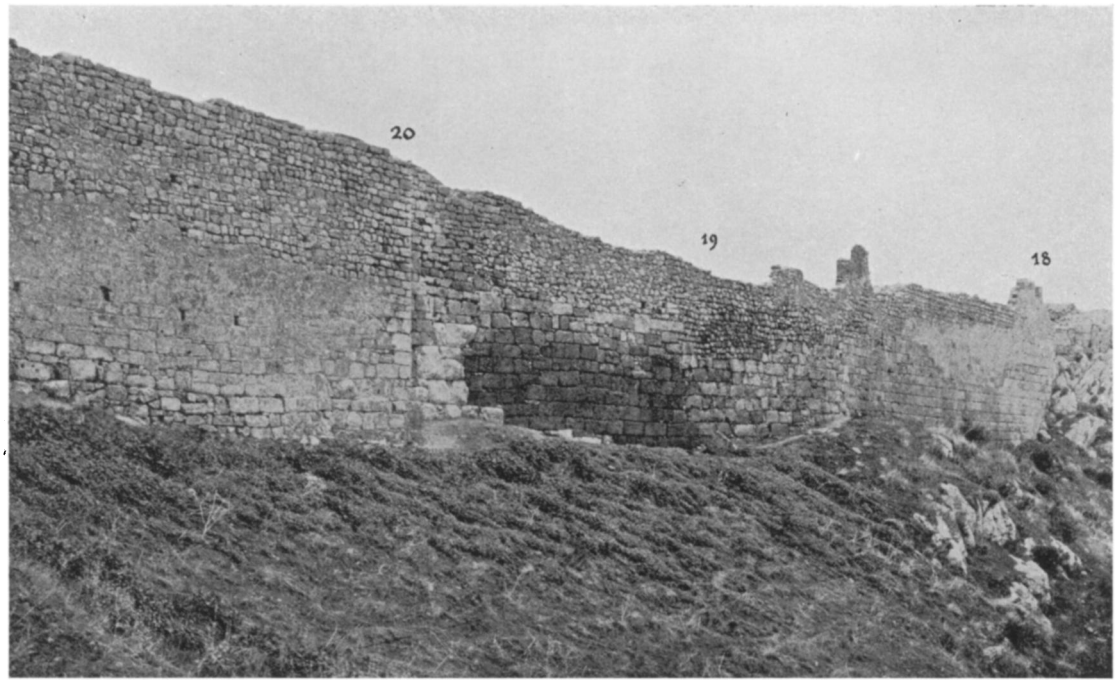

FIGURE 151. EXTERIOR FACE OF WALL, NEAR NORTH POSTERN

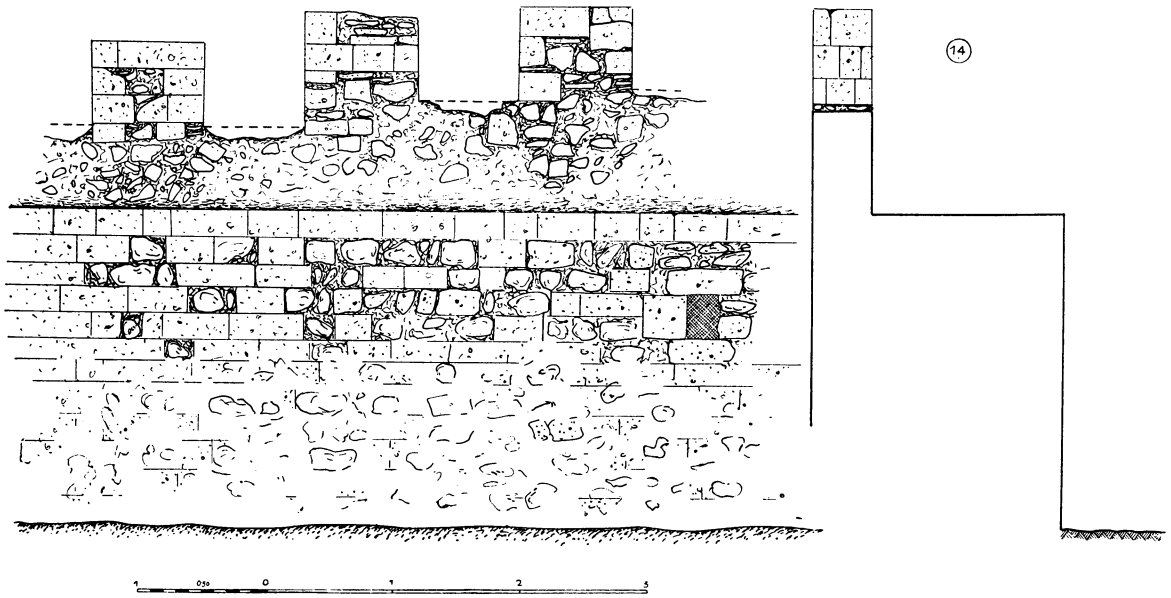

FIGURE 152. INTERIOR FACE OF WALL, BETWEEN 18 AND 19

At this point the classical limestone with its later superstructure clearly passes (Fig. 19) behind an added screen of masonry, which has been constructed as a buttress to reinforce a section of the wall peculiarly liable to pressure from behind. For between this spot and the postern gate at 22 lies the lowest dip in the saddle between the two north spurs of the mountain and here the descending water eroded where it could penetrate and exerted pressure where it was restrained. The screen is further characterized as a buttress by a projecting bench of masonry from which it is set back. The construction is good, though not exceptional; thin tile is common between both vertical and horizontal joints; the mortar is pronouncedly reddish and the brown stone in its aggregate pounded or screened very fine. The four conspicuous holes (Fig. 151, left) are for drainage, not scaffolding. The general appearance is a good deal like that of the great wall of the Second Line (cf. Fig. 112). At its other end, at 21, this buttress overlaps a finely built stretch of smooth slanting wall (Fig. 154, right half) which is also an addition (though an earlier one) screening and strengthening the still older wall behind (cf. Fig. 155). This second buttress is much more carefully built, its blocks finely squared, a larger tile used in the joints. The lichen growth exaggerates the effect of perfect fitting; but underneath there lies a strong mortar, white, with round pebbles, unstintingly applied. The almost complete survival of the parapet, unique for this sector, protecting the broadened rampart, bears further testimony to the skill and good materials employed. The merlons are broad (1.07–1.22 metres) between narrow crenellations (0.61–0.65 metres), and every other one is pierced by a loophole symmetrically splayed and not, as one would expect from the terrain, directed downward (Fig. 156).

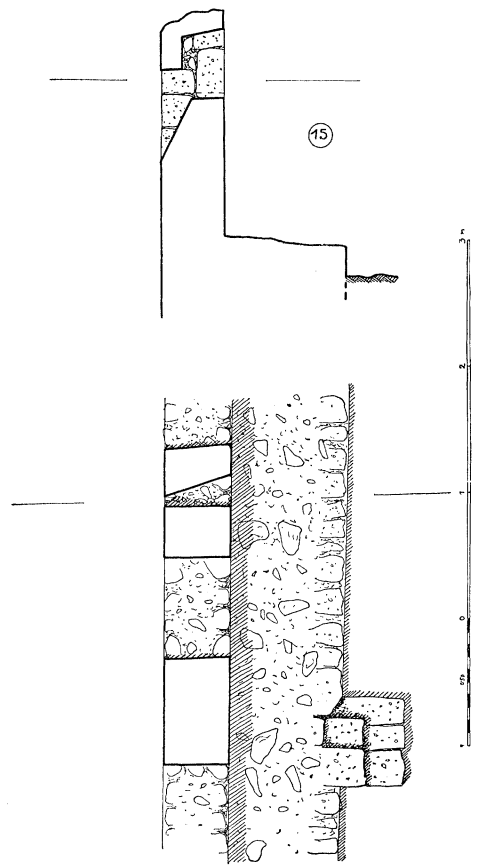

FIGURE 153. PARAPET AT 19

The eastern end of this screen has a chamfered corner which takes up the well-marked batter to produce the interesting surfaces shown at the centre of figure 154. Here the older wall re-appears to view, still based on the ancient classical limestone, above which to a height of 3.50 to 4.00 metres it is constructed of re-used classical poros blocks, conspicuous for their anathyrosis and other typical cuttings (Fig. 20). The material is arranged as evenly as possible, to approximate continuous horizontal joints, introducing tile, however, and small stones here and there. The largest blocks were reserved for the

topmost course, above which the material changes abruptly to medieval small stone and thicker brick. Over the postern gate this change in material does not involve any change in masonry style or mortar (Fig. 157), so that the whole medieval construction is here of one period. Farther east, however (Fig. 20), the smaller and scrappier material and the occurrence of a cannon embrasure involve a later reconstruction.

FIGURE 154. EXTERIOR FACE OF WALL, BETWEEN 21 AND 22

The NORTH POSTERN (Figs. 157–159) is an opening 1.70 metres high, slightly narrower (1.05 metres) at the top than at the bottom (1.09 metres). A single large squared block of poros forms the exterior lintel. The passageway within is barrel-vaulted in well-set poros; and it is the exposed face of this vault, adorned with a superimposed repetition in thin tile (0.25 metres long, .025–.028 metres thick) which forms the interior doorway (Fig. 158). The postern is thus a simple piercing of the wall without special defenses of any kind. Presumably it was closed by a wooden door, braced by wooden bars or beams.

This whole section of the circuit wall closing the head of the North Gully is distinguished by the extraordinary amount of re-used ancient poros blocks. It follows that its construction must date back to a period when such material was still abundant. Further, the complete absence of Byzantine architectural fragments, elsewhere so conspicuous in the older portions of the main wall, implies construction prior to the Slavic invasions, whose destructiveness made such Byzantine elements available to the builder. We are thus led to assume an early-Byzantine or late-Roman origin for much of the work around the North Postern and left to choose between Justinian and his predecessors of the fourth century after Christ. It would be interesting and might be helpful to ascertain the source of these classical poros blocks. Some have been reset from the circuit wall itself, as may be seen by comparing them with the undisturbed stretch 18–19. Others show by their cuttings that they were derived from a rectangular building; but the obvious suggestion of the temple of Aphrodite on the nearby northeast peak of the mountain is not at all attractive and none of the other classical buildings in the vicinity have been located or identified. If the wall be early-Byzantine, as seems highly probable, we must still account for numerous subsequent repairs, as at 19, the addition of the two buttress screens at different periods, and the rebuilding of the parapet, including so late an innovation as the cannon embrasure between 22 and 23, which by its nature cannot be pre-Venetian.

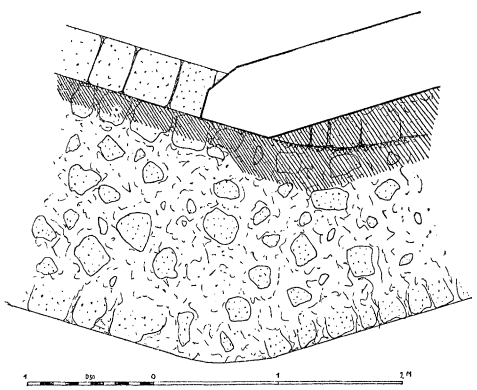

FIGURE 155. PLAN OF WALL-TOP AT 21, SHOWING OVERLAPPING BUTTRESSES

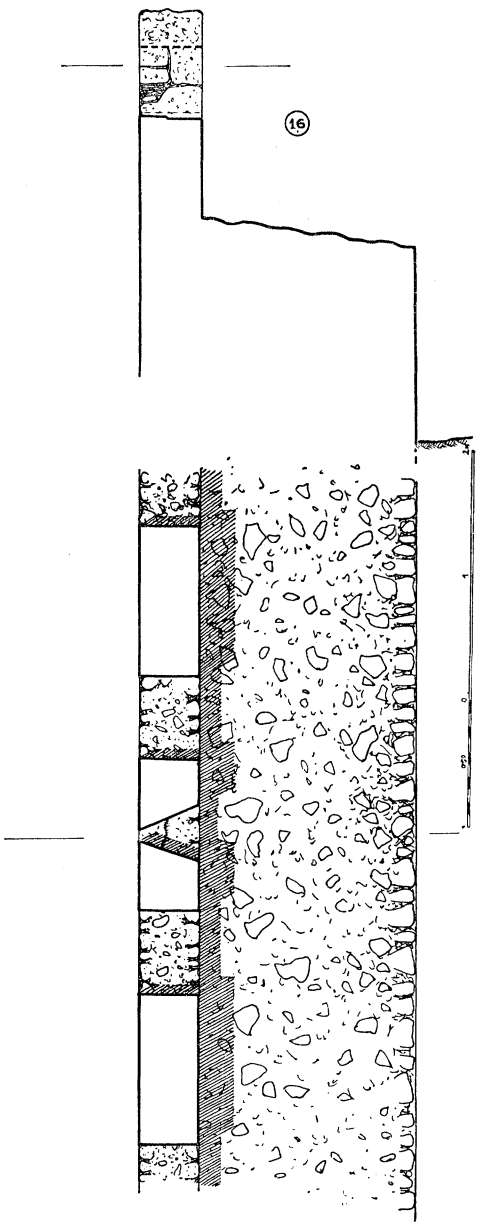

FIGURE 156. PARAPET BETWEEN 21 AND 22

7. The Circuit Wall: the North Cliffs

Turning sharply inland at 23, the wall now attacks the long ascent which after two sharp turns brings it back northward above the conspicuous cliffs that mark the centre of the mountain's northern flank. With such tremendous natural defenses the wall on this rocky headland was probably in all times a more casual affair than elsewhere in the

Figure 157. North Postern, from Without

circuit; but the approach up the steep incline between 23 and 25, which here continues to profit by the conspicuous and relatively well preserved ancient limestone socle, is stouter and more careful. The bastion-like angle at 23 is a medieval addition behind which the classical traces disappear from sight. Thence as far as the re-entrant angle at 24, the exterior is uniform in style (Fig. 150), made of small stone poorly hewn but skillfully set, in light-hued mortar with brown grit. Square scaffold holes show at irregular intervals. As is usually the case in sharply ascending terrain, the top of the wall rises as much as

3 metres above the interior ground level. Though the narrow parapet (its traces are but 0.50 metres wide) has vanished, the rampart is well preserved, with its incline interrupted by steps at intervals of 1.50–2.00 metres. The unusual element here is the construction of the interior wall-face, the courses of which throughout are not horizontal but slant with the terrain beneath and the rising rampart above (Fig. 160). This device is not to be found elsewhere on Acrocorinth except in occasional crowning courses, and is in general rare: the Genoese walls of Galata (*ca.* 1304) and the gate known as the Haryb Kapu[1] at Constantinople may, however, be instanced as parallels.

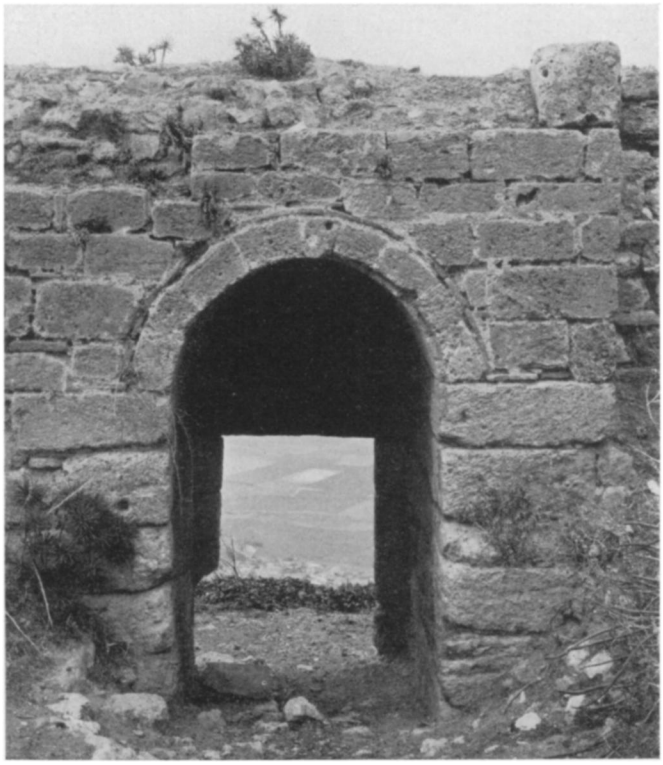

FIGURE 158. NORTH POSTERN, FROM WITHIN

Between 24 and 25 the general aspect does not change; but at the lower end of this short bay the interior (Fig. 160, right) has been strongly re-inforced to make a sort of terrace or platform which widens out from 3.50 metres to fully 5 metres (cf. Fig. 150, lower left). On examination it will be seen that the construction is much less regular. Also there is occasional brick amid the stone, and the mortar has a redder hue and hence also contains powdered brick. The thin parapet without embrasures excludes the use of this platform for artillery, so that its true purpose is no longer evident.

[1] Cf. F. W. Hasluck, *B.S.A.*, XI, 1904–05, p. 53, fig. 3, though this unfortunately shows the wrong face of the gate for the construction here in question. Cf. also the footnote below, p. 281.

On reaching the rockier and more protected plateau at 25, the wall changes its style: limestone and poros of medium size are set in horizontal courses with intercalated layers of brick and small stone, in a mortar of light color and miscellaneous content. The rampart ascends at first without, then later with, steps, and bears evidence of rebuilding in a rose-red mortar which occasionally even spreads over the wall surface. The parapet has been destroyed. Beyond the salient at 25 for a stretch of almost 200 metres the wall construction becomes very indifferent and its defenses poor, for the reason already indicated,—the inaccessibility of this headland above the sheer north cliffs. If it was here that Aratus in classical times mounted to the lowest built and least defended portion of the ancient circuit,[1] it would appear that military history was repeating itself in neglecting this sector during the medieval period. Breaches in the wall reveal two kinds of mortar, both of little cohesion, one white with river pebbles, the other seldom better with broken brown stone; but inspection fails to show which of the two is the older or how the various repairs and rebuildings succeeded one another. The rampart is continuous, with its incline formed by the sloping crown of the wall, and carries a parapet without other openings than an occasional loophole (Fig. 161). At 26 the curtain is flanked by a square tower, now ruinous. It is of small size, projecting 3 metres from the wall on its south and 3.70 metres on its north, with a front of 4 metres. Its walls are only 0.88 metres thick and enclose a single room, once vaulted, entered through a narrow round-headed doorway (Fig. 161, right; Fig. 162). The rampart passes over this door without interruption, by employing steps. Tower, rampart, and wall are uniform in style and material, save for interior repairs to the tower where the mortar with brown grit gives place to a brick-red one and this in turn to a very low-grade white one with gravel, at a point where wooden tie beams have been left in the wall *alla turca*.

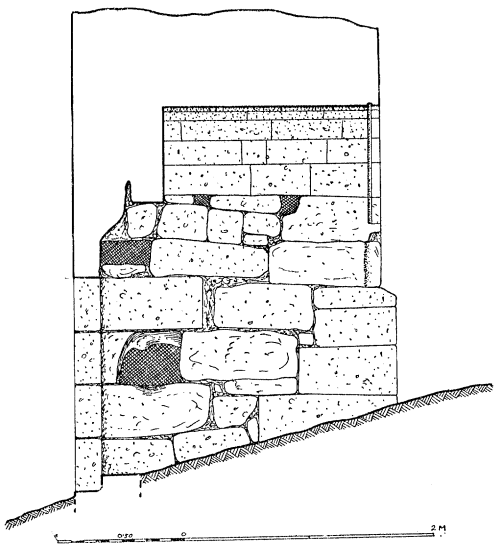

FIGURE 159. NORTH POSTERN: CROSS-SECTION

The tower marks the highest point in the north wall, which now descends, at first slowly, then more rapidly, to the level stretch beyond 27, where the mountain top runs out with little loss of height into its conspicuous northeast shoulder. The classical socle, largely missing between 25 and 26, now reappears in powerful form, preserved occasionally to a height sufficient to show even in the interior face. The medieval superstructure continues very miscellaneous in style, now built with river-pebble mortar and crowned

[1] Cf. the discussion on p. 43 (n. 2).

with a continuous parapet, now employing a reddish or lighter bond of poor quality beneath a rampart characterized by a mortar containing larger round pebbles. The general preservation is poor except at 27 where the height and thickness increase noticeably, perhaps because of the strong ancient socle (Figs. 23—24).

The sector just described evidently presents some difficult chronological problems. The wall was never very stout nor strong, has suffered damage and undergone repair, and is to-day in poor condition. An inadequate restoration leads only to further disintegra-

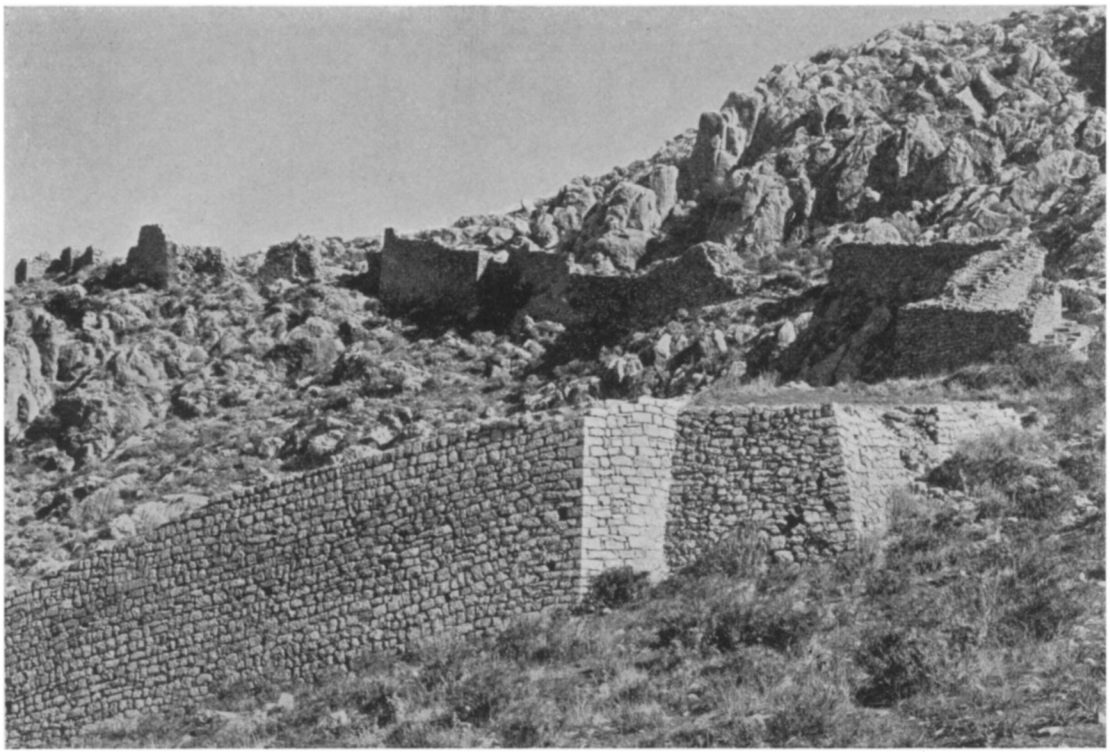

FIGURE 160. WALL, SECTOR 23–24 FROM WITHIN, SECTOR 25–26 FROM WITHOUT

tion; and as the point of contact between ancient and medieval masonry seems to be particularly favorable to decay, such a superstructure as we find in this sector must have been particularly liable to collapse.

8. THE CIRCUIT WALL: THE NORTHEAST SECTOR

With the easy security of the high north cliffs left behind, the character of the defenses changes abruptly. The northeast shoulder of the mountain, across which the wall now runs, is readily accessible from the south by the long sloping ascent from the East Hill above the lower town, and is not wholly unapproachable from the north (though here the only convenient ascent is through a narrow gully still blocked with the remnant of

FIGURE 161. MAIN WALL AT 26, FROM WITHIN; SOUTHWEST REDOUT WITH KEEP

a stop-gap of medieval masonry). Thus exposed to attack, the fortress wall beyond 27 becomes thicker (1.50–1.80 metres) and loftier, with its rampart running as much as 4 metres above the interior ground level. The more careful construction has ensured a better preservation, hence fewer repairs and a greater uniformity of style. In spite of occasional gaps where collapse has occurred, this long stretch of wall running for nearly half a mile to the citadel's southeast corner opposite Upper Peirene, imparts a strikingly uniform impression with its well-preserved parapet of large merlons, alternately pierced by loopholes (cf. Fig. 166).

The inner face of the wall near the beginning of this northeast circuit, between 27 and 28, is well illustrated in figure 163. The irregular stones, mainly small uncut Acrocorinthian limestone with occasional fragments of large tile, are smothered under mortar, whose surface the mason has crudely decorated with trowel strokes. The rampart is slightly less than three feet (0.85 metres) wide and runs some 3 metres above the present interior ground level which, to judge from a half buried and walled-up postern, is somewhat above the medieval one. The parapet, 0.65 metres thick, is notable for its size and good preservation. The merlons, originally capped, are separated by relatively narrow (0.75–0.80 metres) crenellations and are themselves nearly square, being normally 1.90 metres wide with a height of *ca.* 2 metres. Every other one is pierced by a loophole with no downward slope (PLATE VIII, Type 17; Fig. 164). At interior ground level the wall is pierced by splayed and vaulted openings, narrowing from 1.55 metres within to 0.60 metres externally. Their vaulting is either in stone (as in the one illustrated in figure 163) or in heavy brick, while the exterior aperture is sometimes rectangular, sometimes arched, with the arch either cut in a single block or built in radiating brick. Between 27 and 28 there are four such "windows," though only half of their number were allowed to remain open through subsequent periods. They cannot be cannon embrasures because of the acute angle of the splay and the absence of emplacements behind them. If they date from the period of firearms, they can have served only for short-range pieces of small caliber.

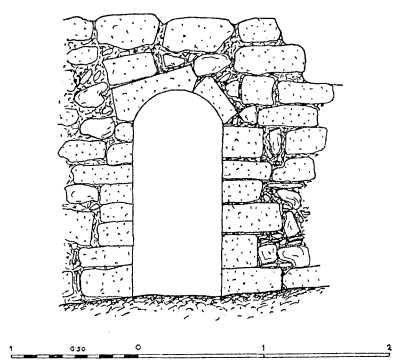

FIGURE 162. DOOR TO RUINED TOWER AT 26

As far as the extreme northeast angle at 30 this same style of defence continues (though interrupted by two breaches, one of which measures as much as 35 metres) with the identical parapet and type of "window" (Figs. 165–167). The collapsed portions afford a useful glimpse into the interior masonry of the wall and furnish indubitable evidence for two periods of construction, since they exhibit an earlier wall built directly upon the classical remains and crowned by a later superstructure. The lack of any effective bonding between the two has caused the disintegration of the upper structure. This tendency of the wall to split at the juncture and allow the upper portion to collapse is visible in figure 168

where, at the extreme left margin, the horizontal cleavage and the different color of mortar are shown.

The difficulties of the chronology of this sector are enhanced by a blocked-up postern once opening upon a triangular barbican at 28. Within, only the top of the doorway now shows above ground, with a pinkish mortar of badly slaked lime; but on the exterior the entire doorway is exposed, being slightly over 2 metres in height, with battering jambs (Fig. 169), surmounted by a crude cornice which simulates a depressed arch but is actually carried on a column laid horizontally to form a lintel. The mortars are difficult criteria

FIGURE 163. INTERIOR FACE OF WALL, BETWEEN 27 AND 28

in this instance, since the mortar with brown grit used in blocking the doorway recurs in the jambs, and this suggests that there was some sort of repair before the passage was finally discarded. The protecting triangular courtyard, or barbican, into which the postern gives, does not key into the main wall and hence seems an addition of subsequent date. To be sure, the same reddish mortar of poor lime distinguishes the outer doorway which pierces the barbican's eastern arm close beneath the great wall (Fig. 168); but this coincidence may be due to a repair to the postern executed at the time that the barbican was added. Figure 170 shows the details of the masonry of the barbican gate.

The approach to the Northeast Postern must have been the East Ascent, which mounts the long sloping cut or couloir from the East Hill to the northeast shoulder of the

mountain, and hence must be intimately connected with an outwork at 29. This consists essentially of a long barrier closing the East Ascent at a point where the main fortress could not control it. It is a wall of straggling and irregular course which picks its way along the cliff and through the exposed bed-rock of the hillside. Its construction is slight,

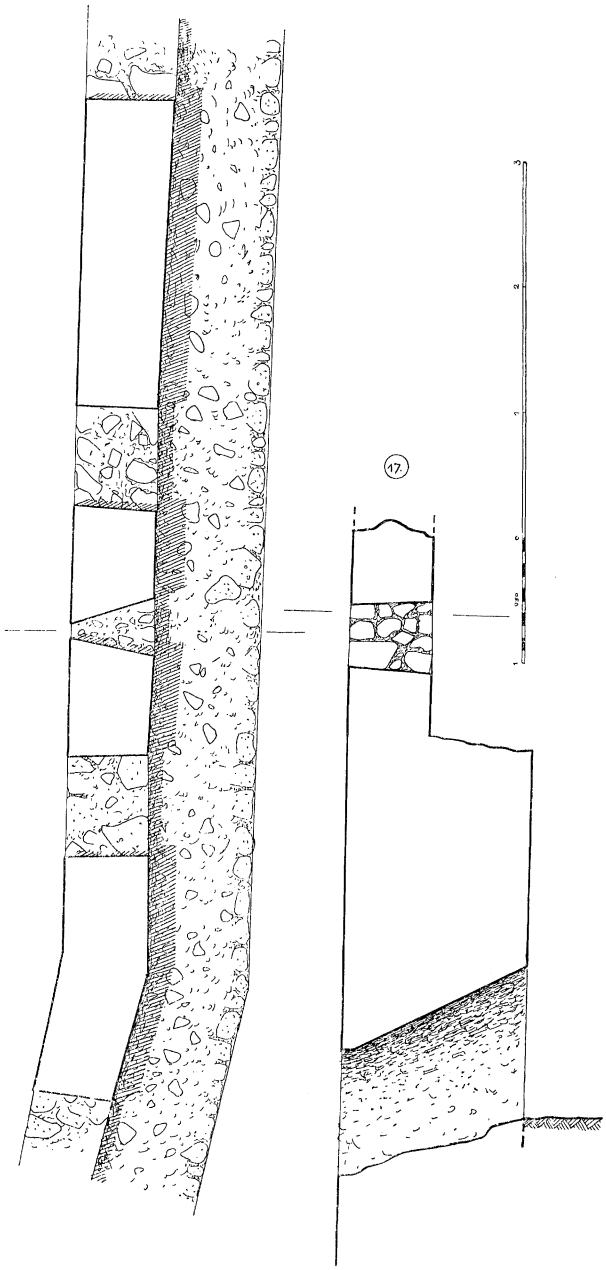

FIGURE 164. DRAWING TO ILLUSTRATE PRECEDING PHOTOGRAPH

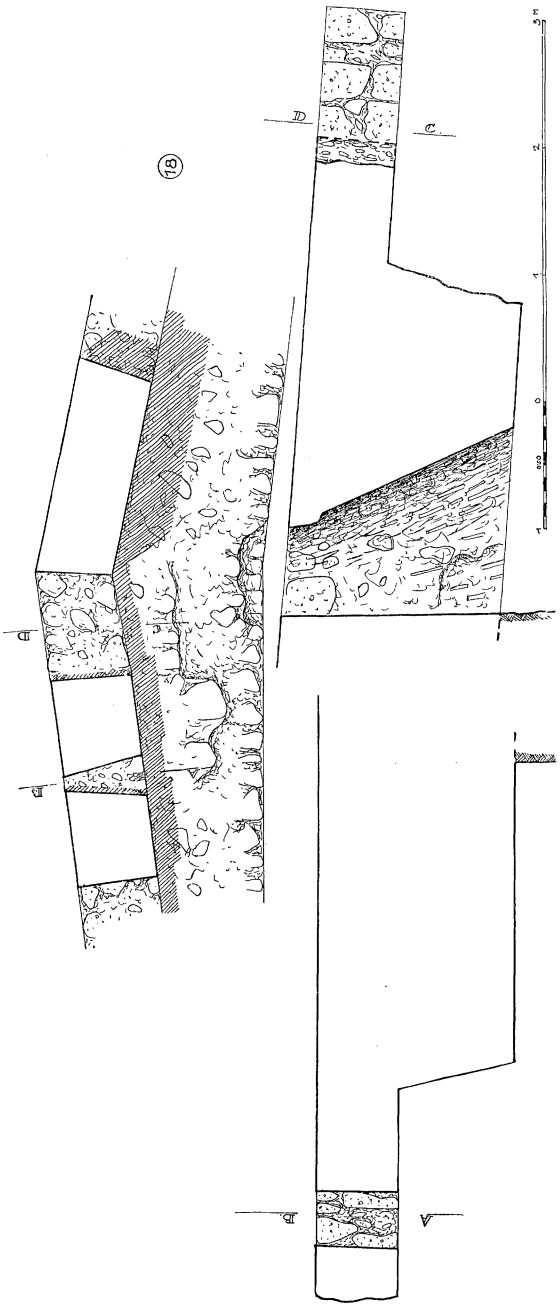

FIGURE 165. WALL, SOUTHWEST OF 30

FIGURE 166. NORTHEAST ANGLE OF CIRCUIT WALL, FROM WITHIN
(Through the breach, Venetian earthworks in the plain)

FIGURE 167. SAME, FROM WITHOUT, SHOWING NORTHEAST BASTION

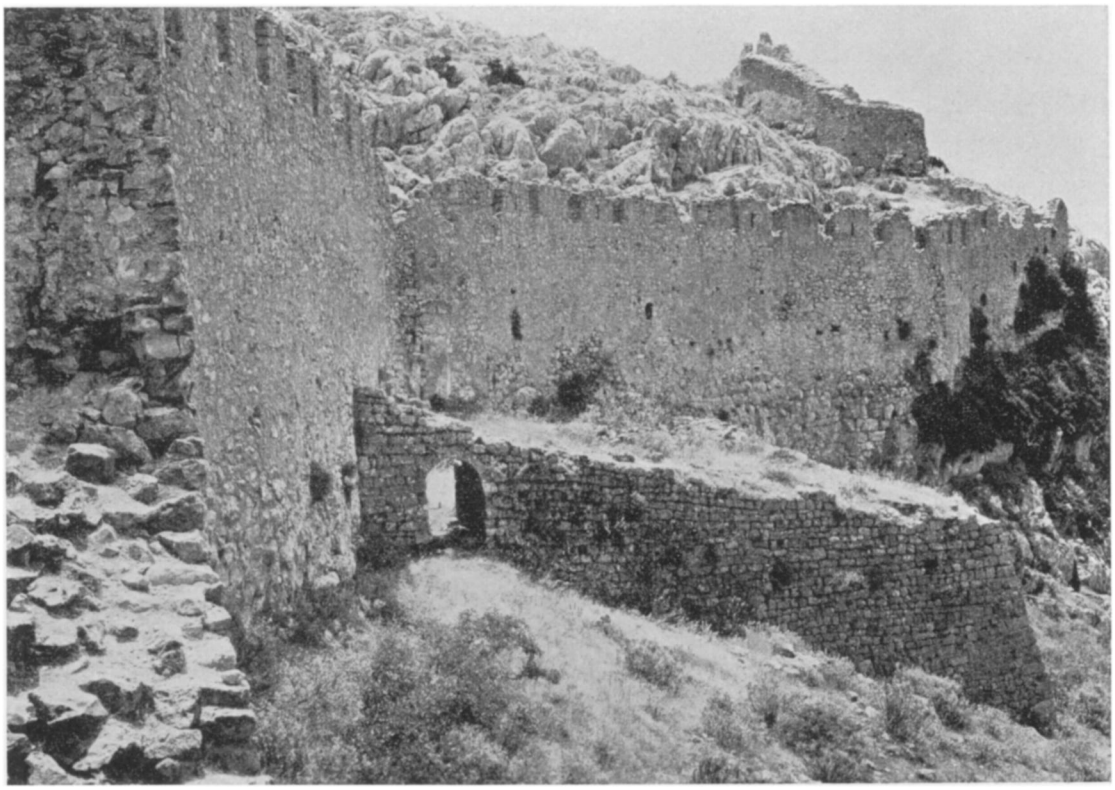

FIGURE 168. TRIANGULAR BARBICAN AT 28

FIGURE 169. WALLED-UP NORTHEAST POSTERN, FROM WITHOUT

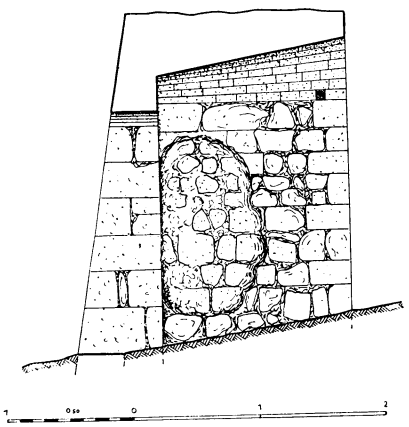

FIGURE 170. BARBICAN GATE: CROSS-SECTION

being only 1.00–1.50 metres thick, of no great height, and put together of very irregular pieces of limestone; yet (except at the inaccessible south end) these are assembled with considerable care along with much broken brick and a little stray poros into a reasonably homogeneous structure (Fig. 171). The mortar is white with brown or greenish content. A small vaulted doorway, marked by some larger blocks at its base, its exterior much dilapidated, is the only opening in the wall. The only other features are a small buttress near the south end and a thickening of the structure at two exposed exterior angles,—indications of a certain degree of care and architectural intelligence.

FIGURE 171. NORTHEAST OUTWORK: BARRIER WALL AND GATE

The northeast shoulder of the mountain, a gently sloping headland terminating in vertical cliff, though well protected by nature and lying within the defenses of this outwork, does not seem to have been built upon or inhabited. The traditional name *Ebraiokastro*, or ghetto, cannot therefore apply to this area.

Our analysis suggests the following chronological scheme for the sector under review:

The oldest portions are those immediately superposed upon the classical wall-base and characterized by greyish mortar containing brown grit. The Northeast Postern belongs to this same period. The outwork at the head of the East Ascent is later (because

of the broken brick), but earlier than the main superstructure of the great wall (because the same mortar with mixed pebbles may be detected in the main body of the latter and in accessory repairs to the former). The barbican is still later, belonging to a fourth period in which the top of the postern doorway was reconditioned or altered. Finally, the postern was disused and walled up and the whole exterior system of defence (barbican and outwork) was allowed to fall into disrepair, for the obvious reason that no access from the lower town by way of the East Ascent was any longer possible, now that the Northeast Postern had been blocked. The attempt to assign dates to these five periods must be postponed until the general description of the great wall has been finished.

The long eastern circuit, from the Northeast Bastion at 30 to the vicinity of Upper Peirene, resembles the section just described, possessing a wall of substantial thickness (over 1.50 metres) with lofty rampart (2 to 4 metres above the interior ground level) approached from within by single or double stairs, and with a parapet of wide merlons alternately pierced with loopholes. In spite of the irregular contour and protruding angles caused by the accidents of the rocky terrain, there are straight stretches of considerable length, such as that of more than 80 metres situated between 32 and 33. The only exterior feature is the solitary tower at 33 which commands the East Outwork at 35, much as the Northeast Bastion at 30 surveys the outwork at the head of the East Ascent. This Northeast Bastion, at 30, with which we may resume our detailed description, is little more than a polygonal treatment of the extreme northeast angle of the circuit (Fig. 167), built a little more carefully than the adjoining portions of the wall. Its platform (Fig. 166) is set higher than the rampart to the west, from which a flight of steps ascends, while another stairway toward the east descends all the way to the interior ground. The mortar contains round pebbles and was used generously. The scaffolding was left built into the masonry, and its place is now marked by round holes.

The East Wall is marked by frequent breaches, chiefly at the juncture between masonry of different periods. A more complicated history is thus revealed than the apparent identity of plan and style would have suggested. A grey mortar with brown or greenish grit is frequently exposed at the lower levels, whereas higher portions are apt to show mortar with pebbles of various colors; but there is no uniformity, since some sections of the wall are firm and others crumbly, scaffold holes are now square, now round, the rampart widens and contracts, the parapet shows alternate loopholes in some sections, no loopholes at all in others. These local variations do not, however, argue more than casual differences of workmen and habit. More chronological importance attaches to the thick rose-red mortar which in many places covers the entire wall surface with a poorly applied and easily disintegrated coating.

At 31 the wall projects some 12 metres to form a redan. A stair gives access to the low rampart (Fig. 172). At 32 a second and smaller redan employs a window (Fig. 173, left) opening to the east and similar to those between 27 and 28. Its covering vault is built of thick brick, faced on the interior with poros. The parapet has disappeared from

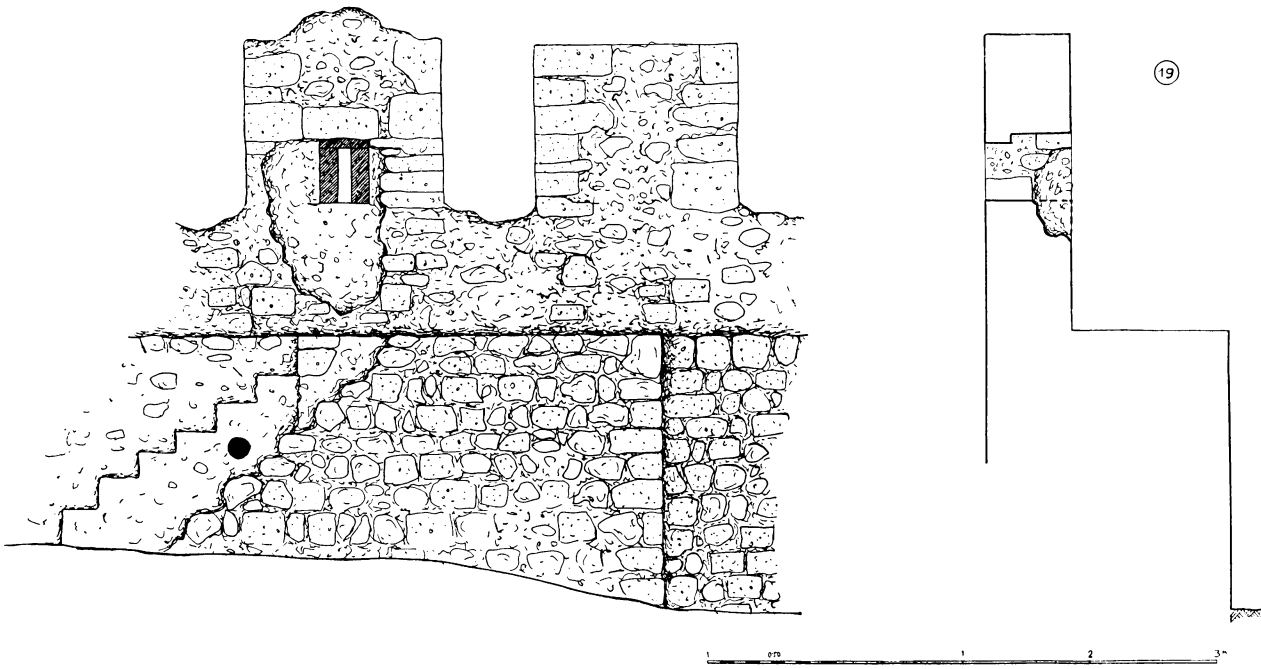

FIGURE 172. INTERIOR FACE OF EAST WALL, NEAR 31

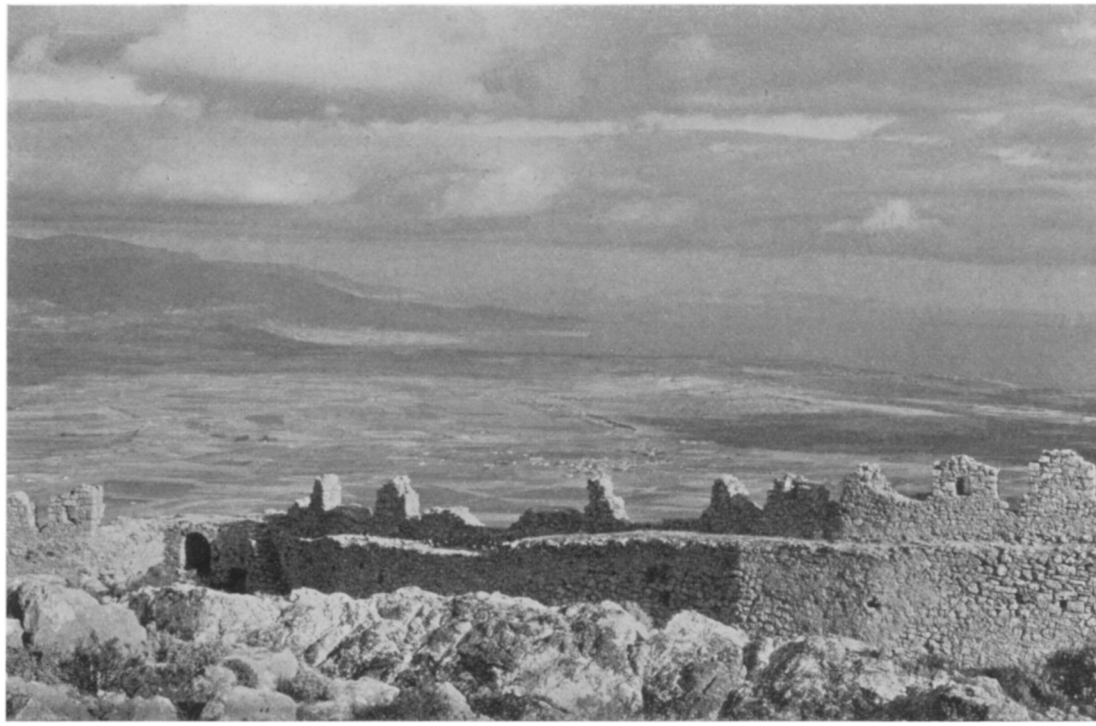

FIGURE 173. INTERIOR FACE OF EAST WALL, BETWEEN 32 AND 33
(In the background, the Isthmus and Saronic Gulf)

the redan and is poorly preserved on the adjoining wall; but there is enough to show an unusually copious use of thick brick, always set horizontally between the courses of stone. The scaffold holes are invariably square in this sector (e.g. Fig. 173, extreme right).

Here begins the 80-metre stretch of straight wall, running through almost perfectly level ground. It is built of uniformly irregular material. Except for three merlons at the south end, the parapet is missing. A small exterior buttress in more regular construction (Fig. 27, upper right) is a subsequent addition marked by the use of broken

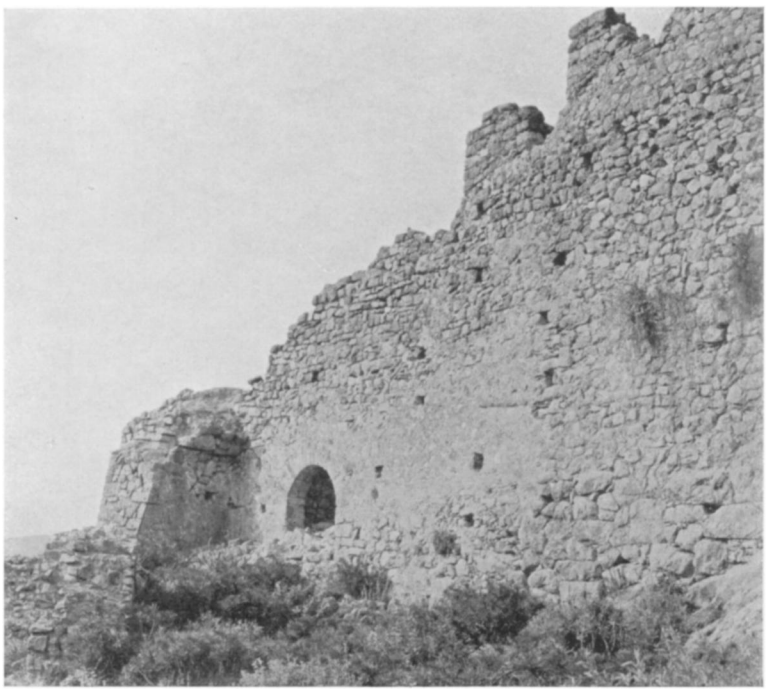

FIGURE 174. POSTERN TO EAST OUTWORK, SEEN FROM WITHOUT

brick and a strong mortar containing river pebbles of light color. Beyond a slight angular turn in the wall line (which here as usual slavishly follows the classical contour in order to benefit by its massive limestone base), there follows a solid hexagonal tower at 33, which does not rise above nor interrupt the rampart. A double stair attached to the inside face of the wall leads to the tower platform. The style of the masonry, with carefully set quoins, is much like that of the Northeast Bastion at 30. Two fragments of marble—one classical, the other Byzantine—are embedded in the exterior. The reddish mortar with occasional fragments of brick, though abundant, is only superficial and does not belong to the original construction. Such a tower jutting out from a straight stretch of wall, instead of at a prominent salient, and rising no higher than the main rampart has no obvious military justification; but if it chances to cover the dismantled junction of the

ancient east wall of the city with the Acrocorinthian circuit, as was suggested elsewhere,[1] the tower's true explanation would only come to light with its own destruction. At least, in the medieval scheme, it could serve as a general vantage point for surveying the outwork which sprawls beneath it across the irregular and stony slope.

This latter structure, which we may call the EAST OUTWORK, leaves the main wall at a very slight angle, about 100 metres beyond the hexagonal tower, follows the

FIGURE 175. BASTION OF EAST OUTWORK; MAIN WALL, 34–37; SOUTHEAST OUTWORK

contour level back eastward until it arrives opposite the tower, then turns away from the main wall and plunges downhill to the 500 metre level (cf. the Survey). Here, reinforced by a bastion at 35, it again turns sharply above a steep outcrop of bed-rock, to follow this eastward and northeastward for more than 100 metres into steeper, but not wholly impassable, cliffs among which it dies out without ever returning to the main line of Acrocorinthian fortification or closing its own circuit. As a direct assault up the

[1] Cf. pp. 45–46.

southeast slope of the mountain could hardly have ever been contemplated as a source of danger to the defenders of Acrocorinth, the plan and existence of this peculiar outwork must be due to the desire to command the lower stretches of the East Ascent, which are invisible from the main wall higher up. Otherwise we must assume that the early builders were led by traces of the east wall of the ancient city to believe that their classical predecessors had defended this slope and hence considered it dangerous. Where the outwork takes off from the main wall of Acrocorinth at 34, its masonry is abnormally

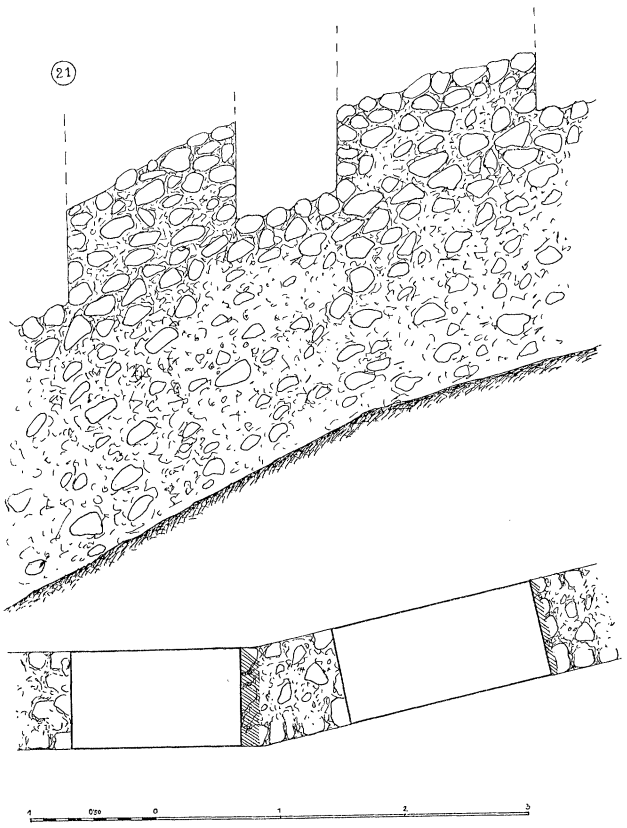

FIGURE 176. CURTAIN WALL OF SOUTHEAST BASTION

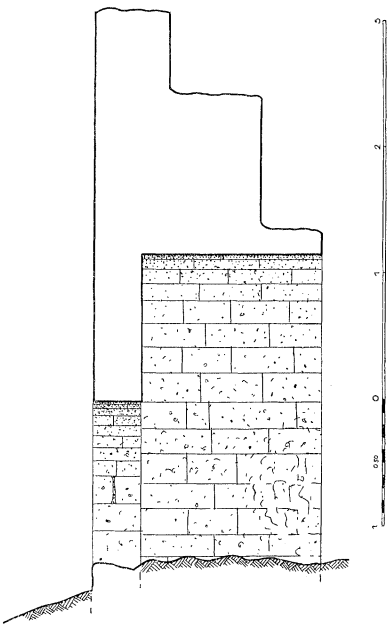

FIGURE 177. SOUTHEAST POSTERN, CROSS-SECTION

thick at the base, and this width is increased still further by corbelling higher up (Fig. 174). Throughout its course, wherever it has survived, the outwork is of very irregular construction, varying in thickness from 0.80 metres to double that amount, and employing mostly small unhewn limestone in light-colored pebble mortar. The best preserved portion is the bastion at the lowest point, 35, forming the southeast angle. This contains a small vaulted room built of roughly trimmed poros in very durable mortar and is adjoined by a small court to the west, where the wall is pierced by a couple of windows (Fig. 175, foreground). Except for a short crenellated stretch without any rampart to back it (Fig. 176), the crown of the wall has everywhere disintegrated.

Just within the shelter of the outwork, where it springs from the main wall of Acrocorinth, there is a vaulted passage, the sole means of communication between the outwork and the main fortress (Fig. 174). It is finely built of poros voussoirs set in a strong white mortar. This Southeast Postern (Fig. 177) was later walled up completely with rough masonry in pink mortar; and this in turn has been broken through, perhaps in very recent times, to allow a passage once more through the main wall (which is here unusually high). The postern vault is contemporary with the strong and well-built lower portions of the wall and not with the carelessly raised superstructure of miscellaneous smaller material. But the chronology is not confined to only two periods. About midway between the

FIGURE 178. BREACH IN WALL, BETWEEN 33 AND 34

postern and the hexagonal tower at 33, a large breach has formed, exposing the building strata (Fig. 178). The upper half shows masonry with river pebbles in the mortar; below, a confusion of styles shows brown-grit, rose, grey, and clear white mortar; while to the north of the breach at the very bottom of the wall there is still another mortar containing fragments of brick and marble in addition to pebbles.

In the other direction, beyond the postern and the outwork, the main wall changes direction and runs more directly south. At the angle the masonry has undergone frequent repair, and its history has been complicated by the addition of a double stair built against the interior face of the wall to permit direct ascent to the rampart (discernible in Fig. 184, upper left). At 36 there is an external buttress (Fig. 175, extreme upper right) built in greyish-red mortar with brown grit and resting upon older and more extensive

foundations. Unexpectedly, the preceding stretch of wall north of the buttress is not homogeneous with it, but shows a use of large tile, always laid horizontally, and a different and firmer mortar. Its rampart is stepped instead of sloping, and is protected by a parapet with narrower merlons (0.87–0.95 metres wide) without loopholes. It seems probable that an earlier period is represented here; but we have noted no clue to show

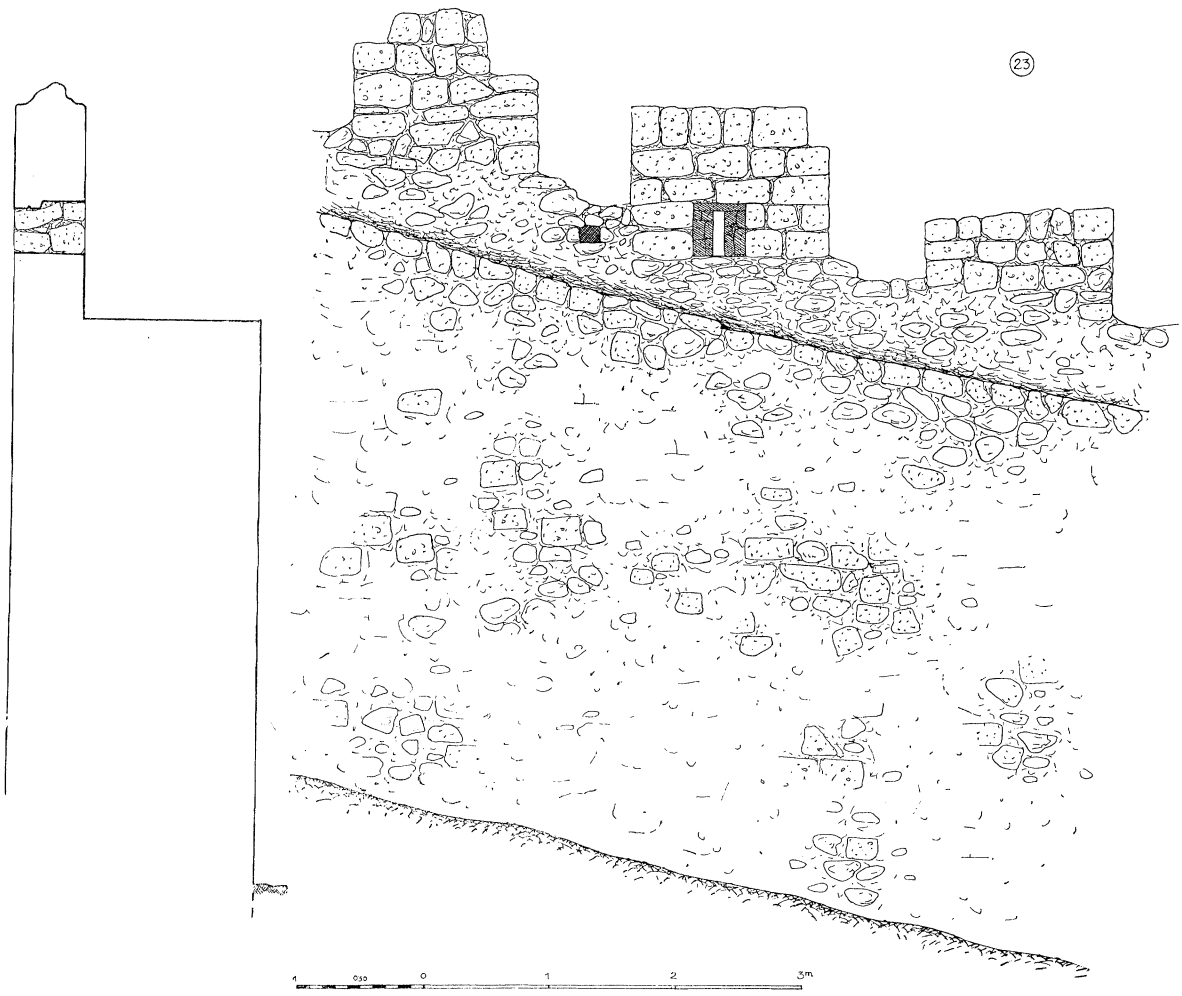

FIGURE 179. INTERIOR FACE OF WALL, BETWEEN 36 AND 37

whether this period precedes or follows that of the lower portions of the wall characterized by brown-grit mortar. It is interesting, but perhaps not significant, that the classical socle, prominent elsewhere, is here missing.

The buttress is followed by a last fine stretch of well preserved wall (Fig. 175, upper right half) of the type especially characteristic of this northeast sector, with continuous lofty rampart (*ca.* 4.50 metres above the interior ground level) and parapet of broad

merlons (1.40–1.68 metres wide), capped, and alternately pierced with loopholes (Fig. 179, cf. Fig. 184, centre background).

At 37 the last and smallest of the outworks of Acrocorinth is attached to the main wall at a conspicuous tower (Fig. 180) by a remarkably thick spur wall descending to a polygonal bastion (Fig. 175, upper left), whence a much thinner and very ruinous south wall returns toward the main curtain. The bastion at 38, in which the outwork ends, simulates an hexagonal tower; and actually, its construction and well-laid corners of poros distinctly resemble the hexagonal tower at 33 as well as the polygonal Northeast Bastion

FIGURE 180. TOWER AT 37: RUINED WALL OF SOUTHEAST OUTWORK

at 30. The mortar of these three structures is identical. Figure 181 illustrates one of a series of small vaulted windows in the bastion under discussion.

The return wall on the south is only 0.75 metres thick, survives to a height of 3 metres and is a mere screen, devoid of windows or parapet. It is badly preserved and fails completely before reaching the great wall. The mortar contains brown grit, such as occurs also in the heavier north wall of the outwork, where, however, the original thickness of 0.70 metres has been supplemented in a different technique in pebble mortar to form a rampart exactly twice as broad. This north spur wall does not tie directly into the main curtain on Acrocorinth, but, as figure 180 shows, was loosely attached to a tower of peculiar construction. The southern (left) half of the tower is a section of a hexagon,

built with a certain amount of care and employing pebble mortar; whereas the northern half, against which the outwork abuts, forms part of a rectangular structure carelessly assembled in brown-grit mortar. A further peculiarity: the tower is hollow and contains a room of irregular polygonal shape, entered through the curtain wall by a flight of two steps (Fig. 182, extreme left). The part of the structure belonging to the hexagon must be contemporary with the bastion in which the outwork terminates, and is later in date than the other or rectangular portion (which the presence of brown-grit mortar allies with the original screen walls of the outwork). Communication with the outwork was established by a small door, now replaced by the breach which is so conspicuous in figures 180 and 182; but there was no further communication between the outwork and the exterior slopes of the mountain. In this respect it resembles the large East Outwork, 34–35, and differs from the Northeast Outwork at 29.

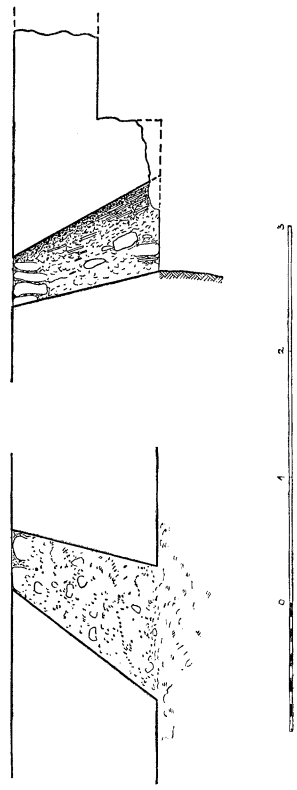

FIGURE 181. WALL AND WINDOW IN BASTION OF SOUTHEAST OUTWORK

9. THE CIRCUIT WALL: THE SOUTHERN SECTOR

This final section of the circuit is wholly different from the long northeast stretch described in the preceding paragraphs. Owing to the steep and uniform slope (Fig. 100) the wall is obliged to function almost continuously as a retaining or terracing wall to masses of earth the weight of which, formidable after heavy rains, has broken it again and again, in despite of numerous exterior buttresses which foresight or sad experience had applied at many of the danger points. These conditions make detailed description difficult and chronological distinctions impossible. A typical view, suggesting the complexity of the problems raised, is reproduced as figure 183.

Beyond 37 the same type of construction that was encountered between 34 and 36 reappears, with horizontal use of brick, stout pebble mortar, unpierced merlons between narrow (0.48 metres) crenellations. An external buttress (Fig. 183, right) is, at its northern end, merely applied to the wall in its lower courses, but at the south it is homogeneous and apparently contemporary with the wall behind it. At 39 the triangular redan with square scaffold holes (Fig. 183, centre) and just beyond it the rectangular buttress, so thin as to be little more than a jog or offset in the wall (Fig. 183, left) are both integral with the main wall, not afterthoughts or repairs. Beyond 39 the present wall-top lies flush with the ground behind it (Fig. 184, right), having lost its parapet. The exterior face of this stretch exhibits a bewildering complexity of mortars and includes a feature not elsewhere discoverable on Acrocorinth,—three superposed courses entirely in brick.

FIGURE 182. INTERIOR FACE OF WALL, 37–39, SHOWING TOWER AT 37

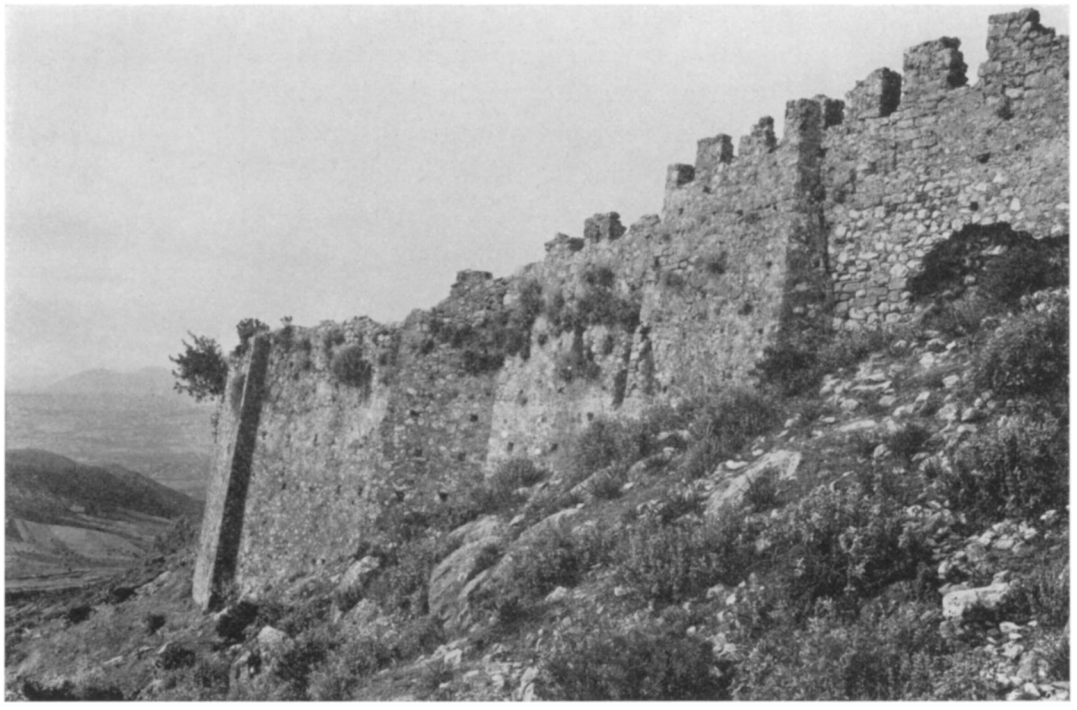

FIGURE 183. EXTERIOR FACE OF WALL, OPPOSITE PEIRENE

FIGURE 184. WALL FROM 37 TO 41: "GOVERNOR'S PALACE" NEAR PEIRENE

FIGURE 185. BASE OF TRIANGULAR BUTTRESS AT 40

FIGURE 186. EXTERIOR FACE OF WALL, BETWEEN 40 AND 41

At 40 with the definite change in trend from south to west, the angle is strengthened by a projecting triangular bastion, well built of poros and brick, quite distinct from the main wall, and very curiously based on a low fragment of wall parallel to the main one (Fig. 185). Is this foundation the remnant of an older square tower to strengthen the salient angle, or merely a rather clumsy expedient to reinforce the nose of the triangle?

Beyond the turn of the corner a long undamaged stretch (Fig. 184, foreground) is distinguished by a smooth upper portion in yellowish mortar above more irregular blocks of limestone and poros rather unsystematically assembled upon the classical socle. For a distance of 17 metres there extends a battering reinforcement in talus form (Fig. 186, left), to the right of which the unusually profuse use of brick in horizontal courses deserves remark. The wall climbs slowly higher than the interior ground, still without well-preserved parapet (cf. Fig. 187 for what survives).

At 41 there is an interesting tower (Fig. 188), small, nearly square (4.00 by 3.50 metres), built of heavily weathered poros accurately squared and carefully assembled with tile. A few of these poros blocks are ancient, one has anathyrosis; and there is some re-used Byzantine marble. The mortar is light in color, with very varied content. A tall thin archer-slot recalls the great towers flanking the Third Gate; nor is this comparison fortuitous, since all are apparently contemporary. Examination of the left return face of the tower in figure 188 will reveal obvious rebuilding of the upper courses, due to the ruin of the original wall to which the tower belonged.[1]

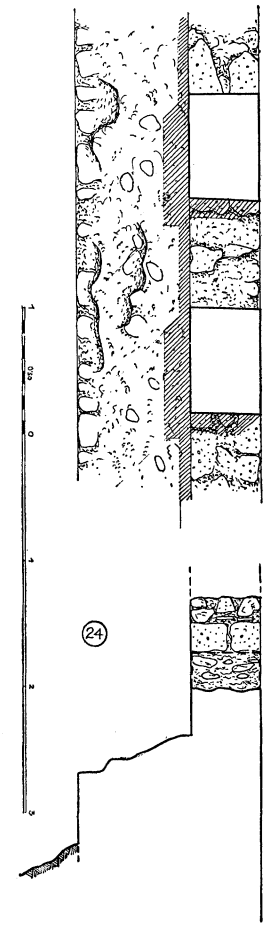

FIGURE 187. PARAPET BETWEEN 40 AND 41

At 42 after having passed close beneath the saddle which unites the two peaks of the mountain and forms the watershed between the western and southern slopes, the wall reaches the outcropping rock at a long spur which pinnacles in the Southwest Peak. Here, as though to consolidate its position where the rock emerges, the wall has been enlarged into a clumsy square bastion (Fig. 189) with rounded corners and battering faces, enclosing a small room poorly vaulted in small poros voussoirs. Style and mortar recall the bastion at 35 at the lowest corner of the East Outwork.[2]

[1] There was apparently a window in this face in the earlier masonry. The foot of the tower, close to the curtain wall, is pierced by a square aperture rather too large to be explained as the bed of a reinforcing beam (which should not in any case reach the outer surface). We have observed a similar construction in a tower of the castle of Galatas in Arcadia (Akova, thirteenth century), but without divining its purpose.

[2] Just north of 42 there is a small cistern built against the inner face of the circuit wall. The fallen vault discloses poros blocks set in a very firm white mortar with much powdered brick. The interior is coated with a fine pink stucco.

FIGURE 188. TOWER IN SOUTH WALL, AT 41

FIGURE 189. BASTION AT 42

The wall now runs due west for 300 metres with very little change of level and only such deviation from the ruled line as the ledges of native rock demand. The occasional small buttresses and redans have been produced by repairs rather than by any idea of adding further strength to the naturally powerful situation. Because of the steepness of the slope and the thickness of the wall (1.65–2.00 metres) the interior ground level is seldom more than 1.50 metres below the rampart, while the exterior wall face is often of impressive height (Fig. 190). But it is far from uniform in its construction. In the 60-metre stretch between the bastion at 42 and the jog at 43, it is possible to distinguish,—

FIGURE 190. EXTERIOR FACE OF WALL, 43–44

(1) irregular work in brown-grit mortar,
(2) more uniform work in cut poros of varying size, mixed with brick and set in colored-pebble mortar of considerable strength,
(3) similar material less carefully assembled in weaker mortar,
(4) a surface use of two other types of mortar, one with large light-hued pebbles, the other with brown grit.

Near 43 there are two windows flush with the interior ground, both vaulted in small stone; but the more eastern of the two (Fig. 191) which is oriented on Penteskuphi, uses a depressed, the other a round, arch.

Along the entire stretch to 44 the ancient socle in Cyclopean style adds a note of strength. Beyond 43 this rugged base is surmounted by small limestone blocks very irregularly fitted, such as have already been noted in the north sector between 28 and 30 and again in the south sector between 40 and 41. They are set in mortar of a greyish or pinkish hue, containing brown grit. Above this there comes a band in more careful style, using a white pebble mortar (Fig. 190). Still higher, the parapet employs the two other mortars catalogued under (4) of the preceding paragraph. The merlons (1.02 metres wide) are clumsily built, with cut poros up-ended vertically to form the quoins (Fig. 192). Every third one is pierced by a narrow and very steeply slanted loop-hole. Close to 44 a buttress of carefully assembled poros in noticeably red mortar with brown grit is clearly a later addition. Its date agrees with that of a reconstruction of the wall still closer to 44.

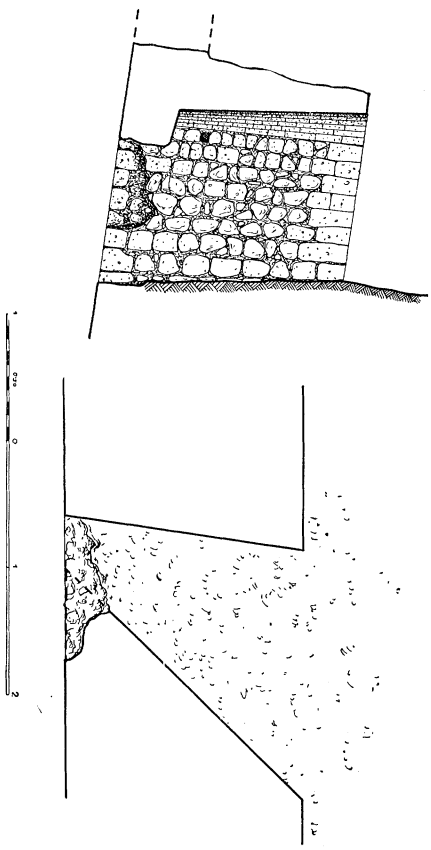

FIGURE 191. WINDOW IN MAIN WALL, WEST OF 42

To the west of this latter point the noteworthy features are, first, a curious buttress, triangular in plan, convex in elevation (Fig. 202, extreme left of centre), perhaps intended for external support to a cistern constructed against the wall within,[1] and, secondly, an 18-metre stretch of strongly battering wall decorated with a crudely cut molding, partly in poros, partly in marble, marking on the exterior the level of the ground behind the wall (Fig. 193). The workmanship, too coarse for Venetian, suggests an imitation of this favorite Venetian motif. Note, however, that the wall here is set back from the classical base and because of its stronger batter retreats well behind the almost vertical line of the adjoining wall face.

Between 45 and 46 the wall works downhill, to end in an artillery platform which closes the redout of the Southwest Peak, a construction still to be described. As far as this platform the ancient wall in Cyclopean blocks still serves as base, only to disappear completely behind and underneath it, thus indicating that the platform was built out beyond the ancient, and hence probably beyond the early medieval, line of defence. Up to the point of disappearance, the Cyclopean classical base carries a medieval superstructure in which there may be distinguished,—

[1] Described below, p. 253.

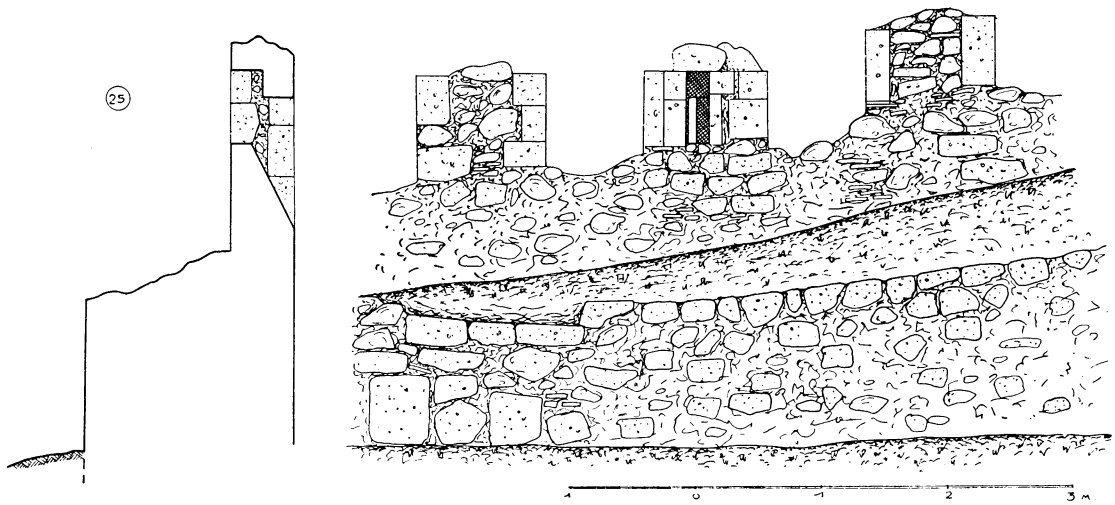

FIGURE 192. INTERIOR FACE OF WALL, BETWEEN 43 AND 44

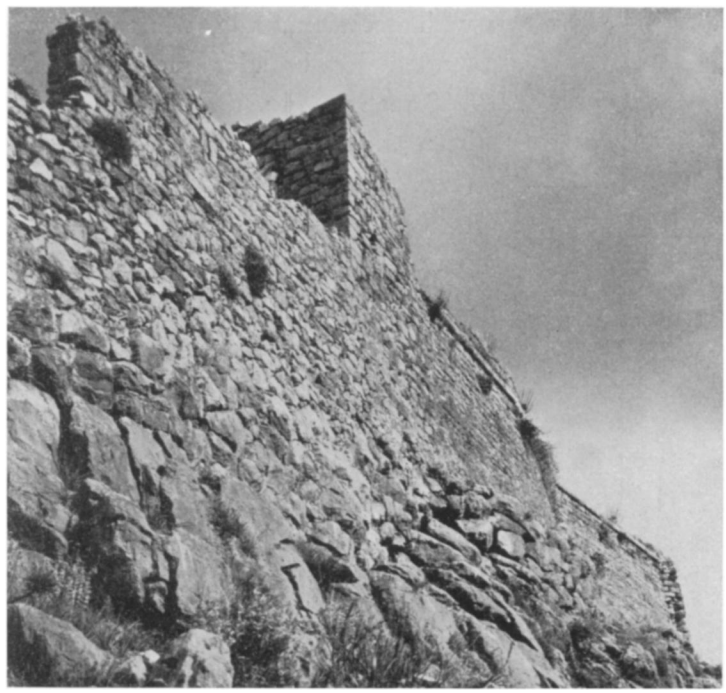

FIGURE 193. EXTERIOR FACE OF WALL, 44–45

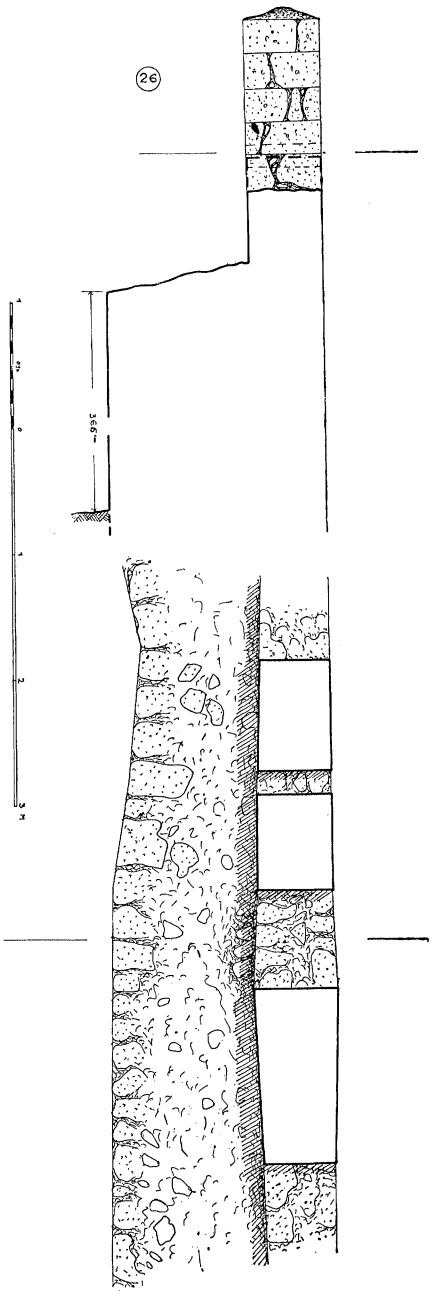

FIGURE 194. WALL-TOP BETWEEN 45 AND 46

(1) brown-grit mortar (with occasional mixed-pebble mortar) close to the base,

(2) on the main mass of the wall a coating of solid pebble mortar which has aged a golden yellow, this same mortar recurring in the three large surviving merlons (1.62–2.00 metres wide, spaced 0.78–0.80 metres, unpierced, Fig. 194),

(3) repairs:

(a) at a slight salient, reddish mortar with brown grit,

(b) in the high wall crown (attaining 3.75 metres above inner ground level), numerous, in brown-grit and in low-grade yellowish mortar with large pebbles.

Further evidence of rebuilding may readily be detected in figure 195 (right centre), where an older system of crenellation has been incorporated in a general heightening of the wall. The older merlons are narrow (0.93–0.98 metres) and built of well-cut poros with occasional tile, while the new crown was defended by broader merlons (1.04 metres) spaced 0.80 metres (Fig. 197). At 45, the crenellations have been walled up and the wall pierced with loopholes (Fig. 196).

In contrast with this complicated mixture of periods, the ARTILLERY PLATFORM is a uniform structure of well-cut poros blocks, with the angles still sharp and the dressing-marks still fresh. The roll-molding at the embrasure level proclaims it Venetian. The actual corner (Fig. 195) is sharp-edged at the top, slightly rounded lower down, and spread out into a broadly rounded talus at the base. The angle block immediately above this talus has designs in relief, no doubt the mason's mark, echoed also at the northwest corner. The platform is paved at the level of its cannon embrasures, which rank among the best of Acrocorinth. There are three large ones (Fig. 198) facing west and a single smaller one (Fig. 199, right) oriented south. Where the rampart of the main wall leads off from the platform, there is a small, roughly round, vaulted sentry-box or guard-house with two narrow windows and a chimney, corbelled out beyond the face of the wall (Fig. 199). Beneath the platform

FIGURE 195. SOUTHWEST ANGLE OF CIRCUIT WALL, 45–46
(At the left, the Venetian artillery platform)

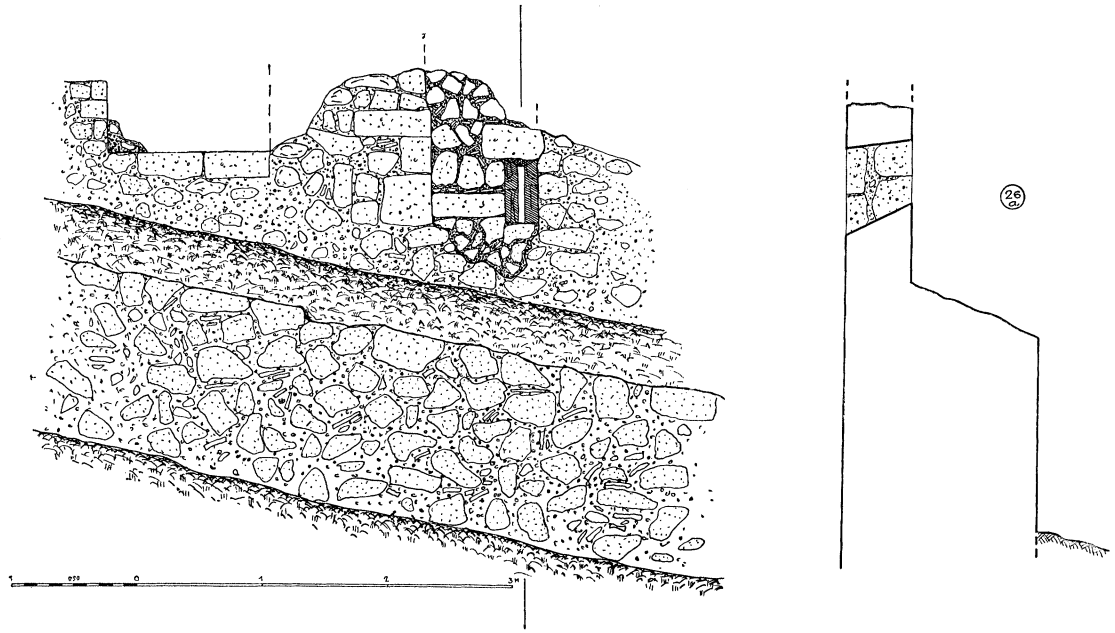

FIGURE 196. INTERIOR FACE OF WALL, WEST OF 45

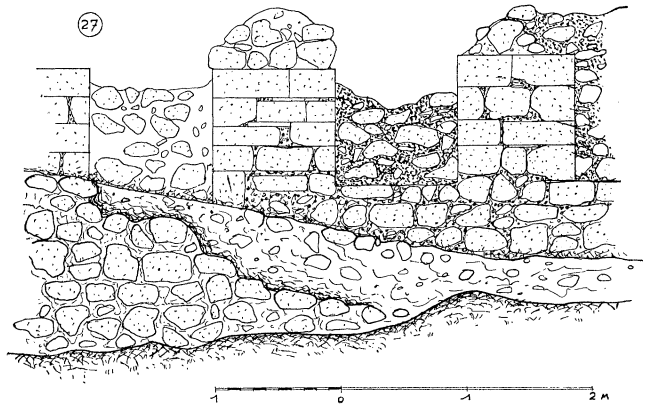

FIGURE 197. REBUILT WALL-TOP, EAST OF ARTILLERY PLATFORM

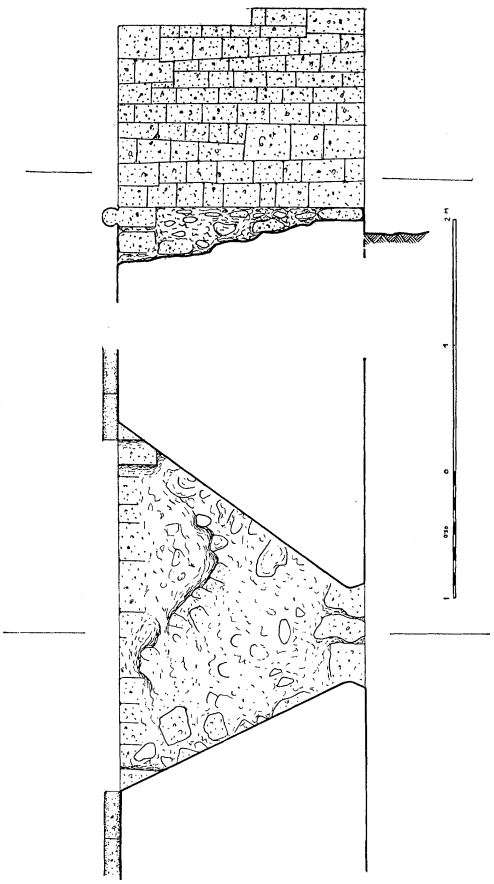

FIGURE 198. LARGE CANNON EMBRASURE OF ARTILLERY PLATFORM

itself, which is set higher than the interior ground level and reached from it by a paved ramp at the southern end (cf. Fig. 201, immediate foreground), there is a storeroom, entered through a door near its northern wall. Its ceiling was cast, rather than built, upon a wooden form.

The artillery platform forms the western terminal of the long south sector of the circuit. From its northwest corner a final spur runs northwest and then north in an abrupt and picturesque descent, terminating suddenly upon a sheer cliff more than a hundred feet above the "balcony" of the third line of the west defenses of the mountain (Figs. 103

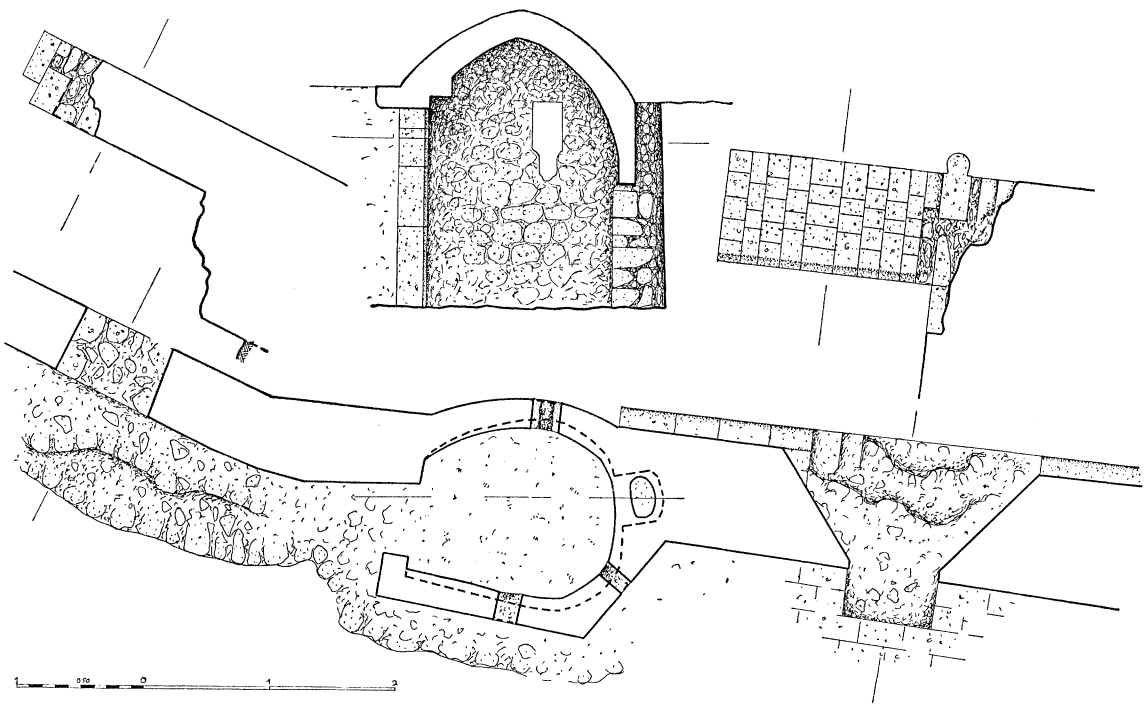

FIGURE 199. RAMPART, SENTRY-POST, AND SMALL CANNON EMBRASURE NEAR SOUTHWEST ANGLE OF REDOUT

and 118). This final stretch of wall from 46 to 48 is easily described. Starting obliquely from the north wall of the Venetian artillery platform, it is at first a thin curtain (only 0.75 metres thick) with a continuous parapet, in not too careful masonry which includes a good deal of small brick. At the sudden descent among the rocks it broadens very decidely and develops a stepped rampart (0.60–0.65 metres wide) once crenellated. Making a brusque westward curve it reaches a tower-like bastion at 47, narrow but strongly salient. Beyond this, the defense shrinks again to a simple curtain, 1.45 metres thick, which, thanks to the strength of its large-pebble mortar, still stands intact to its parapet of broad unpierced merlons (Fig. 200). At the interior ground level there is a splayed window with its broad inner face carefully arched in tile, while the narrow outer arch is cut in a single block of poros. The whole stretch of wall is comparable in style to the

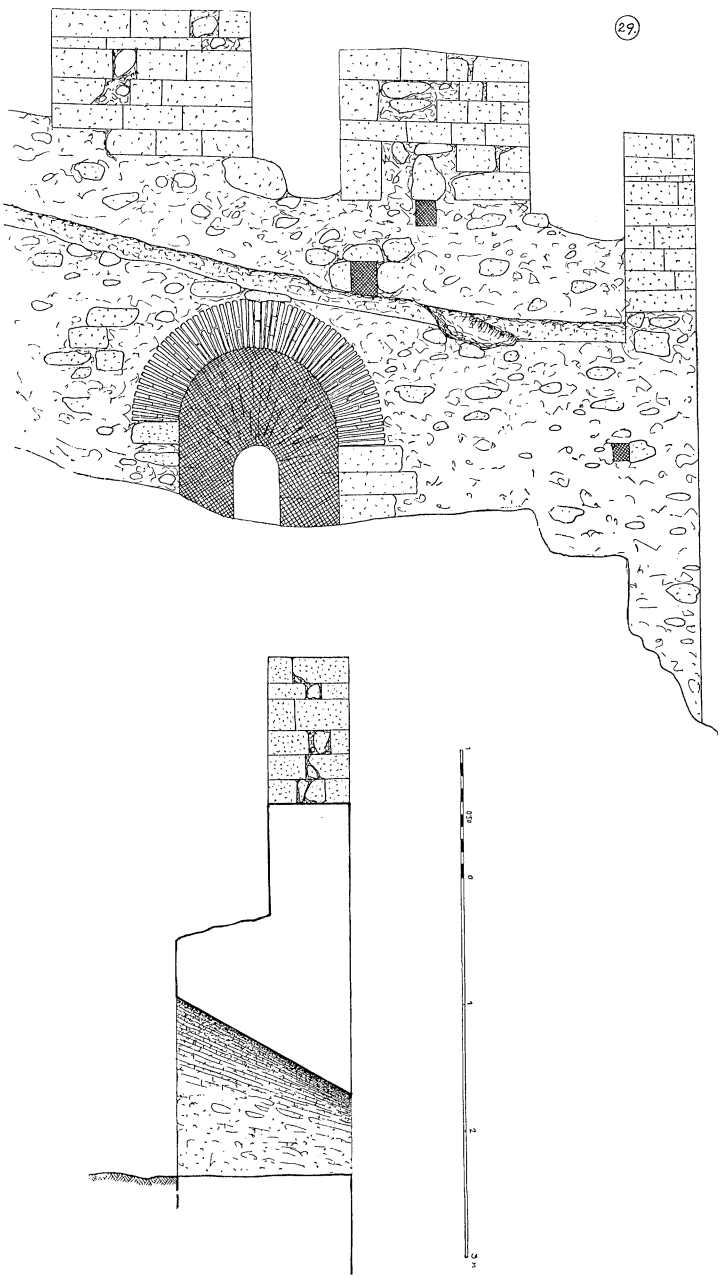

FIGURE 200. INTERIOR FACE OF WALL, AT 48

northeast sector. A pink mortar with brown grit, discoverable at various points, belongs to a period of reconditioning. Abruptly, without bastion or buttress, the circuit wall ceases on the naked edge of cliff (Fig. 118).

10. THE SOUTHWEST REDOUT

A long and narrow, straggligly irregular rectangle is enclosed on two sides by the main circuit wall and on the other two by walls of its own (Fig. 201). Its dominating and essential element, perched at the high northeast corner of the enclosure, close to the highest point of the southwest peak of the mountain, is a great KEEP or donjon, a forty-foot tower, almost square in plan (Figs. 201, 202; cf. Figs. 161 and 100). Its walls rise with very slight batter from a pyramidally stepped base with small well-cut poros blocks heavily bonded in pink mortar containing brown grit. Three of the four angles of the tower project outside of the girdle wall of the redout, so as to flank any invader who had penetrated the main defenses of Acrocorinth and was approaching this final stronghold's walls. Interiorly, the keep (Figs. 203–204) consists of two stories beneath a flat crowning platform, the latter reached by a small stairway passing above the solitary loophole window of the east face (Fig. 204). The only entrance is through a small barrel-vaulted doorway at mid height of the tower's southern face, giving access to the upper story and reached on the exterior by a stairway from the adjacent rampart of the redout's east

FIGURE 201. SOUTHWEST REDOUT, INTERIOR, LOOKING EAST FROM ARTILLERY PLATFORM

FIGURE 202. KEEP AND EAST WALL OF REDOUT, FROM THE EAST

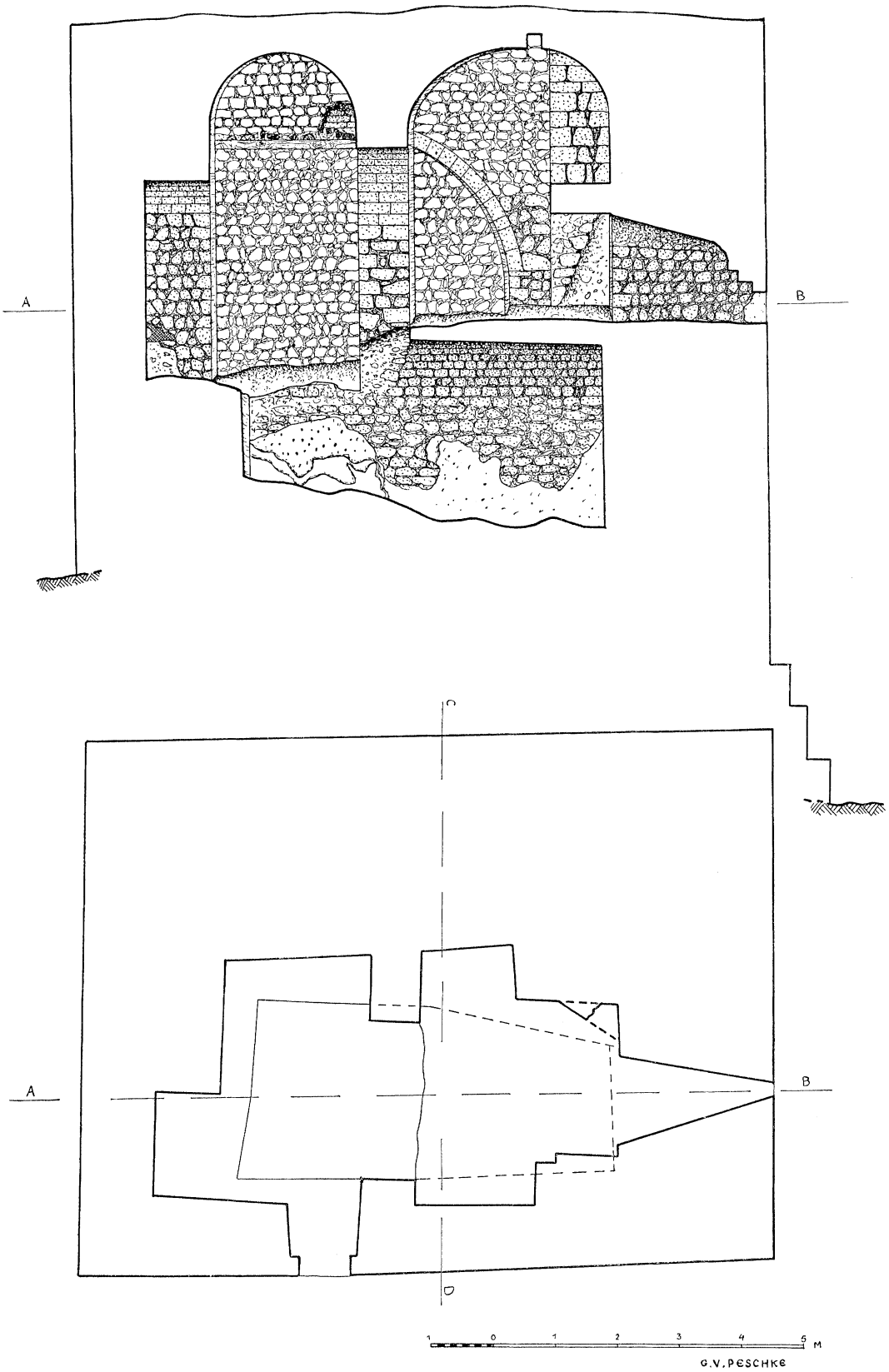

FIGURE 203. THE KEEP: CROSS-SECTION WEST–EAST AND PLAN [251]

wall. The once inaccessible lower story was a cistern, covered in its eastern half by a vault, in its western by a wooden floor. Its walls show numerous coats of stucco. Fragments of terracotta pipe immured in its east wall indicate that it was filled by the rainwater gathered on the crowning platform. The upper or main floor is divided into two rooms, barrel-vaulted and communicating through a broad opening (Fig. 203). Signs of repair are apparent in meaningless niches and fragmentary arches; and the southwest corner,

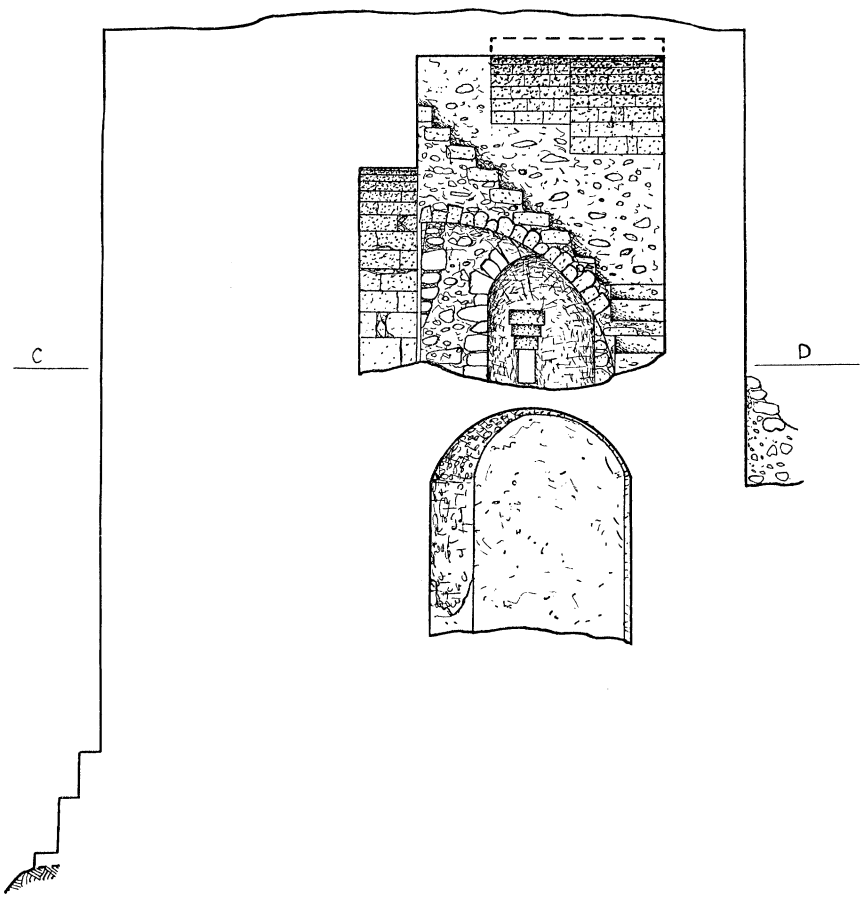

FIGURE 204. THE KEEP: CROSS-SECTION NORTH–SOUTH

toward the interior of the redout, shows by its different mortar that it has been extensively rebuilt.

The keep overlooks an upper and a lower yard or court, separated one from the other by a partition wall and communicating through a single simple doorway beneath a depressed arch (Fig. 205). Being too thin to withstand the thrust of the earth of the higher court, the partition has collapsed and been reinforced more than once.

The UPPER COURT is roughly square, with the keep blocking one corner. Its east wall, running from the keep to the main fortress wall, is 2 metres thick and of similar

construction to the keep (Fig. 202). Below its rampart, which has unfortunately lost its parapet entirely, there are three loopholes with large embrasures, terminating in the outer face of the wall in small square apertures (Figs. 206 and 202, centre). These are situated too far above the interior ground level to be accessible unless we suppose some sort of gallery built along the inner face of the wall and passing above a still extant subterranean room (Fig. 207) which is covered with cross-vaults like those within the keep. This vaulting is prolonged eastward under the wall by a niche, probably once pierced by a loophole commanding the lower ground level outside; but a later repair (visible as a

FIGURE 205. PARTITION-WALL AND GATE BETWEEN COURTS OF REDOUT

white patch at the base of the wall in figure 202) has altered and obliterated this arrangement. Immediately beyond, the redout wall joins the main circuit wall to form a triangular turret, now very dilapidated and difficult to reconstruct. At its base there is another underground chamber (Fig. 208) similarly opening through a loophole on the lower lying ground outside the wall. Above, and flush with the interior ground, was a second room with a large vaulted embrasure and small loophole toward the north (illuminated in the deep shadow of the wall in figure 202). This room, vaulted in turn, carried a platform which must have lain at a higher level than the adjoining rampart of the main circuit wall, from which in consequence it could not be easily captured by an enemy who had pierced the other defenses. Nearby is a small cistern (Fig. 209) covered by vaults carried by

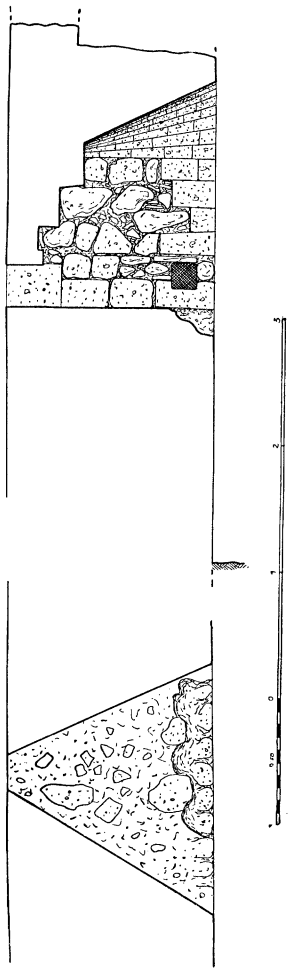

FIGURE 206. LOOPHOLE IN EAST CURTAIN OF REDOUT

FIGURE 208. TURRET IN SOUTHEAST ANGLE OF REDOUT

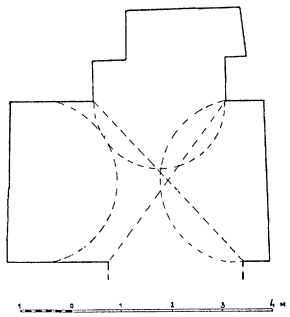

FIGURE 207. CASEMATE IN EAST CURTAIN OF REDOUT

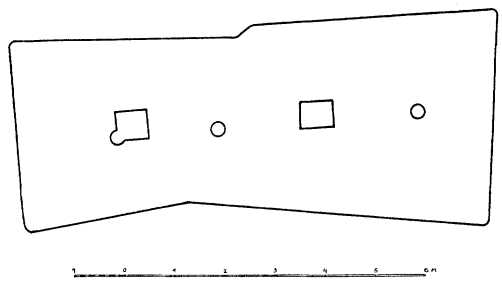

FIGURE 209. PLAN OF CISTERN TO SOUTH OF KEEP

Byzantine colonnettes, two of which have been reinforced by masonry piers. The walls are built with a mixed pebble mortar and coated with fine pink stucco. A flat terrace, useful for collecting rainwater, once covered the vault.

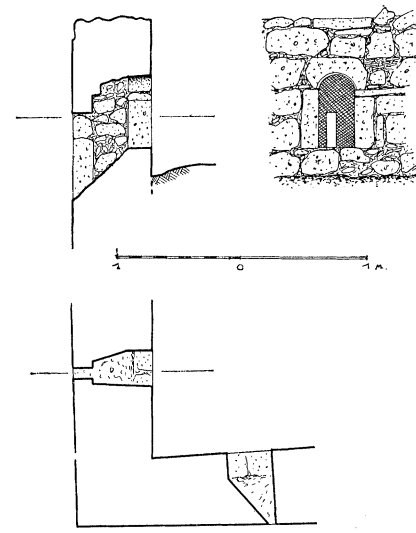

FIGURE 210. PARAPET OF TRIANGULAR REDAN, UPPER COURT OF REDOUT

The NORTH WALL of the redout is only a metre thick, but has a height of 3.20 metres and carries a coping. Repairs apart, it belongs to the same period as the keep. At the northwest corner of the upper court it makes an acute triangular salient or redan (cf. the Survey). This carries above a vault a small platform with two loopholes, one of which (Fig. 210) commands the approach around the tower, while the other overlooks a postern in the northeast corner of the immediately adjoining lower court, through which all communication between the main portion of Acrocorinth and the donjon on its peak was forced to pass. The postern is a barrel-vaulted door passage, tall (3.30 metres) but narrow (less than 1 metre, to judge from available remains), carefully constructed of poros, though both the stone and the mortar in which it was set have weathered badly. The path approaching the postern can still be traced around three sides of the great tower by cuttings in the rock and remnants of built embankment.

The LOWER COURT, long narrow and irregular (well shown in Fig. 201), is inclined sharply downhill to its final termination in the Venetian artillery platform. Its south wall is, of course, the main circuit wall of Acrocorinth, which has already been described; its eastern boundary is the partition which divides it from the upper court of the redout; while its north wall, pierced by the postern just discussed, is a miscellaneous construction in very tenacious pebble mortar, of abnormal thickness near the postern and very variable elsewhere. The console (Fig. 211) which occurs on its north face is one of the few purely decorative architectural motifs on Acrocorinth. Farther west, beyond the apparently unnecessarily thick masonry mass (visible in Fig. 201) the wall becomes normal in its dimensions and runs due west for some 50 metres, carrying broad merlons (1.55 metres wide, spaced 0.72–0.79 metres) succeeded by rather narrower ones (1.33–1.42 metres wide, spaced 0.80–0.82 metres) accurately built of poros in pink mortar with brown grit. Lower in the wall a yellowish mortar with river pebbles is frequent. Within the court there are remains of a small building of two adjacent rooms backed against the main south wall (Fig. 201). One contained a fireplace with a mantel carried on two stone consoles.

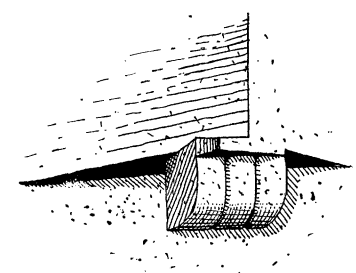

FIGURE 211. CONSOLE WEST OF REDOUT POSTERN

Thus the keep with its two courtyards, walled off from the rest of the mountain top and provided with its own reserves of drinking water, could resist siege after the main defenses had fallen or, in less desperate times, take its part as an integral but dominating element in the general fortifications. Though lower than the northwest peak of the mountain, it was much easier to fortify and hence was naturally chosen in preference to the other. There is, however, nothing to indicate that the conception of such an inner stronghold originated in the classical period, nor are there any Byzantine traces to carry its history back of late medieval times. The essential parts,—the keep, the east wall with subterranean chambers, the north wall (in places),—show an identical style of construction and are certainly contemporary. On the other hand, the type is certainly earlier than the period when artillery came into general use; and nothing in the least comparable to this great clumsy castle-keep can be found in other Levantine fortresses which are surely Venetian or Turkish.[1] The artillery platform at the west is patently an addition, of characteristic Venetian type, intended to protect the western slopes of the mountain and hence to be reckoned as part of the main system of defence, to which the redout is wholly irrelevant. We are thus forced to assign the original construction of this inner citadel to the period of the Franks or their pre-Venetian successors.

11. Medieval Constructions Inside the Walls

(a) On the Northeast Peak:

Although, as we have just indicated, it was the southwest eminence which was selected for an inner citadel, the other and higher peak of the mountain, with its extensive view over plain, isthmus, and two gulfs, if not suited to defence, was admirably placed and obviously destined to become a lookout post. The tower of which the foundations are still apparent on this summit has been described in an earlier volume;[2] but an additional note on its construction is relevant to our present inquiry.

The material consists of irregular and unfinished blocks, mainly limestone, bonded in a mortar full of fragments of brown stone in varying sizes. The interior, used as a cistern, is coated with pink stucco. The style of masonry resembles that of the lower portion of the great circuit wall in its north sector. We have already ventured the opinion[3] that this tower is to be reckoned among the earliest medieval structures on Acrocorinth and belongs to the ninth or tenth century, after the Slavic incursion. It was built in haste with any available material,—blocks from the bed-rock, roughly hewn into shape, and disintegrated hornblende stirred up with lime for the mortar.

[1] E.g. those at Kelefa in the Mainiote region (plan in Coronelli, *Morea, Negroponte ed Adjacenze*, Venice, 1686), at Zarnata (disregarding the later constructions at the top), and Passava and Maïna (built by the Franks in the thirteenth century, but rebuilt later). Cf. Traquair, *B.S.A.*, XII, 1905–06, pp. 262, 274 f.

[2] *Corinth*, III[1], pp. 3 f.

[3] See above, p. 131, n. 2.

(b) Cisterns, Wells, and Springs:

The chronicles and travellers' accounts all insist on the unusual abundance of water within the fortress of Acrocorinth. Most famous and most important was, of course, Upper Peirene (cistern rather than spring), which never lapsed from service, as is attested by traces of medieval repairs, particularly to the south chamber.[1]

Between the two southernmost towers, 7 and 8, outside the Third Line of the west defenses, there is a small spring, a supply tunnel, now disused, and a Turkish fountain no longer connected with its source.[2] Since this together with Upper Peirene would be inadequate for such a settlement as grew up within the fortress walls, a large number of cisterns was installed. These are far from comparable with those in the medieval fortresses of Syria and Palestine,[3] yet deserve at least to be mentioned in the present study. A few of them have been alluded to, in the course of the preceding descriptions, notably those in the keep and adjoining court; but actually the entire territory once occupied by houses, now so completely ruinous, is studded with underground containers, only a score of which have been indicated on the Survey. Some of these presumably date from classical times; but the largest and most interesting is probably Byzantine.

This UNDERGROUND RESERVOIR is situated close to the lone minaret at 49, occupies an area of 200 sq. m., and is covered by two barrel vaults bearing on a central range of nine piers (Figs. 212 and 213). At either end of the long rectangle thus formed, a stair descends from the terrace which occupies the ground level above the vaulting. The modern visitor may easily penetrate by the eastern staircase, but throughout the winter and long into the summer he will find the floor of the cistern deep under water. Piers and vaulting are constructed entirely of brick[4] heavily bonded in greyish mortar containing brown grit. The vault was constructed without wooden centering by laying only the first 12 or 13 courses parallel with the vault and thereafter setting the bricks at right angles across the vault on a sloping, instead of strictly vertical, arch. This system is not carried through consistently, but interrupted by triangular patches of more normal vaulting, producing the interesting pattern shown in the illustration. A wholly similar system was employed at Athens in the square cistern on the south slope of the Acropolis, west of the Asclepieum. The remnant of vaulting over the south chamber of Upper Peirene suggests a similar method.[5]

Along the side walls of the reservoir, which are coated with a fine waterproof stucco, there runs a set of four large attached, but unloaded, piers (Fig. 213, right) which cannot

[1] *Corinth*, III[1], pp. 44 f.

[2] See above, p. 190.

[3] For which see C. Enlart, *Manuel d'archéologie française*, 2[e] éd., 2[e] Partie, II, pp. 543 f.; P. Deschamps, *Revue de l'Art ancien et moderne*, LXII, 1932, pp. 163 f.

[4] The piers vary in their dimensions. The bricks are mostly broken in half and measure 0.28, 0.30, or 0.32 by 0.10–0.16 m. (an unbroken one measured 0.28 by 0.32 m.), with a thickness of 0.03 m. or a trifle more.

[5] *Corinth*, III[1], Fig. 45. At Athens the tiles are square (0.30 by 0.30 by 0.03 m.) and naturally the mortar aggregate is different.

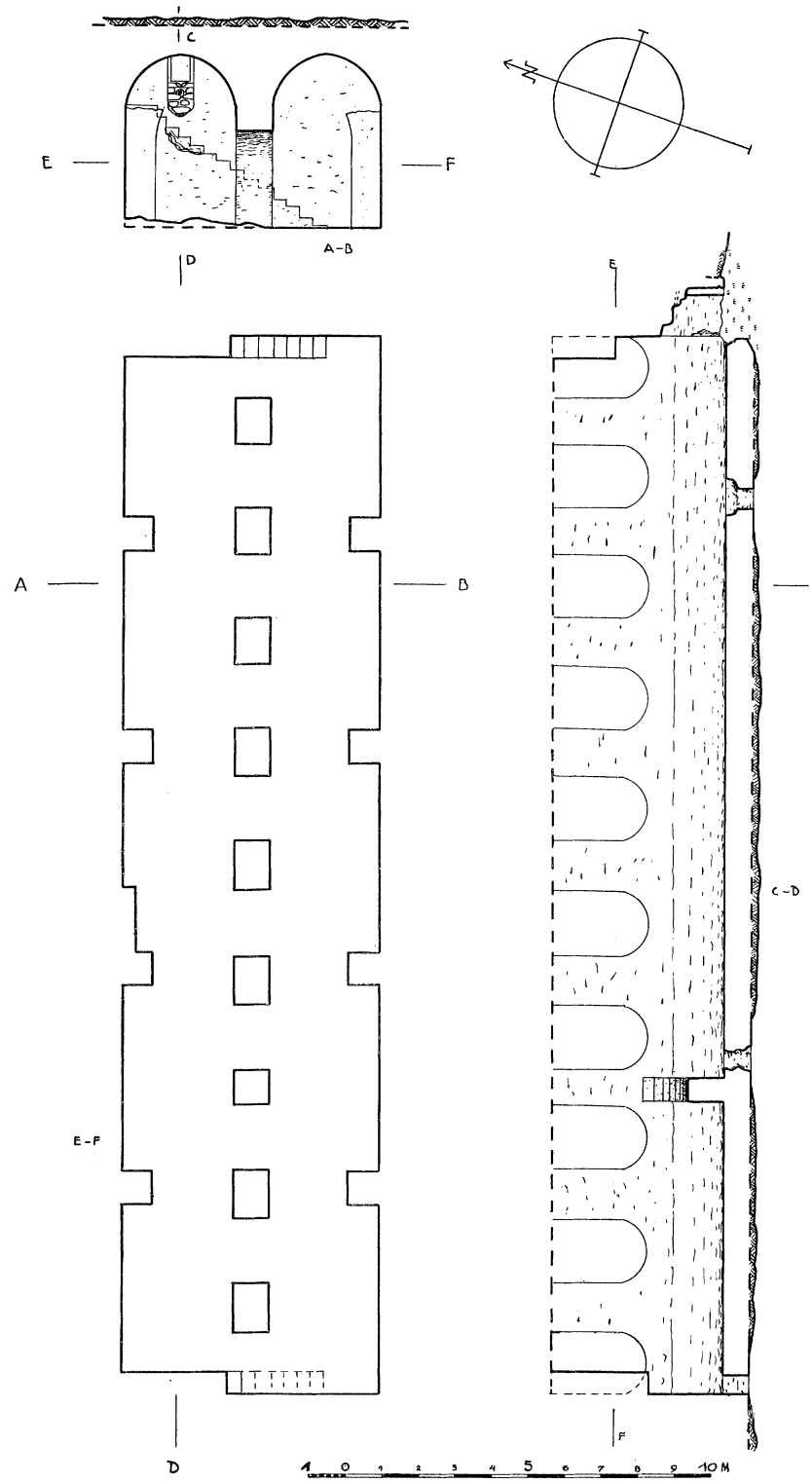

FIGURE 212. LARGE RESERVOIR NEAR MINARET: PLAN AND CROSS-SECTIONS

be internal buttresses but, as the remnants of the springing testify, are survivals of an earlier barrel vault thrown across the entire width of the cistern and strengthened by four subsidiary arches rising from these piers. At the collapse of this earlier cover, the central row of nine piers (Fig. 213, left) was erected, thus halving the span by dividing it into two parallel vaults. Both phases are most probably Byzantine, the earlier due to Justinian (whose building activities are so well known from Procopius),[1] the brick

FIGURE 213. NORTH AISLE OF RESERVOIR NEAR MINARET, FROM THE EAST

reconstruction occurring after the Slavic invasions. Incidentally, a mortar identical with that between the bricks recurs in the tower of the lookout post on the northeast peak. There are small and unimportant repairs from later times. Pouqueville, with his mention of vaults underneath the ruins of the Palace of Sisyphus,[2] was certainly referring to this reservoir.

[1] Cf. above, p. 129 with the footnotes.

[2] *Voyage de la Grèce*, IV, p. 454.

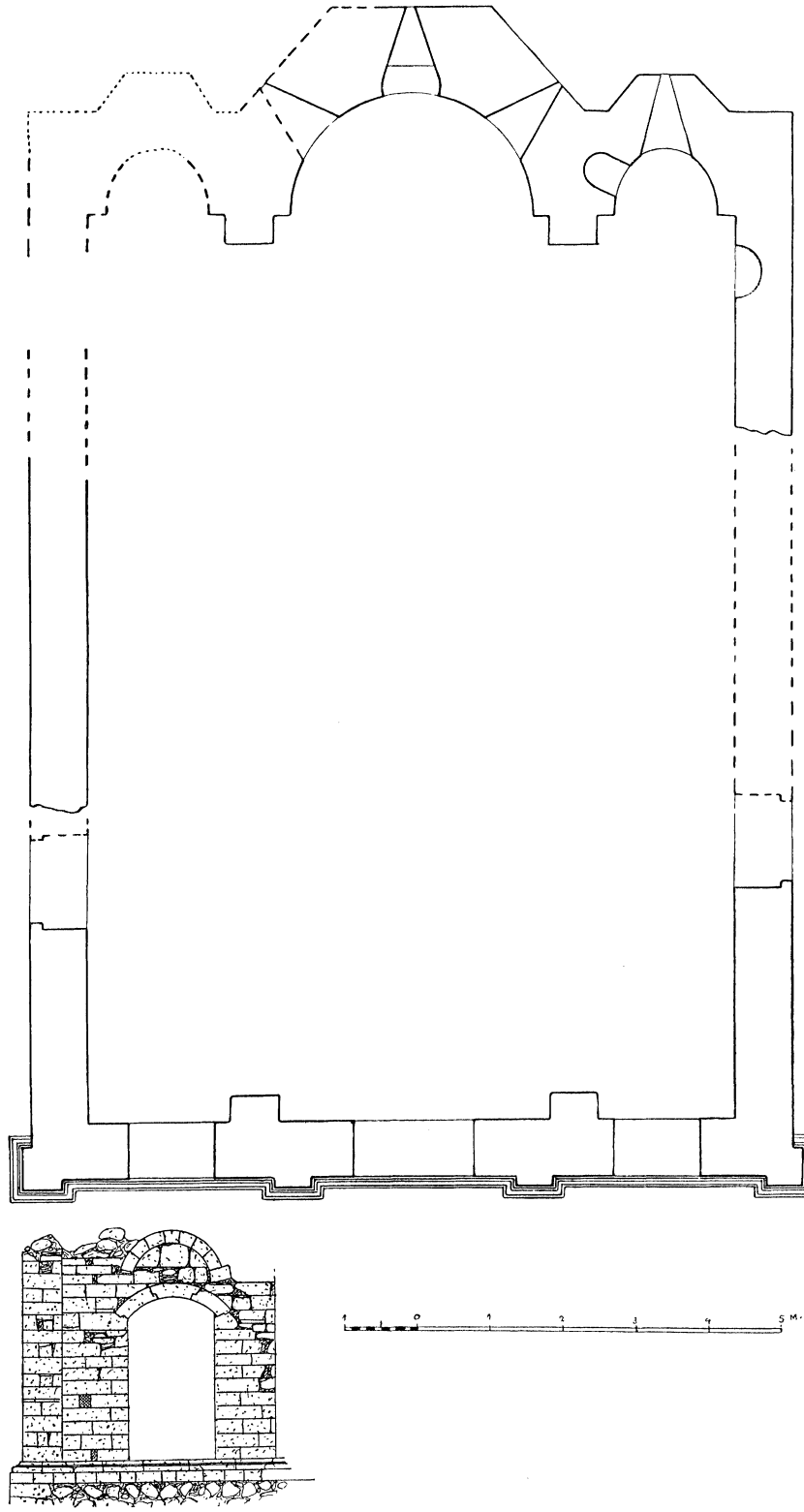

FIGURE 214. CHURCH OF VENETIAN PERIOD: PLAN AND PARTIAL ELEVATION

(c) Churches:

Spon and Wheler speak of five or six churches on Acrocorinth.[1] To-day only three are distinguishable, and two of these were not yet built at the time of the two travellers' visit. On the highest peak the ruined and probably systematically destroyed temple of Aphrodite was supplanted by a Christian church; and this, having suffered from the Slavs, was afterwards reconstructed on a much smaller scale beside the great watch-tower. Finally this disappeared in turn, to make room for a mosque in the first period of Turkish occupation.[2]

The conspicuous ruins of a church close beneath the Third Line tower at 10 (Fig. 124, centre) must be Venetian and hence later than Spon and Wheler. Three doors, each covered by a depressed arch beneath a round relieving arch (Fig. 214), are broadly framed by pilasters set upon bases of very classical profile. The interior, with nave and aisles corresponding to the three doors, terminates in three apsidal niches with small acutely splayed lights. The material throughout is poros, well-cut and scarcely weathered, with occasional small brick; the construction, particularly in the door-heads, is workmanlike and attentive. Unlike the Venetian military constructions, the mortar does not contain the brown grit, but river gravel. The south wall is at present in partial collapse, the northeast corner is buried under débris, and at the west the exterior ground level lies far below the façade (Fig. 112 or 117), leaving its three doors, which have been walled up, standing high in air, as though awaiting a terrace platform or broad stairway. Clearly, the project was never finished, for there are no traces of piers or columns within the church. It is therefore possible that the structure, which does not appear in the Venetian drawings, was begun shortly before the return of the Turks and was still unfinished in 1715.[3] It was roughly conditioned by the Turks, naturally not as a church.

Higher up the slope, within the Third Line and behind the same tower at 10, there is a tiny chapel of St. Demetrius, still in use. A single nave ending in a small apse is entered from a terrace on the south side through a round-headed doorway, over which there is a small niche suggestive of Italian influence (barely discernible in Fig. 117, upper right). Even the approximate date can hardly be suggested for a construction so void of characteristic detail. Of the obvious possibilities,—fourteenth, fifteenth, late seventeenth, eighteenth centuries,—the end of the seventeenth is the most consonant with the niche over the door and the interior side arcades. Perhaps the following inscription in cursive script within an oval medallion upon a plaque inside the chapel is historic enough to deserve a modest re-immortalisation here:

[1] Cf. above, pp. 146 f.

[2] For more detailed description see *Corinth*, III[1], pp. 4 f. with Figs. 2 and 26.

[3] It may have been damaged during the siege or by the explosion recorded as occurring in a powder store (cf. above, p. 157). The events which followed the surrender may be located here more plausibly than within the Third Line.

Der
Jaeger Grenadier
Franz Friedrich
geb(oren) *1805 zu Muenchen*
gest(orben) *2. Juni 1833*
zu Alt Korinth ruht hier
Seine Waffengefaehrten
ehren sein Andenken
durch diesen Stein
R. J. P.

Somewhat south of the chapel and opposite the Third Gate, two rows of Byzantine colonnettes still stand erect among the débris of a church;[1] but the rest of the building has disappeared, along with all the other churches, chapels, or shrines which adorned Acrocorinth through the Christian centuries.

(d) Mosques:

There is more certainty about the number of Moslem places of worship, since Spon and Wheler and other travellers, the Venetian drawings, and existing remains agree in placing one on the highest peak, a second at 49 on the platform of the large Byzantine reservoir, and a third, well-preserved and still of interest, at 50 just south of the saddle behind the North Postern. Of the second, which the Venetians converted into a church of St. Paul (cf. Fig. 99, "M"), there remains only the beautifully built minaret, square at the base, with a conical cap broken away just above a molding, and containing a spiral stair.[2] The technique of well-trimmed and well-fitted poros resembles (and equals) the best Venetian work, from which, however, the mortar with its bright round pebbles distinguishes it.

The third mosque merits detailed illustration and description. Square in plan and preceded on the north by a small court, once a covered narthex or vestibule (Fig. 215), the well-preserved interior (Fig. 216) shows pendentives supporting an annular vault of small poros blocks. The south wall accommodates the *mihrab*, a polygonal niche covered in stalactite or honeycomb vaulting, with a window on either side and a smaller light above. The west wall is likewise pierced for a window and is externally reinforced at the base by a talus of masonry. Attached to the northwest corner there is a ruined minaret, reminiscent of the one at 49 but not nearly so well built,—a remark which applies to the entire mosque, even when allowance is made for repairs and alterations and the Venetian use of the building as a munitions store (cf. Fig. 99, "N").

[1] Apparently mistaken for a guard-house by Buchon, *Grèce continentale et Morée*, p. 549.

[2] This is presumably the "*petite tour carrée, avec escalier tournant*" mentioned by Buchon (*op. cit.*, p. 548), even though he places it near Peirene. Did he mistake the large reservoir for the classical fountain-house?

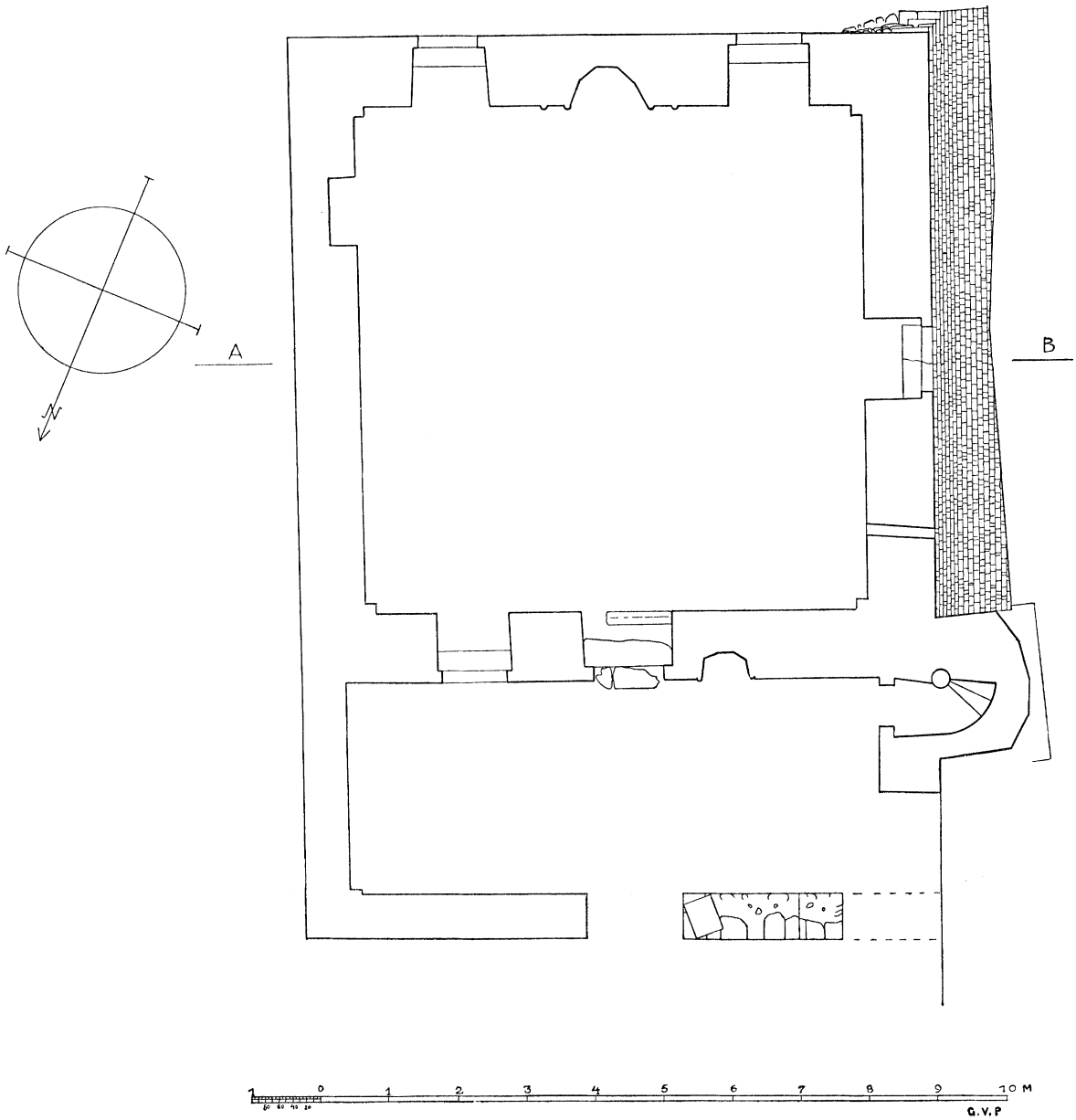

FIGURE 215. MOSQUE ON ACROCORINTH: PLAN

(e) Miscellaneous Structures:

Among the various other remains within the walls which strike the visitor's attention the largest and most conspicuous is a long narrow building, 52 by 8 metres, close beside Upper Peirene (Fig. 184, centre). The façade is pierced by numerous windows and a central door, the latter preceded by a landing and stair; but the windows are too ruinous to show how they were covered, and only an interior doorway with a depressed arch and

a small exterior cornice on the wall offer any clue to period and style. The poor construction in low-grade greyish mortar with brown or greenish gravel is equally inconclusive, though we may infer that the relatively good preservation of so poor a piece of masonry implies no very great antiquity. The building should therefore be post-Venetian. As the plan indicates a place of residence, the common appellation of "Governor's Palace" (or better, garrison headquarters) may hit the mark. In any case, the location is obviously dependent upon the water supply in Peirene.

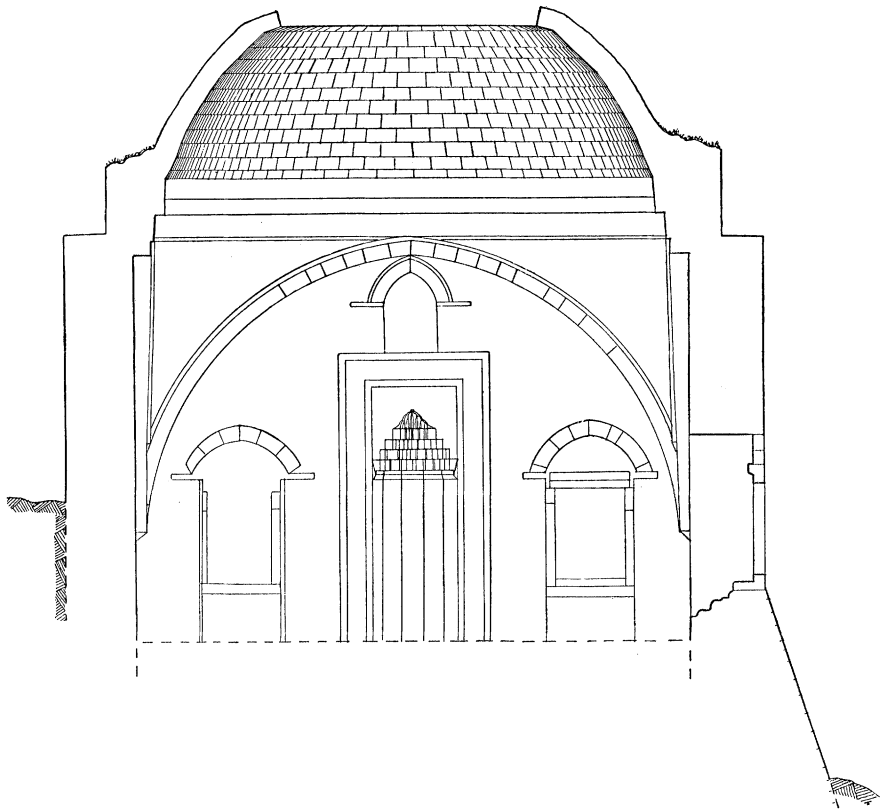

FIGURE 216. MOSQUE ON ACROCORINTH: CROSS-SECTION

At the east end of the rocky ridge on which the tower-keep is set, there stands the shell of a curiously planned structure consisting of a smaller rectangle completely enclosed within a larger one (cf. the Survey).

To the north of this, on lower ground (Fig. 161, left of centre), stands another masonry shell, a narrow rectangle, 36 by 7.50 metres, with its only entrance situated in the middle of the long north side. This same face of the building exhibits a range of vertical slots which are built too high (they are aligned 3.50 metres above the ground in the eastern half and are in two tiers in the western half) and too narrow (being only 0.12–0.14 metres wide) for musketry and are still less suitable for windows. Presumably they were intended

for ventilation, implying a magazine or storehouse rather than a dwelling. The Venetian *proveditori* advised such a construction.[1] The masonry is well preserved and entirely uniform, showing a strongly reddish mortar, which recurs also in a series of exterior buttresses at and near the northwest corner of the building where the ground falls sharply away.

The Survey has not attempted to detail the plan and location of the extremely ruined village in the open ground between the Second and Third Lines of defence and even more extensively on the long sloping hillside between the Third Gate and the main wall where it crosses the North Gully. Nor can the present publication undertake to study or describe a mass of minor ruins so complicated, dilapidated, and uncertain. The district was inhabited primarily between the fourteenth and the eighteenth centuries. Elsewhere on Acrocorinth there are no traces of houses, a remark applying specifically to the northeast section, which Spon and Wheler called *Hevraiokastro* but which, to judge from the absence of all remains, cannot have been a ghetto.

12. Military Constructions External to Acrocorinth

(a) The Castle of Penteskuphi

A mile away to the southwest, on the same general ridge of land to which Acrocorinth belongs, there rises a sharp and conspicuous point of rock (Fig. 91) crowned by the picturesque ruin popularly called "Five Bonnets" or "Five-cap" (*Penteskuphi*),—generally considered a local mispronunciation of Frankish "*Montesquieu*."[2] It is a miniature stronghold composed of a square keep all but surrounded by an irregular court on two levels within a decidedly serpentine girdle wall (Fig. 217). It is entered by turning a small northeast salient or bastion of this wall over a steep declivity, where a narrow path leads to a small door built against a corner of the keep. Within, a narrow stair leads to the higher level of the court and around two sides of the tower to its only entrance (Fig. 218). The masonry of the keep is of early medieval style,—small and scarcely trimmed blocks set with a great deal of small broken brick in a mortar of brown grit. Since we have historical evidence for the construction of a fort on this spot under the Franks during their siege of Acrocorinth in 1204–1210,[2] and since the donjon plan, consisting of keep and court, is as appropriate as the masonry style, we need not hesitate to assign the tower of Penteskuphi to the early thirteenth century, if we are careful to make exception of the east face with its two angles, which are built of poros in a more careful manner and are an integral part of the adjoining girdle wall. Nothing else that survives can be claimed for this early period. The girdle wall carries six embrasures for cannon and hence can hardly be pre-Venetian. Unfortunately its parapet is destroyed in the short southeast stretch, which alone

[1] Cf. above, pp. 150–151.

[2] Cf. above, p. 134.

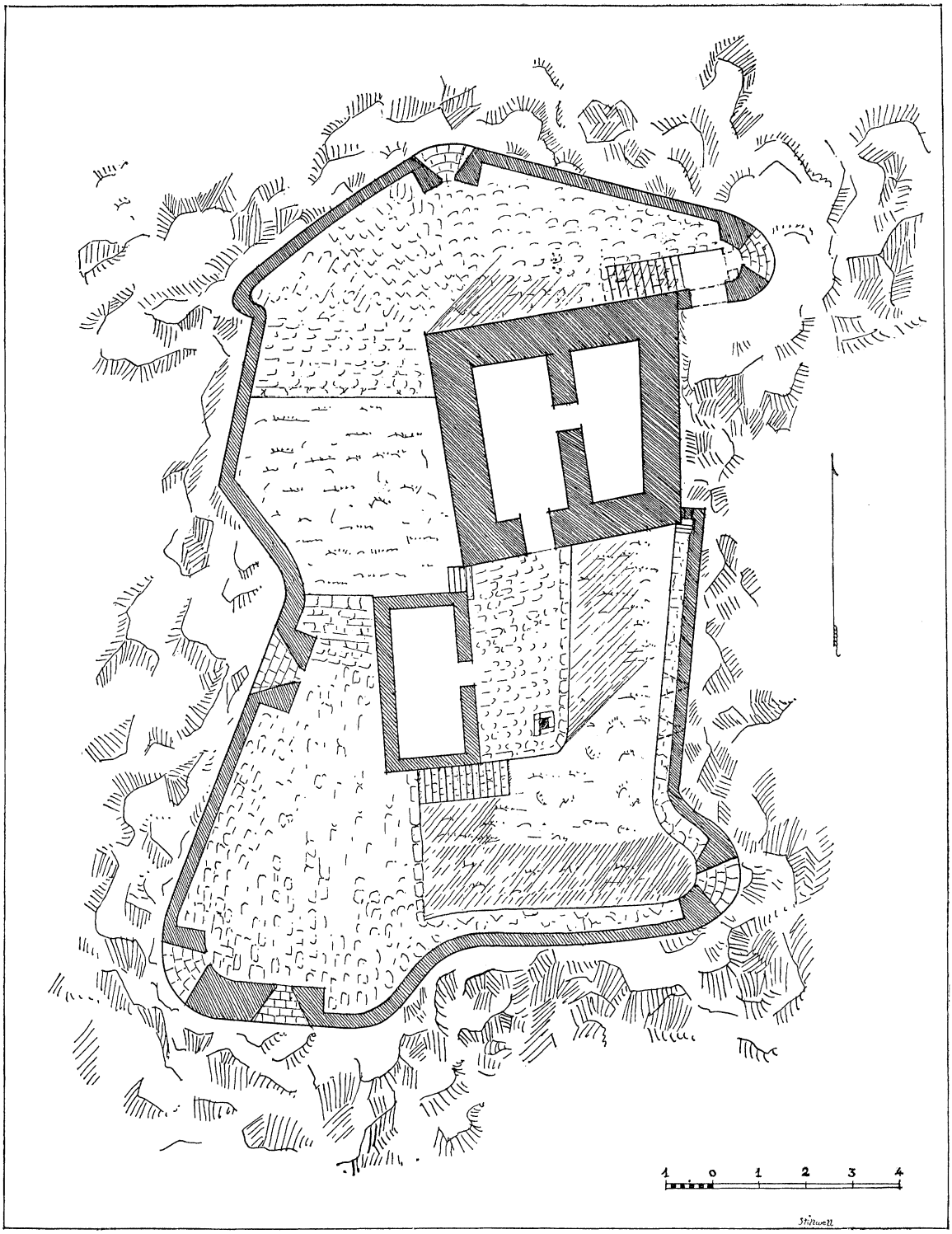

FIGURE 217. SKETCH PLAN OF CASTLE OF PENTESKUPHI

projected high enough above the interior ground level to necessitate a rampart and accordingly may have been crenellated. There is thus too little that is characteristic or significant; and the general appearance of the work is not so similar to the undoubtedly Venetian portions of Acrocorinth that we may confidently attribute it to the same period or the same school of masons. On the other hand, an inscription seen and quoted by Buchon,[1] and dated 1826, is not mandatory proof that the present wall of Penteskuphi is the work of Papas Notaras, companion of the priest Achilleas, commandant of Acrocorinth for a brief time during the Greek War of Independence. We have no encouragement for

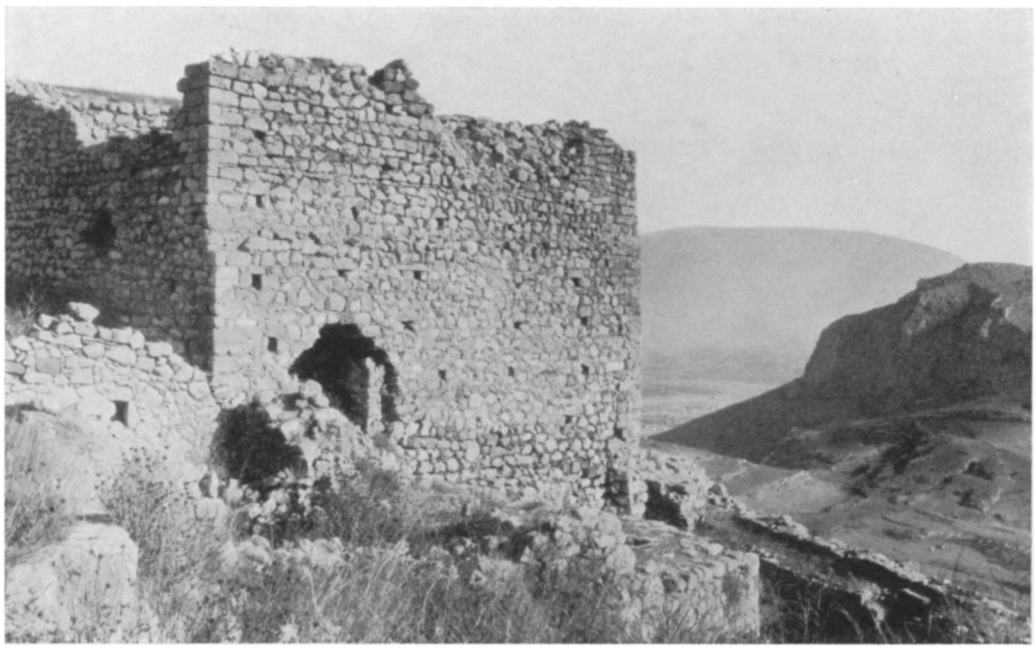

FIGURE 218. KEEP OF PENTESKUPHI, FROM THE SOUTHWEST

thinking that the insurgents of the eighteen-twenties commanded the resources necessary for such a construction. The girdle wall may therefore equally well be Venetian or Turkish, since neither architectural nor strategic nor yet historical considerations afford any certain evidence for a more precise dating. The major part of the keep and the general lay-out are, however, certainly Frankish of the early thirteenth century.

[1] *Grèce continentale et Morée*, p. 550. It is not infrequently the case that inscriptions from elsewhere are built in as ornaments in work to which they have no reference. The Byzantine cross and double eagle recorded by Buchon may be independent of the date, as may some of the content of the inscription. The existence of a Notaras family at Corinth is known from several sources: Dioecetes, *Expédition des Turcs en Morée*, § 77; Chandler, *Travels in Greece*, p. 234; W. Gell, *Narrative of a Journey in the Morea*, p. 409. At most, the inscription would indicate the repair of Penteskuphi through local energy during the War of Independence.

(b) The Earthworks in the Plain

When the late-Roman and early-Byzantine defenses of the lower city were breached or destroyed, the town was left unprotected and largely for this reason was little by little abandoned during the Frankish and succeeding periods. By the fifteenth century it seems to have been nearly deserted. The Venetians attempted to refortify it according to an elaborate project,[1] whose chief purpose was not so much to rehabilitate the lower town as to extend the efficacy of the mountain fortress above it so as to prevent the passage of armed

FIGURE 219. COASTAL PLAIN, FROM ACROCORINTH, SHOWING VENETIAN FORTS

forces into and out of the Peloponnese. As Acrocorinth could be turned on both the north and the south, the broad coastal plain and the narrow pass of the Leukon River were to be blocked by a line of earth-forts. The Venetian project is clearly shown in the drawings in the state archives (Figs. 96 and 97), but it is not quite certain how much of the scheme was actually carried out. Instead of reviving the Byzantine Hexamilion across the Isthmus, the new plan chose a point well to the west along the Corinthian gulf and thence drew a line straight toward Acrocorinth across the flat coastal plain as far as the first ledge or rise on which the ancient city lay. Thence the defenses were to follow the city plateau eastward past the site of the classical Asclepieum, cut inward across the town to the hillock

[1] Cf. above, Figs. 96 and 97.

just north of the Southeast Gate, where the modern road to Hexamilia passes through the wall, and so, following the skirts of Acrocorinth, cut across the River Leukon and its highway, to climb the Onean ridge and die out amid its rough heights. Thus no army from north or south could approach the slopes of Acrocorinth without either breaking through this line of defence or turning it on the difficult mountain paths to the east. The Venetian fleet was presumably to prevent the obvious and otherwise simple expedient of turning the northern extremity of the line by sea.

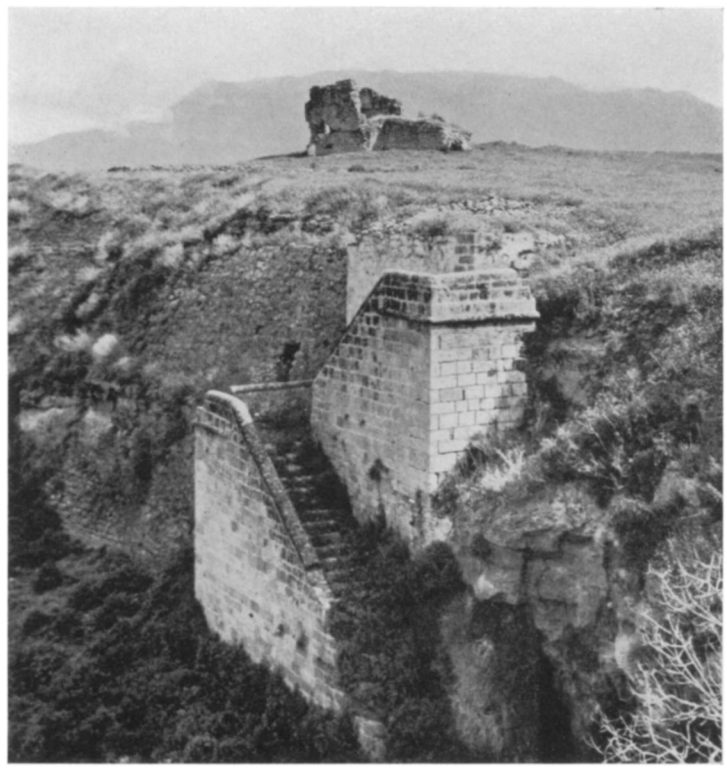

FIGURE 220. STAIRWAY LEADING TO "BATHS OF APHRODITE"

The line was apparently to consist of ditch and embankment, interrupted at intervals by lozenge-shaped redouts and occasional forts, all made of earth in the plain and hardly more substantial elsewhere. In figure 219 along the central axis of the picture (and in figure 166 through the breach in the wall) may be discerned the outline of the terminal fort on the strand and a series of three diamond-shaped patches connected by a dark line. After an interruption in which nothing but the modern sown fields are visible, the dark line is resumed and terminates in a much less distinct lozenge. Below this again, in figure 219, a vague patch breaking the foreground fields marks the first fort on the city plateau. Thus viewed from Acrocorinth in the late afternoon light, the Venetian forts spring into ghostly being, while the searcher down in the plain will scarcely be able to locate them or trace their plan.

The next remnant of the line is more tangible. East of the site of the classical Asclepieum, the ledge of the city plateau is cut back inland in a deep natural bay in whose overgrown and shadowy depths there pours forth the copious spring which local tradition calls the Baths of Aphrodite. On the projecting headland of plateau to the east there stand the

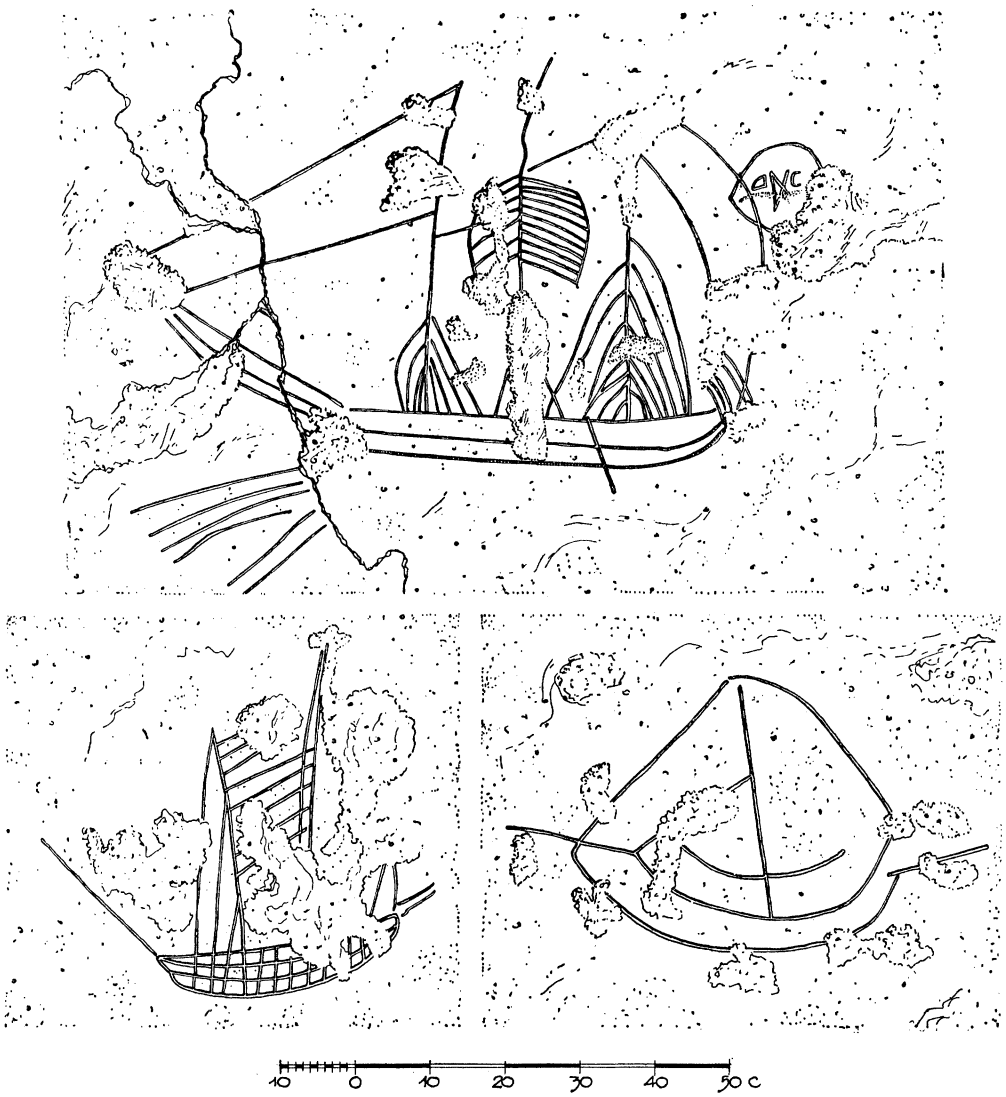

FIGURE 221. GRAFFITI ON STAIRWAY TO "BATHS OF APHRODITE"

ruins of a Turkish bath, the surviving remnant of some more extensive structure, presumably the residence of Kjamil-bey,[1] slain in 1823, a personage of considerable local importance in his day. Where the plateau drops abruptly to the "Baths of Aphrodite," the entire slope is sheathed in masonry to form a talus, through which there descends a strikingly

[1] Its situation agrees with Buchon's remarks (*op. cit.*, p. 552).

well built poros staircase in two flights (Fig. 220). The unpierced balustrade carries a half-round molding for rail, and there is an exterior string-course to mark the levels of the landings. The mortar contains fine mixed river-bed gravel. The technical execution throughout is first class. The consequent temptation to identify the stairway as Venetian is tempered by the consideration that the minaret on Acrocorinth and a tomb with Turkish inscription in the heart of the modern village are both of equally excellent, entirely similar, and seemingly Venetian technique; so that it is certain that the good Italian tradition outlived the actual Venetian domination and persisted under Turkish rule in the eighteenth century. The masonry talus of the headland (Fig. 220, left) is hard to explain unless it be part of the Venetian line of defence. Does the fine stairway belong with the talus or with the Turkish residence? Either hypothesis is reasonable, since the Venetian garrison required a means of access to the water-supply and the coastal plain, while the Turkish bey presumably had his gardens where the abundant spring and the cool shadow make for rank and lush vegetation. The dilemma is not solved by the curious observation that there are *graffiti* of sailboats (Fig. 221) scratched into the stairway walls,[1] apparently while the mortar in the joints was still soft. One of the drawings is surmounted by a sign which seems to be the monogram of a native Greek workman. Was he in the employ of an Italian or a Turkish master?

To the east of the modern village it is possible to pick up once more the course of the Venetian line. Around the hillock just north of the ancient Southeast Gate the earth has obviously been thrown up to make an artificial lozenge-shaped mound (Fig. 39, above the modern road). This is the "*Posto Avanzato*" of figure 96. Trial trenches thrown across this area in 1928 revealed nothing of interest, whether ancient or medieval. In the valley of the stream, beyond the gate, all further trace of the Venetian project is lost.

C. CHRONOLOGICAL INFERENCES

From the preceding analysis of masonry styles, mortars, and other materials, and from an inspection of the superposition of layers in rebuildings and repairs it should be possible to arrive at a relative chronology; and this in turn, when compared with the historical sequence of the changing masters, the sieges and vicissitudes of the fortress, may be expected to permit an integration of the relative into a reasonably close approach to an absolute chronology of actual dates. Yet, as will be seen, much in the end must still be left uncertain.

A mountain fortress such as Acrocorinth must through geographical necessity differ from other places of defence in that its military problems are determined more by geo-

[1] C. Enlart, *Manuel d'archéologie française*, 2e éd., 2e Partie, II, p. 695, fig. 320, gives an analogous instance, a boat scratched on a wall of the Tour Constance at Aigues-Mortes.

logical compulsion than by human interests or occasional accident; and as this compulsion remains fixed and unchanging through the centuries, the general plan of defence will also remain unchanged, so that one and the same circuit must serve classical, Byzantine, medieval, and modern defenders. Changes in parapet and rampart to suit the evolution of weapons from archery through musketry to artillery will necessarily leave their mark; but though these are apparent where they survive, disintegration of the parapet is only too common, and in many cases an older condition, if it could be made to serve, was not remodelled. As for the repairs to forcible breaches or to the collapses at naturally weak spots, these were only too often executed in haste, implied no need to do more than restore what had been destroyed, and were dependent for this restoration on the same local sources of supply in building materials. For all these reasons one cannot expect to meet such decisive and extensive differences as characterize the Byzantine walls of Constantinople, the forts of the Crusaders in Syria, of the Hospitalers in Rhodes, or the Venetians in Crete,[1] even though Acrocorinth must have elements contemporary with all of these. This prefatory warning given, we may attack our problem.

At numerous points in the wall there is a striking abundance of re-used material from classical and Byzantine buildings, implying a preceding period of disintegration and destruction. On the principle of "first come, first served," these sections of the wall should be the oldest: those with much classical but no Byzantine content should belong to the early-Byzantine period (fifth–sixth centuries), while those including Byzantine elements should belong to the middle-Byzantine period (tenth–eleventh centuries) after the Slavic incursions of the ninth century had ruined the earlier constructions. Thus, the fine compact wall at the head of the North Gully about the North Postern is early-Byzantine, while the small detached northwest outwork blocking the passage through the cliffs below the bastion at 12 is middle-Byzantine. Actually the elements in a typical early-Byzantine building which could profitably be re-employed would not be numerous, since large blocks would be likely to occur only in the socles and quoins. Since such pieces, when they turn up in the great wall, are almost invariably in stretches distinguished by the use of large tile set vertically in the joints or horizontally between courses,—a well-known and thoroughly characteristic Byzantine procedure,—we need not hesitate to assign a Byzantine date. Further, where these tiles occur, the mortar is very generally of clear white color, with fragments of marble and brick amid varicolored pebbles, and this too is typical of Byzantine usage (occurring, for example, at Athens in almost all the Byzantine constructions on and around the Acropolis). Hence, even where there is no tell-tale re-used material, the combination of "Byzantine" tile with this particular mortar is sure confirmation of Byzantine date. The Second Gate and the towers of the Third Line (in so far

[1] For these various monuments consult particularly: Van Millingen, *Byzantine Constantinople*; H. Lietzmann, *Die Landmauer von Konstantinopel*, in *Abhandl. der Preuß. Akad. der Wissensch.*, 1929, *Phil.-hist. Kl.*, no. 2; G. Rey, *Monuments de l'Architecture des Croisés en Syrie*; Enlart, *L'art gothique et la Renaissance en Chypre*, 2 vol.; A. Gabriel, *La cité de Rhodes*, 2 vol.; Gerola, *Monumenti Veneti nell' isola di Creta*, I$^{1-2}$.

as they are not directly classical or show later rebuilding) should for this reason be classed as Byzantine.

Further advance may be made by passing from the material to the formal aspect of these recognizably Byzantine portions. All agree in showing vertical wall-faces without talus or stepped projection at the base. In the rare instances where the original rampart has survived, the parapet is crenellated with unpierced merlons of average width (*ca.* 0.80–0.90 metres). Such are Nos. 4, 12, 22 of the synoptic table (PLATE VIII), as are also the merlons built-in below the later parapet of the Third Line at 7. The rampart is always amply wide and ascends, where necessary, by steps. (It may be noted in passing that precisely these formal elements recur in an undoubtedly Byzantine mountain fortress in Crete, the Palaiokastro near Chissamo Bay, the classical Polyrrhenia.)[1] Towers are used to flank the wall. These do not seem to have interrupted or projected above the general rampart, though the absence of the original crown leaves the exact solution uncertain. They are not spaced at regular intervals, as is generally the case with classical towers, but depend wholly on topical conditions. Those in the Third Line are close together and of large size; in the main circuit only the little tower at 41 survives from the original Byzantine series, but this agrees with the large west towers in being hollow and employing tall narrow archer-slots borrowed from the classical tradition so well exemplified in the surviving ancient tower at 8. The Byzantine gateways through these walls are characterized by a straight horizontal lintel. Thus, the exterior doorway of the North Postern at 22 is covered by a single huge ancient block of poros, while the Third Gate employs re-used columns laid horizontally. The Second Gate shows a circular head; but this is due, along with the exterior façade in which it stands, to Venetian rebuilding. The doors and windows in the upper story of this gateway (except the door to the east corridor) are typically Byzantine, as are all the doors of the towers in the Third Line, including the blocked one of the ruined corner tower at 6 and the walled-up Northeast Postern defended by the barbican at 28. There are also horizontal lintels to the archer-slots in the towers at 7, 9, and 10. Over wider spans the Byzantine builders erected barrel-vaults in small uniform poros blocks, carried on reinforcing arches. The passage-way of the Third Gate is the best example; but the same type of vault is to be found in the Second Gate, in the North Postern, and in the towers of the Third Line, excepting the ancient one at 8, whose interior is a later reconstruction. Where the vault is carried through to the face of the wall, the archivolt is emphasized by a decorative repeating arch in brick or tile, as on the inner face of the Second Gate and the North Postern.

How do these formal elements compare with known Byzantine fortifications elsewhere? Even with the unavoidable differences between mountain and town defenses, an analogy may be perceived between the towers of the Third Line on Acrocorinth and those of

[1] Gerola, *op. cit.*, I[1], pp. 72–80. In his fig. 37 (p. 79) at the base of the parapet there recurs the square hole noted in exactly similar position on Acrocorinth in the South Bastion of the Second Line (cf. above, p. 181 and Fig. 113).

Constantinople, which measure 10.75 metres square and carry platforms surrounded by an unpierced but crenellated parapet above chambers showing a barrel-vault on round supporting arches.[1] The older elements of the Second Gate with its guard-room above, lighted by small square windows,—an arrangement presumably once repeated in the Third Gate,—are likewise comparable. And the ornamental repeating arch over the round-headed door is found in Constantinople[2] and quite frequently elsewhere.

Summarizing these conclusions, our investigation assigns as Byzantine and hence as earlier than the end of the twelfth century the following elements of the Acrocorinthian defenses:

the nucleus of the Second Gate (excluding parapet and ground story of outer façade);
the adjoining wall on the south as far as the bastion;
the major part of the Third Line, including the gate and all but one of the towers;

in the main circuit wall,—

most of the sector at the head of the North Gully, including the North Postern;
most of the sector opposite Peirene and across the South Gully, from 36 to 42, including the tower at 41, but omitting numerous repairs and additions.

It is probably not due to chance that these Byzantine survivals group themselves topographically in the three regions which offer the easiest approach to the mountain top,—the long West Slope, the steep North Gully, the gentler gradient up the middle of the southern flank. These, being the most vulnerable, were the most strongly and hence the most durably and lastingly fortified. There are, however, traces of the less carefully constructed defenses in the rest of the circuit, characterized by a greyish mortar with brown and greenish gravel, shown to be very early by its occurrence at the base of the wall, where, in one or two places at least, its stratification makes it precede the good Byzantine mortar to which reference has been previously made. This mortar recurs in the foundations of the lookout tower on the highest peak and in the large underground reservoir vaulted in brick. Adding this evidence to the preceding, we arrive at the following outline of the earliest post-classical building activity on Acrocorinth:

The oldest surviving stretch of wall is that at the head of the North Gully and consists of re-used classical poros blocks closely fitted together. It is ascribable to the original post-classical rehabilitation of Acrocorinth as a fortress and is therefore not later than the reign of Justinian. After a period of disuse and perhaps of destruction, the walls were

[1] Van Millingen, *Byzantine Constantinople*, double plate, pp. 106–107; cf. H. Lietzmann, *Die Landmauer von Konstantinopel*, in *Abhandl. der Preuß. Akad. der Wissensch.*, 1929, *Phil.-hist. Kl.*, no. 2.

[2] This decorative device may be an outgrowth of the structural device of diminishing the span of a doorway by inserting a subsidiary arch, as in the Golden Gate at Constantinople (van Millingen, *op. cit.*, pl. 66). In later gates the repeating arch is not necessarily set forward in relief, e.g. on the Sulu Kulesi. However, on the Gate of St. Romanus, or Top Kapu, there is a blind arch exactly like that on the Third Gate on Acrocorinth (van Millingen, *op. cit.*, plate on p. 80). Compare also the gates in the girdle wall around Salonica (Tafrali, *Topographie de Salonique*, pp. 95 f., and pl. XIX–XXI).

once more put into condition, rather hastily and rudely with any available material, scarcely reworked or trimmed, and smothered in none too tenacious mortar made with disintegrated brown hornblende. A large watch-tower was erected on the highest peak. Later, with more leisure and greater care, the more exposed portions at the west, north, and northeast of the circuit were solidly reinforced and the cruder earlier work was replaced by more substantial and resistant masonry, except in sectors under no serious danger of attack.

Between this Byzantine activity, all earlier than the year 1200 A.D., and the instantly recognizable and extensive Venetian reconditioning of the fortress some 500 years later, the architectural vicissitudes of Acrocorinth are not easy to analyse. The history is, as we have had occasion to discover, highly complex, hence the opportunities for repairs were frequent; yet the masonry styles and available materials did not seemingly differ so markedly. It is in consequence idle to try to identify the probable source of every patch and repair. The more important elements which may be isolated as post-Byzantine, yet pre-Venetian, are the following:

the wall of the Second Line, running north from the Second Gate;
the long northeast sector of the main circuit;
the keep and the planning of its courts;
the three outworks, at 29, 35, and 38;
to which may be added, outside of Acrocorinth, the original construction of Penteskuphi.

All of these agree in the almost total absence of borrowed material, whether classical or Byzantine, and in a consistent use of broken small brick. On the technical military side, the profound changes produced by the introduction of artillery nowhere appear.

We have no means of knowing whether Leon Sguros, during his brief period of control, was architecturally active; but we are definitely informed by the *Chronicle of the Morea* that in the middle of the thirteenth century Guillaume de Villehardouin, prince of Achaia, repaired the fortress and built a residence.[1] This latter could not have been the structure above Peirene which, we have seen, is not very old and certainly is not in the least Frankish. Feudal tradition would have produced a fortified and easily defendable castle; and since there is not elsewhere in the Peloponnese a Frankish fort without its castle-keep and walled-in court, we need not hesitate to claim for Guillaume de Villehardouin the "castle" on the southwest peak. The small trimmed blocks, the broken brick, the pyramidal base, the vaulted doorway cannot be Byzantine nor yet Venetian, whereas all have perfect analogies in other Frankish forts of the Morea, as yet so little known and so inadequately published,[2] and not least of all in the nearby Penteskuphi, for the Frankish origin of which we have historical warrant.

[1] *Libro de los Fechos*, § 216, "*despues fizo adobar muy bien el castiello de Corento et fizo y fer muy bellos pallacios.*"

[2] A defect we hope to be able to remedy at not too distant a date.

The Northeast Outwork at 29 and the First Gate are likewise characterized by the same brown grit mortar and broken small brick. The first of these may be connected with the siege of the years 1205–1210, when the Franks established an "*antikastro*" to guard the north approach. "North" in this account seems to have been taken loosely for the side toward the Isthmus, and the *antikastro* seems to have been on the small hill-top at the foot of the East Ascent, where cursory excavations in 1928 showed that there had been a medieval military occupation later than the Byzantine period. If this "East Hill" was the site of the Frankish *antikastro* guarding the East Ascent, it is natural to suppose that the Franks, once they had become masters of the mountain, would have taken measures to control this northeast approach which they themselves had found so serviceable. Hence the barricade across the top of the East Ascent may well be their work. The proportions of the vaulted doorway through this screen recall those of the door through the north wall of the lower court of the castle on the southwest peak, and thus encourage the identification as Frankish.

As for the outermost or First Gate of the west defenses, its depressed vault springing from a small moulded cornice and the round piercings in the adjoining wall of the First Line do not, to our knowledge, occur in thirteenth century military architecture and so cannot be contemporary with the Frankish elements just enumerated. Yet the general style seems scarcely later. Without insisting on an ascription, where all conjectures are obviously hazardous, we may suggest for the Outer Gate and First Line a date early in the fourteenth century, when John of Gravina was active.

With even greater reservation we may attribute to this same obscure period of 1250–1350,—

the small external tower at 26 above the north cliffs;
the northern part of the tower at 37 with certain sections of the adjacent outwork at 38.

The ever growing public insecurity, the rapid and bewildering political changes, now contributed to emphasize the importance of Acrocorinth and the need of maintaining its defenses intact. In the long stretch of circuit wall which we have called the Northeast Sector, from 27 to 34, the Byzantine defenses must have been in almost complete ruin when the superstructure which survives to-day was raised upon the remnants of the ancient classical wall. Gravel mortar, solid towers and bastions, carefully built angles and corners, a parapet with broad merlons alternately pierced with horizontal loopholes, vaulted window openings at the interior ground level,—these are all uniformly characteristic of the Northeast Sector of the great wall. The two East Outworks, at 35 and 38, are characterized in large part by this same technique, along with repairs to the Northeast Outwork at 29, the clumsy bastion at 42 in the south wall, in which general quarter there are also numerous repairs, and finally the closing sector of the wall beyond the Southwest Redout at 47 and 48. In all these portions there occurs the large flat tile, which the Franks do not seem to have utilized. To whom shall they be ascribed? The despots of Mistra

seem to have held Acrocorinth too briefly and to have controlled too inadequate resources to have been responsible for so extensive an undertaking. Besides, they seem to have confined themselves to refortifying the Isthmus. When their situation became acute, they ceded the defence to the Order of the Knights of Rhodes. Much more plausibly for author of these ambitious military constructions we shall have to seek someone of wealth and power, someone active and ambitious, inclined to concentrate his energies on Corinth as a cardinal bulwark against the rising Turkish peril. Such a one was Nicolo or Nerio Acciajuoli. Accordingly our date for the sections just enumerated will fall in the second half of the fourteenth century. The ascription accords with the quasi-Byzantine use of tile, since the foreign master would be more dependent on local masons with their native Greek traditions inherited from the Byzantines.

The magnificent wall of the Second Line, just north of the Second Gate, is too unlike to be ascribed to the Florentines. Yet it, too, must be earlier than the great Turkish siege of 1458. Its characteristics,—a uniform, slightly battering face without scaffold marks, no tile, a finely mixed rose-tinted mortar,—are infrequent elsewhere on Acrocorinth; yet they bespeak good workmanship and powerful resources. The infrequency may be explained through lack of work to do (the Florentines having put the whole fortress into good repair) or through brevity of tenure: on either count the likeliest candidates must be the Knights of Rhodes who possessed Acrocorinth from 1400 to 1404. Artillery had by this time become common; so that this Second Line must from the first have been designed as a firing platform, later modified by the Venetians into its present form. Among other traces of this occupation by the Hospitalers we may list:

minor repairs to the Northwest Salient, between 16 and 17;
repairs to the North Sector between 25 and 27, a sheltered region which the Acciajuoli had not bothered to recondition;
a strengthening of the Byzantine stretch at the head of the North Gully by a buttress screen between 20 and 21;
and (possibly) the addition of the triangular barbican to the restored Northeast Postern at 28.

The parapet between 5 and 6 and between 11 and 12 with its emplacements for short-range cannon must belong to the early days of artillery and hence to this general period of the fifteenth century; but it is not possible to give a more specific ascription or date.

It remains to determine the extent of construction during the two centuries of the first Turkish occupation (1458–1687) before the Venetian conquest. Although comparatively recent, the period has left almost no indubitable traces; so that we must fall back upon inferences and probabilities. It should be recalled that to the Turks, the masters of the Levant, Acrocorinth did not have the same importance as it did to the Europeans who had relied upon it as a cardinal point of defence against Turkish encroachment upon the Peloponnese. Hence under Turkish rule it was but feebly garrisoned and, scarcely anticipat-

ing attack from a population subjugated far and wide around it or yet from an overseas enemy who would first have to land his beleaguering forces to reach it, it was probably maintained very indifferently as a stronghold. Hence we are entitled to assume as Turkish only such repairs as might be essential to keep the wall from collapse. Such would be the patchwork in the Third Line between the tower at 10 and the bastion at 11, distinguished by its peculiar rosettes of masonry fill.[1] The early cannon embrasures between 11 and 12, mentioned in the preceding paragraph as assignable to the fifteenth century, may be Turkish, as are very probably:

certain repairs to the South Sector, especially where it forms a terrace for Peirene;
a rebuilding of the neglected stretch above the north cliffs between 25 and 27, including the tower at 26;
the blocking-up of the Northeast Postern at 28, implying complete disuse of the East Ascent.

This last act suggests a reduction of the hilltop population and a desire to restrict the points necessitating special surveillance or guard. When the Venetian commander Morosini captured Acrocorinth in 1687 he apparently found the defenses weak and inadequate; and the reports of the *proveditori* emphasize their dilapidated condition. For all these reasons we are inclined to make no important ascriptions to the First Turkish Period. On architectural and archaeological grounds alone, it would be perfectly reasonable to ascribe the whole Northeast Sector to the Turks. But the great extent of this work would imply a thoroughly ruinous and helpless condition of this sector at the time of the Turkish capture, and this is not supported by the records. Mathew Asan very probably stole through the Turkish lines and entered the besieged fortress by the East Ascent and the Northeast Postern,—which may explain why the Turks afterward blocked this approach by walling up the postern completely. Had the whole northeast and east wall been in ruins at the time, neither Asan's secret entry nor the protracted Turkish siege would be explicable.[2]

Our picture of the fortress before the coming of the Venetians is thus, except for certain parapets and most of the cannon emplacements, essentially the same as to-day, save that the First Line of defence in the west was probably in thorough ruin, the Northeast Outwork was abandoned and inaccessible, and, in general, the main wall and all the other defenses were kept in most indifferent repair.

The Venetian rehabilitation of the fortress between 1688 and 1715 was the last important activity to leave a mark upon Acrocorinth. The circuit, being practically closed

[1] There is also here a tendency to point the stone so as to leave the mortar projecting in relief, and this can be exactly paralleled in certain of the Turkish sectors of the walls of Salonica, e.g. the Yeni Kapu (Tafrali, *Topographie de Salonique*, pp. 109 f., and pl. XXI).

[2] A further argument may be found in the blocked-up Northeast Postern, in whose masonry fill a different mortar occurs from that in the Northeast Sector. Had the latter been constructed by the Turks, who were responsible for blocking the postern, we should expect to find the same mortar in both.

and intelligently planned, neither demanded nor permitted extensive rebuilding. The modifications of the system of military defence, due to the tremendous development of artillery, may have been profound elsewhere; but here in this sheer mountain stronghold they could have but little application. The lion of St. Mark, so conspicuous on the more purely Venetian defenses of the Adriatic and Levantine towns, here occupied a modest niche over the Second Gate. All that needed to be done was to modernise the wall-crown by constructing cannon embrasures on platforms to command the west approaches and to remake the parapet with proper loopholes for muskets. Here and there the new artillery platforms necessitated a more extensive revamping of the wall, notably at the end of the redout or castle court of the southwest peak and in the seven-gun stretch of the Northwest Battery between 14 and 15. At the Second Gate the flanking tower was re-erected in wholly new shape. Through all these projects the skilled and experienced Italian hand is as evident in the well-hewn and well-matched poros, with the marks of the dressing-tool still fresh, carefully set in brown-grit mortar, as in the barrel vaults of even workmanship, assembled on centering over larger spans such as the rooms within the towers or beneath platform terraces. The wall is often strengthened by a strongly battering base or talus, and adorned at higher levels with a characteristic half-round or string-course, usually expressing some structural level within. The cannon embrasures are unmistakable, if only by reason of their outstandingly good construction and their vertical walls. In other respects they admit considerable variety, with apertures ranging from a minimum of 0.80 metres to a maximum of almost 6 metres, with both rounded and angular corners, and with quite unsymmetrical plan depending on the direction of fire; but the general type (best shown in Figs. 142, 144) is everywhere recognizable. Where the parapet is crenellated, the merlons are narrow (usually *ca.* 0.70–0.75 metres wide, but occasionally as much as 1.10 metres) pierced with loopholes directed downward and frequently unsymmetrical.[1] The continuous uncrenellated parapet pierced by slanting loopholes for muskets is probably also Venetian in the main, though occasionally imitated and continued by the Turks. Such a treatment of the wall-top is not so apt to occur on the main curtain as in detached stretches covering some passage or approach, such as the ramp leading to the Second Gate, or the "balcony" spur of the Third Line, or such advanced and very exposed sections as the outermost west wall, the First Line of defence. Lastly, there are the decorative motives, not merely the heavy string-course molding on towers and on the exterior of artillery platforms, but the false cannons and the cannon-balls of stone, and the use of niche and cornice as on the lower façade of the Second Gate. Nor must we omit to mention the unstopped and evenly spaced scaffold holes and the unifying surface-coat of brown-grit mortar, which has very generally cracked and peeled away.

Compared with Venetian work elsewhere in the Peloponnese, at Nauplia or Calamata, for instance, to say nothing of such ambitious constructions as those of Coron and Modon

[1] E.g. in the synoptic table, PLATE VIII, Nos. 3, 5–10, and 13.

or those in Crete, the Venetian rebuilding of Acrocorinth is neither vast nor impressive. The chief reason for this has already been advanced. In addition, the mountain stronghold was only one unit in the Venetian defence of the Isthmus; and the labor expended on the lower system of earthworks from the shore of the gulf to the eastern hills should not be forgotten. The *proveditore* Giacomo Corner observed that the Acrocorinthian batteries could not be expected to protect the Venetian fleet in the gulf nor command the passage of the Isthmus. Hence the hill fortress was for the Venetians essentially a central focus from which to organize their resistance against the Turk, a storehouse and stronghold incapable of seizure by the enemy. Hence also the interior constructions,—barracks and storage rooms and arsenals; and hence, too, the Venetian emphasis on the west defenses, which alone were exposed to the possibility of an artillery attack and therefore alone needed to be modernized, whereas elsewhere in the circuit the surviving medieval system of walls and ramparts was still wholly adequate for resisting infantry armed with muskets and clambering through steep rocky open slopes. To strengthen the west defenses, then, the Venetians repaired the ruined First Line, added a dry moat and flanking bastions, entirely rebuilt the flanking tower to the Second Gate, added a new crown along with five large cannon embrasures to the Second Line of wall north of the gate, and re-topped almost the whole of the Third Line. Here, except for the wings, between 5 and 6 and between 11 and 12, which did not face west and hence could not be utilized for long-range fire, the older system was obliterated by thirteen new cannon emplacements, which were further supplemented by the seven of the Northwest Battery, between 14 and 15, and the three high up on the southwest peak at the extreme west end of the redout at 46. Compared with this combined battery of 23 guns oriented west, the other artillery defenses of Acrocorinth are almost negligible,—four or five guns oriented north, one near 40 southeast, and one at 46 south. Such, under the Venetian military engineers, was the refortification of the medieval mountain fastness, now brought up to date so as to cope with the greater range and more destructive fire of the artillery of the closing seventeenth century.

And this condition, we submit, was good enough for the Turks when they re-entered into possession in 1715. During the century or so from then until the disappearance of their power from the land, we have no historic or archaeological warrant for assuming anything more extensive than the bare essentials of maintenance and unavoidable repair.

Not every question is thus resolved. To cite only a single instance, no date has been suggested for the stretch of main circuit wall between 23 and 25 with its unusual upper courses set obliquely slanting.[1] But it has seemed more scientific and in the long run more useful to offer abundant illustrations, an adequate description, and only such con-

[1] Cf. above, p. 217. But this may be nothing more than a continuation of the classical example, surviving in the exterior of this same sector (Fig. 21).

clusions as seem historically and archaeologically well-founded. Even these are not advanced as certain and final. The walls must, and perhaps do, speak for themselves; but their language is a veritable babel of tongues. So that it would be rash to pretend that our ears have always caught the metropolitan Greek of Justinian or the medieval Rhomaic of the despots of Mistra, the Frankish, the Florentine, the brief speech of the Knights of Rhodes. And although a linguist would think but poorly of himself if he could not distinguish Venetian jargon from Turkish, we, having discovered with what a Venetian accent the masonry of a minaret or a Moslem tomb can be laid, are not too confident that we have everywhere correctly distinguished the lords of the Adriatic from the masters of the Golden Horn. Such as we have found it, however, we offer it to others for their more discerning study.

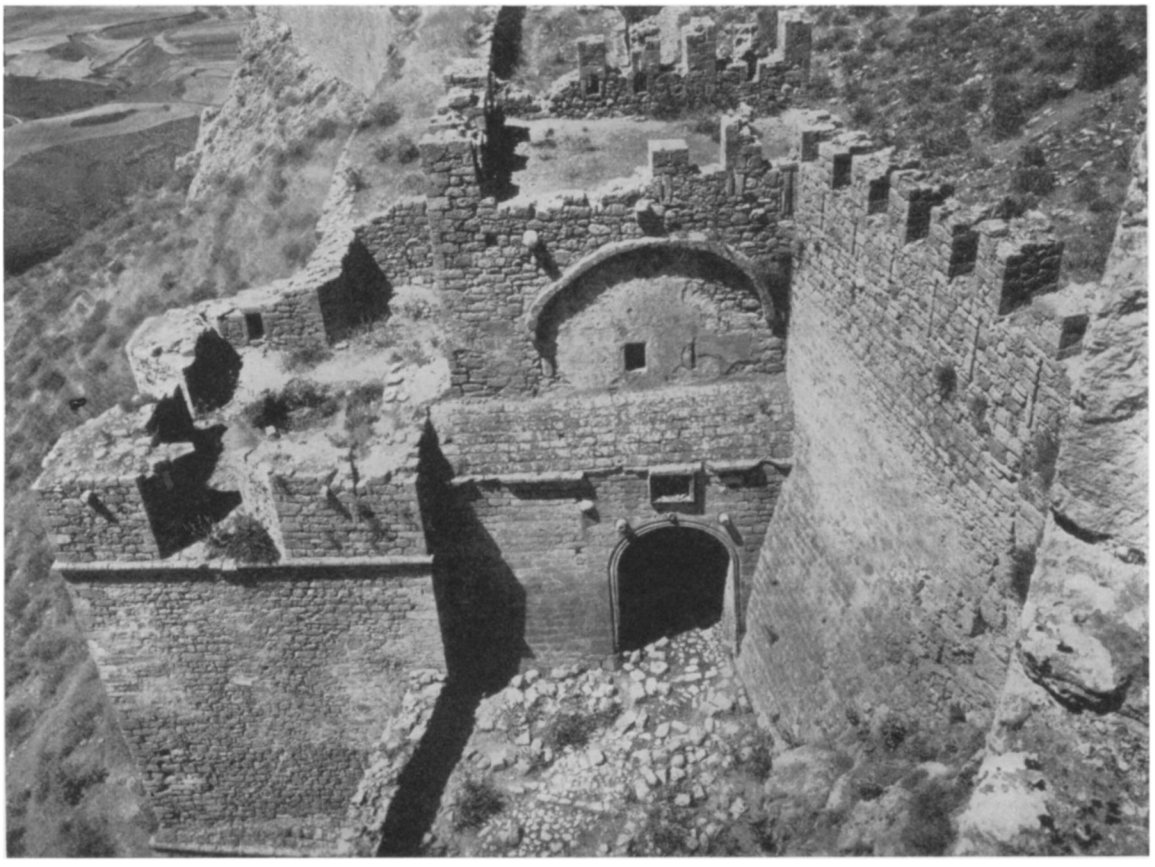

FIGURE 242. FAÇADE OF SECOND GATE

APPENDIX A

THE NORTHEAST SECTOR OF THE CITY-WALL

EXCAVATION was begun on May 12, 1932, continued until June 9, resumed on October 3, and finally terminated in late December of that year. In this campaign the course of the East Wall was traced for some two hundred metres, beginning near the exposed blocks in the modern road and ending at two towers which mark the junction with the North Wall. The latter wall was followed past its junction with the East Long Wall for about 15 metres to the west,—far enough to make completely certain its position at the top of the bluff. Although the depth of the fill and the fact that much of the land was under cultivation made complete excavation out of the question, it was possible to determine the essential characteristics, in curtain walls and towers, of what proved to be a unique piece of construction.[1]

A broad footing trench had been dug everywhere to bed-rock or hard-pan, and in this a massive teichobate of poros blocks had been laid. Upon these had been set a heavy wall, 4–6 metres thick, with two faces of careful ashlar masonry enclosing a solid core of well-laid sun-dried brick. As no parallels for this type of construction seem to exist, it will be appropriate to describe its features in detail.

The FOUNDATION, or teichobate, is constructed throughout of squared blocks of soft local poros, generally laid as headers and everywhere brought up to, or slightly overtopping, the ancient ground level. The absolute height is accordingly variable, ranging from the thickness of a single course of stone (*ca.* 0.45 metres) in Trenches I, II, IV–VII (Figs. 223 and 225) to four courses of stone (nearly 2 metres) in Trench III (Fig. 224, where the ground level is indicated by *a*). The width of the teichobate throughout the undeviatingly straight course of the East Wall is fairly uniform, varying only between 5.25 and 5.50 metres. It is made up, in the two cases in which the entire width was exposed, of four headers, varying in length between *ca.* 1.20 and 1.50 metres (Figs. 226–227). In the short segment of the North Wall which lies between the corner tower C and the junction of the East Long Wall its width increases to 6 metres (Fig. 228); while 15 metres further west, in Trench VII, within the shelter of the Long Walls, it has shrunk to *ca.* 4.35 metres and comprises only three headers (Fig. 229). The footing trench, where it is preserved, is always *ca.* 0.50 metres wider.[2] Along each edge, the upper surface of

[1] Whether this method of construction was tried here and found wanting, and so is really unique, or whether similar walls of the same period await excavation elsewhere, only the systematic investigation of other ancient town-sites will show.

[2] This leaves only *ca.* 0.25 m. on either side for lowering the blocks, which seems extraordinarily little, for example, in Trench III, where the lowest course was based nearly 2 m. below the surface.

the teichobate has been dressed for bedding the two stone facing walls of the main superstructure. These beddings are not very regular, averaging *ca.* 1.20 metres in width, though sometimes as little as 0.90 metres, and are sunk about 0.05 metres below the central strip which carried the brick core. These details are well illustrated in the foreground of figure 224.

At one point only does the teichobate possess features of special structural interest. Just north of the modern road, at the south side of Trench I, the ground level in antiquity dropped sharply toward the north over a ledge *ca.* 2 metres high. The normal treatment of a brick wall on a slope, with the socle descending in a series of steps each one or two courses high, is familiar enough.[1] This treatment is used here, however, only for the bedding of the outer facing wall, which is carried down *χλιμακηδόν*, with the ground level indicated by a *euthynteria* line,—a bit of which is still preserved neatly cut on the face of a block of the lowest course (Fig. 230, Block ε). But the central part of the teichobate, on which the brick core rested, instead of being similarly treated, is carried over the drop in one great step, four courses high (Fig. 231). Across the northern edge of this step a single row of headers was laid (the easternmost is now half broken away), apparently as an anchor for the lower courses of the brick core on top of the step.[2] It is not possible to say how the inner facing wall was treated here, for the blocks have been completely removed. Its existence in the original scheme, however, is amply attested (Figs. 226 and 232) by Block θ, which is the southernmost block of the wall-bedding found in place (the block of Course II rests upon it), by the careful levelling of the hard-pan at σ, and by the line of the

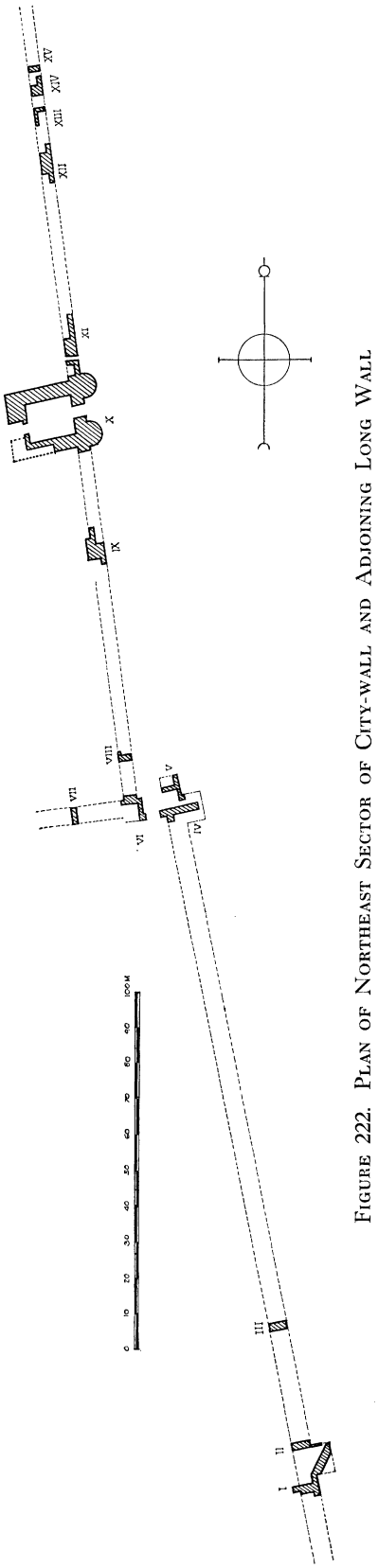

FIGURE 222. PLAN OF NORTHEAST SECTOR OF CITY-WALL AND ADJOINING LONG WALL

[1] E.g. at Corinthian Apollonia: Praschniker, *Jahreshefte*, 1922–24, Beiblatt, pp. 24 ff., figs. 4 b, 6; at Athens: Noack, *Ath. Mitt.*, XXXII, 1907, p. 130; at Sunium: Stais, *Ἀρχ. Ἐφ.*, 1917, p. 173, fig. 4; at Eleusis: Noack, *Eleusis*, p. 37.

[2] A row of blocks in the road just south of here probably served a similar purpose on another step, not so high. I do not know the explanation of this extraordinarily massive construction, nor do I know a parallel for it.

FIGURE 223. NORTHEAST CITY-WALL: TRENCH II FROM THE WEST
(B, B. Brick, Cut away to Show Construction)

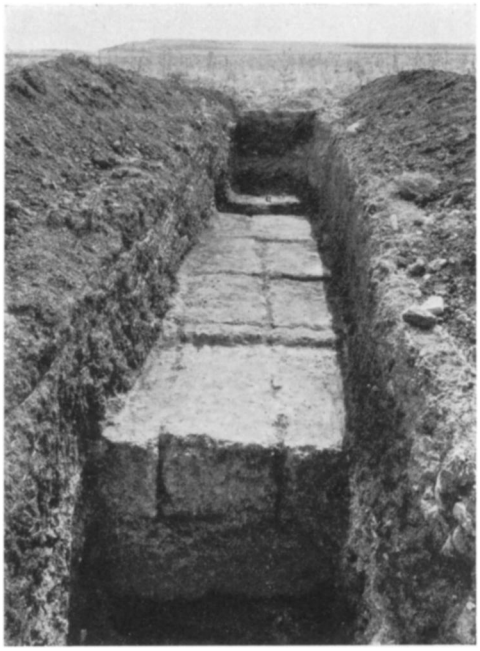

FIGURE 224. NORTHEAST CITY-WALL: TRENCH III FROM THE WEST

FIGURE 225. NORTHEAST CITY-WALL: TRENCH VII FROM THE NORTHWEST

ancient footing trench and its ground level (the first indicated by a dotted line in Fig. 226, the second by an arrow in Fig. 232). It is furthermore not likely that Block *ι*, resting not on another block, but on hard-packed earth, could have been left without reinforcement at its outer side.

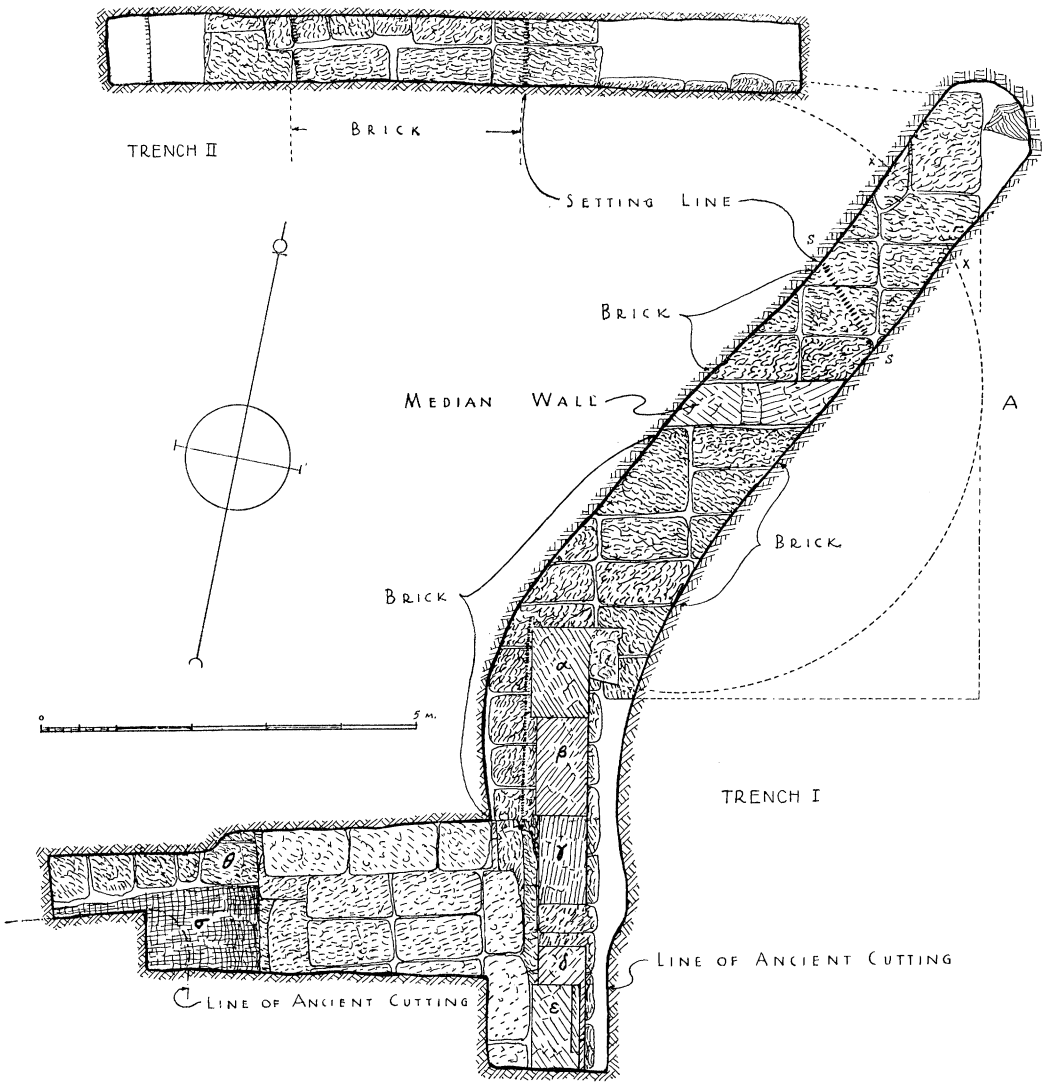

FIGURE 226. NORTHEAST CITY-WALL: TRENCHES I AND II WITH TOWER A

Abutting against Block *θ* and the block north of it, and extending in a gently curving line at least 4.10 metres to the southwest, the foundations of a second wall were found (Fig. 226). The single course which remains of this wall consists of a double row of rather irregular blocks of poros, with a total width of *ca.* 1.25 metres.[1] Following

[1] The full width of this wall and its minimum length of 4.10 m. were established by tunneling, and do not appear in the drawing, figure 226.

closely the curve of the drop in the terrain, this can scarcely have been anything but a retaining wall of some sort. Its height and the exact nature of its relationship to the City-wall cannot now be determined. Further excavation would probably throw light on its function; it is possible that the steep ledge and the hollow just north of it, which was

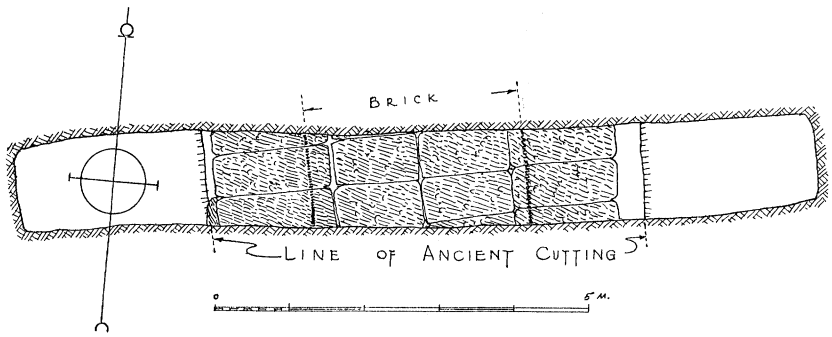

FIGURE 227. NORTHEAST CITY-WALL: TRENCH III

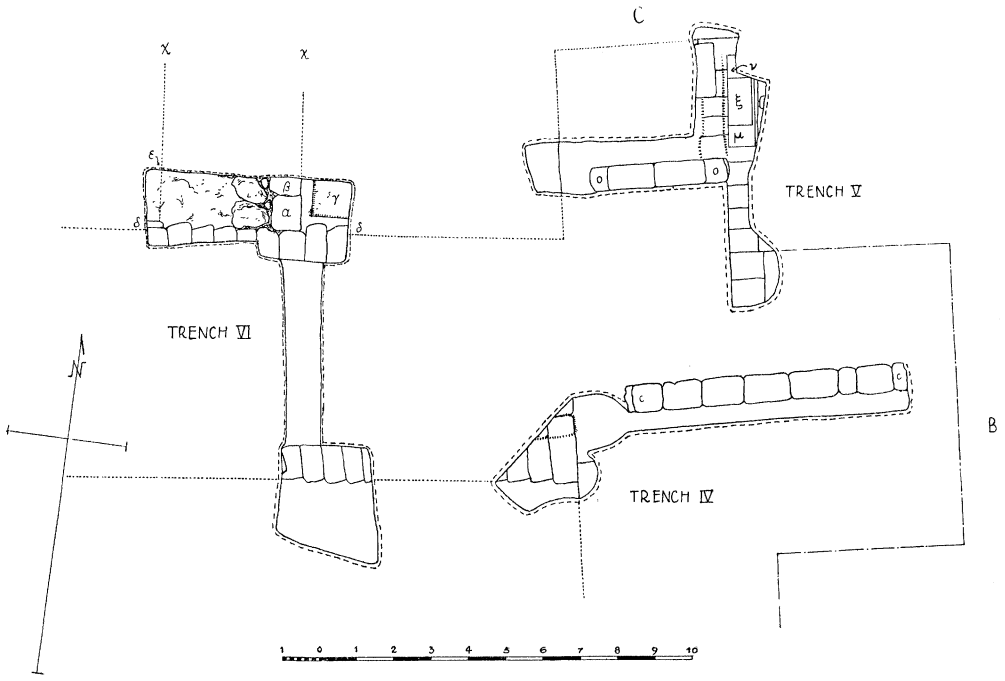

FIGURE 228. NORTHEAST CITY-WALL: TRENCHES IV, V, AND VI

in ancient times both deeper and more abrupt if the depth of the modern filling elsewhere in this neighborhood be a criterion, constituted a potential threat to the security of the City-wall, which the retaining wall and perhaps also the massively built teichobate step were designed to anticipate and correct.

The teichobate was found everywhere in nearly perfect preservation. Except for the hacking away of the northeast corner of the great step, the removal of a stretcher block

from Course V at the west side of the step, and the plough scorings on the blocks in Trench VII, it is practically undamaged. The mass of brick whose weight and durability was largely responsible for preserving the teichobate was also found for the most part in surprisingly good condition.

The same cannot be said of the two FACING WALLS. Nearly all traces of these have vanished, for well-cut blocks of poros have been an irresistible temptation to later

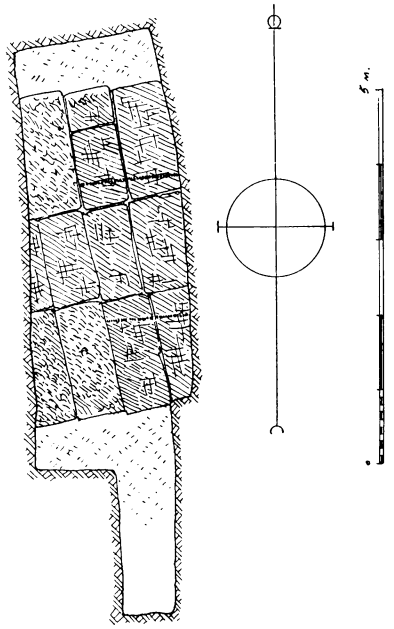

FIGURE 229. NORTHEAST CITY-WALL: TRENCH VII

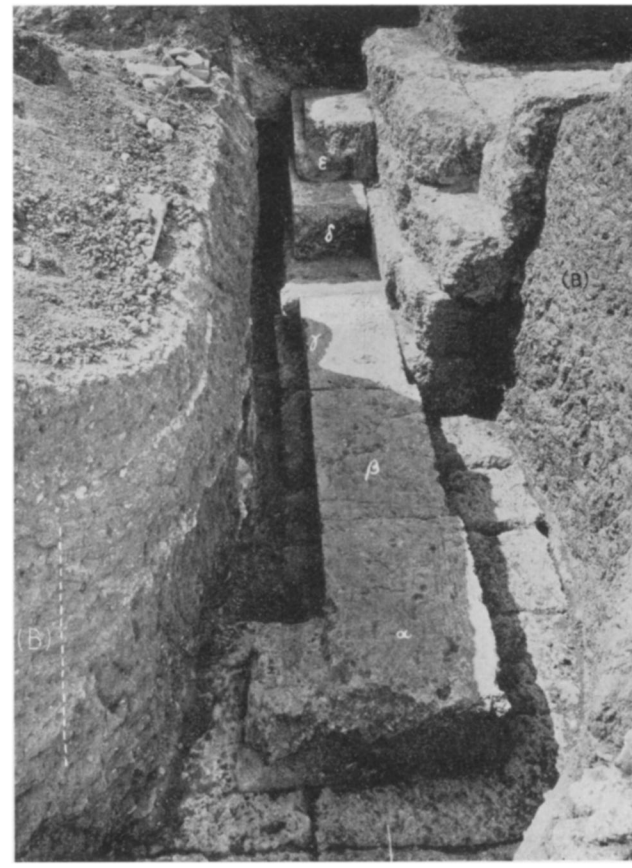

FIGURE 230. NORTHEAST CITY-WALL: TRENCH I FROM THE NORTH
(B, B. Brick, Cut away to Show Construction)

builders, from Roman times to the present.[1] A total of eight blocks of the outer wall were found in place—five in Trench I, three in Trench V.

[1] In the walls of a small outbuilding, *ca.* 1 km. nearly due north of the Asclepieum, there are a number of blocks of poros which certainly belonged to a round tower of the type characteristic of the City-wall in the region of the Potters' Quarter. The owner told me that he had brought them years ago from a field which lies a good 250 m. east of the modern highroad at the edge of the second plateau (i.e. in the line of the North City-wall). This is almost 1.5 km. as the crow flies, and nearly twice as far by road or path, from their present location.

All of the blocks in Trench I (Figs. 226, 230, 231; Blocks α, β, γ, δ, ε) belong to the lowest wall course. On the upper surfaces of three of them, set back 0.10 metres from the outer edge, there runs a faintly incised setting-line which showed, when first uncovered, traces of red pigment. The "*euthynteria*" line cut in the face of Block ε carries this set-back up the slope. All these blocks are dressed with considerable care, in marked contrast to the blocks of the teichobate, as is plain even in the photograph (Fig. 230). For the most part the dressing seems to have been done with a flat chisel *ca.* 0.01 metre wide, with no effort to achieve either a smooth surface or a regular pattern of the strokes. The outer faces of Blocks α, β, γ have been differently treated. The same chisel has been used, but in four horizontal bands of vertical or slightly diagonal strokes, giving the effect, from a little distance, of four *tainiai*, each *ca.* 0.11 metres wide (Figs. 231 and 234).[1] All the blocks have a narrow bevelling at the vertical joints.

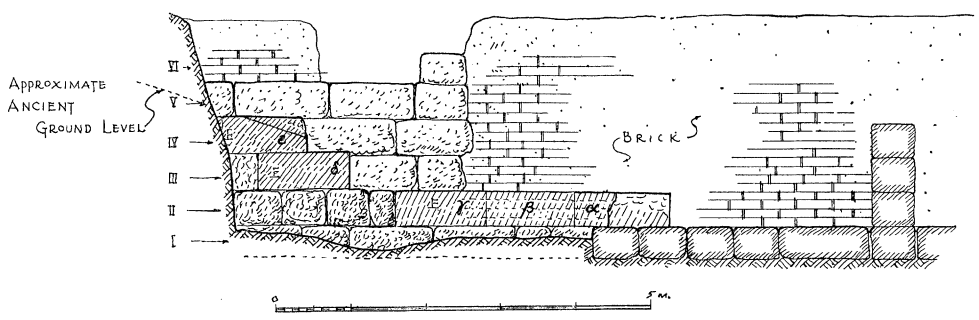

Figure 231. Northeast City-wall: Trench I, East Elevation

The three blocks in Trench V (Fig. 228, Blocks μ, ν, ξ) belong to the east wall of a small rectangular tower, but differ in no essential from those in Trench I. The vertical joints of all three have the same bevelling and the outer faces have been given the same banding that was found in Trench I. This appears as well on the *inner* face of Block ξ, but carried rather less than halfway across (Fig. 234).[2]

The surviving blocks of the wall-face run in length from 1.175 (Block γ) to 1.31 metres (Block β), in width from 0.63 metres (Block ξ) to 0.75 metres (Block α), and are uniformly 0.45 metres high. Without exception they bear mason's marks; "A," "E," "H," or "K." The most frequent is an "E" with either the top or the bottom bar prolonged

[1] For a somewhat similar treatment in the theatre at Corinth, → Stillwell, *A.J.A.*, XXXIII, 1929, p. 82.

[2] The explanation of this I do not know,—perhaps it is merely a stone-cutter's mistake. There is no other evidence that these are re-used blocks; and though there was a room here within the tower, neither the dressing of blocks μ and ν, nor the mason's marks suggest finished inner walls. Indeed there is some evidence that the walls of the room were stuccoed (cf. below). On Block γ in Trench I, also, the *taeniae* are carried only part way across (0.40 m. from the righthand edge); but there the reason is apparent: the lefthand side of the block was to be concealed by the rising ground.

behind the upright from 0.05 to 0.13 metres.[1] This appears seven times,—in Trench I on the back of Block β, on the outer faces of Blocks γ, δ, and ε, and on a block of the teichobate step (Fig. 233), and in Trench V on the backs of Blocks ν and ξ (Fig. 234 and Fig. 236, *c*). Block μ in Trench V has two letters, "A" and "K," at opposite ends of the back (Fig. 236, *b*, *d*). "A" appears also on a block of the transverse wall of the tower (Fig. 228, *o*–*o*) in the same trench. "H" occurs only once,—on the back of Block α in Trench I.

No block of the inner facing wall was found *in situ*; but several pieces of poros were discovered lying on the inner bedding in Trench VI (Fig. 228). These, although much

FIGURE 232. NORTHEAST CITY-WALL: TRENCH I, TEICHOBATE FROM THE WEST

FIGURE 233. NORTHEAST CITY-WALL: MASON'S MARK FROM TRENCH I

broken, still showed clear traces both of the bevelled edges and of the ornamental dressing which characterized the blocks of the outer facing wall and suggest that the inner wall had essentially the same features.

With so much known as to the general nature of these facing walls it is unfortunate that the important question of their height must remain unanswered. Whether they are to be thought of as real facing walls, carried up the full height of the brick core, or whether they served merely as a sort of socle, a few courses high, to reinforce and protect the base of the brick wall, cannot now be determined. There is, however, evidence to

[1] The prolongation of the top bar is common to the two examples in Trench V, that of the bottom bar is invariable in Trench I.

show that they once rose considerably higher than their present two courses, attaining a minimum of five courses in Trenches I and II, of four in Trenches IV, V and VI. This evidence lies in the brick core, the durability of which has already been mentioned. The bricks seem to have far outlived the walls designed to protect them; for although no date can be set for the destruction of the walls, since it was apparently a gradual process, it was plain from the stratification[1] that nowhere less than 0.65 metres, and in most places a good deal more, of later filling has accumulated since the last block was removed. In all instances the brick was found within 0.30–0.40 metres of the modern surface and invariably, below the topmost two or three courses, in practically perfect condition. Thus, in Trenches I and II, the brick was preserved undamaged to a height of 2.25 metres above the teichobate, approximately level with the top of Course VI of the great step (Fig. 232).

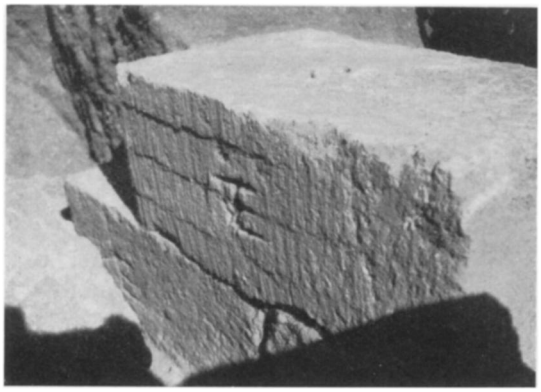

FIGURE 234. NORTHEAST CITY-WALL: MASON'S MARK FROM TRENCH V

FIGURE 235. NORTHEAST CITY-WALL: SINGLE BRICK CUT AWAY AND EXPOSED
(The Meter-stick is extended *ca.* 0.25 m.)

Even on top of the step, not less than four courses of brick could be distinguished. In Trenches IV, V and VI the brick rises in good preservation at least 1.60–1.70 metres above the teichobate. In every case, up to the height at which the brick core had survived undamaged, both of its faces were substantially vertical and, though not perfectly regular, were clearly *finished* faces. There was no trace of any breaking away, certainly not of the loss of any considerable mass of brick. This can only mean that at every observed point the facing wall originally rose at least as high as the surviving vertical face of the brick core.

The sun-dried BRICKS are not laid directly on the teichobate but lie on a levelled layer of poros chips and dust, 0.03–0.05 metres thick. It will be noted that the blocks of the facing walls, although set well back from the outer edge of the teichobate, by no means reach to the inner edge of the bedding (Fig. 226). The layer of poros chips extended over the space between, and the brick was laid directly against the wall blocks. The brick

[1] Except in Trenches III and VII, where the filling was shallow or non-existent.

core thus spreads beyond the limits of the central strip and the irregularities of its faces are determined by the irregularities of the inner side of the facing wall. This is important because, by showing that the facing walls were in place, or partially so, at the time the brick was laid, it eliminates the possibility (a suggestion that has been made) that the poros walls were a later addition to what had originally been a simple wall of brick on a stone socle.

Individual bricks are generally square, 0.45 × 0.45 × *ca.* 0.09 metres (Fig. 235).[1] A few half bricks, 0.45 × *ca.* 0.22 × *ca.* 0.09 metres, were noticed. They are very hard, made of a dark, reddish-brown, clayey earth containing, in addition to a good many potsherds and some coins (whose significance for the chronology of the wall is discussed below), a great quantity of coarse gravel. This was perhaps intended as a binding medium, since there was no trace of straw or of any other binder. For bonding, liberal use was made of mud,—the vertical joints are sometimes as much as 0.015 metres wide.

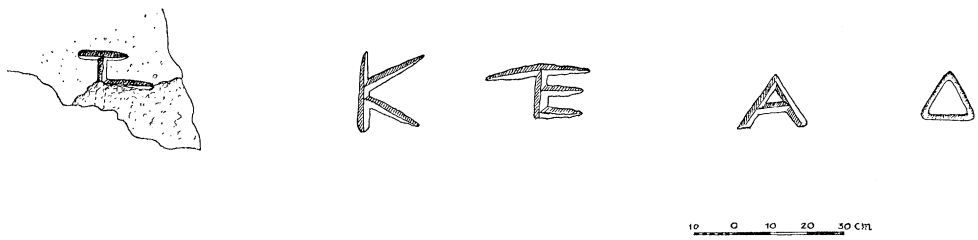

FIGURE 236. MASON'S MARKS FROM NORTHEAST CITY-WALL AND ISTHMIAN GATE

A comparison of these bricks with those from other Greek sites where figures are available shows that they are nearly identical in size with those found in the precinct walls at Eleusis. It is difficult to believe that this similarity is fortuitous; it suggests, rather, the use of a common unit of measurement at both places. Dörpfeld, while arguing for the exclusive use at Athens, down to Roman times, of the long foot (*ca.* 0.328 metres), has pointed out that at other cities which used the Attic-Euboic weight standard, such as Corinth, the unit would naturally be the short foot of *ca.* 0.296 metres.[2] In terms of the latter, the Corinthian bricks would be approximately one and one-half feet square.[3] The existence of "one and one-half foot bricks" (*πλίνθοι τριημιπόδιοι*) is attested by their mention in an Eleusinian

[1] The height of the bricks could not be accurately determined. The pressure of the mass of brick above has destroyed the clear divisions between bricks and bonding medium in the horizontal joints. A number of measurements gave an average of 0.095–0.10 m. for the combined height of a brick and a horizontal joint, the thickness of the mud bonding being apparently between 0.005 and 0.01 m.

[2] *Ath. Mitt.*, XV, 1890, pp. 172 f.

[3] It is, perhaps, asking too much to demand precision in matters of this sort of a people whose outlook was that of the geometer and whose chief concern was with proportion. In practice neither the long nor the short foot is likely to be more than approximated; the figures should certainly always be preceded by ±.

document dated to 329/8 B.C.[1] Following Dörpfeld's view, this has generally been taken as referring to bricks with a length of one and one-half *long* feet, i. e. *ca.* 0.492 metres.[2] Such bricks have been found at Demetrias-Pagasai where their existence is explained by the prevalence there of the Aeginetan standard.[3] But no bricks of this size have been reported from Eleusis or apparently from any site in Attica; the extant Eleusinian bricks are, in fact, nearly identical in size with the Corinthian.[4] It is tempting to conclude that the bricks which are to-day *in situ* at Eleusis are such bricks as are specified in the inscription; that the Corinthian bricks, with the same dimensions, are also *πλίνθοι τριημιπόδιοι*; and that long before the Roman period, for some purposes, at any rate, the short foot of ± 0.296 metres was used at both places.[5]

Of the TOWERS which strengthened this section of the wall, two were excavated sufficiently so that their plans were clear. Beyond a reference to the drawings (Figs. 226, A; 228, C) and the photograph (Fig. 237) little need be said of the general nature of their construction, which is the same as that of the curtain walls. The platforms on which they rest are simply rectangular extensions of the teichobate; their poros facings are parts of the facings of the curtain; between the brick core of the curtain walls and the brick core of the towers there is no break. The towers belong, evidently, to the original scheme, are simply, as it were, bulges on the straight outer face of the main wall.

Both the round tower A at the foot of the teichobate step and the rectangular tower C which guards, at the north, the angle of the East and North Walls as well as the junction of the North Wall with the East Long Wall, show structural details which deserve attention.

[1] *I.G.*, II^2, 1672, ll. 55–57. The bricks whose dimensions are given below are not, of course, contemporary with the inscription, but belong to the walls of the Cimonian period. To Mr. John Travlos, architect for the excavations at Eleusis, I am indebted for the information that, although bricks of the fourth century have recently been discovered for the first time, it has not yet been possible to take their measurements with accuracy.

[2]] → Caskey, *A.J.A.*, XIV, 1910, p. 303;] → Holland, *A.J.A.*, XXI, 1917, pp. 147 f.; and by Noack, *Eleusis*, p. 70, *Anm.* 2.

[3] Bricks at Demetrias: 0.50 × 0.33 × 0.08–0.088 m., Arvanitopoullos, *Θεσσαλικὰ Μνημεῖα*, I (1909), p. 77; 0.50 × 0.33 × 0.095 m., Noack, *l.c.* The weight standard of Thessaly was the Aeginetan as late as the second century B.C., not the Attic-Euboic (Head, *Hist. Num.*^{2}, p. 291).

[4] 0.45 × 0.45 × 0.08 m., Philios, *Ἐλευσίς* (1906), p. 102; 0.45 × 0.45 × 0.10 m., Caskey, *l.c.*; 0.44–0.45 × 0.24–0.26 × 0.095–0.10 m., Noack, *op. cit.*, p. 70. Mud bricks are made to-day in Greece in wooden frames having a number of compartments. They are usually open at top and bottom, which often results in a considerable difference in the height of the bricks, while their length and width are regular. I have noticed as much as 0.02 m. difference in the bricks of one lot. If, as is probable, a similar method was used in antiquity, it may account for the difficulty found by modern archaeologists in agreeing on the height of the bricks at a given site. For the ancient method cf. Aristoph., *Frogs*, 799 f., and scholiast.

[5] A scale applied to the drawings will show a surprising number of dimensions which can be expressed in terms of a unit of ± 0.296 m. But the exceptions are many. The question of the Greek foot must probably be settled, if at all, by reference to structural members which, like brick, would tend to be standardized.

Most noteworthy is the unusual combination of a round superstructure on a rectangular foundation (8 × 5 metres) in Tower A.[1] Although the tower was but partially cleared (Figs. 226 and 237) there can be no doubt as to the nature of the superstructure. The circle of which it is a segment may be accurately restored from the cutting of Block *a*, the south face of which, though broken, yet preserves a measurable arc,[2] and from the direction of the setting line north of the median wall (Fig. 226, *s–s*). Confirmatory evidence is found in the northeast corner of the platform which was covered up to, but not within, the line *x–x* by a continuation of the thick layer of poros chips and tile fragments which everywhere overlies the ground level of the building period.

A more conventional feature is the median wall, approximately bisecting the tower at right angles to the line of the curtain wall. This is a strengthening device common to many round towers in the Corinthian circuit and elsewhere, with the difference that here it was probably carried through the whole thickness of the wall to the inner facing.[3] It is a single course of stone in thickness, laid directly on the teichobate without a specially prepared bedding and is, thanks to the brick on either side of it, preserved three courses high (Fig. 237).

The rectangular tower C, although it looks northward, is plainly a part of the East Wall. Its platform is simply the northern end of the east teichobate, extending 5 metres beyond the point where the north teichobate has been laid against it (Fig. 228).[4] The three blocks of the tower wall

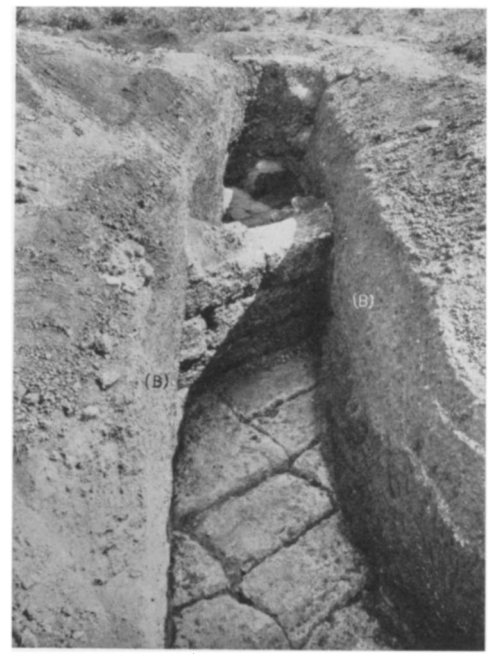

FIGURE 237. NORTHEAST CITY-WALL: TOWER A FROM THE SOUTH
(B, B. Brick, Cut away to Show Construction)

[1] Round towers on square foundations are found elsewhere, so far as I know, only at Hipponion in Italy (*Not. d. Scav.*, 1921, pp. 474 f., Figs. 2, 4) and these are altogether different from ours. Close to the Itonian gate at Athens there is said to have been a rectangular tower on a round substructure (Judeich, *Top.*[2], p. 133, n. 1).

[2] The importance of this block in showing that the outer facing wall and the tower wall were not merely bonded together but were actually *one* wall, must not be overlooked.

[3] Since the outer facing wall is not carried through back of the tower there is no other logical stopping place for the median wall. It is highly probable that the long row of blocks *c–c* in Trench IV (Fig. 228) is the median wall of a similar tower. The breakage of the blocks at the east end suggests that they were bonded into the tower wall; the west end is carried to a point roughly in line with the inner face of the inner facing wall and there simply ends in the mass of brick. The probable restoration of the platform is indicated in figure 228 by a broken line.

[4] It may be noted that though there is no bond between north and east teichobates here, the brick core, as found in Trench IV, is continuous across their junction. The facing walls too were probably bonded in the angles.

found *in situ* have already been discussed. The northern section of the tower is cut off from the rest and from the main wall by the transverse wall *o–o* (Fig. 228) and forms a compartment which measured about 2.25 by 3.50 metres when the walls were standing. The transverse wall is preserved three courses high and seems to have been bonded into the tower walls, since the blocks of the first and third courses at each end are not cut, but broken off. In the filling of the compartment thus formed a few fallen bricks were found, but none *in situ*. Its floor was covered to a depth of 0.25–0.30 metres with a layer of poros chips and fragments of roof-tiles. Many of the bits of poros in this layer and in the filling above were coated with a fine white stucco. Although none of these had a characteristic shape, they indicate, taken with the absence of brick in the filling, that the compartment must have been some sort of a room. There is no further evidence as to its interior arrangement or purpose or as to the means of access; but since it is an admirable vantage point for surveying the whole course of the East Long Wall and is adequately protected at the north by its proximity to the edge of the plateau and at the east by Tower B, it seems very likely that it was a guard room.

As for the CHRONOLOGY, this entire section of wall would seem necessarily to be a repair or rebuilding to replace an earlier wall, since in its present form it is later in date than the section of the Long Walls which abuts against it. The total disappearance of this predecessor is not the least puzzling problem of the excavation. In none of the trenches was anything found which could be interpreted as evidence of a rebuilding, unless a number of fragments of roof-tiles, found in Trench II *below* the layer of construction débris are to be attributed to the earlier structure. These, from their good fabric and almost glaze-like slip might well belong to what is generally considered the earliest type of Corinthian tile.[1] Whether this earlier wall followed a slightly different course and so lay outside the limits of this excavation or whether it was bodily removed to make room for the new wall, cannot at present be determined.

For the date of the repair, evidence is not lacking. The occurrence of coins in the mud-brick core of the East Wall has already been noticed. Two were found in Tower A in Trench I and one in Trench II, under circumstances which obviate the possibility that they could have "filtered" in, or been dropped there at a later time. They were *in*, not *among*, the bricks and had clearly been scooped up with the clay of which the bricks were made, or with the gravel used as binder. All three were deep below the preserved top of the core, and well back from its faces. It cannot, of course, be shown that the bricks which stand to-day are those which were laid when the wall was built; but their excellent preservation after centuries of exposure makes it seem unlikely that during antiquity, when they were protected by the stone faces, they ever needed repair. All three coins are bronze and of Corinthian issue:

[1] Blegen, *Corinth*, III[1], *Acrocorinth*, p. 16.

1. Æ d. 0.013 m. Obv. [Ϙ]. Pegasus flying r.
   Rev. Trident; at r., wheel (?).
2. Æ d. 0.0145 m. Obv. [Ϙ]. Pegasus flying l.
   Rev. Trident; at l., Δ.
3. Æ d. 0.019 m. Obv. KO]PIN[ΘIΩN. Head of Athena, helmeted, l.
   Rev. Trident.

Nos. 1 and 2 are the commonest type of Corinthian bronze. Such coins began to be struck some time in the fourth century and continued to circulate, it now seems likely, until the destruction of the city in 146 B.C.[1] No chronological arrangement of these coins has yet been made, and it is not possible to date them more closely. Coin no. 3, though it is a less usual type, is no more informative than the others. It is generally dated (like them) *ca.* 350–243 B.C., but the limits of its issue cannot at present be fixed.

A fourth coin offers, perhaps, more definite evidence. It was found at the west end of Trench I, just south of the angle where the "retaining wall" meets the teichobate step (Figs. 226 and 232). It lay at the southern side of the trench, a little west of the ancient footing trench, under the ground level below the thick layer of working-chips which marked the construction period of the wall. The chances of its having come there after the wall was built are negligible. It was struck at Sicyon:

4. Æ d. 0.0125 m. Obv. Dove flying r.
   Rev. Σ.

Head believes that bronze coins of this type were not struck before *ca.* 323 B.C.[2] The suggestion made by Weil that they were struck as early as 368 B.C. has not met with general acceptance;[3] the later date is certainly safer.

It is significant that the style of construction adopted for the northeast corner of the circuit has been used nowhere else in the walls of Corinth. That a style so distinctive should have been selected for, and confined to, this particular short section[4] may be partly due to the conformation of the land and the specific conditions thereby imposed on the builders. A reference to the map (PLATE III) will show that here, and here only, a long sweep of level ground offers an easy approach to the wall. Elsewhere, ravines and steep slopes present almost insurmountable difficulties to direct attack; here, there is no natural

[1] Head, *Hist. Num.*[2], p. 403, dates them *ca.* 350–243 B.C.; but for 146 B.C. as a lower terminus, cf. Edwards, *Corinth*, VI, *Coins*, p. 2.

[2] *Op. cit.*, p. 410.

[3] Weil, *Zeitschr. für Num.*, VII, p. 376; cf. Head (*l.c.*) and Skalet, *Ancient Sicyon*, p. 74, n. 48, and *prosopographia*, no. 136, with references there given.

[4] Its maximum length is not over 800 m. and very likely a good deal less. The rebuilding of the East Wall in this style does not extend farther south than the northern extremity of the first plateau; the rebuilding of the North Wall to the west is limited by the tower mentioned above (p. 287, n. 1) which clearly belonged to another system.

protection whatever. The soil is so shallow that not even an effective ditch could be dug,[1] and the builders must depend wholly on the strength of their wall for defence. It is an admirable spot for any sort of attack; but for siege engines especially, it is the only vulnerable spot in the entire ring of wall. And siege machinery must certainly have been in the designer's mind. The care which was expended on every aspect of the construction, down to the last detail of appearance, indicates that it was probably not economy which dictated the use of brick and stone. It seems rather the result of a deliberate effort, whether successful or not, to combine the best qualities of both materials and create a wall which should be, regardless of the type of weapon used against it, impregnable.[2]

It has already been pointed out[3] that there is every reason to believe that this section of the City-wall is contemporary with the oblique arch thrown across the outer entrance of the Isthmian Gate. On this assumption, and reasoning both from the style of the arch and from the extent and the costliness of the whole project, it was suggested above[4] that the period of the rebuilding must be sought toward the end of the fourth century B.C. or the beginning of the third, not improbably during the years when Demetrius Poliorcetes held the city. The coins now offer an upper terminus certainly not before the fourth century, perhaps as late as its last quarter; while the construction of the wall, apparently as a defence particularly against siege machinery, points certainly to its association with the development of this sort of warfare in the Hellenistic period.[5]

[1] No trace was found of the famous ditch where Lysander saw the rabbit (Plut., *Lysander*, xxii, 2; id., *Moralia*, 190 E, 229 D). If it ever existed outside of the anecdote, it must have protected the Long Walls in the plain; only there is a moat practicable.

[2] On the relative merits of brick and stone for defence, cf. Paus., viii, 8, 7 f.

[3] Pp. 100 ff.

[4] Pp. 122 ff.

[5] An entirely analogous condition existed at Miletus, where the south wall of the city defenses was a Hellenistic reconstruction across a particularly vulnerable stretch. Cf von Gerkan, *Milet*, II^3, pp. 53 ff.

[A. W. P.]

APPENDIX B

A CHAMBER TOMB WITH STONE FUNERAL BED FROM THE FIFTH CENTURY B.C.

THE location of the tomb is given on page 62 of the main text, in the description of the ancient classical road across Cheliotomylos neck. It lies just to the east of the road on the side opposite the two sarcophagi the contents of which are illustrated in figure 45 and with which it can be shown to be contemporary. The late-Roman or early-Byzantine builders of the poor retaining wall which replaced the more solid Greek wall along the east edge

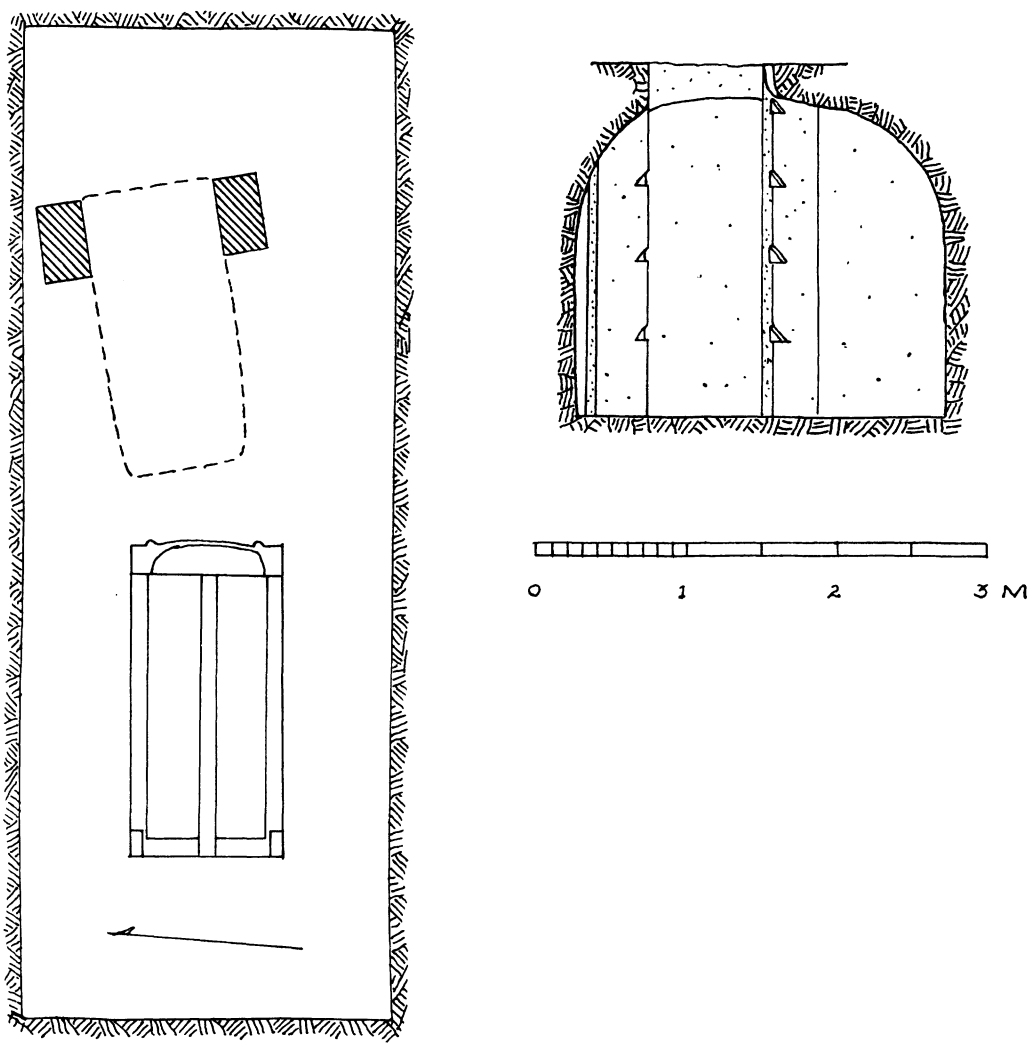

FIGURE 238. TOMB OF THE FUNERAL BED: PLAN AND CROSS-SECTION

of the cutting for the road had knocked through the southwest corner of the tomb; but this event seems to be without significance, as the tomb had already been rifled. The normal and proper entrance to the tomb was vertically from above. For the modern excavator this proved a tedious process, since it involved hacking out a filling of compact moist clay formed by the accumulations of muddy water after rains, gradually settling out and hardening. High up in this clay, with which the tomb was completely filled, were found an amphora of unglazed Corinthian ware, apparently of early Imperial Roman date, and a lamp of like period. Lower down, the clay was empty. Thus it seemed that the tomb had been entered by those searchers for "*Necrocorinthia*" whom Strabo[1] mentions, and that these had rifled the contents, leaving the cover slab off and the tomb open to the weather.

FIGURE 239. FUNERAL BED, SEEN FROM TOMB ENTRANCE

As in certain other tombs found at Corinth,[2] the entrance was by vertical descent from the ground level above. The opening at the surface level (Fig. 238, in dotted outline on the plan at the left) is a simple rectangle, oriented obliquely to the much larger rectangle of the underground floor of the chamber. Two square upright piers, 0.80 metres apart, have triangular footholds cut underneath the fine stucco covering of their opposing sides and thus offer a ladder-like means of descent (Fig. 238, *right*). Below, the tomb spreads out into a large room, 6.50 by 2.50 metres, at one end of which, under a stuccoed vault,[3] stood a stone funeral bed in almost perfect condition (Figs. 239–240 and PLATES IX–X). It was built of poros blocks carefully carved and covered with fine stucco and was set together out of the following seven pieces:

two end-pieces, each showing a pair of carved legs connected by a flat panel;
two long cover-slabs, each stretching from head-piece to foot-piece and completing the legs; bed-rail and mattress are indicated in carving;
two bolster-pieces, fitting together to form the pillow-rack at the head of the bed;
an uncarved prop under the middle of the bed.

[1] viii, 6, 23.

[2] Notably a very finely built one in the general region of the Roman amphitheatre. This was cleared and examined by Prof. Shear in 1929.

[3] The vault is merely hewn out of the hard-pan.

All except the last were covered on their outer faces with stucco so as to make the breaks and joints invisible and give the bed the appearance of a single block. So well were the legs stuccoed into the floor that the bed seemed also to be of a single piece with the (apparently) natural rock beneath it. The two pieces of the bolster were clamped together, and each was dowelled into the bed-frame beneath. The bolster-pieces had been torn from their places; the dowels, holding fast, had cracked them into pieces; and these fragments, none of which are missing, were found scattered around under the entrance to

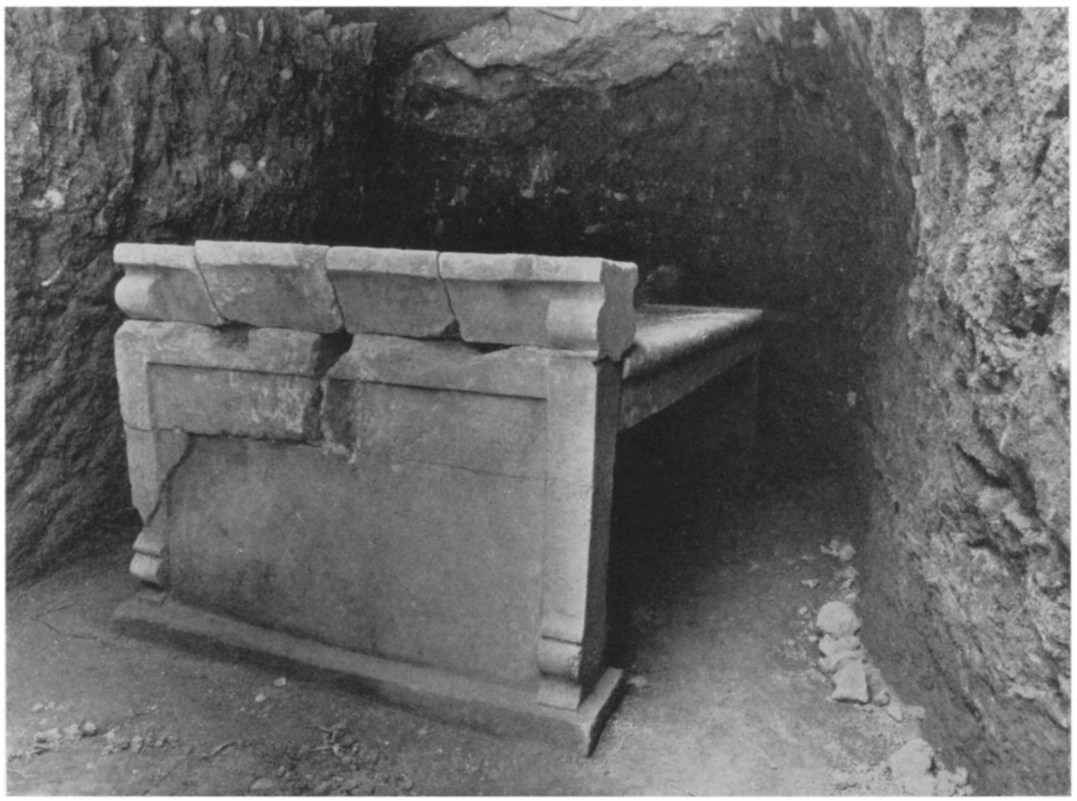

FIGURE 240. FUNERAL BED, SEEN FROM FLOOR OF TOMB

the tomb in the lower levels of the clay filling. (In the photographs they have been restored to their original position.) It is natural to assume that painted volutes and scrolls must once have adorned the legs and bolster-ends; but no trace of line or color has survived on the stucco. On the other hand, the carving, of which PLATE X gives the profiles at exactly half natural size, has endured uninjured, and proves that every detail of the cabinet-maker's craft had been copied in stone and stucco from the wooden prototype.

Thus, the frame of the bed is carefully distinguished, and the uprights of the legs are shown as though mortised into the frame. The bolster[1] carries a long shallow depression,

[1] Seen from above on PLATE IX, b.

resembling half an ellipse, to hold the imaginary pillow, to fasten which in place there are shown two protruding tabs or ears (in the wooden prototype presumably pierced for tie-strings). Since every detail is thus reproduced, the bed may claim to be a most important document for Greek furniture of the classical period. For, thanks to the occurrence of fragments of an Attic scyphus and a lamp, agreeing exactly with lamp and scyphus in one of the intact sarcophagi just across the ancient street, the date of the bed can be fixed with complete certainty to the last quarter of the fifth century B.C. Figure 241 illustrates this important bit of evidence. On the right are scyphus and lamp from Sarcophagus I

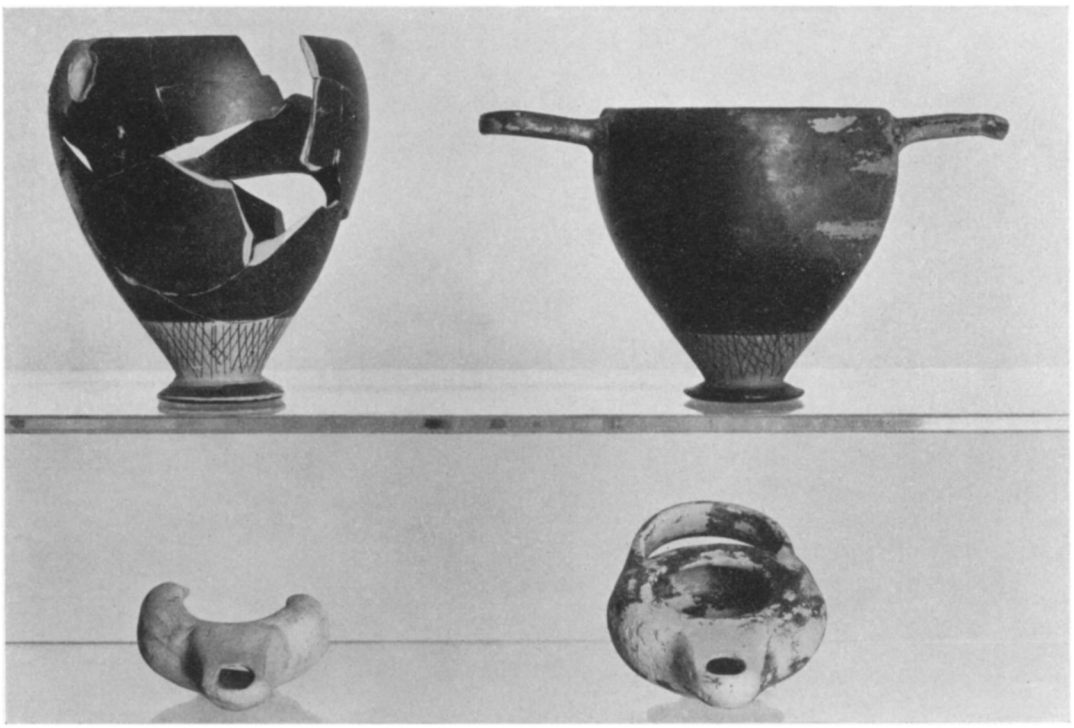

FIGURE 241. VASE AND LAMP FROM TOMB OF FUNERAL BED COMPARED WITH SIMILAR OBJECTS FROM NEARBY GRAVE

(= Fig. 45, left); on the left are the portion of a lamp and the reassembled sherds of a scyphus found together with a skull on the floor of the tomb. They lay under the late-Roman street-wall which had resealed the tomb's own broken west wall. Fragments of a bronze strigil were found under the bed and rib-bones in the central slot of the bed, resting on the supporting block underneath. The tomb had thus been entered and its contents violated, presumably in early Roman times; but there is no possible reason for questioning the actuality of strigil, scyphus, lamp, skull, and rib-bones as survivors from the original burial. We may therefore date the bed by the burial, and the burial by this scyphus and lamp, as well as by the other objects in the two contemporary sarcophagi (Fig. 45). These all agree in indicating the closing years of the fifth century B.C.

A peculiarity in construction, for which it is not easy to suggest an explanation, is the failure of the horizontal strips which form the mattress to join with one another. The dividing aperture, a slot some 0.07 metres wide, is concealed from view at the ends of the bed by careful stuccoing, and for part of its length was stopped with yellow clay tile. It is hard to believe that a piece of craftsmanship otherwise so careful and so impressive in its observance of details could have involved so gross a miscalculation. Yet, if the slot is intentional, I cannot imagine its purpose or reason. Perhaps woven blankets or sheets cast over the bed at the time of burial would have hidden it completely from sight.

The discovery of human rib-bones in the central slot leads inevitably to the conclusion that the dead man was left outstretched upon this couch of stone, his head toward the east, perhaps upon actual pillows laid in the hollow stone bolster. The dimensions of the bed are generous for a single occupant, but scarcely roomy enough for two; nor is there the slightest indication, other than the partitioning of the mattress, to suggest that a double burial was intended.

It has been very generally assumed that the funeral couch, common in Etruria, was not an indigenous Greek custom. Vollmoeller, in his study[1] of the marble funeral bed discovered in the somewhat later tomb at Eretria, believed that Macedonian influence was responsible. Plato's mention of such an observance in his *Laws* has fallaciously been ascribed to his knowledge of Italian customs from his Syracusan sojourn. It is quite possible that the practice of setting a funeral bed in the tomb was not *Attic*; but it is now no longer possible to maintain that it is un-Greek or unknown in the classical period. Plato's burial prescriptions agree so accurately with this all-but contemporary Corinthian tomb-vault that we need look no further afield. "Let there be for their underground resting place," wrote Plato,[2] "a rectangular crypt (*ψαλίδα προμήκη*) of as prized and durable stone as possible, containing stone couches ranged beside one another, where the defunct may be laid."

[1] *Ath. Mitt.* XXVI, 1901, pp. 333–365; and in greater detail, K. G. Vollmoeller, *Griechische Kammergräber mit Totenbetten*, Diss. Bonn, 1901. Cf. also Dyggve-Poulsen-Rhomaios, *Das Heroon von Kalydon*, pp. 346 ff., p. 388.

[2] *Laws*, xii, 947 D–E.

[R. C.]

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[R. C.]

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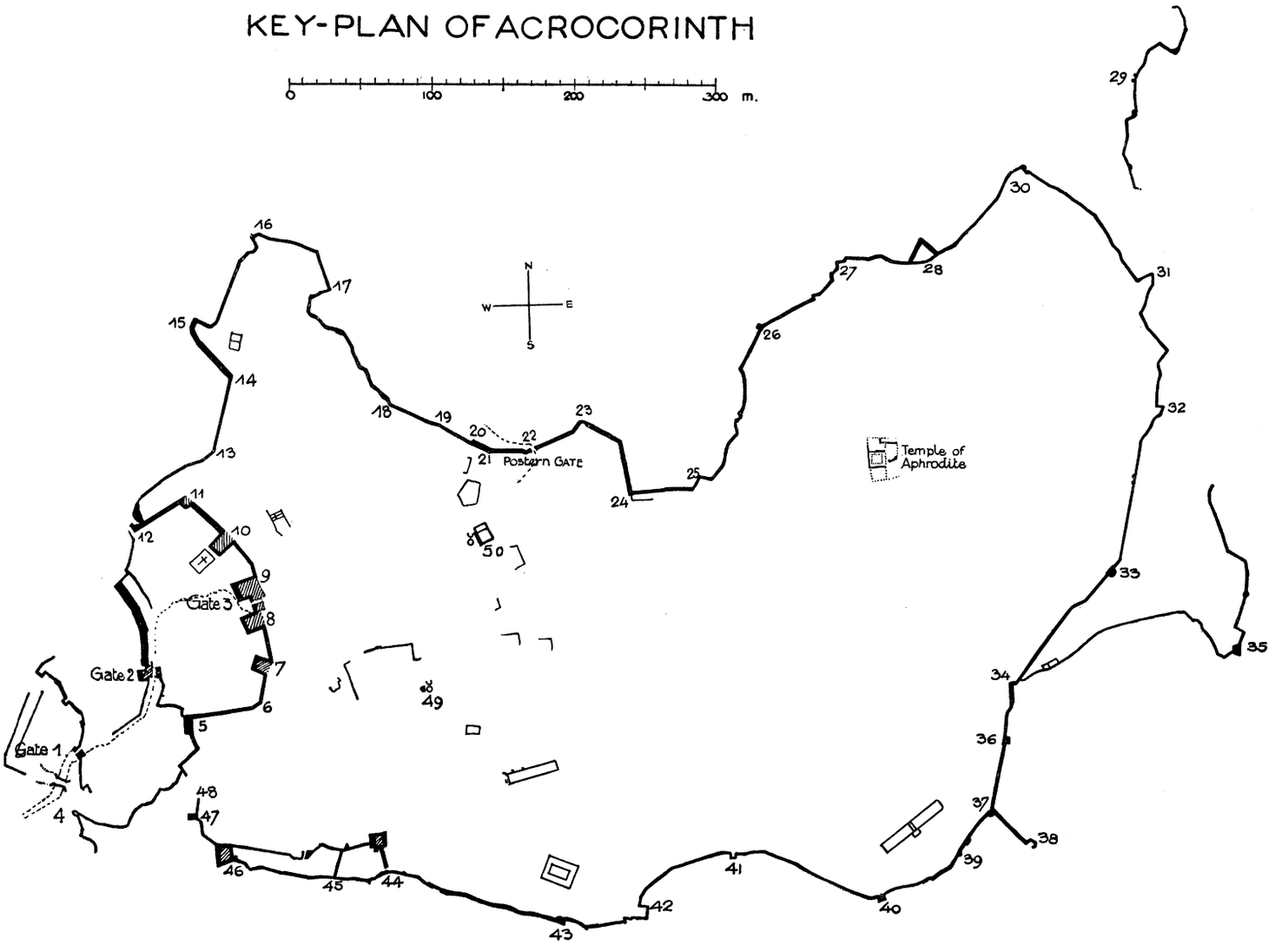
KEY-PLAN OF ACROCORINTH
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Gate 2
Gate 3
Postern GATE
Temple of Aphrodite
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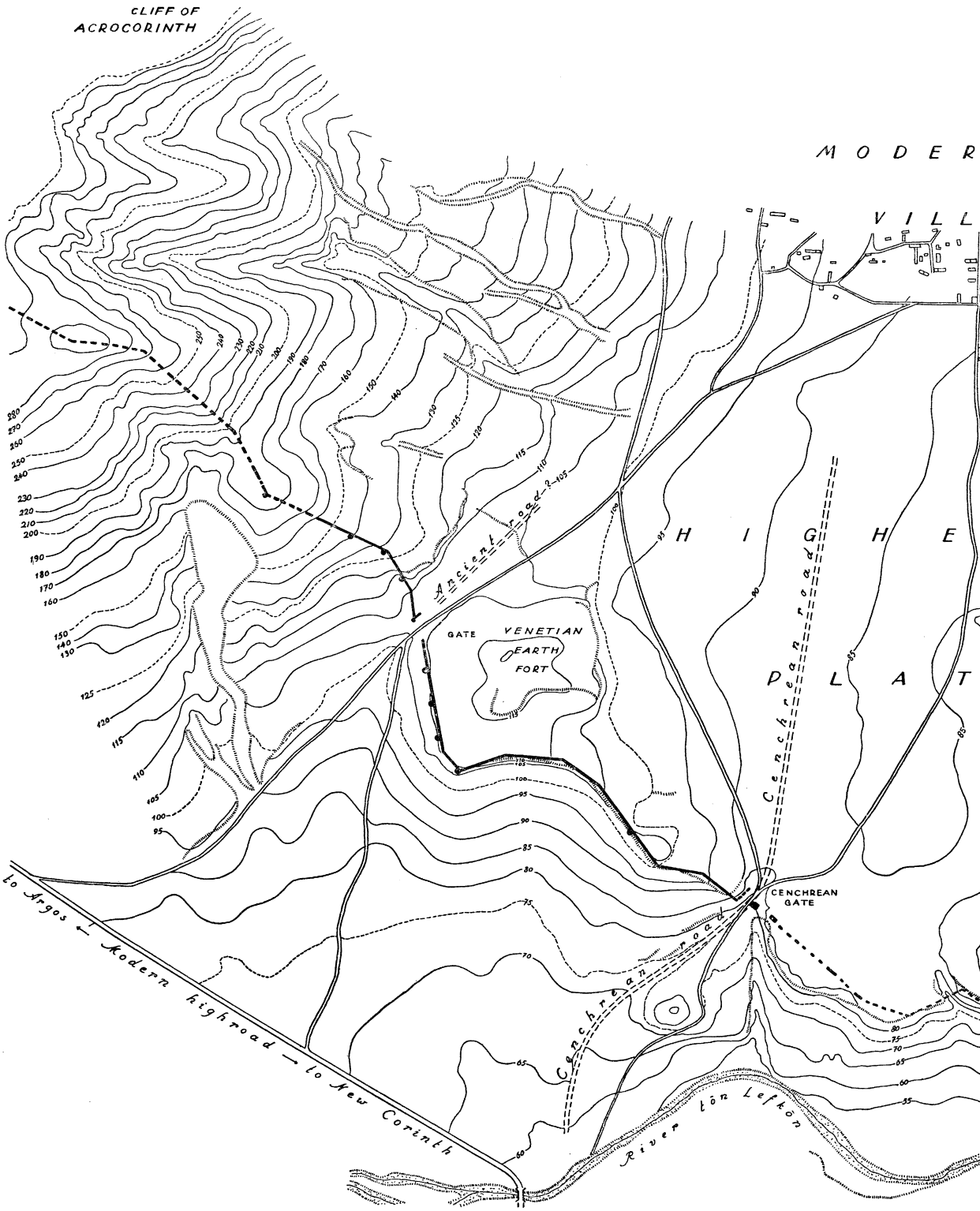
SURVEY-MAP OF ACROCOR

OCORINTH

Palaia Korinthos, May-July 1931
Zürich, November

Holland.



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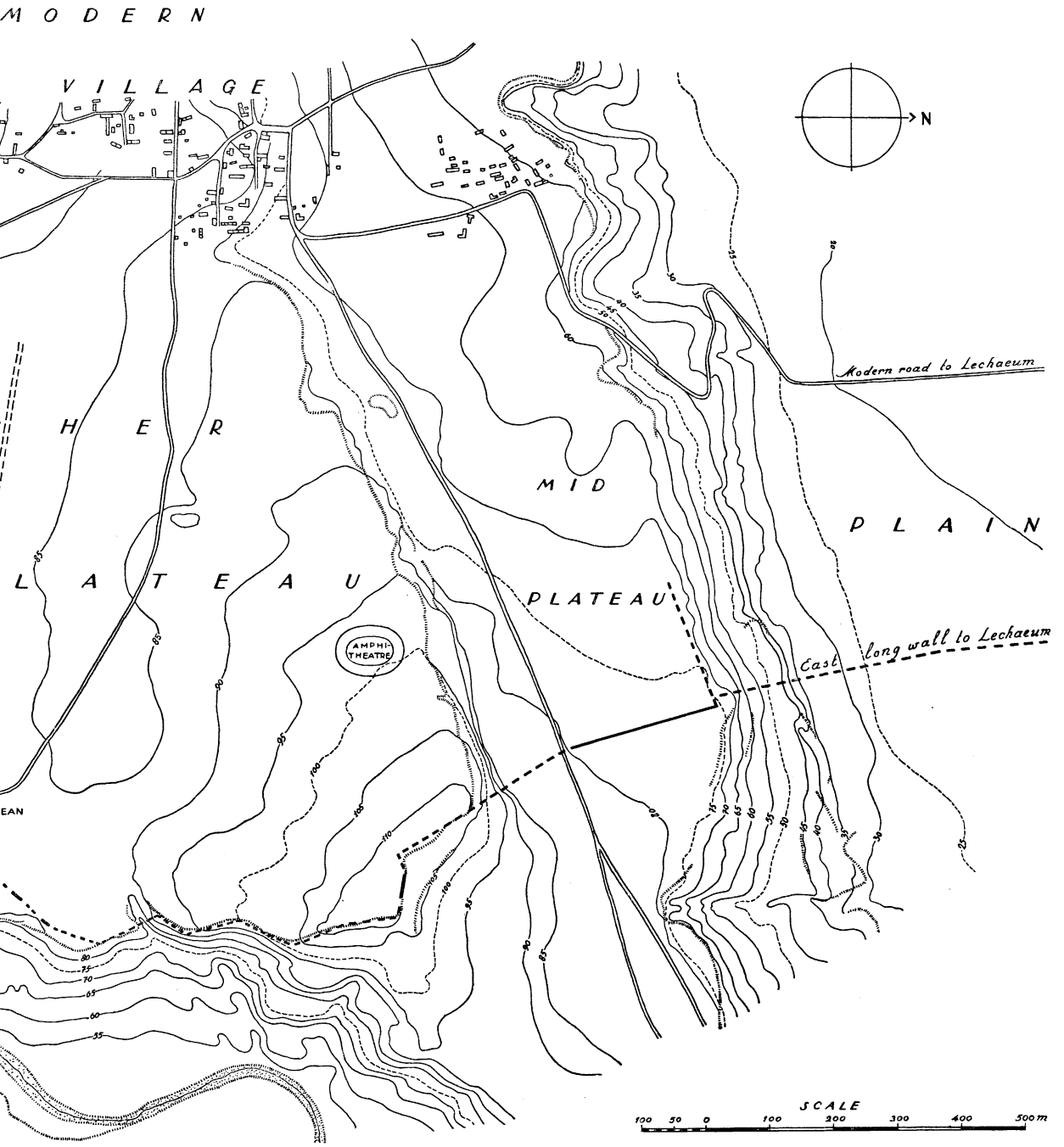
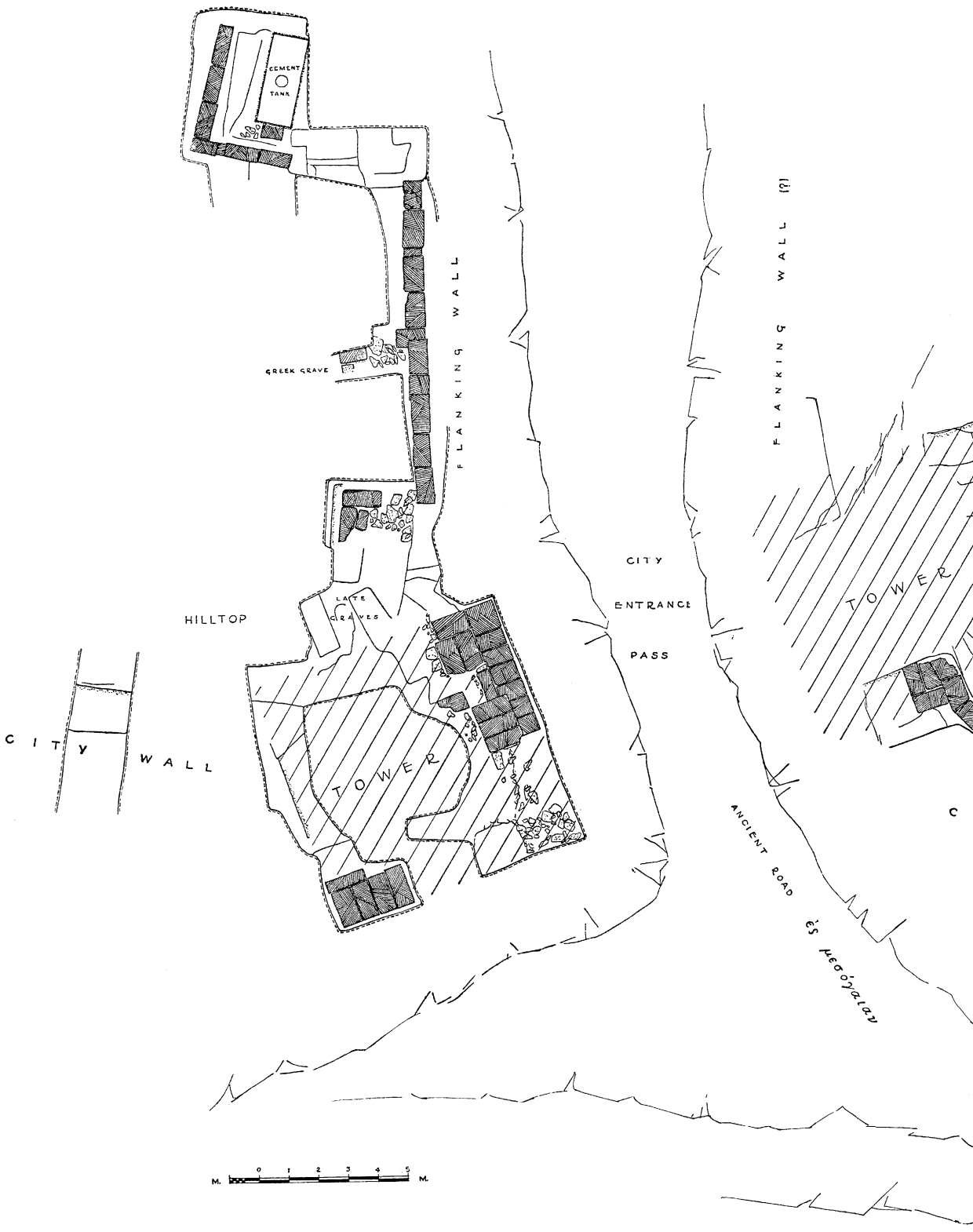
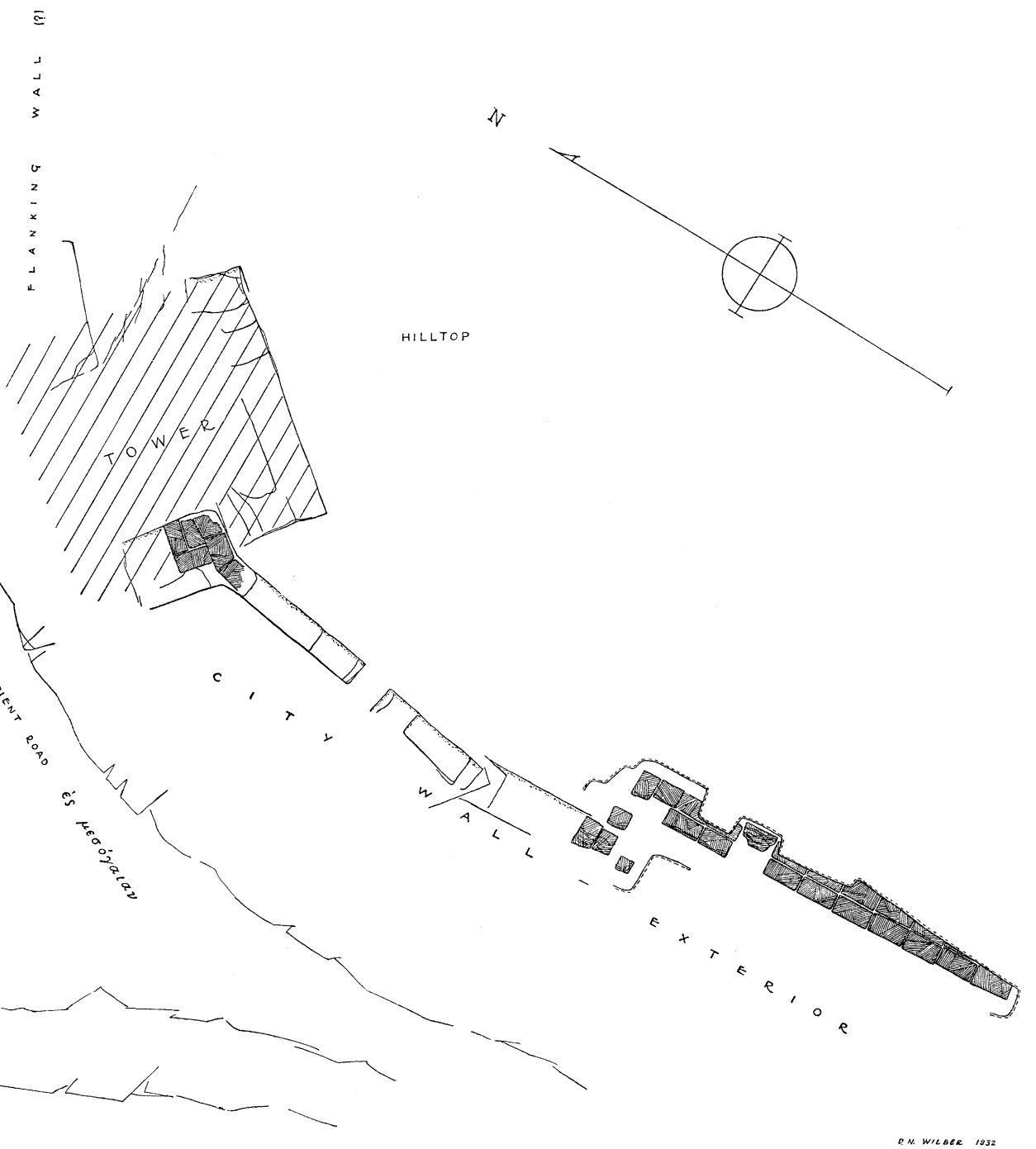


OF THE EAST CITY-WALL

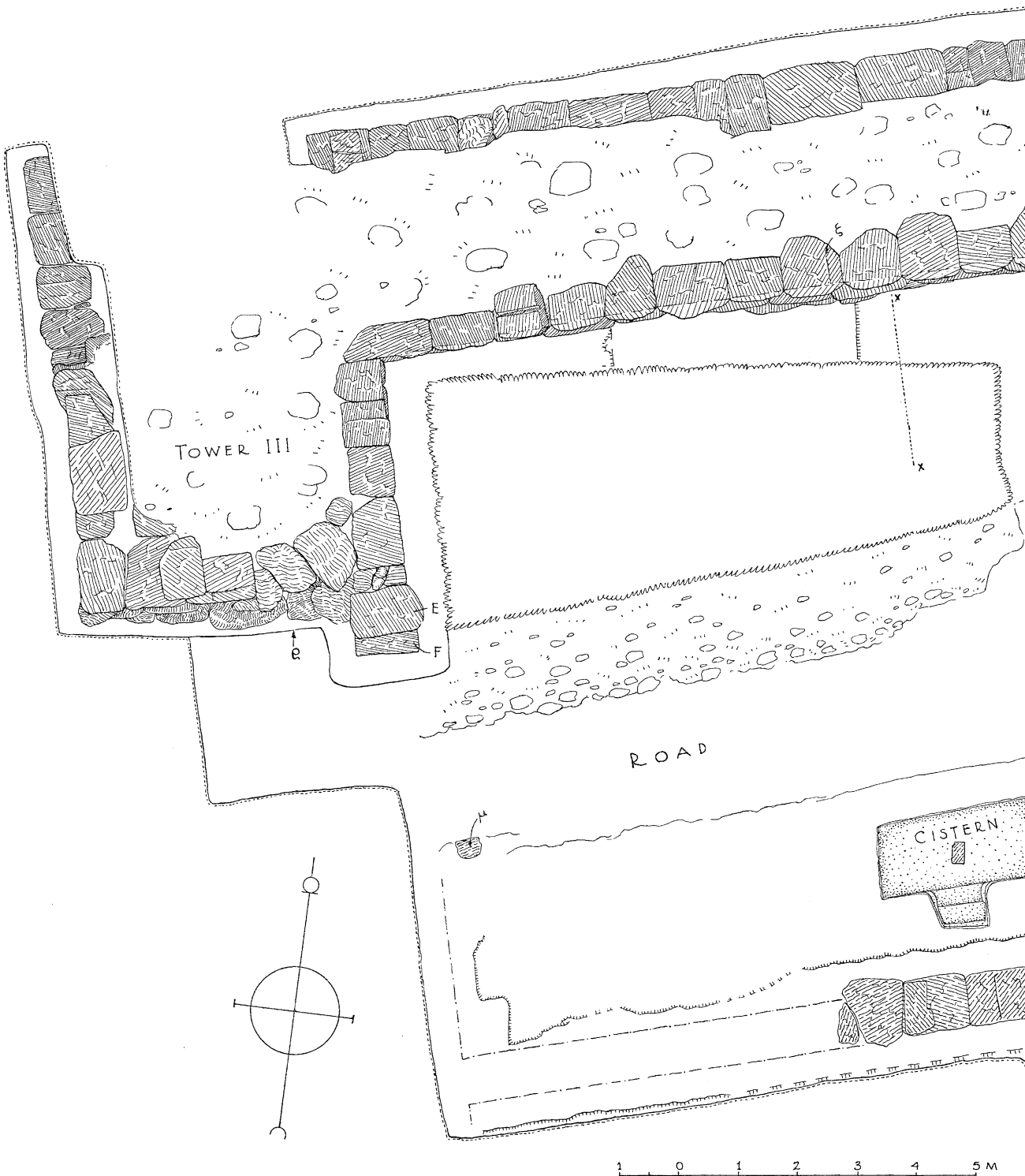


PLAN OF THE PHLIASIAN C

PLATE IV



N OF THE PHLIASIAN GATE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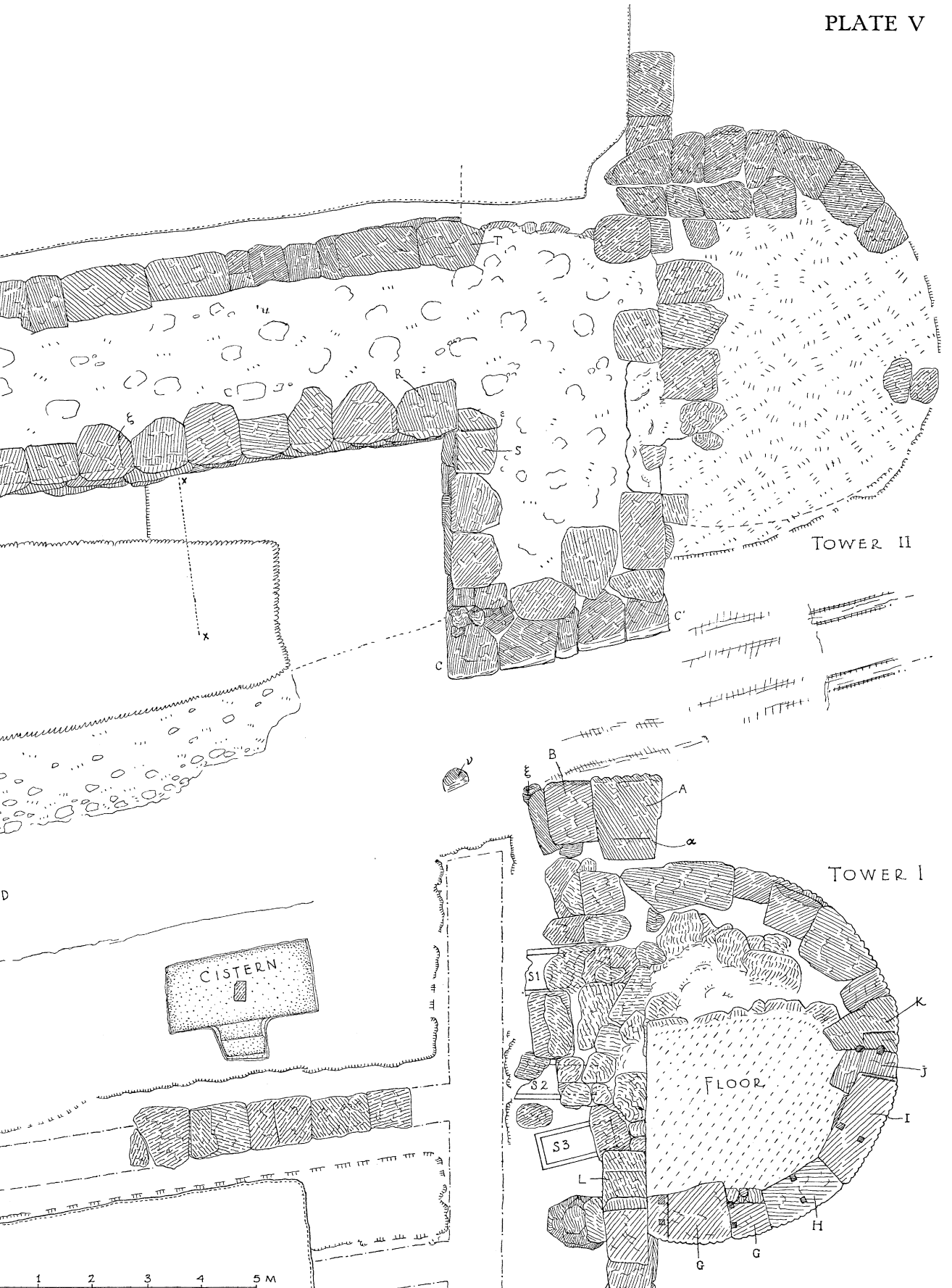
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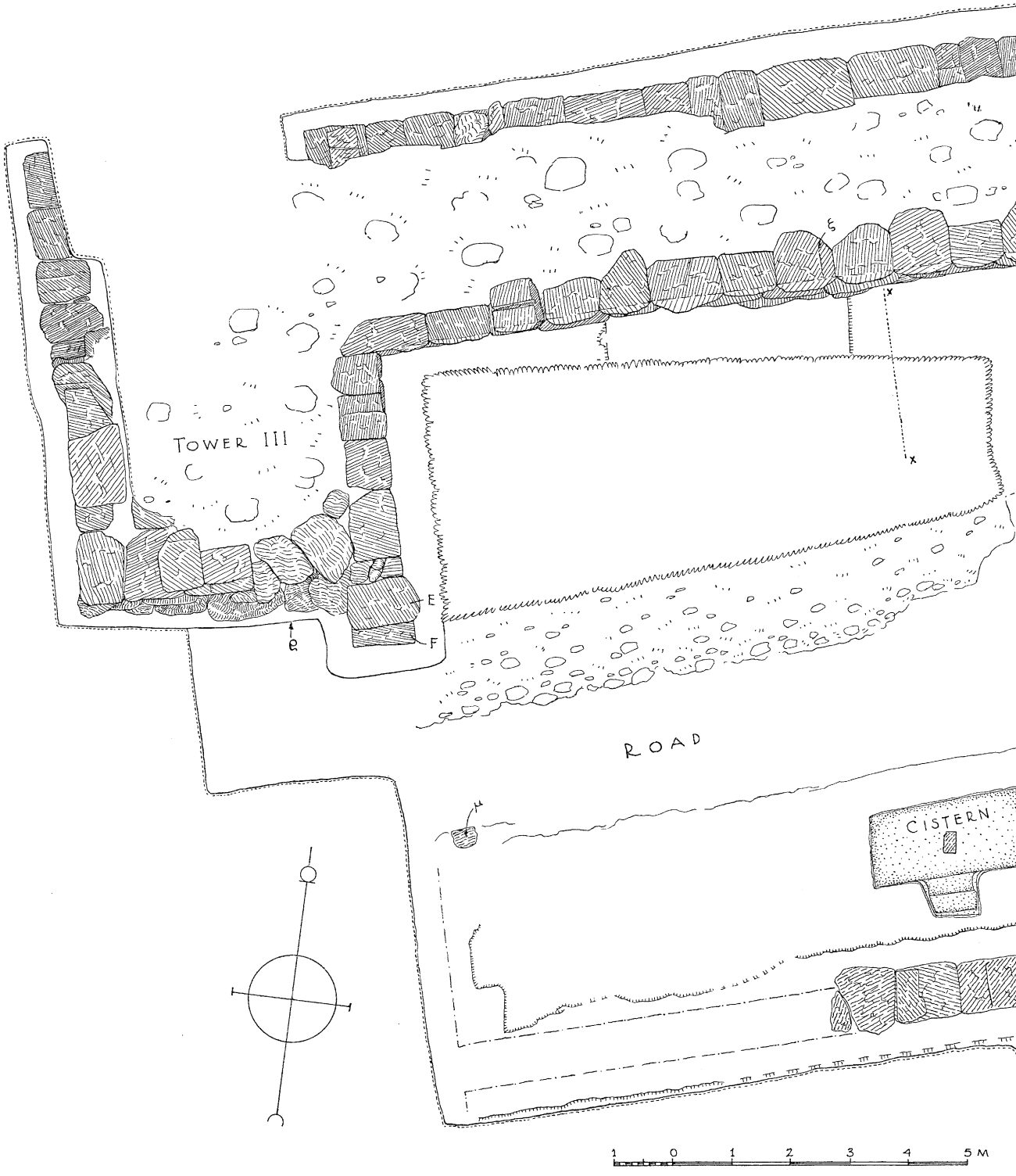
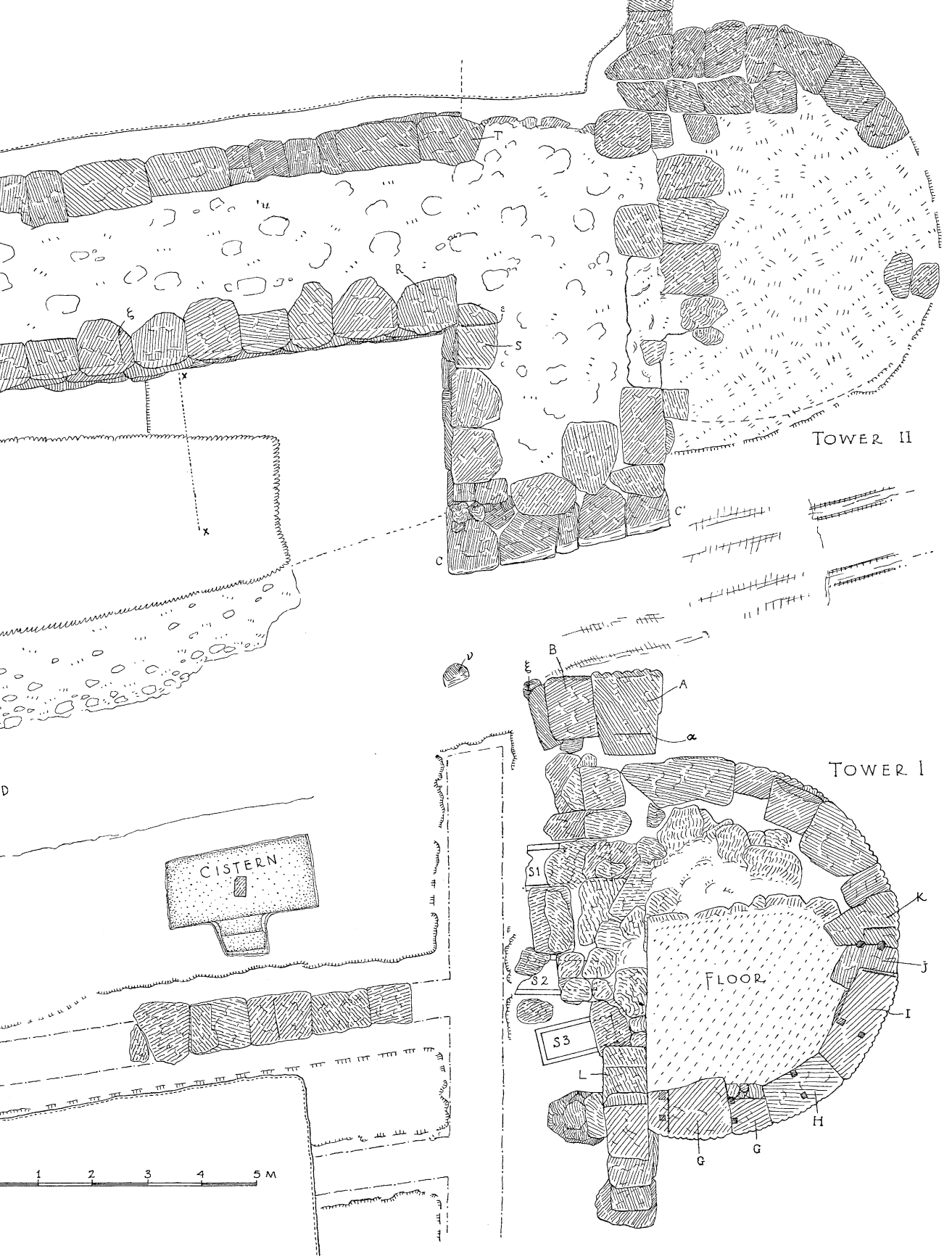


PLAN OF THE ISTHMIAN GATE



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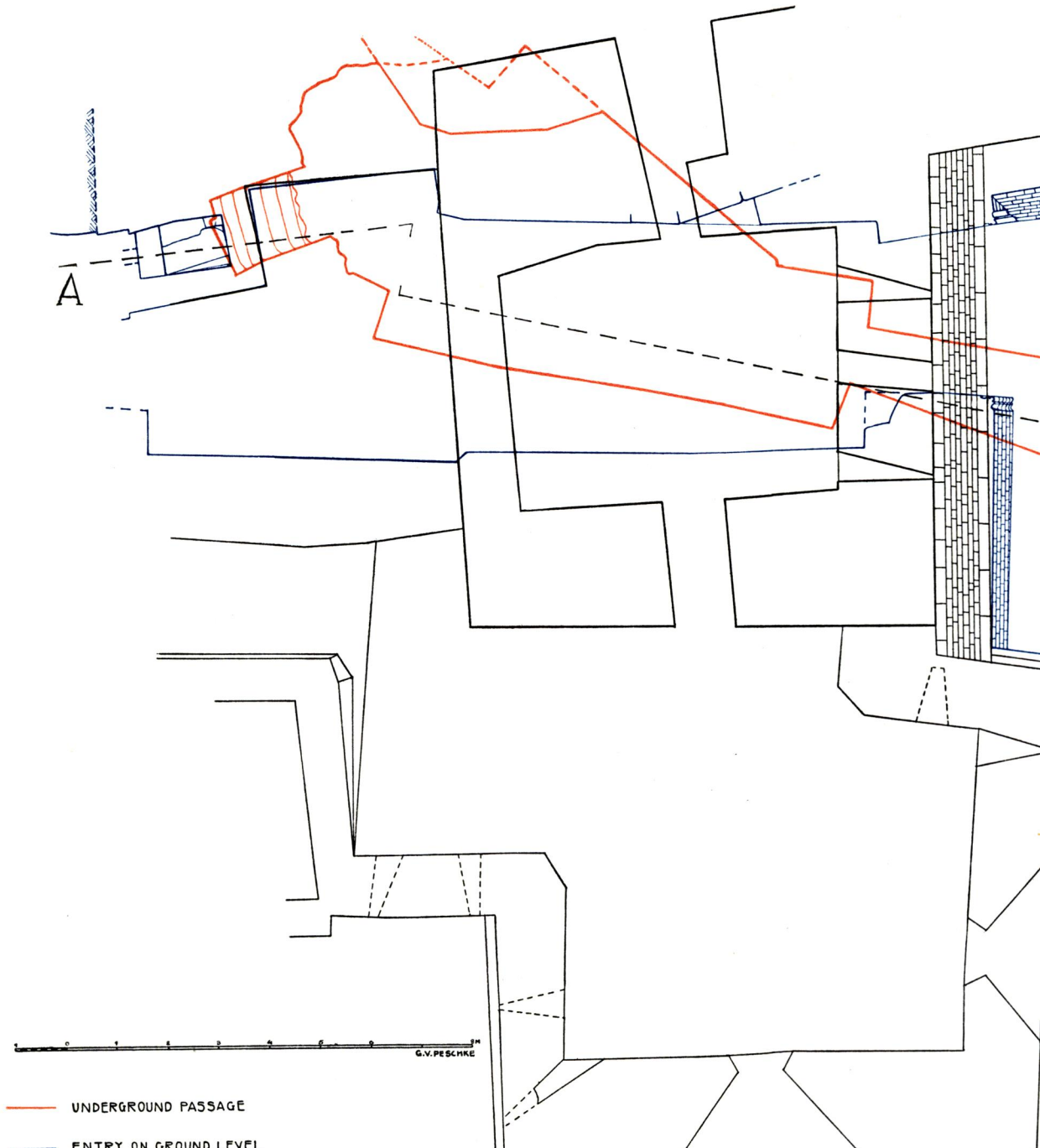
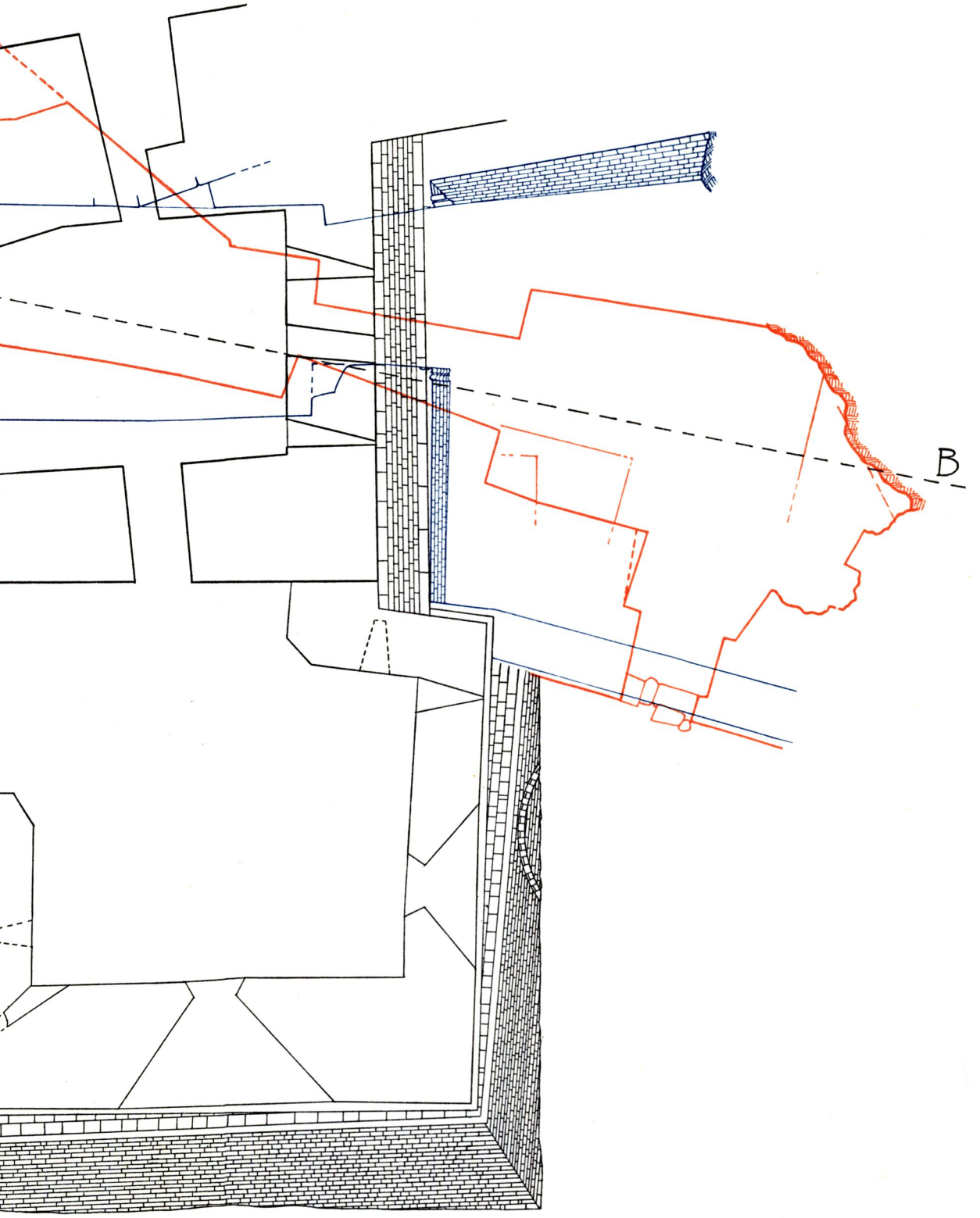
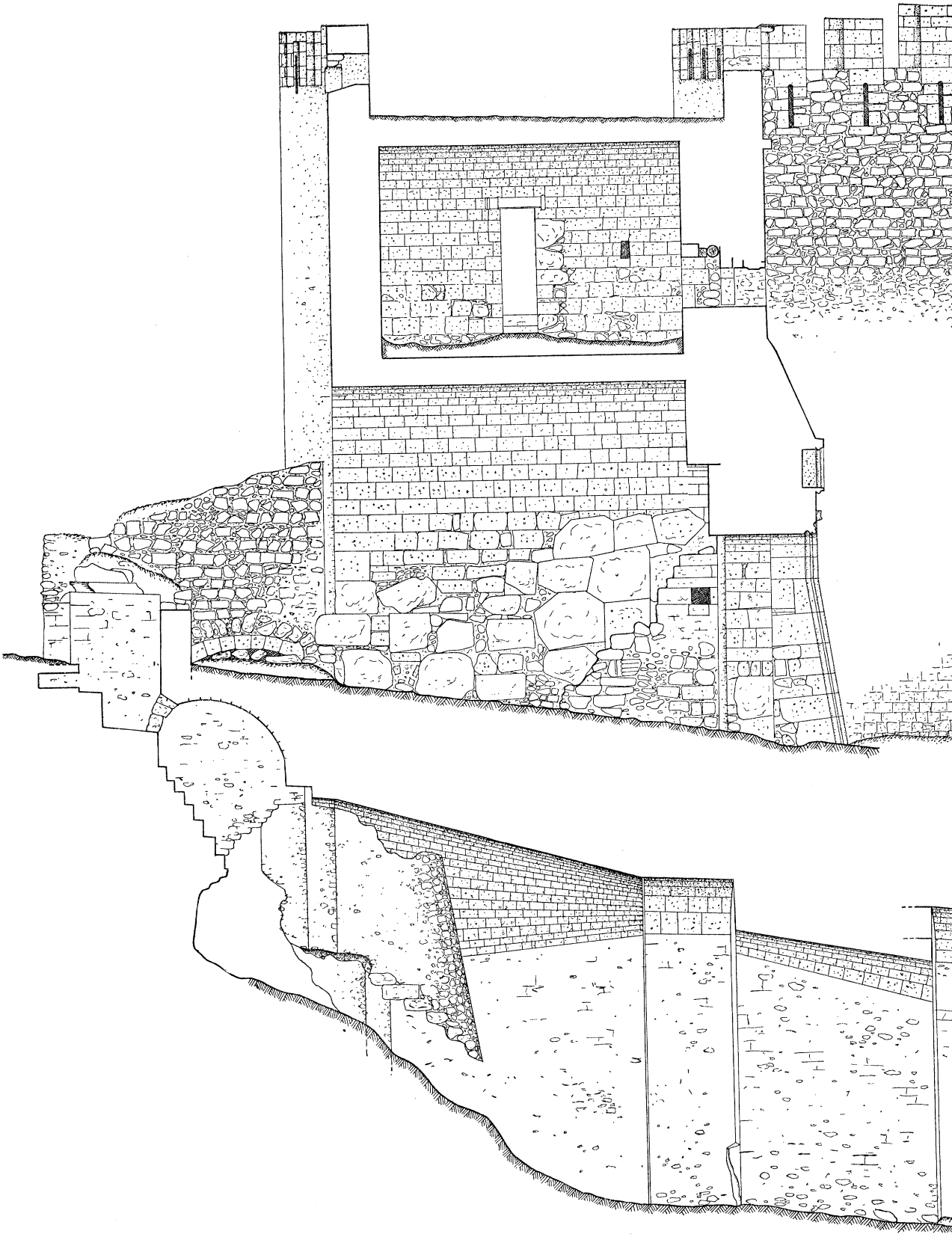


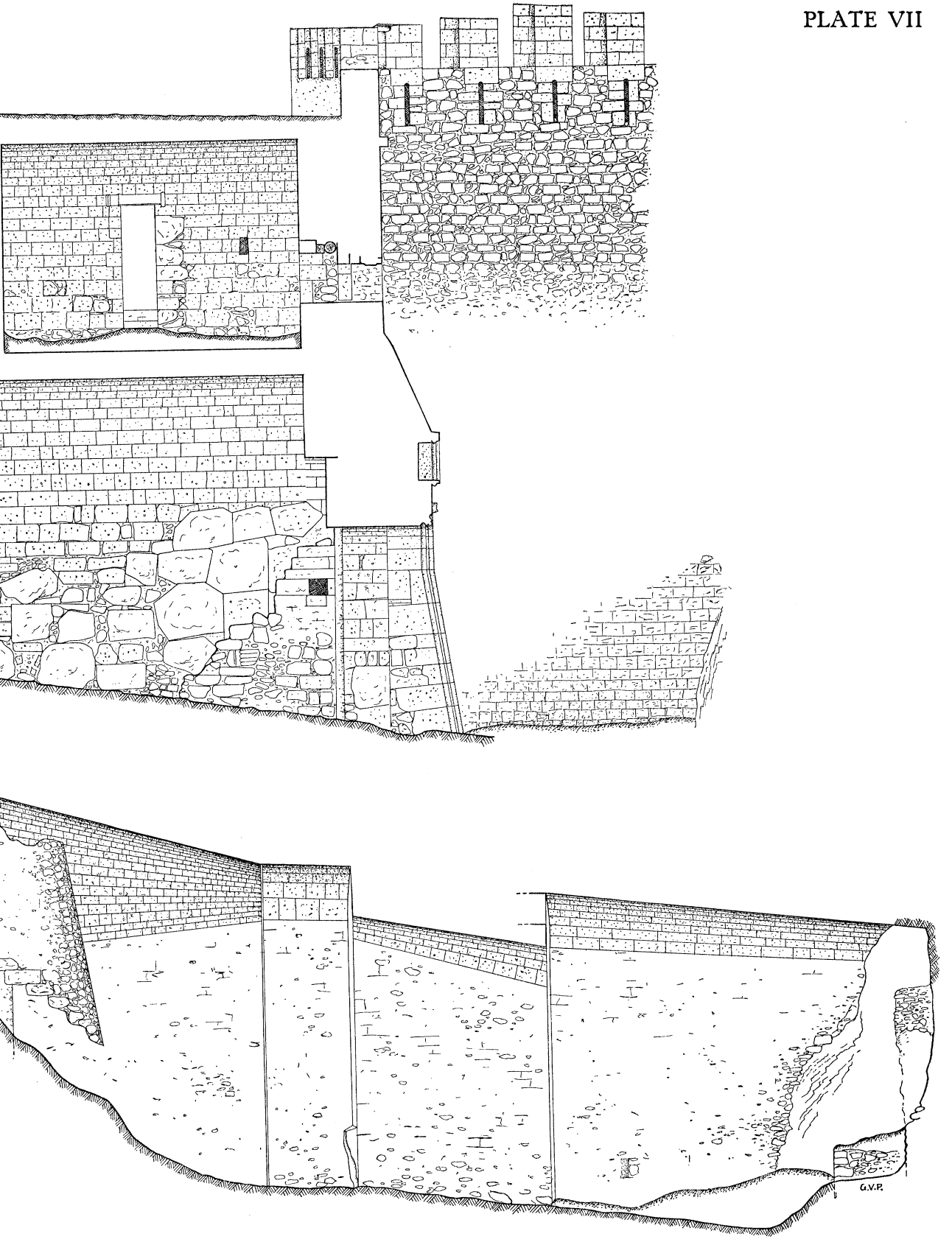
ACROCORINTH: PLAN OF THE SECOND GATE AND ADJOI



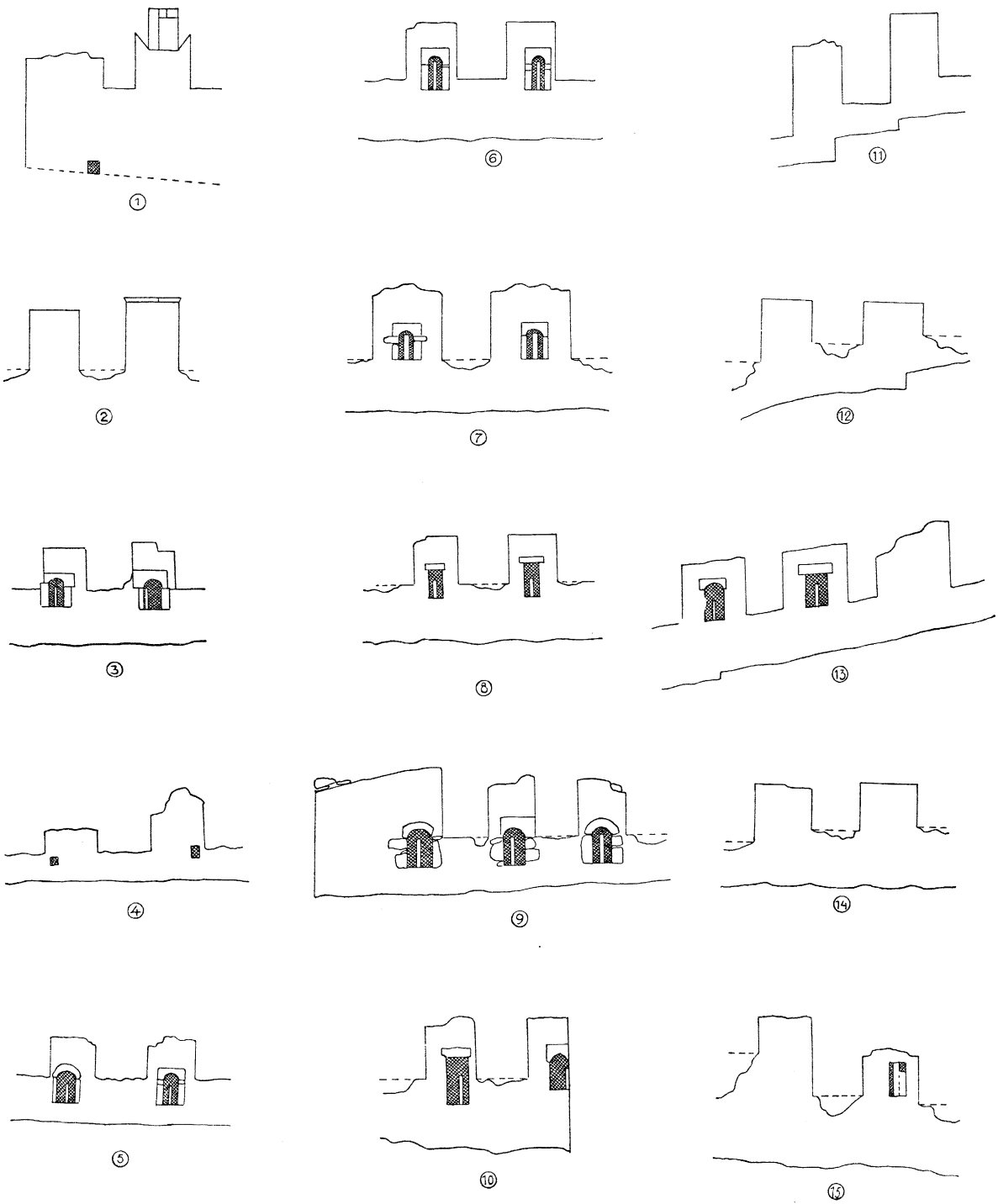
NTH: PLAN OF THE SECOND GATE AND ADJOINING TOWER



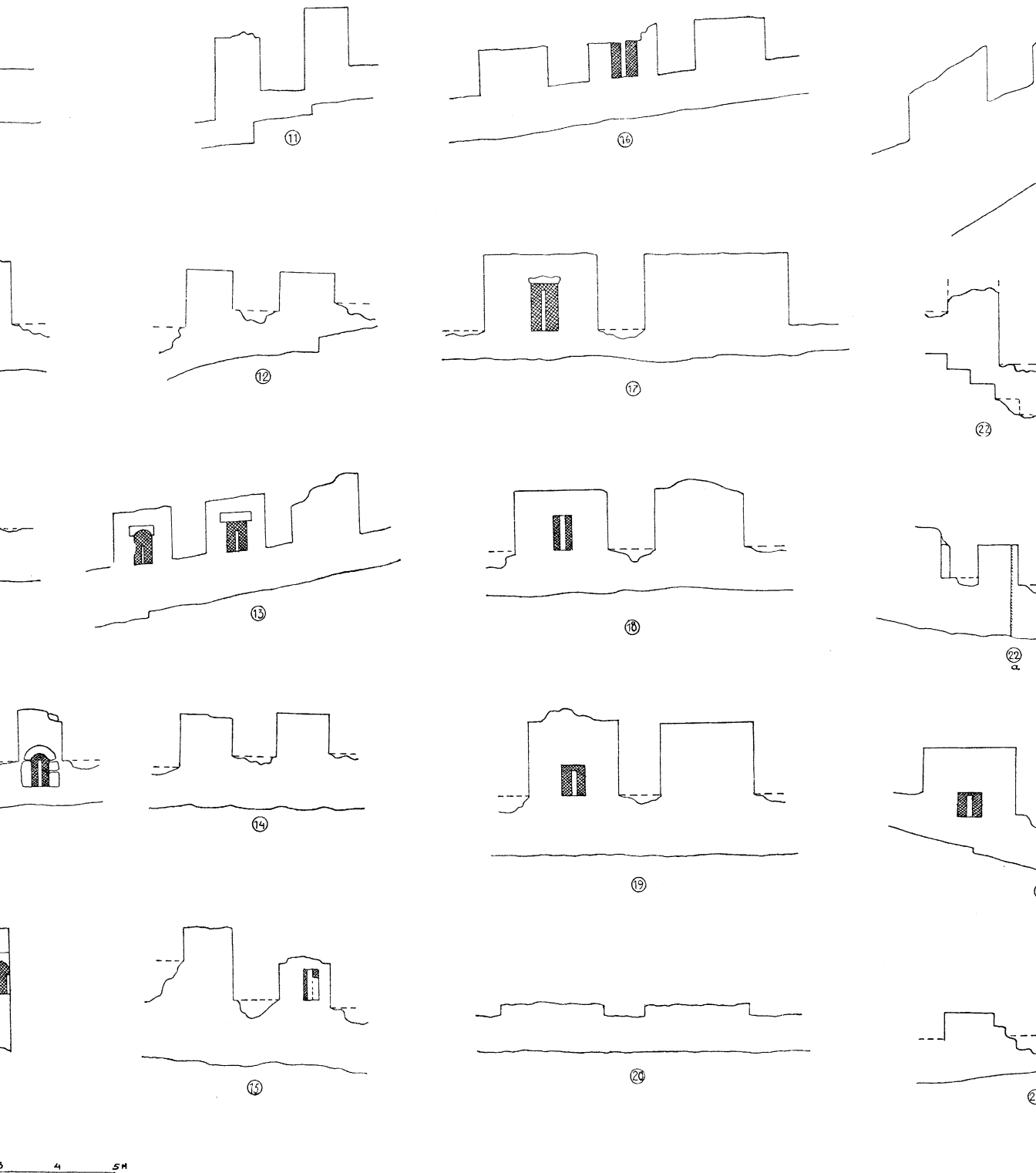
ACROCORINTH: SECOND GATEWAY, CROSS-SECTION PARALLEL WITH



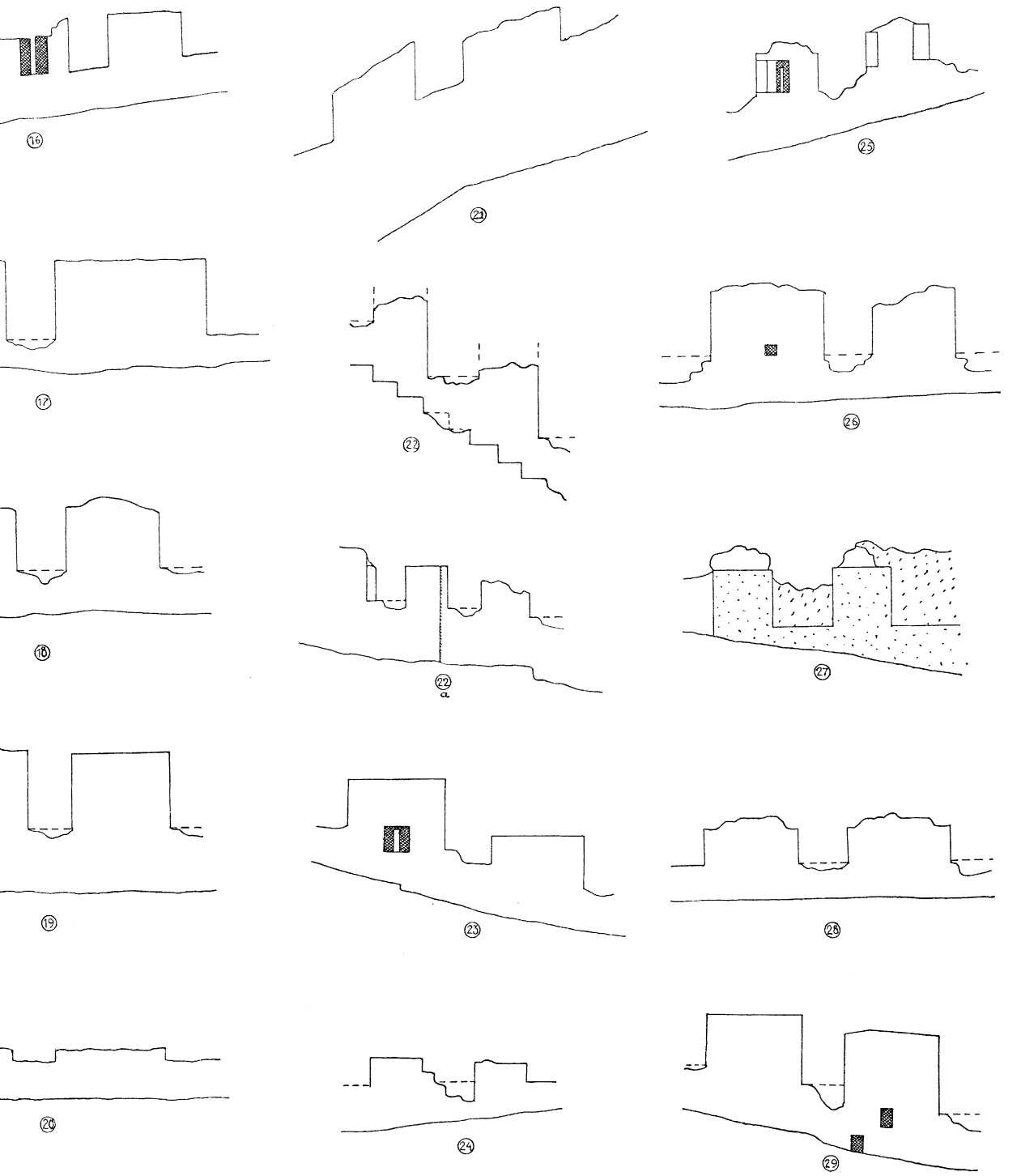
RINTH: SECOND GATEWAY, CROSS-SECTION PARALLEL WITH PASSAGE



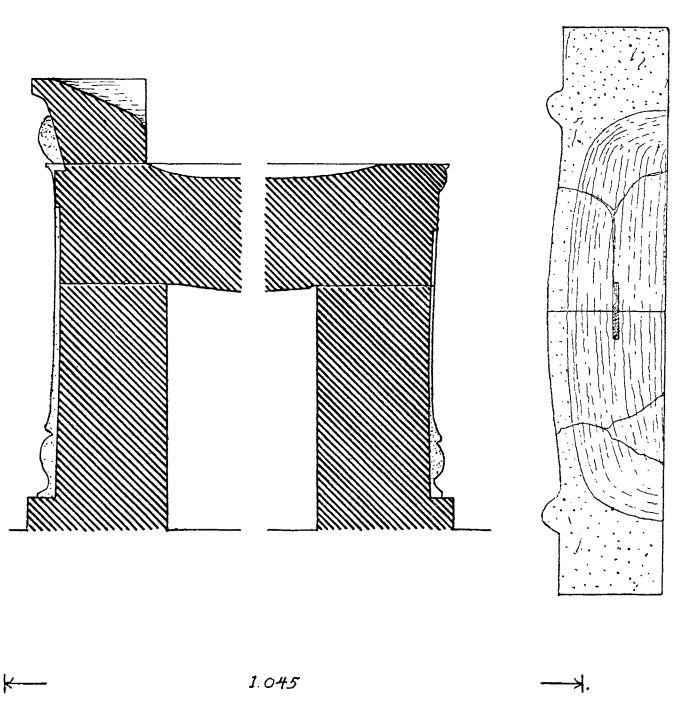
TYPES OF CRENELLATED
(The numbers refer to those acc



TYPES OF CRENELLATED PARAPET OCCURRING ON ACROCORINTH
(The numbers refer to those accompanying pertinent illustrations in the main text)



RRING ON ACROCORINTH
ent illustrations in the main text)



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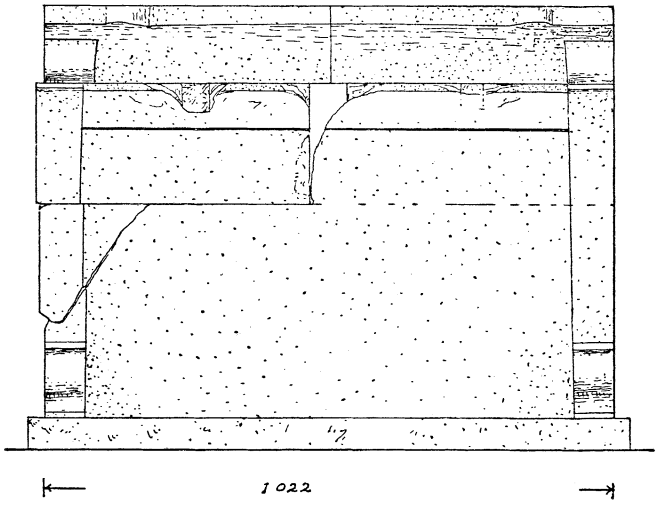

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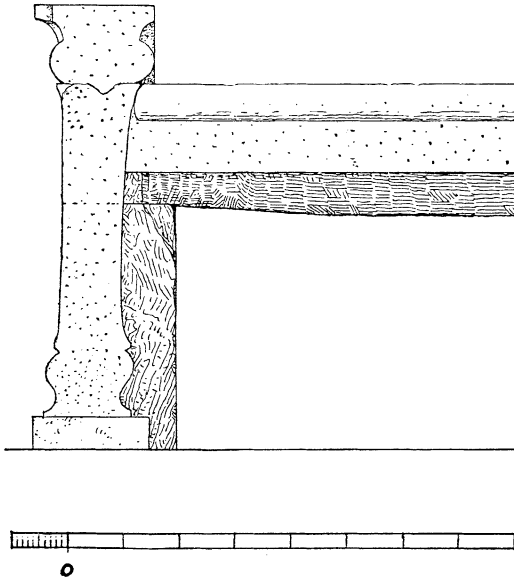

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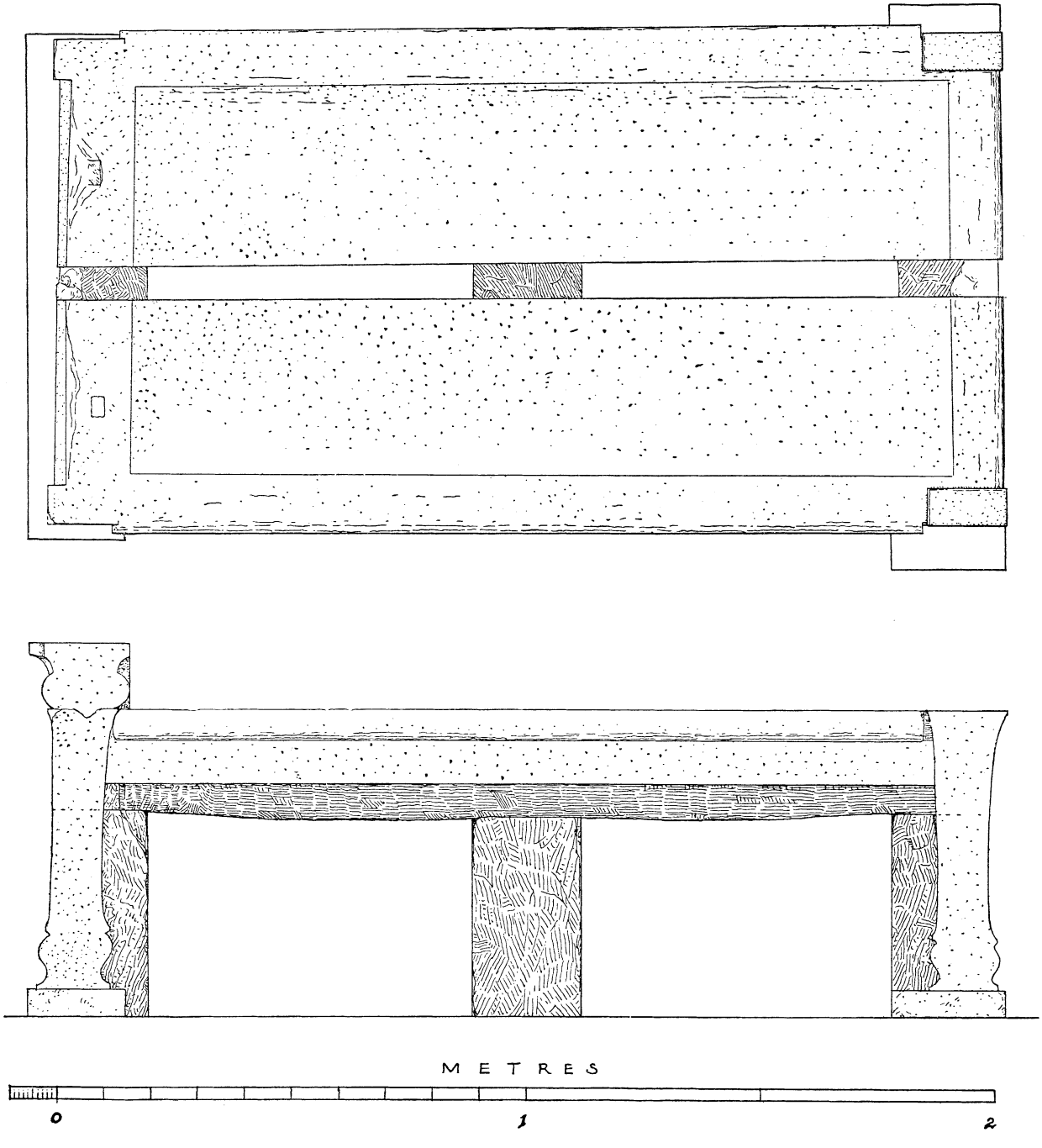
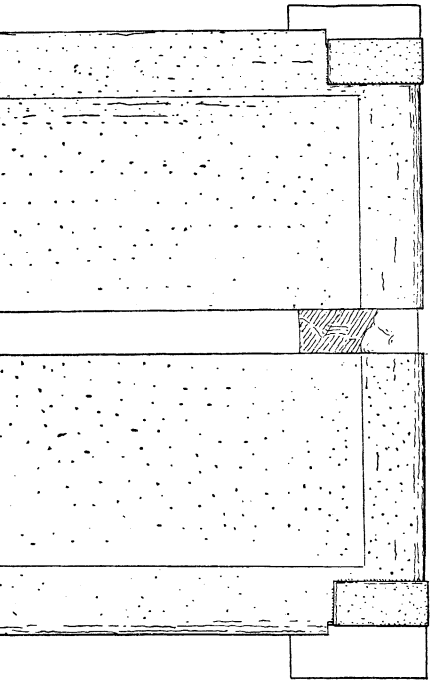
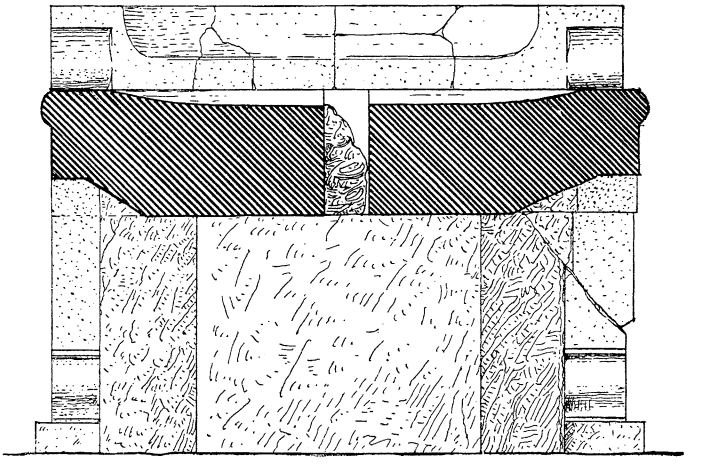
STONE FUNERAL BE



STONE FUNERAL BED IN CHELIOTOMYLOS TOMB





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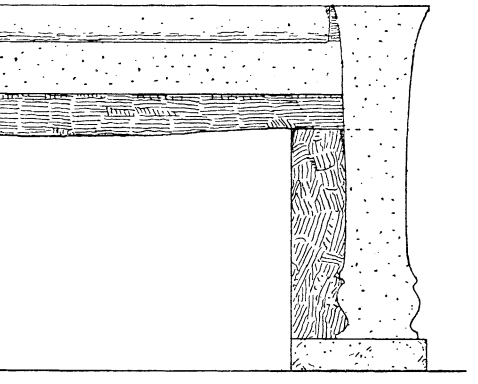
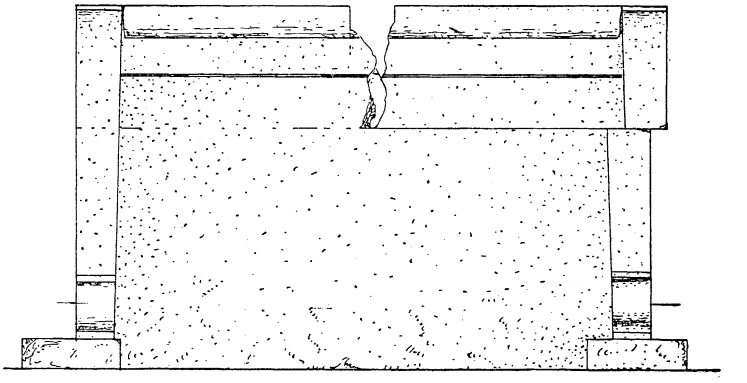


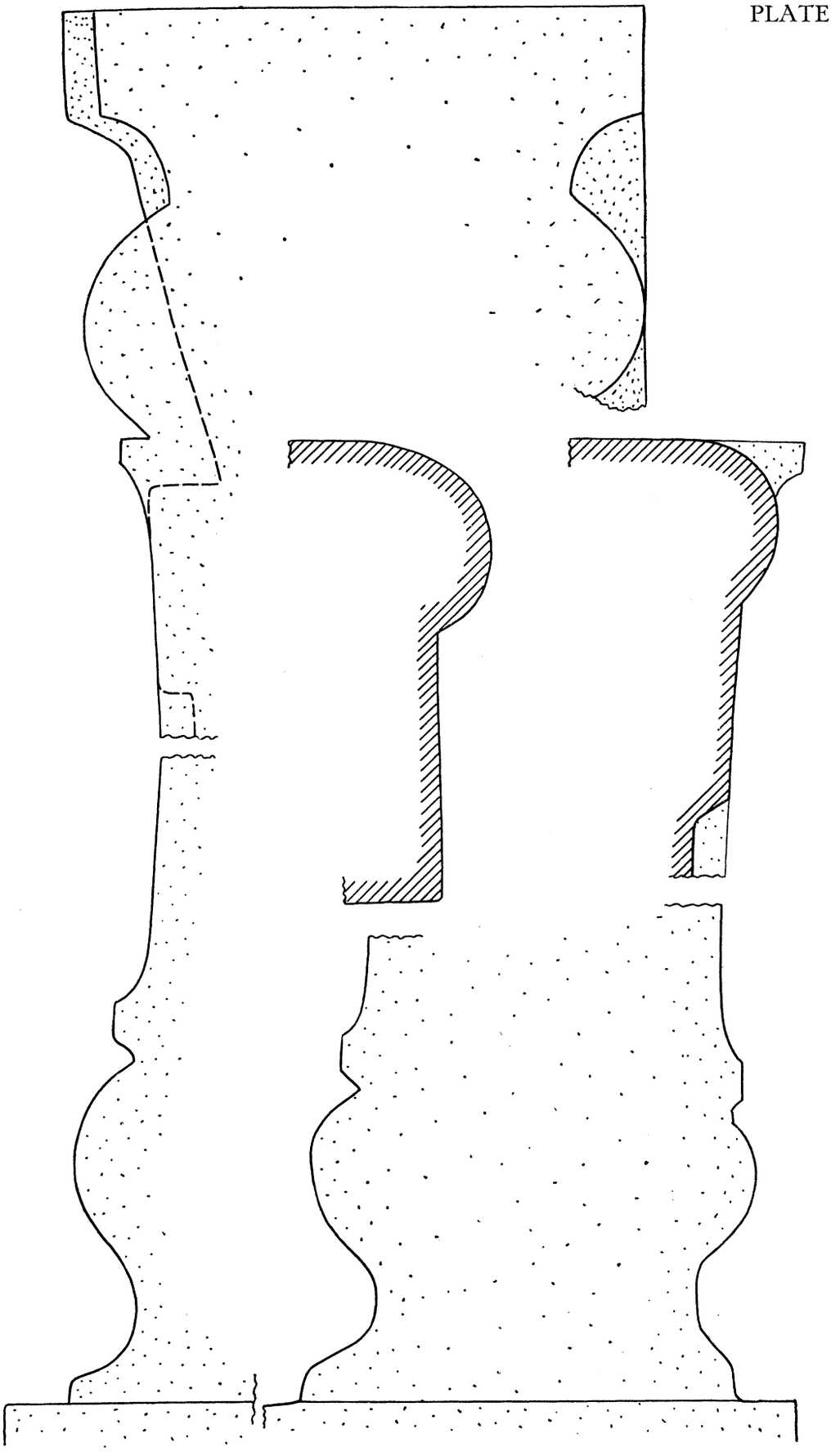


1 029

2

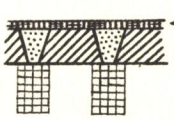
R.S.

PLATE X

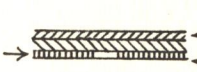


STONE FUNERAL BED: PROFILES AT HALF ACTUAL SIZE

LEGEND



Batter
Embrasure
Gun Platform

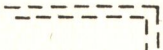


Parapet
Wall
Steps

Well or Cistern Mouth

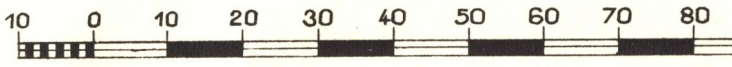
Moslem

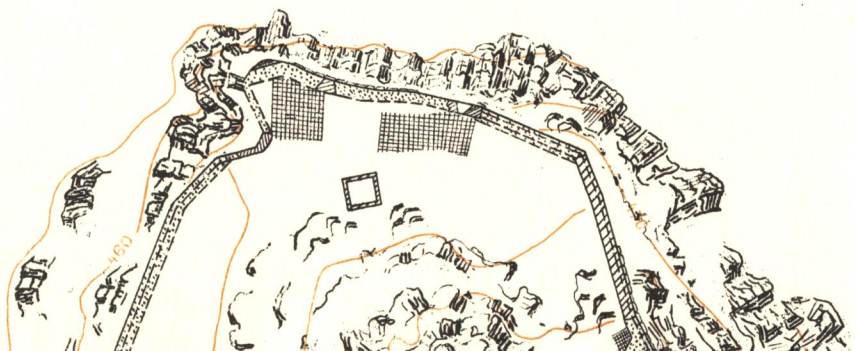
Spring



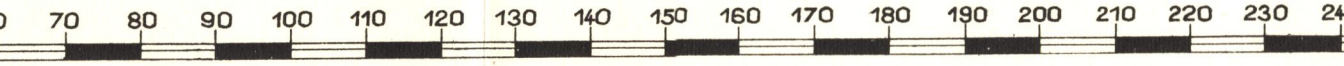
Walls not

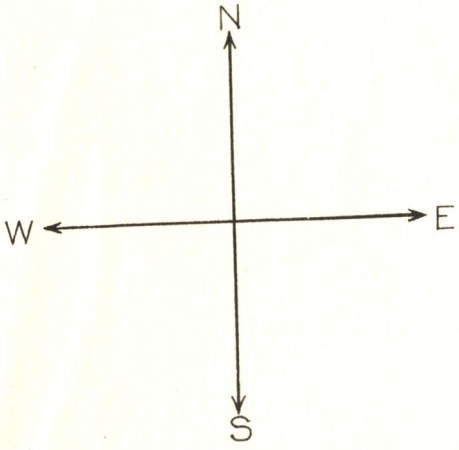
SURVEY-MA





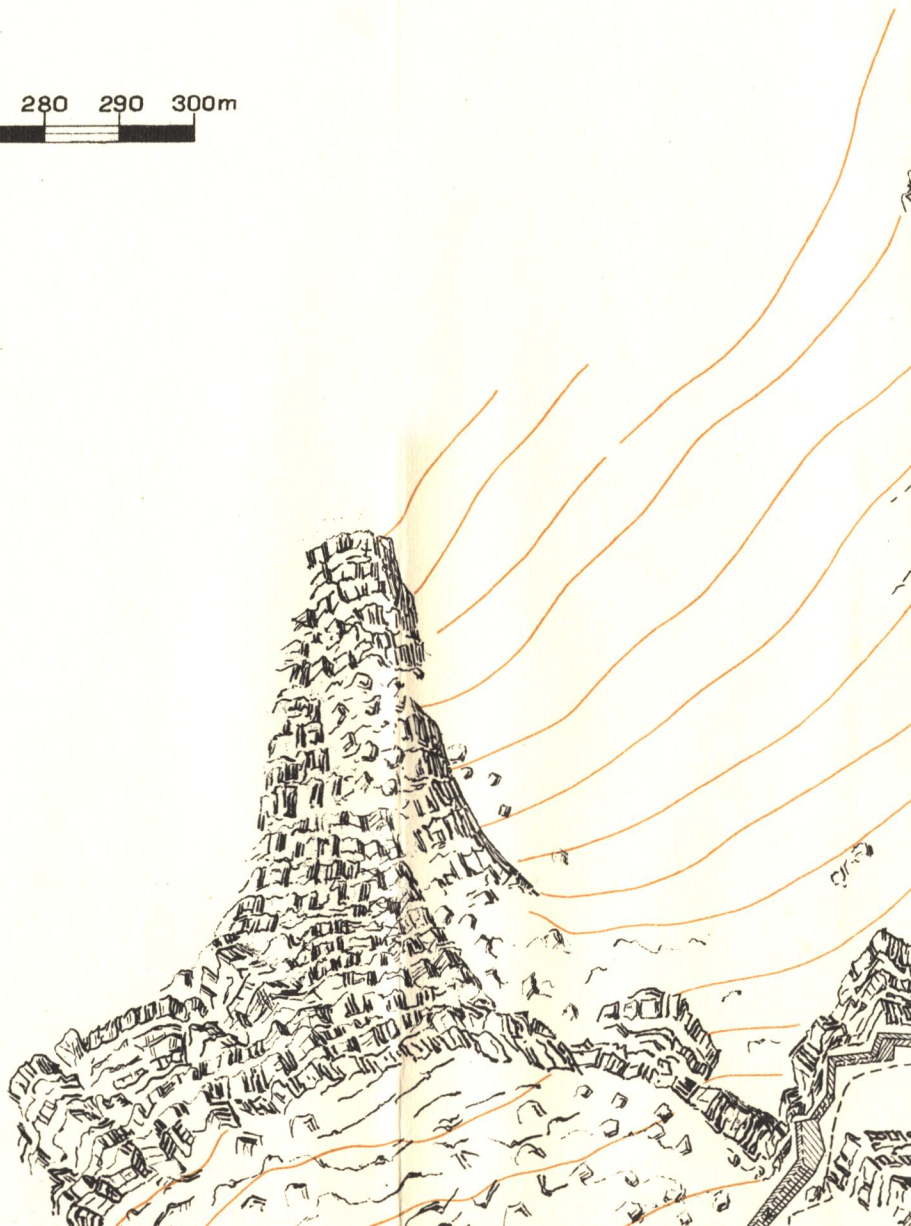
MAP OF ACROCO

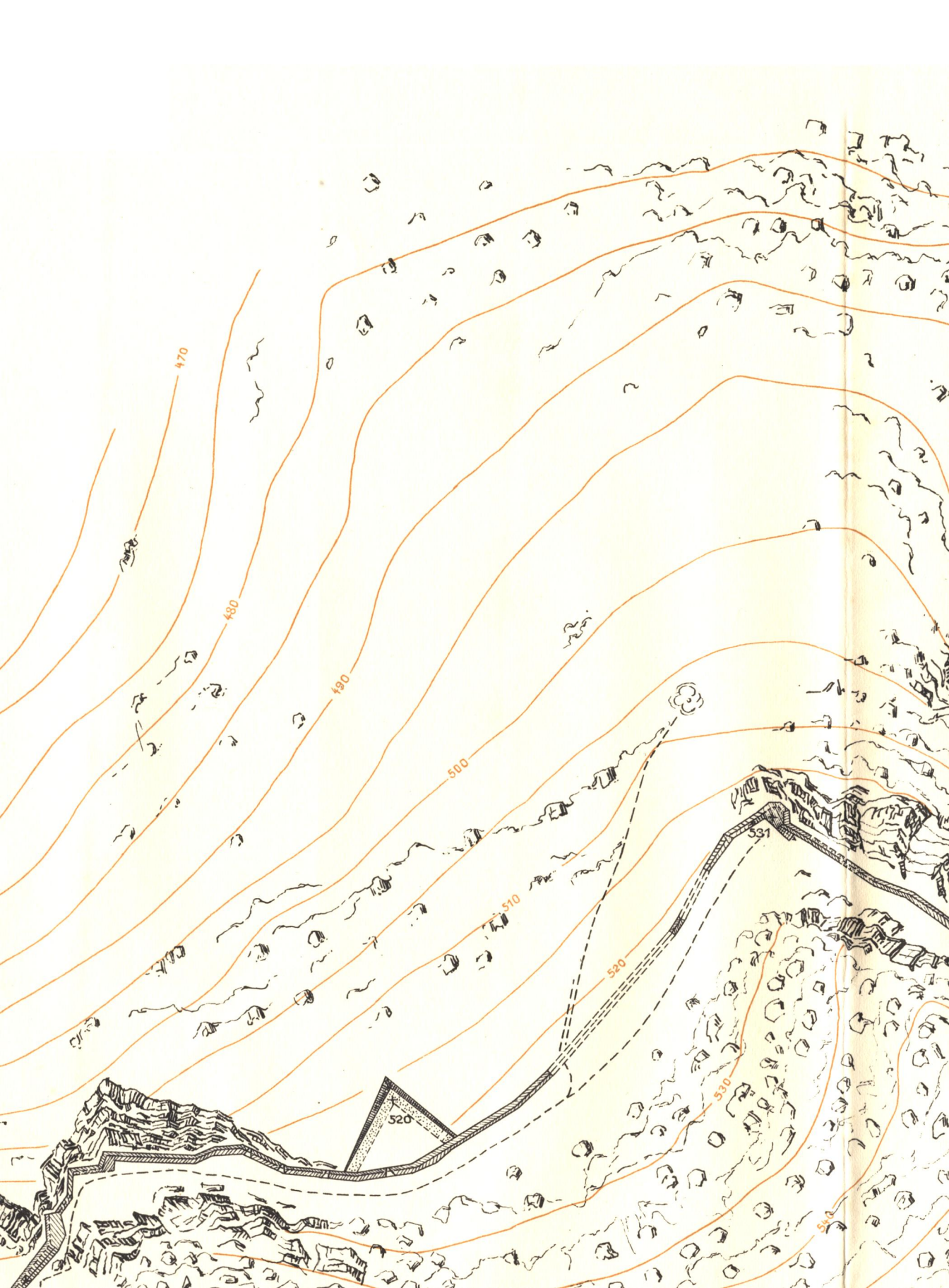




CORINTH

220 230 240 250 260 270 280 290 300m

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510
520
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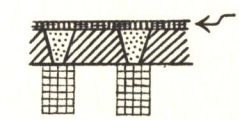
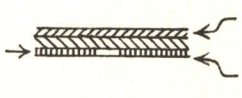
540
520
531

470



Batter
Embrasure
Gun Platform

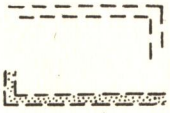


Parapet
Wall
Steps

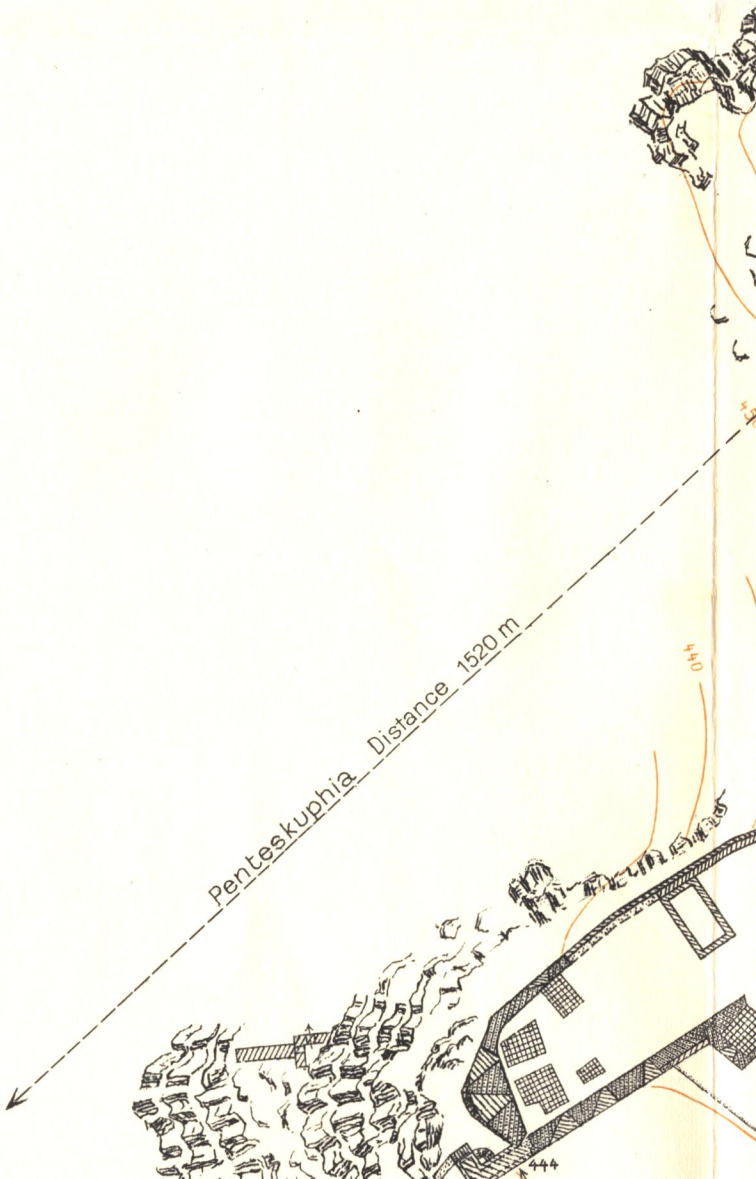
Well or Cistern Mouth

Moslem

Spring

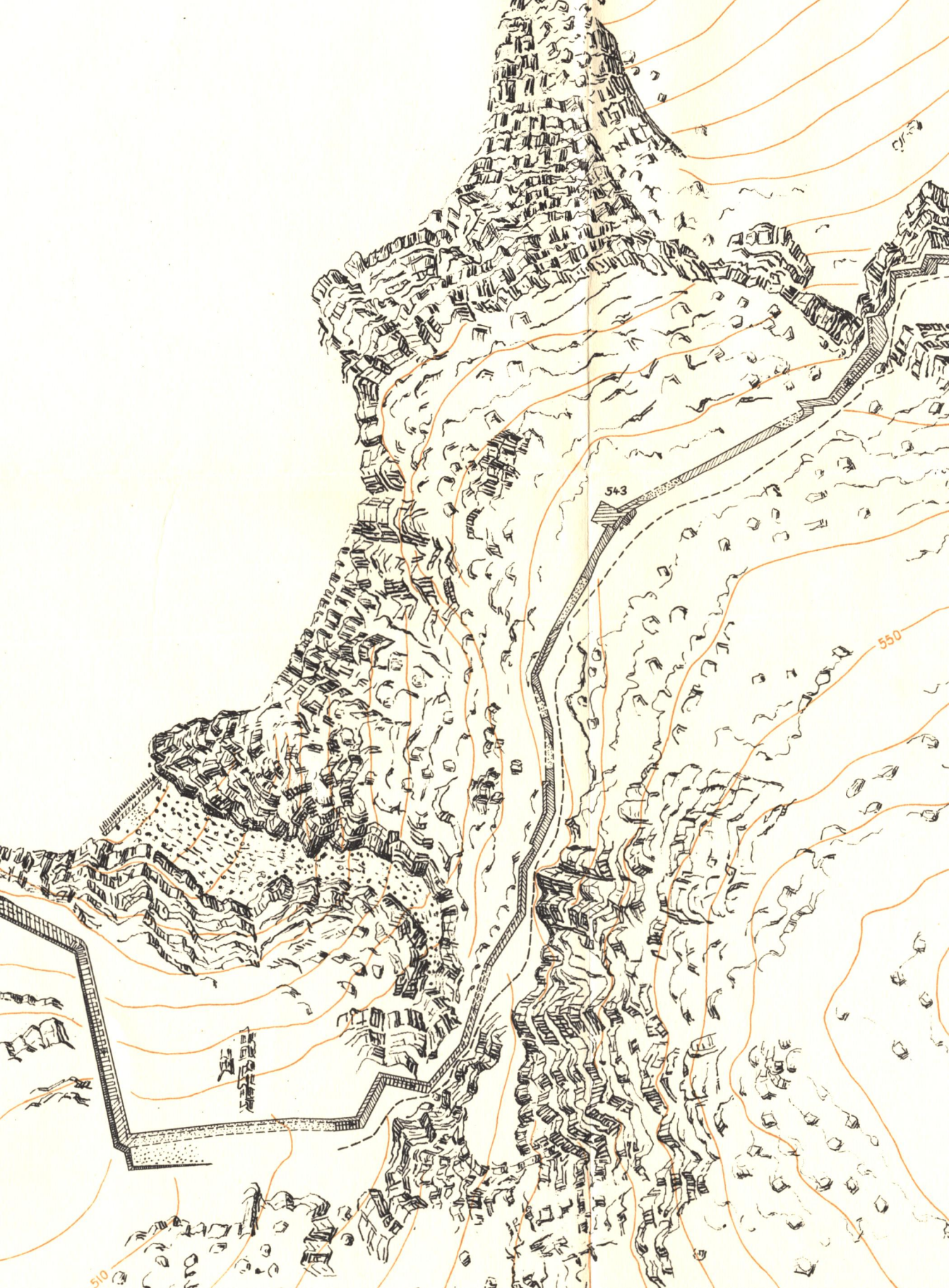


Walls not
preserved
but traceable



490
490
466
490
440
440
480
470

N
W
E
S
Postern Gate
490
480
470
490
500
510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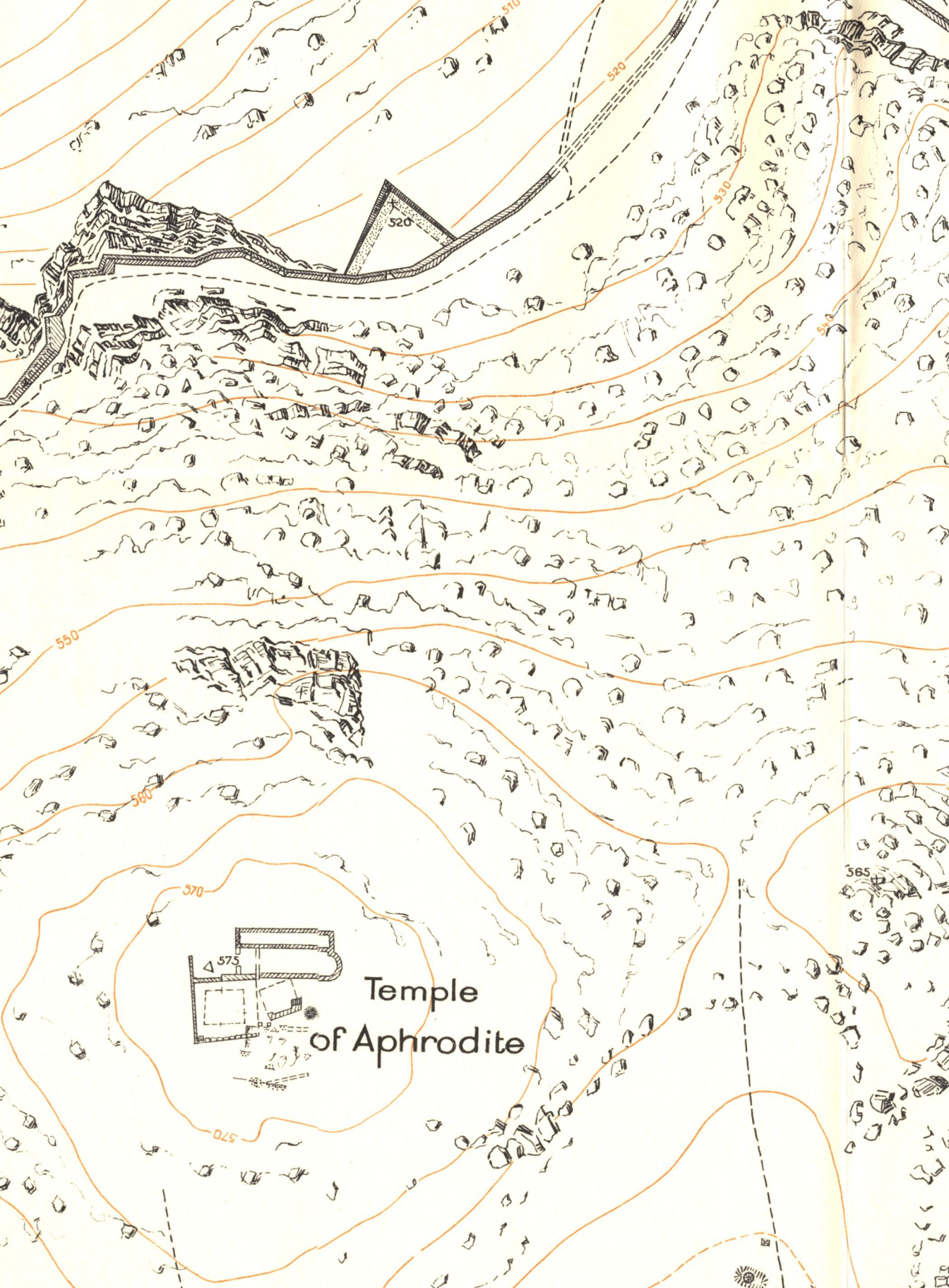
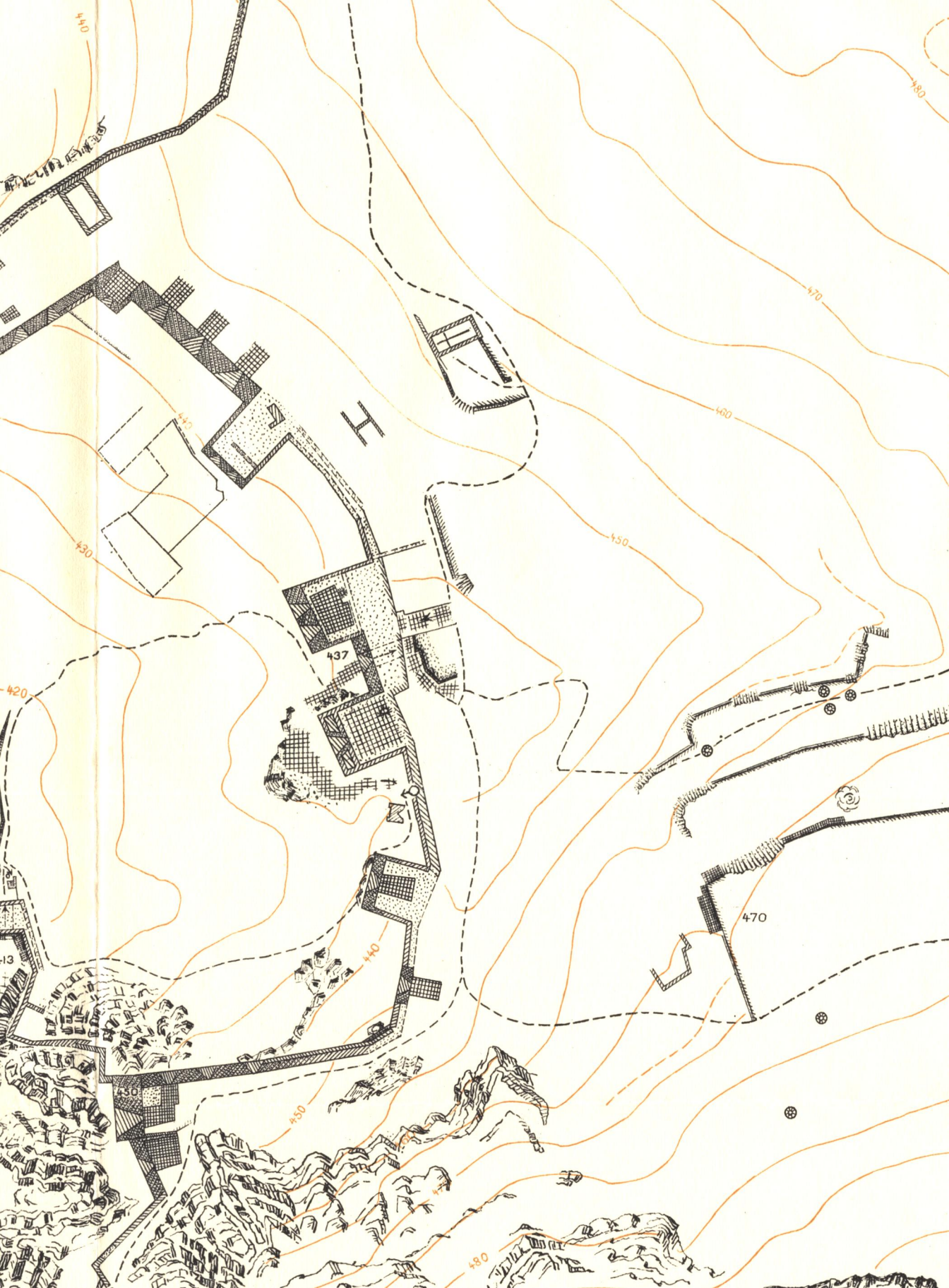

510
520
530
540
550
560
570
570
520
573
565
Temple
of Aphrodite

550
580
565
Steps
554

Penteskuphia Distance 1520 m.
440
444
430
420
410
400
390
378
413
360
370
380
390
400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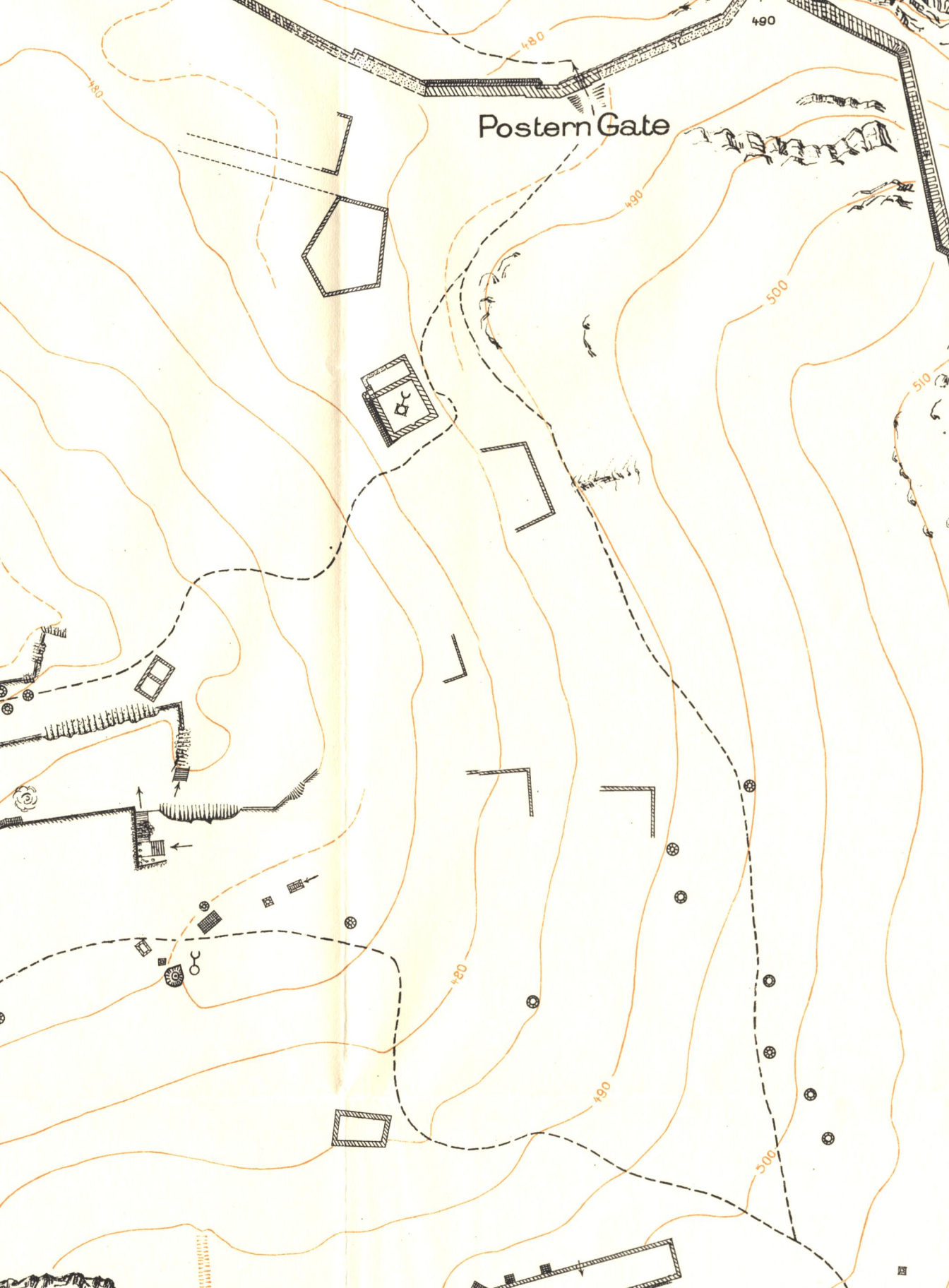
480


Postern Gate
480
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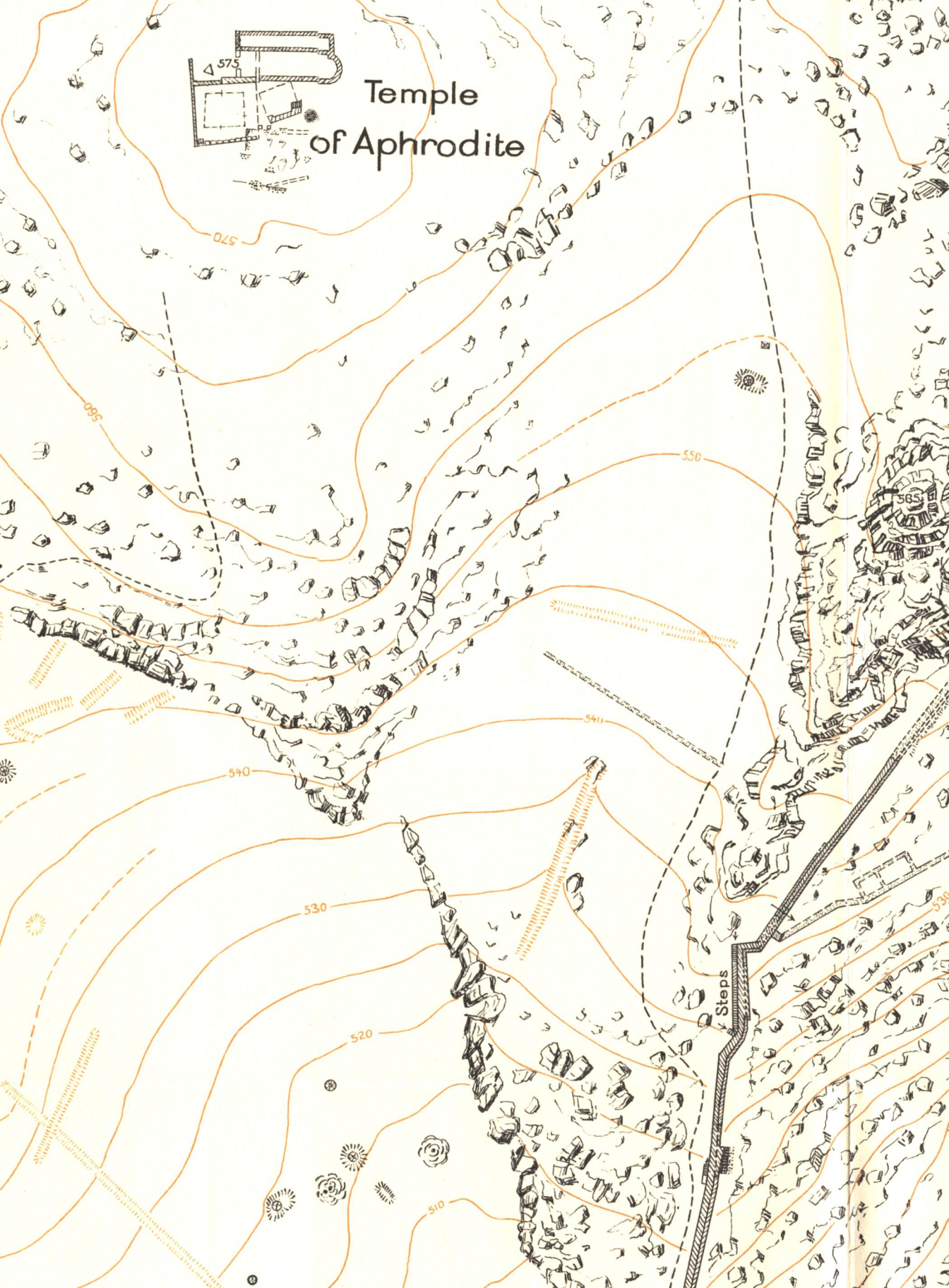
500
510
420

510
520
530
540
550
560


575
Temple
of Aphrodite
570
560
550
585
541
540
530
520
510
Steps

Steps
554
565
560
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540
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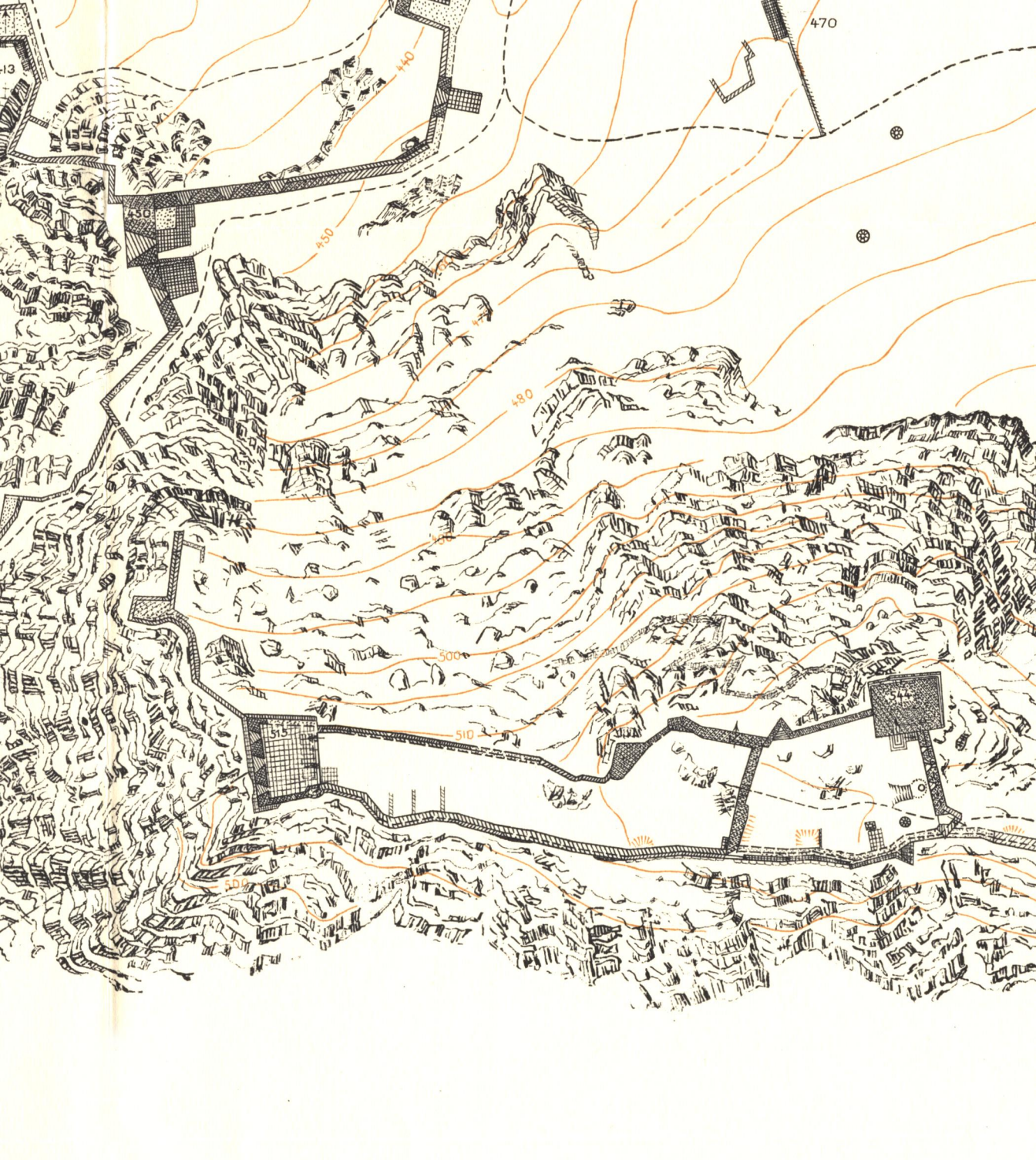
510
500
530
520
510
500

ART. INSTITUT ORELL FÜSSLI-ZURICH.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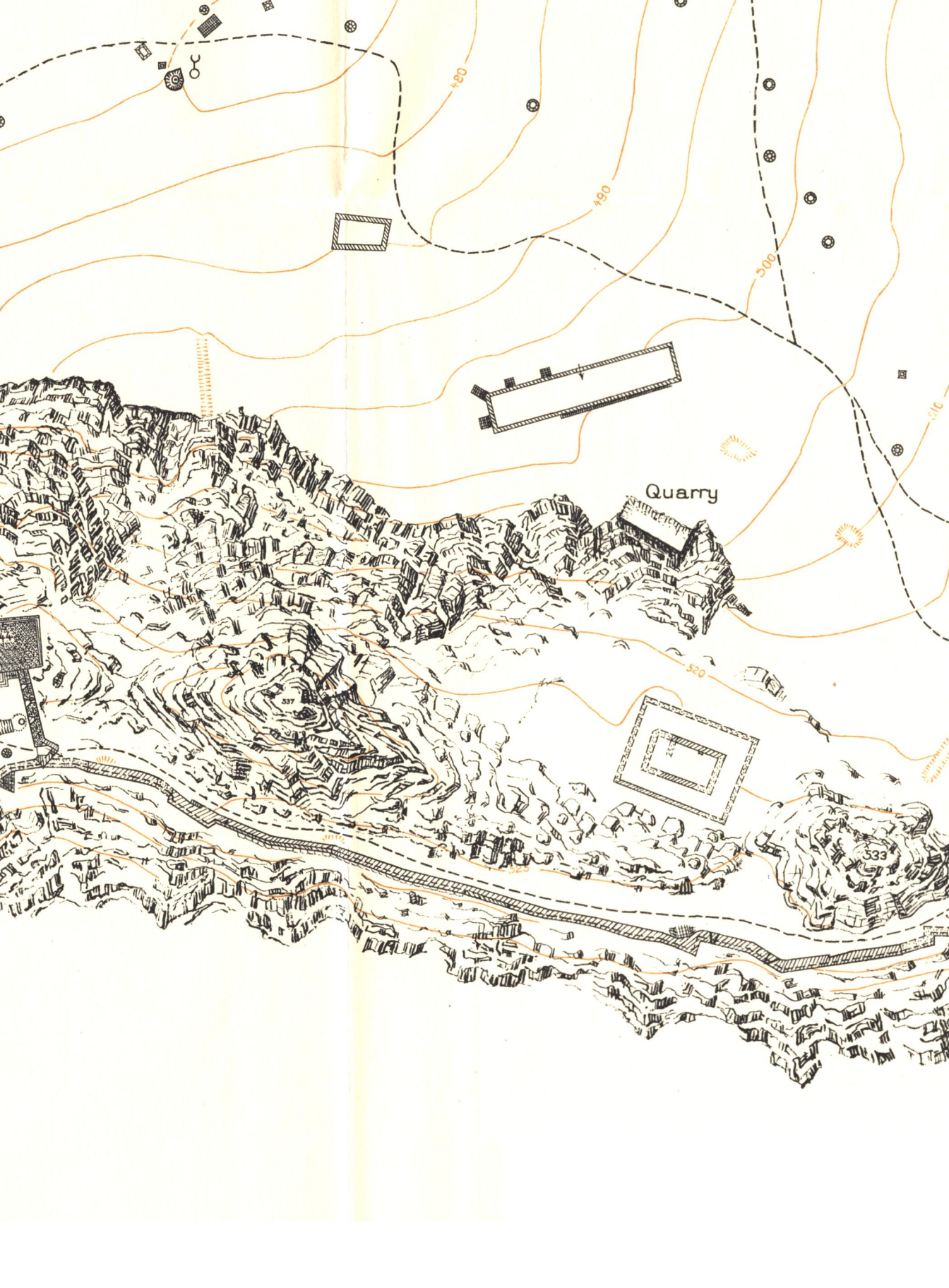
500
510
515
544


Quarry
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516
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527
510
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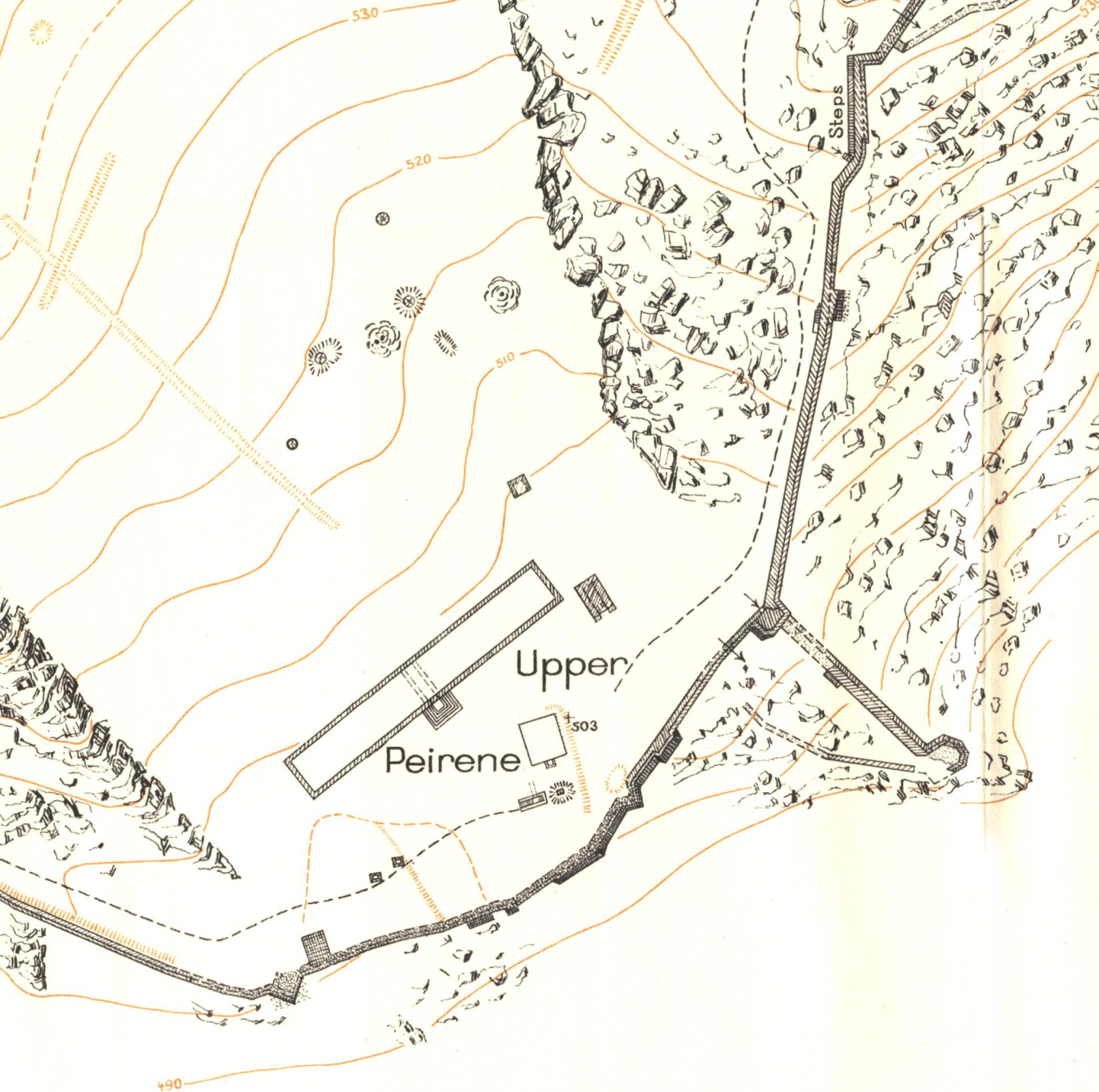
530
520
510
490
Steps
Upper
Peirene
503

Palaia Korinthos, May–July 1931

Zürich, November

F. Vanschagen dipl. Ing. E.T.H.

Holland.

Eigenmann

Zürich dipl. ing. E.T.H