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MEASURED PLANS OF URARTIAN FORTRESSES

By C. A. BURNEY and G. R. J. LAWSON

THIS ARTICLE COMPRISES descriptive and explanatory notes on a number of plans made during a plane-table survey carried out by the authors in the Van region in the summer of 1957.¹ In addition to the plans and photographs, there are two details, one being an elevation. The form of publication is partly determined by the appearance of sketch-plans of most of these Urartian fortresses in a preliminary article.² Apart from correction of certain errors in that article, the general information given therein will not be repeated. For the position of the various fortresses reference should be made to the map published in that preliminary report.³ To the sites marked thereon should be added two more, Aznavur and Kancıklı, both near Patnos, on the road north-west from Erciş to Karaköse and thus some way north of Lake Van. Both are of major importance: Aznavur lies one mile north-west of Patnos and Kancıklı some nine miles south-east.

The plans were drawn in the field at a scale of 1 : 400, with the exception of that of the remarkable grid of streets and blocks that extends over the top of Zernakı Tepe, for which a scale of 1 : 2,000 was thought sufficient. One important note must be made: this is that the contour-lines are only approximate, having been sketched in, because time did not allow of the use of a level. The making of accurately contoured plans of these fortress sites, which are usually set on steep, rocky hilltops, would be too time-consuming an undertaking, in the absence of excavations. Where the precise thickness of a wall was not discernible—a frequent difficulty with Urartian sites, since the perimeter is usually a revetment—the backing of the wall is shown dotted; in such places the original surface on the inner side of the wall has often disappeared. Only what could actually be seen is shown on the plans as a continuous line of face, filled in or otherwise. Reference is given, in brackets, to the grid, to facilitate location of features on the plans; but, for obvious reasons, a grid could not be applied to the plan of Zernakı Tepe. The order in which the sites are arranged is approximately geographical, beginning with those nearest to Van.

ZİVİSTAN

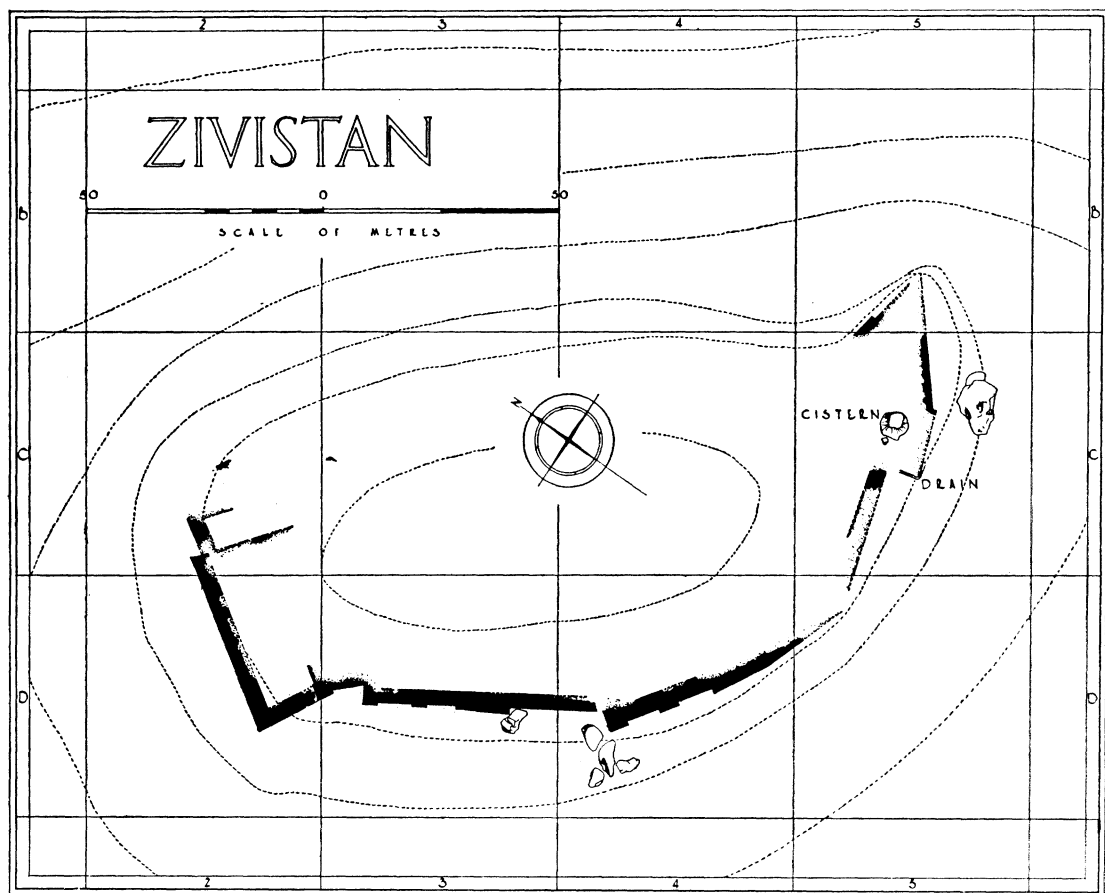
The wall of this small fortress is best preserved on the short north-west side, where the cyclopean masonry, without buttresses along the face, stands up to five courses high (D₂). At the north-east end of this stretch of wall there is what is clearly an addition to the original fortress, built of smaller blocks (C₂). There is some possibility of a gateway between the corner of the north-west wall and the first buttress of the south-west wall

¹ Mr. Gordon Lawson, A.R.I.B.A., is responsible for the drawing of all the plans; without him the survey would have been impossible.

² *AS.* VII (1957), pp. 37–53.

³ *ibid.*, fig. 1.

(D2) ; but this is very uncertain, although dimensions suggest it. At the south-east end, where the wall is hard to trace, there is a small rock-cut channel, doubtless a drain, and a rock-cut cistern (C5). The drain is similar to the longer one which runs down from the shrine carved out of the north side of Van Kale. The terraces below the north-east side of the fortress, where nothing of the Urartian wall remains visible, and from



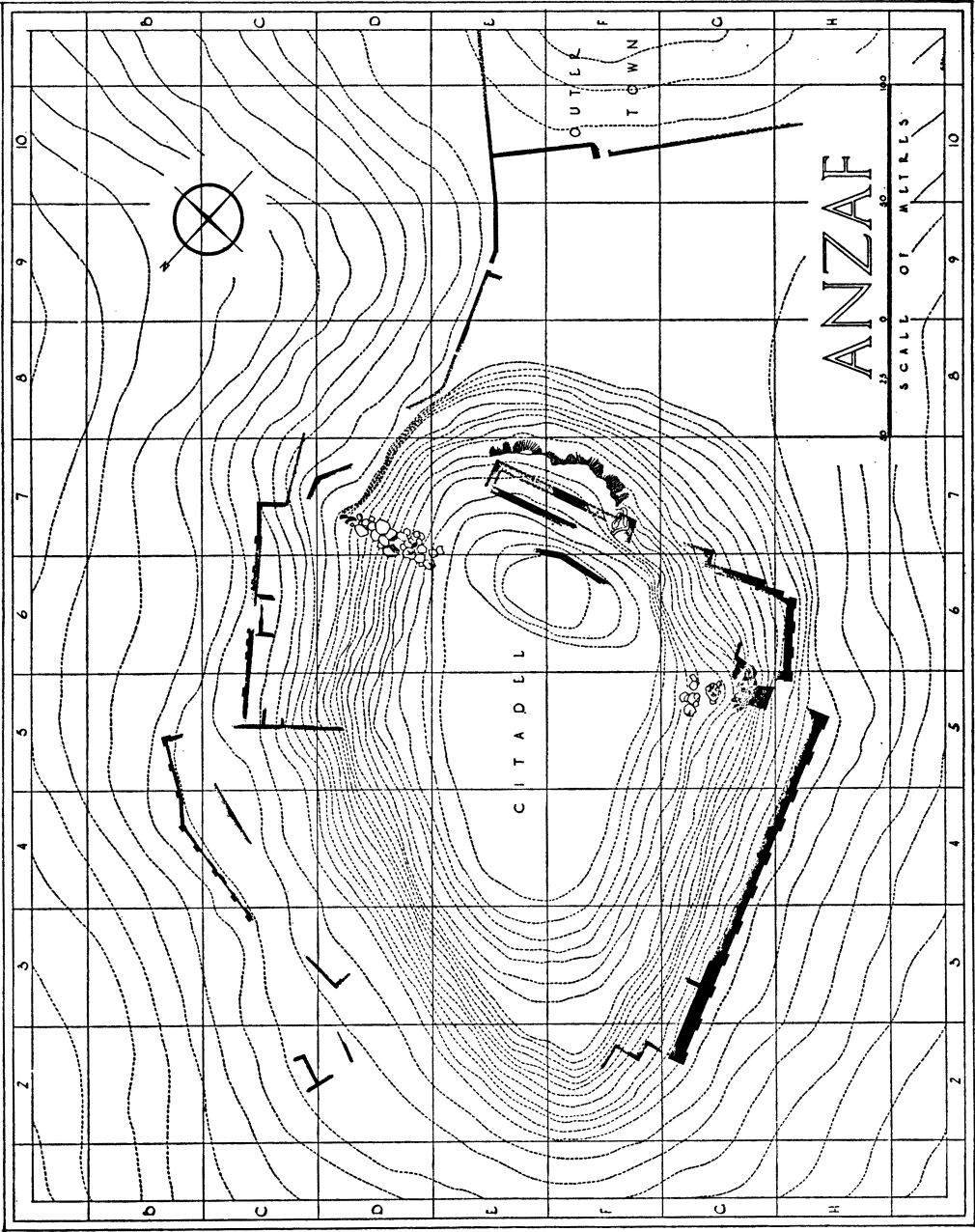
where Van Kale can be seen, were at first supposed to belong to the Urartian period,⁴ but are in fact more recent. They are roughly constructed, not laid out straight, like the similar terraces below Deli Çay Kalesi. The absence of buttresses along the north-west wall, together with the finding in the neighbouring village of fragmentary inscriptions of Işpuini,⁵ makes it probable that, with the lower fortress at Anzaf, this small stronghold dates to that reign.

UPPER ANZAF KALE

The lay-out of Urartian buildings and fortifications shows the importance attached to the site, doubtless largely because of its strategic

⁴ *ibid.*, p. 45 (the so-called Lower Town).

⁵ F. W. König, *Handbuch der chaldäischen Inschriften*, Vol. I (Graz, 1955), nos. 2, 3, and 4a-f (pp. 2 and 37-8, and pls. 1-3).



situation, athwart the main natural road from the Urmia region in the east to the capital at Van. There is not only the upper and the lower fortress, separated from each other by about one-third of a mile, but also, to the south-east and south of the upper fortress, a large enclosure, clearly containing buildings, although their walls were not sufficiently visible to be shown on the plan: this, the Outer Town (E10-G10, etc.), was bounded by a pentagonal enclosure-wall, the two lower corners—one of which appears in the plan (E10)—being approximate right angles. There may have been a gateway just by a recess in the line of the enclosure-wall (F10). In the general appearance of its plan and the construction of its walls the Outer Town somewhat resembles the grid plan of Zernaki Tepe. The north-east end of the Outer Town lies in a natural saddle between the hill on which the upper fortress stands and the mountain overlooking the valley as a whole.

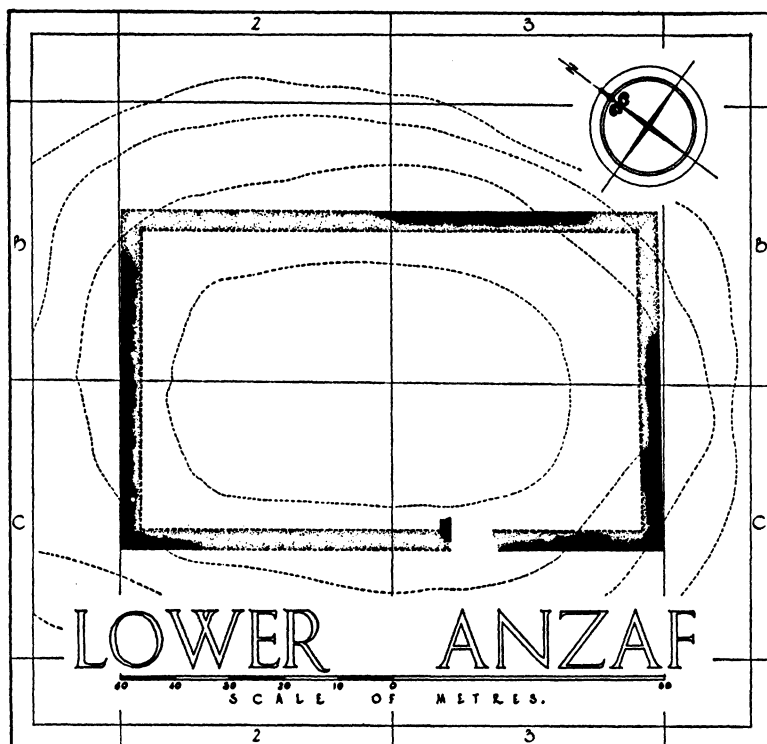
The upper fortress, as it is now, is very much buried under what may be largely decayed mud brick, so that much of the defences, especially to the north, is not discernible on the surface. Of the Citadel proper only the long west wall (G2-4, etc.) is entirely visible, and stands quite well preserved, its masonry being of the cyclopean type found at most of the Urartian fortresses, with the interstices carelessly filled in with small stones. Since it is a revetment wall, it was impossible to be sure of the line of the inner face, except at the north end; but there are traces suggesting that buildings ran right down to this part of the perimeter of the Citadel. Not far above the south end of this stretch of wall were at least two bastions, founded on outcrops of rock, with the usual ledges for keying the masonry; one of them has the remains of its solid masonry foundation, projecting out beyond the rock (G5). On the south side the main defence seems to be the lowermost of three walls, which is carried up from its junction with the long west wall (H6 and G6) to the crest of a precipitous rock (F7 and E7). The uppermost wall (F6, etc.), and perhaps also the middle one, belongs to a keep or small citadel standing on the highest ground within the fortress. Here there are remains of recent date, but apparently confined to a small area. No other Urartian walls are visible at the top of the fortress, except at the south end. A possible staircase, cut out of the rock, near the west end of the small upper citadel, is largely buried by later remains. From one very small portion visible it could be seen that the perimeter wall on the east side of the Citadel was quite high up the steep hillside, not far from the highest point to which the wall running up from the terrace (C5 and D5) was traced.

The two adjacent terraces on the east and north-east slopes below the Citadel (C3-7, etc.), with their buttressed retaining wall, doubtless originally continuous, are not altogether unlike the terraces of Kancıklı; but here there are sufficient traces of walls within the terraced areas to suggest that they were mainly occupied by houses, and that this formed a residential quarter, as much outside the protection of the Citadel as the

Outer Town to the south.⁶ This quarter probably extended round the foot of the north end of the Citadel (C2 and D2). There is thus good reason to suppose that, in spite of the rough construction of the perimeter wall of the Citadel, there was at Anzaf a considerable town, built in the shadow of the fortress and on an important road to the east.

LOWER ANZAF KALE

This small fortress, commanding the road from the east to Van, is unusual in having a plain wall, without towers or buttresses of any kind. The only parallel, apart from the structure at the foot of the west end of

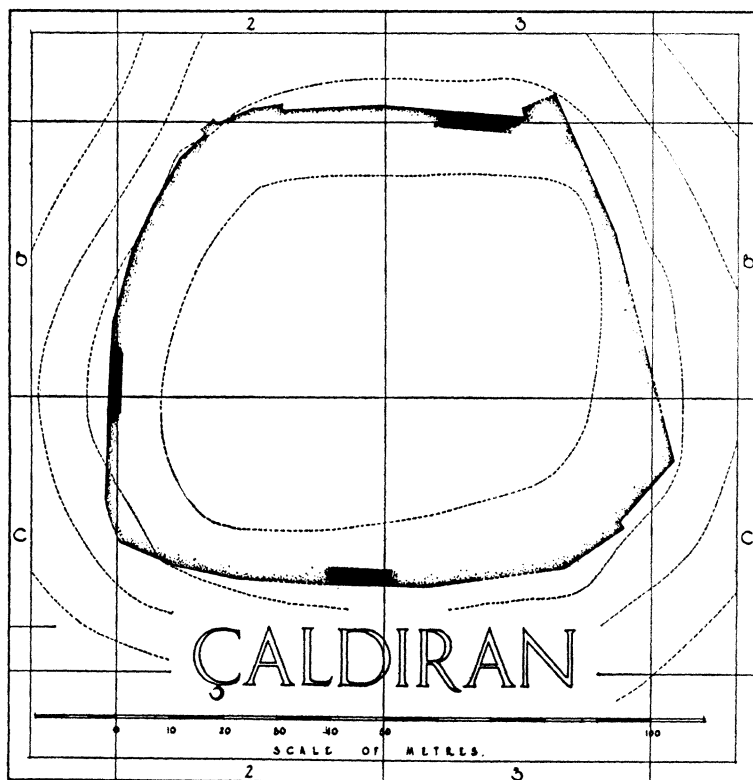


Van Kale, is the fortress at Zivistan, built likewise of cyclopean masonry and without buttresses. But this parallel is significant, because both at Zivistan and close to the lower fortress at Anzaf there have been found inscriptions of Išpuini, the father of Menua : the former almost certainly were originally in the area of the fortress ; the inscription from Anzaf⁷ is carved on a round basalt column-base said by a villager to have been extracted by him from a well built of dressed stones, during the digging, some ten years ago, of a pond by the spring situated just to the east of the lower fortress. It is a straightforward building inscription, perhaps referring to this fortress. There is thus some reason to ascribe both

⁶ Contrary to my original opinion (*AS.* VII, p. 44) that the buttressed terrace wall was an outer wall of the Citadel.

⁷ Published by P. Hulin in this volume, pp. 205-7, with photograph (Pl. XXVIIa) showing the site.

Zivistan and the lower fortress at Anzaf to the reign of Išpuini. When it is realised that similar evidence suggests a date for the upper fortress at Anzaf in the reign of Menua, since four building inscriptions of that king have been found there,⁸ it seems likely that the fully developed design of Urartian fortresses, with their buttresses or towers at regular intervals, did not appear until the reign of Menua (c. 810–785 B.C.). Both the only two Urartian fortresses known to have no buttresses appear to date to the preceding reign, that of Išpuini. Such a development would be consistent with the great expansion of military and civil construction under Menua.



Otherwise the plan of the lower fortress at Anzaf has no features definitely discernible on the surface : there may have been a gateway not far from the centre of the south-west wall, where a gap is indicated (C₃) ; though this is in a likely situation, facing towards Van, there was no proof of this. There is sufficient soil within the fortress to conceal internal walls.

ÇALDIRAN

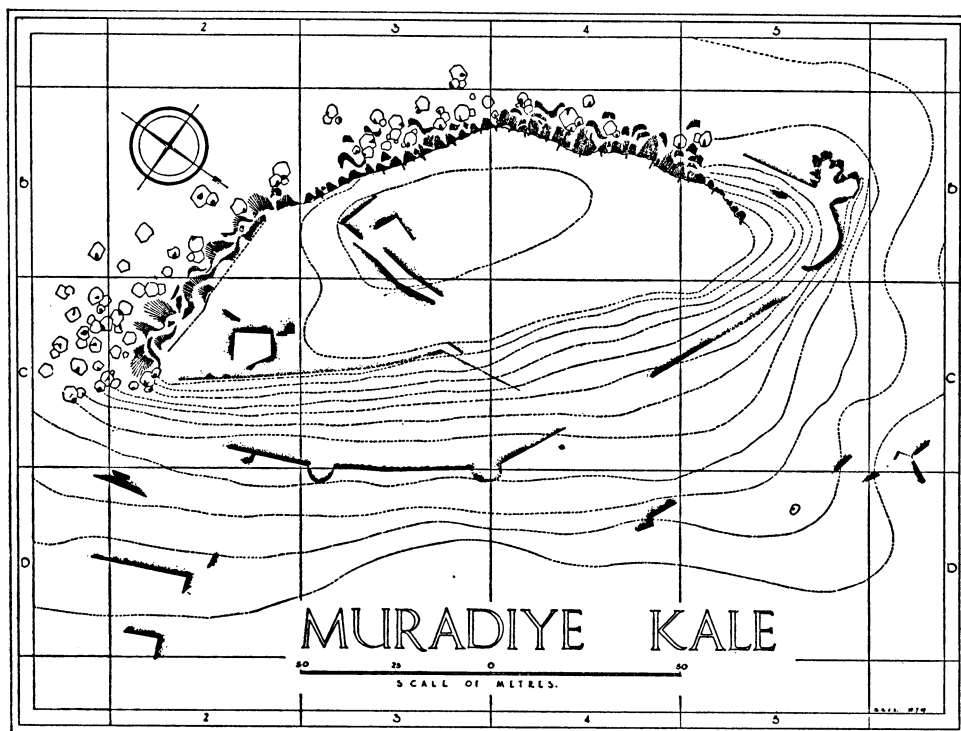
The perimeter wall of this small fort, which stands on a low hill overlooking the modern village of Çaldiran, was traced round for the greater part of its length, though in parts it has disappeared. It is built of fairly large but rough stones along either face, filled in with rubble in

⁸ See *Handbuch*, nos. 46, 55a and 72 (Vol. I, pp. 9, 11, 14, 73–5 and pls. 37, 41, 49 ; Vol. II (Graz, 1957), p. 82 : and a fourth found on the south-east slope below the Citadel and published by P. Hulin in this volume, p. 205.

the middle. Very probably there were buttresses, after the usual Urartian fashion, but the wall is so damaged that it is impossible to be certain about this. Within the wall, but not included on the plan, are the ruins of a rectangular stone building, by its construction certainly post-Urartian.⁹ One tradition has it that this was the camp of Yavuz Sultan Selim before his victory over Shah Ismail at Çaldıran (1514).

MURADIYE

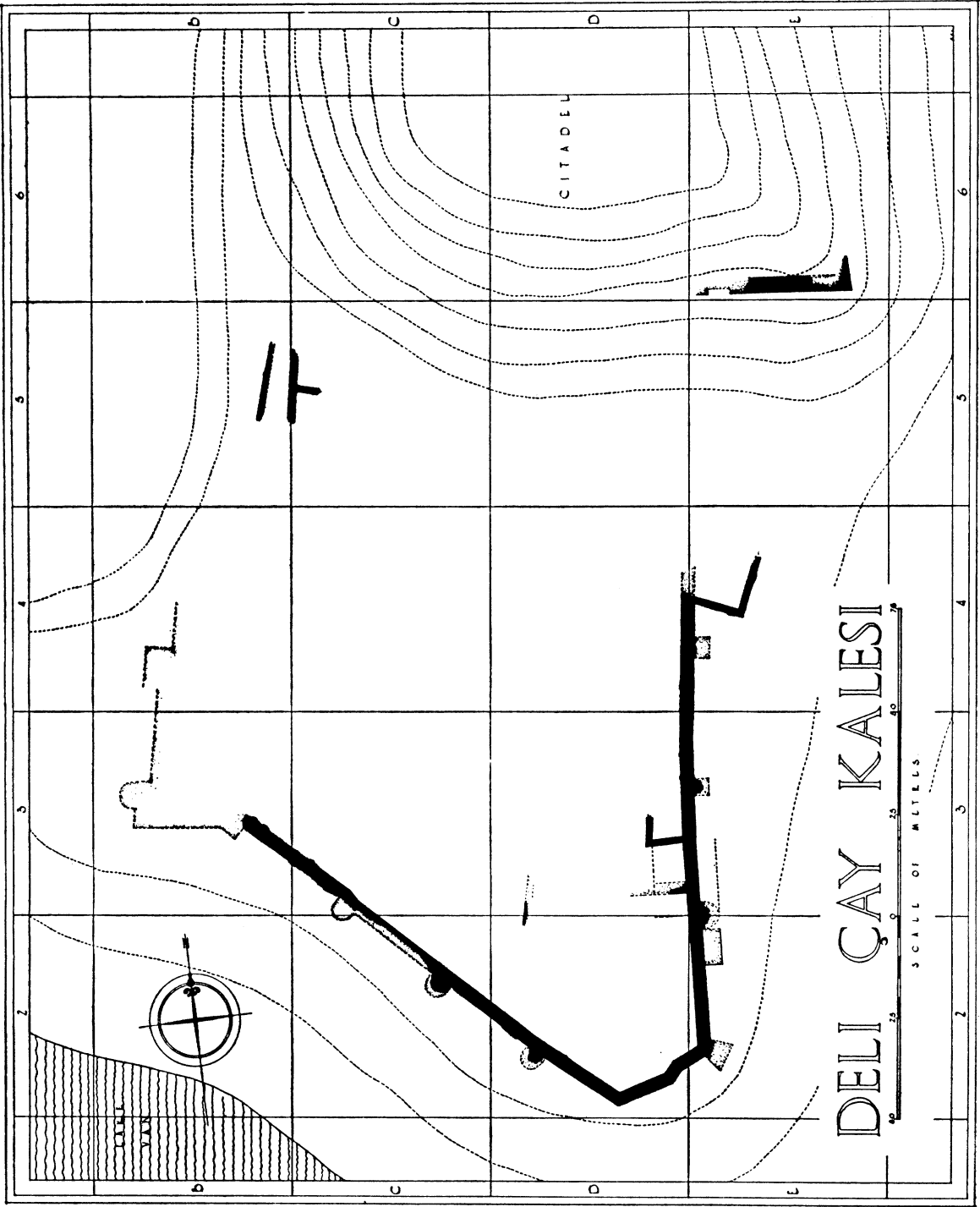
This stronghold stands on a rock overlooking the small district centre of Muradiye, close to the point at which the Bendimah Çay emerges from its course through a long defile down from the upland plain of Çaldıran



to the north-east. Comparatively little remains of the walls, which are of unusually rough construction. The poor preservation of the Urartian fortress is probably largely owing to stone-robbing at the time when a castle was built here by Shah Ismail (c. A.D. 1510).

Along the wall which extends round the north slope, much of whose course can be traced (C2-5), the stones used are merely boulders, and the towers are roughly semi-circular, sharp angles being impossible with such undressed stones. The wall of boulders round what appears to be a small platform at the west end (B5) is particularly rough. Apart from a few blocks *in situ* at the west end, no masonry could be seen along the precipitous south escarpment. The fragmentary remains of Urartian walls

⁹ *ibid.*, pp. 48-9, where it is wrongly described as an "inner keep".



on the top of the site include what seems to be part of a street (B₃ and C₃), nearly in line with the approach road up into Shah Ismail's castle. There may have been an upper wall belonging to the Urartian fortress, along the line of the later wall (shown dotted on the plan, C₂₋₃) : if not, some Urartian blocks, unmistakable by their size, were re-used in the later castle. Remains of walls below the buttressed perimeter wall on the north (D₂, D₄, etc.) belong to terraces, probably occupied by buildings and part of a town immediately outside the fortress. Walls of well-dressed masonry in the area north-west of the castle-rock must likewise belong to the Urartian town¹⁰; but nothing so well built is to be seen in the fortress, whose walls are made harder to trace by the ubiquity of natural boulders and rock.

DELI ÇAY KALESİ

Although by its position, and traces of a possible stone-built quay at the foot of the north side of the Citadel (not included on the plan), this site may well have served as a small anchorage on the north shore of Lake Van, in the shelter of an estuary, the rough construction of its walls makes it obviously of secondary importance. This is made all the more apparent owing to the fact, not originally realised,¹¹ that the roughly laid out terraces east of the fortress and south-east of the Citadel are not Urartian but later, probably contemporary with the ruins of a village covering the whole top of the Citadel, which is approximately square.

Comparatively little of the Urartian defences of the Citadel has remained visible, owing to the accumulation of a later occupation. Only one corner of this wall (E₆) is discernible, and it is built of rather better masonry than that of the perimeter wall of the lower enclosure, which is free-standing, with roughly built towers, projecting more than is usual at Urartian sites. These towers are either approximately semi-circular (C₂ and D₂), one such having its blocks laid in fan shape, or else squarish (E₃₋₄). The perimeter wall is 3 m. thick, with large stones along either face and rubble in the middle : in the roughness of its masonry it can be compared only with the fortress at Muradiye. Towards the Citadel the east wall of the lower enclosure peters out, and is here met by a building, of uncertain purpose, up against its outer face (E₄). Remains of internal walls (D₃ and C₅) are Urartian, and easily distinguishable from the recent, more or less circular, sheep-pens. But in spite of these traces of houses within the lower enclosure, its area is scarcely large enough to warrant its being described as a town.

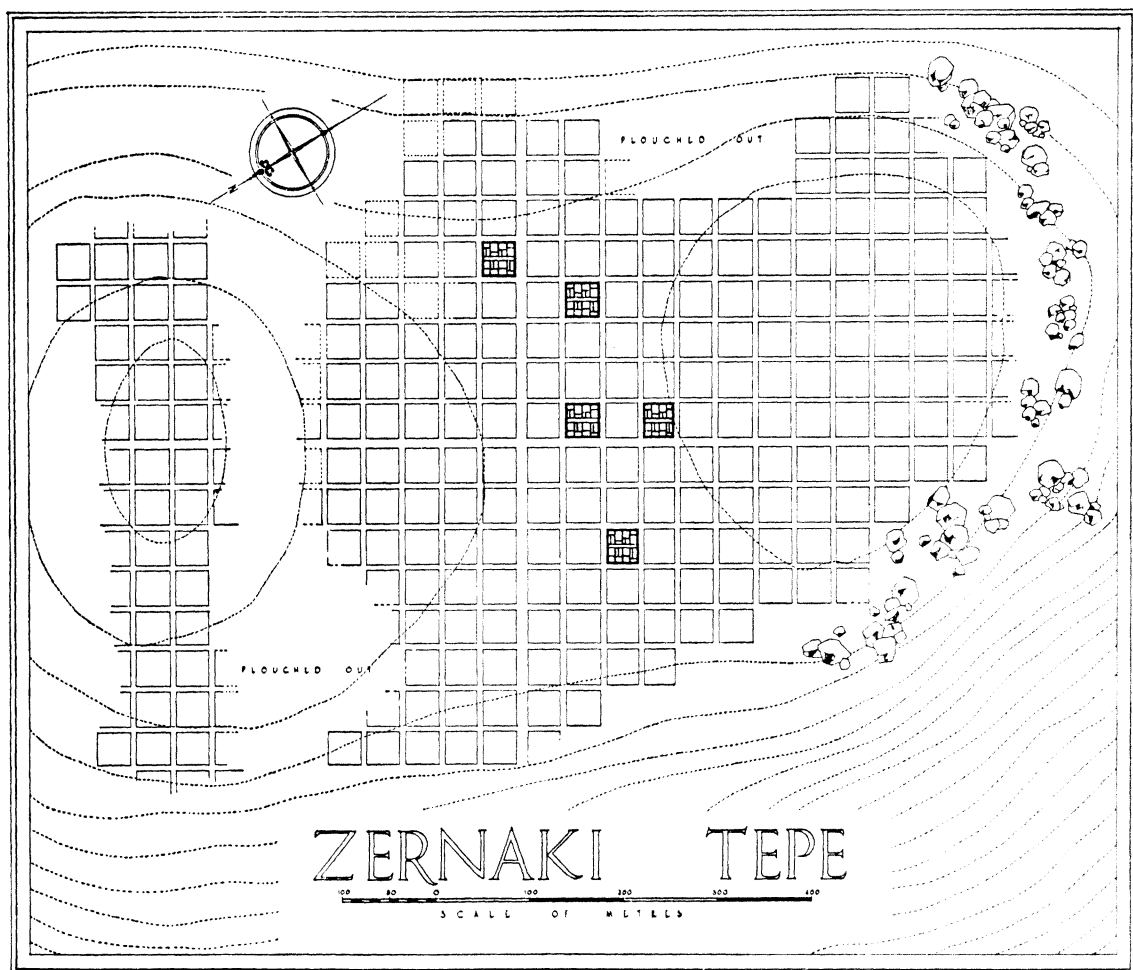
ZERNAKI TEPE

This site, laid out on a grid plan, each block divided from its neighbours by streets, covers the greater part of 1 square kilometre, extending over the undulating top of a limestone hill overlooking the

¹⁰ *AS.* VII, p. 48.

¹¹ *ibid.*, p. 49.

fertile valley in which the small town of Erciş is situated. Its purpose remains problematical, partly because the construction was never completed, but left at the same preliminary stage over the whole site; nor was any of the site occupied: thus there is hardly any surface pottery. Two Urartian sherds were found, and also some later plain wheel-made red ware. The construction of the walls, however, with large stones along

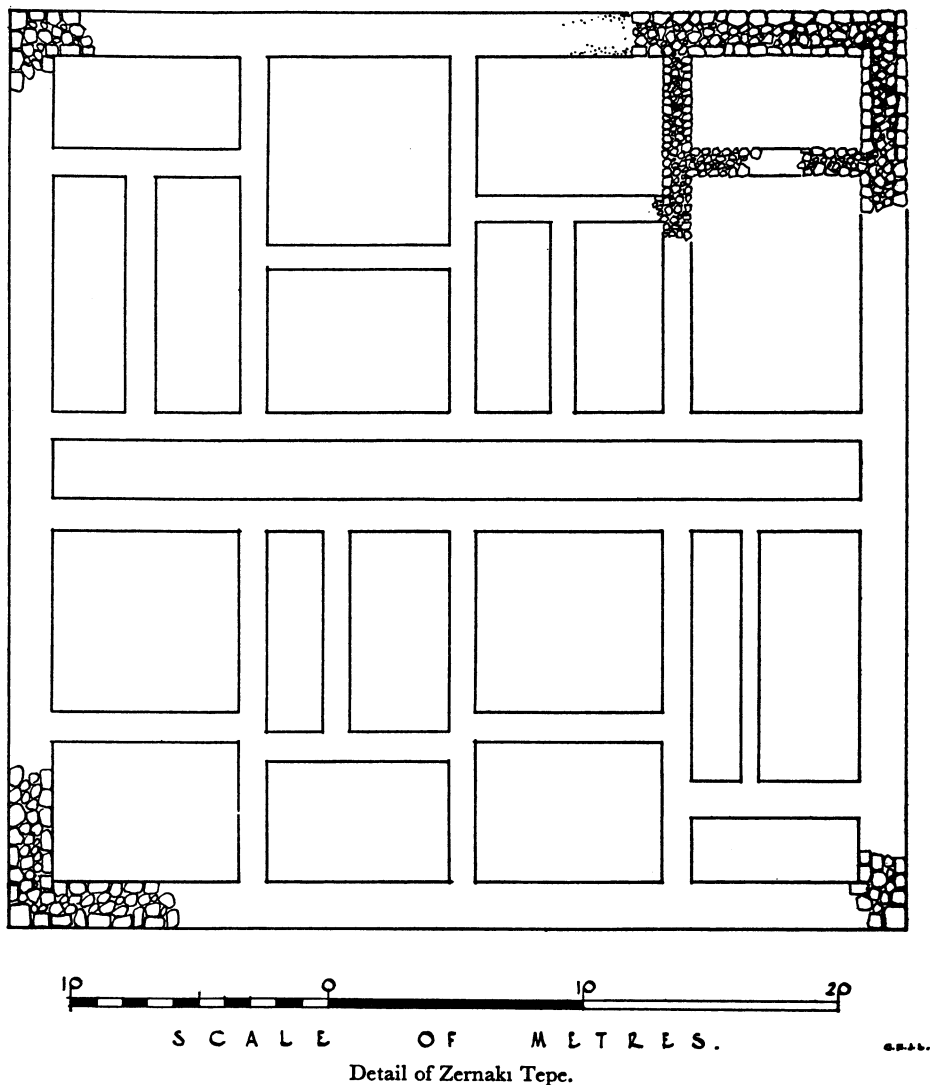


either face and particularly at the corners and rubble in the middle, together with their identical thickness, gives ground for a comparison with the walls of the Outer Town below the upper fortress at Anzaf, which is certainly Urartian. There is thus good reason to date this to the Urartian period, even though both the purpose that it was to have served and the cause of the abandonment of this grandiose design remain obscure.

In one area at the west side and again at the north end the walls have been extensively destroyed by ploughing. Each block was clearly intended to be square, and the fact that they vary from 35.00 m. (+) to 37.00 m. (+) can be accounted for by the unevenness of the ground. It was observed in one part of the site that a straight line could be drawn as diagonal across several successive blocks. At one place there is a cleft

in the natural rock, along the outer face of one of the blocks, indicating that the street was to be levelled by cutting through the rock outcrop.

The plan of the whole site shows that there are two main streets, wider than the normal street (about 7 m. instead of 5 m.), intersecting in the centre of the site. The walls are of an average thickness of 1.40 to



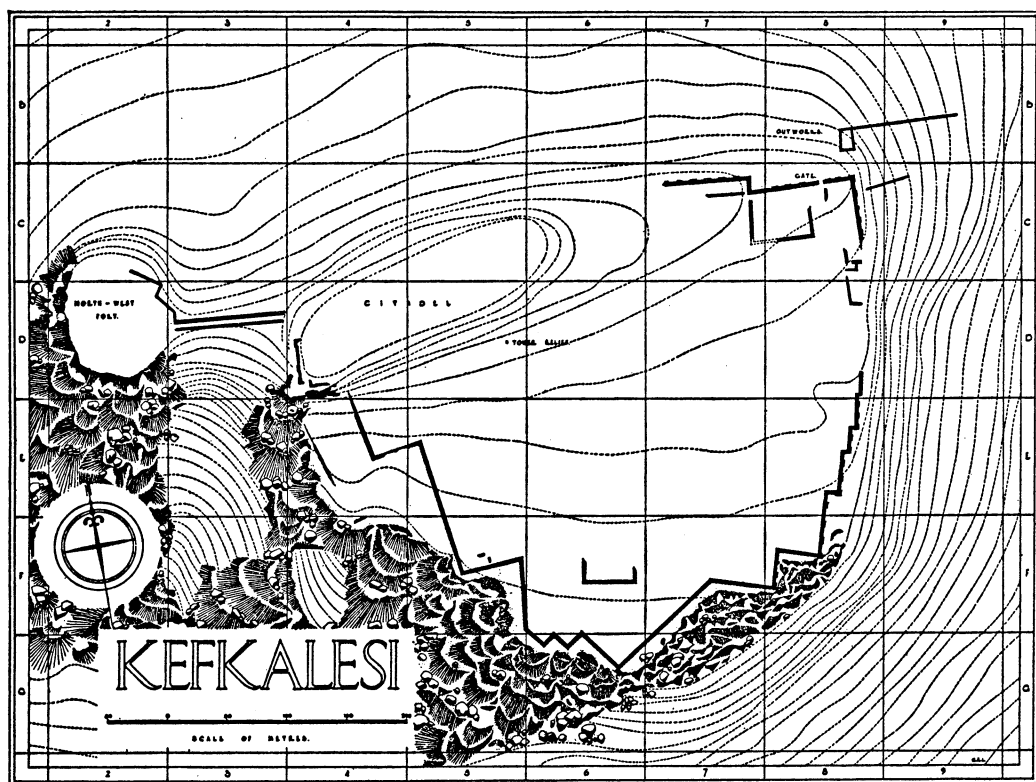
1.50 m., but the internal walls are narrower : yet even they are 1.00 to 1.10 m. thick. Not in all the blocks are the internal walls visible ; the detail of one of them shows how each was divided in two by a passage, with two sets of rooms on either side, comprising one squarish, two rectangular and two narrow. Although perfect symmetry between one set of rooms and the next was not achieved nor even perhaps attempted, the uniformity of lay-out of all the blocks is striking : four " houses " in each block had each ample living-space ; moreover, the thickness of the walls may indicate that there was intended to be an upper storey, in

which case one of the narrow "rooms" would presumably have been filled by the staircase. Such a possibility must not be ruled out, given the scale of the site and the size and number of rooms in each block.

It can be estimated that, allowing a conservative assessment of twenty persons per block, the population, if the site had ever been completed and occupied, would have been nearly 7,000. Probably it would have been twice that number. There was, however, one difficulty: there was a powerful spring at the foot of the hill; but the task of carrying up water for the population of such a town would have been most formidable, nor is there any trace of cisterns on the site itself. The vineyards mentioned in the inscription of Sarduri III nearby at Ilan Taş¹² must have been in the valley where modern Erciş is situated.

KEFKALESİ

The size of this fortress is not matched by the present condition of its walls, which are very ruined, seldom standing more than 1 metre high.



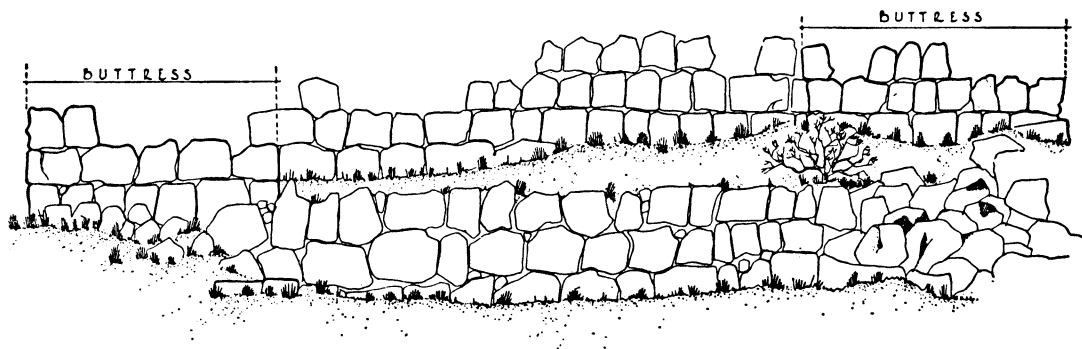
The zig-zag course of the long circuit of the perimeter wall follows as close as possible to the edge of the hilltop, particularly at its precipitous south end; only where it approaches the west end of the Citadel (E4) does the line of the wall leave the edge of the escarpment. Except for

¹² Otherwise called Karataş. See *Handbuch*, nos. 109-110 (Vol. I, p. 21 and pl. 86; Vol. II, pp. 133-4).

part of one structure (F6), little remains of buildings within the great area south of the Citadel. Of the latter only the western extremity (D4) is visible on the surface. From just below this there stretches a double screen-wall (D3) towards the very ruined North-West Fort, of which little more than a pile of small stones remains, the line of the wall being only partly discernible. The purpose of the North-West Fort was presumably to ensure that this high ground so close to the Citadel did not fall into enemy hands. The basalt block found at the foot of the south slope of the Citadel, carved with the Tower Relief (D5), is a hint of the sculptural decoration of the most important part of a site which, from its position, might have been expected to lack such embellishment.¹³ Such traces of walls as were found just inside the Gate (C8) suggest that here at least was an area occupied by important buildings, though it seems unlikely that they extended over more than a small proportion of the total area of the fortress, the line of whose wall was dictated entirely by the lie of the land. West of the Gate and towards the point at which it must have joined the Citadel (C7) the north wall peters out. The Outworks (B8-9) may perhaps indicate that those who occupied this fortress did not always find it necessary or convenient to live within the perimeter. It was past here that the approach road must have come, as a modern track suggests.

KANCIKLI

This site is unusual in several ways, especially the occurrence of a large terraced area along much of the north-west side, a detail of which is published with the plan. The preservation of the walls and the lack of recent stone-robbing are themselves noteworthy. The Approach Road is

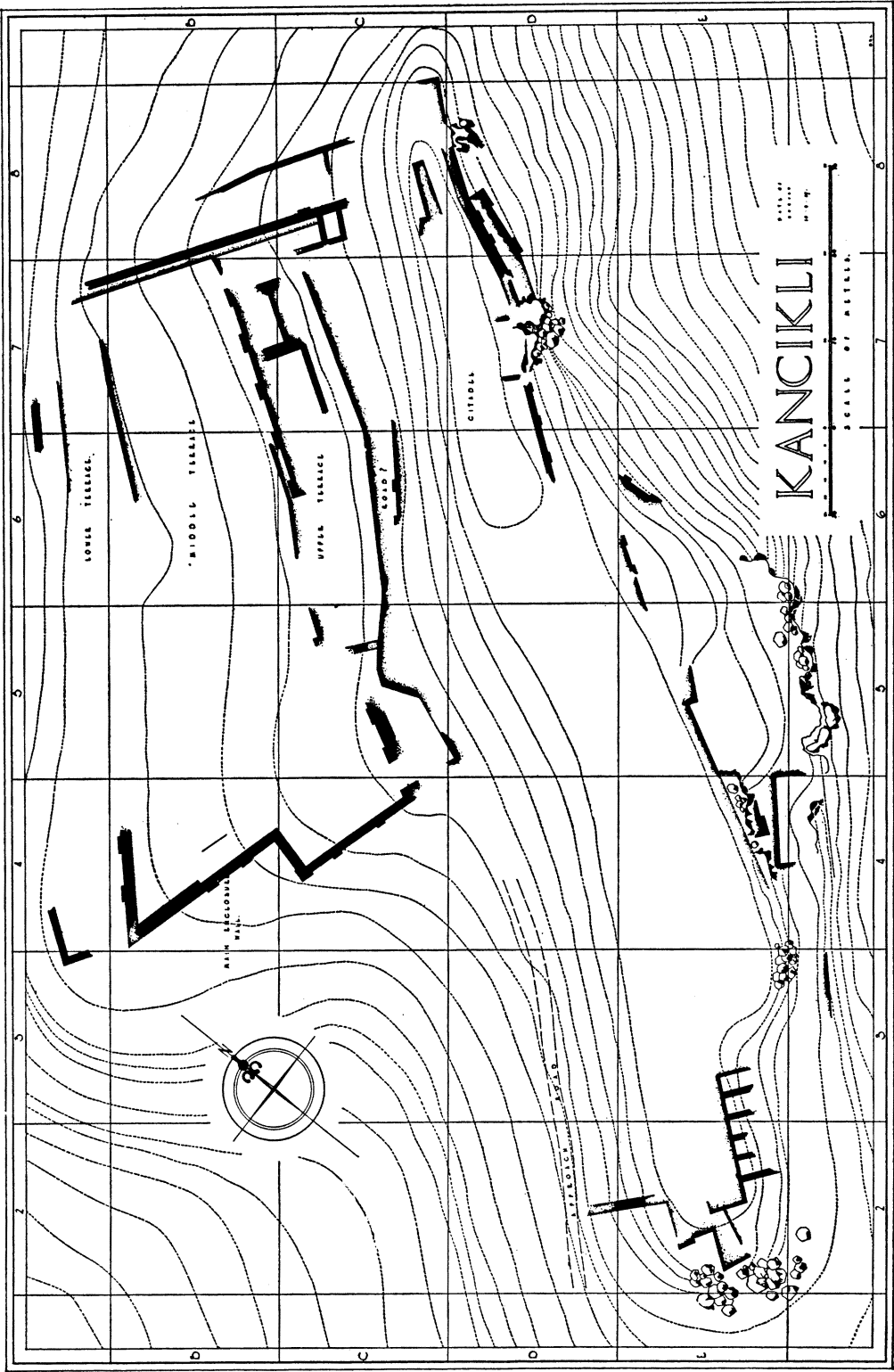


Elevation of existing tower wall and footing to upper terrace, Kancikli.

clearly discernible over a considerable stretch, and the Citadel extends for about 350 m. along the top of a narrow ridge, with plenty of soil, perhaps decayed mud brick, in which may be buried remains of a perimeter wall along the north-west side, overlooking the terraces. The wall along the top of the steep and rocky south-east side is more visible.

¹³ *AS. VIII* (1958), pp. 216-7.

Here the defences include a massive bastion, built up against the rock escarpment and reinforced with a footing of masonry (E4) ; traces of an outer wall, some way down the hillside (E6) ; a buttressed footing to the upper wall (D8). The defences of the Citadel are carried along to either extremity of the hilltop : here is perhaps all that remains of a tower, one at each end. The purpose of the series of parallel walls running down the steep south-east slope at the south-west end of the Citadel (E2-3) is not too clear : possibly they were casemate walls supporting a terraced extension of the Citadel. On the other side of the south-west extremity of the Citadel a screen wall ran down to the Approach Road below. Nothing remains visible of the defences of the Citadel on the long north-west side, except perhaps for a short stretch of wall with two buttresses (C6). It was clear on the site that the north-east perimeter wall of the terraced enclosure, together with the thinner wall outside and parallel with it, continued up to the top of the steep slope of the Citadel at its north-east end (C8). The purpose of the room (?) immediately inside the north-east perimeter wall at its highest surviving part is uncertain (C8) ; but it may possibly serve to indicate that at least some part of the terraced area was occupied by buildings, as is likewise shown by the walls within the area of the Upper Terrace, at its north-east end (B7 and C7). Where, if at all, the Approach Road ascended to the top of the Citadel is uncertain ; but, if it did so, it must have been towards the north-east end (C7). The function of the terraced enclosure is not too clear, for, though there are traces of buildings, and the care with which both the terrace walls and the perimeter wall were constructed suggests that the enclosure was intended primarily for habitation, nevertheless the absence of any indication of walls on the Middle and Lower Terrace, and the protrusion of bedrock on the former, tend to suggest that those two terraces may have been used merely for gardens. If so, the houses to which they belonged may have been confined to the Upper Terrace. The acute-angled return of the Main Enclosure Wall on the south-west side, at its lower end (B4), and the massiveness of its construction compared with that of the surviving corner of a wall outside and just below it (A4), suggest that this outside stretch of wall, together with that running parallel with and outside the north-east perimeter wall, represents an addition to the original terraced enclosure ; the Lower Terrace may itself have been such an addition. That alterations were made is also indicated by the manner in which the north-east perimeter wall was doubled in thickness, although the addition remained unbonded into the original masonry : this is particularly visible along the stretch marking the end of the Middle Terrace (B7). The best preserved and most impressive feature of the whole site is the retaining wall of the Upper Terrace (C7-6 and B6), of which a detail is published, being that part in C6 and B6. The purpose of the footing which runs along the whole length of this wall was presumably structural, though it would have strengthened it against mining in a siege. This use of footings is peculiar to Kancıklı. It is impossible to be sure of the significance of the remains of a massive buttressed wall at



the south-east corner of the terraced enclosure (C5), although the proximity of the Approach Road would make this a natural area for a fortified gateway.

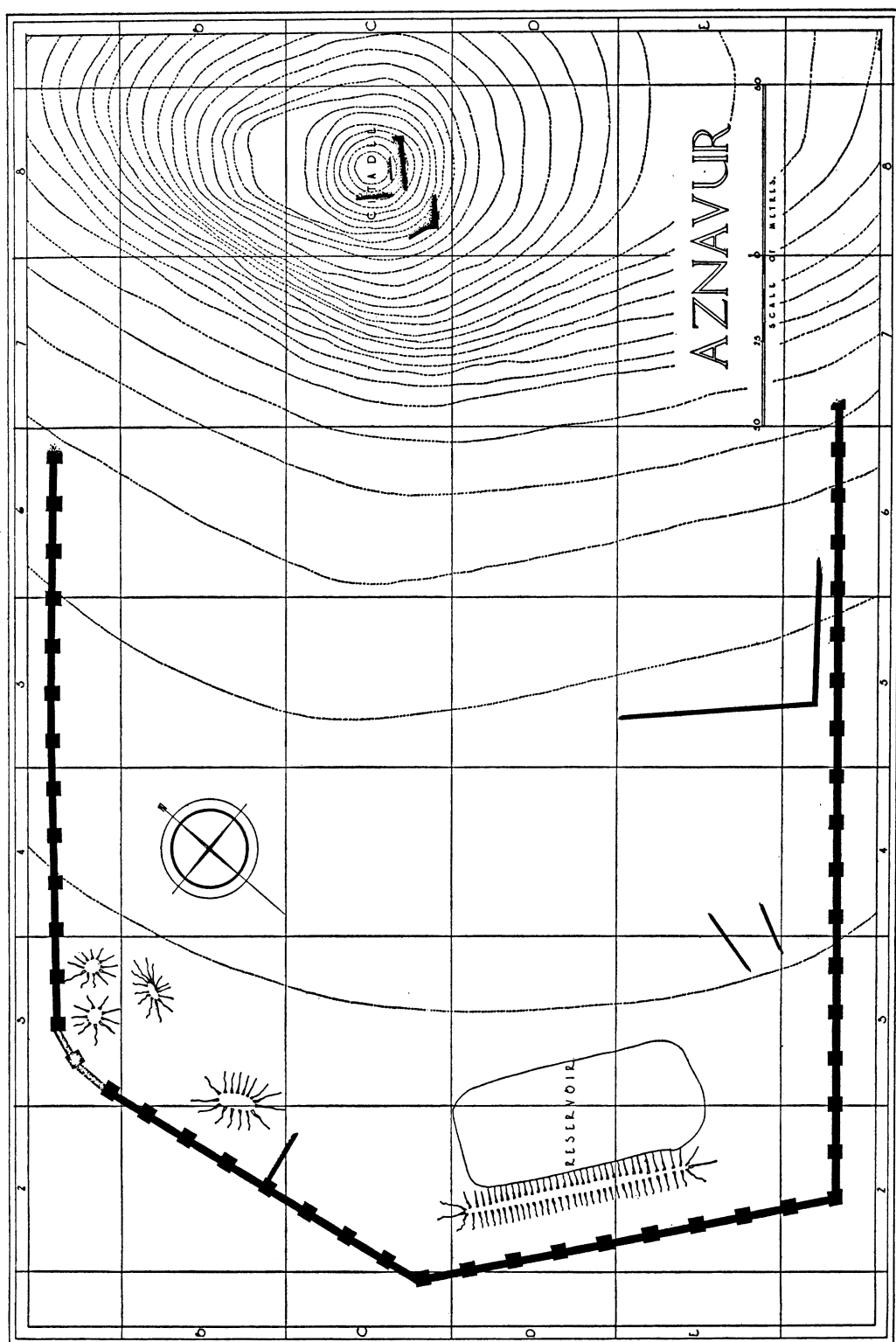
In conclusion, it may be said that the main buildings of this fortified site were probably on the Citadel and also on the Upper Terrace. Well outside the fortified area and off the plan, to the south-east, were remains of a building, probably a house, of similar construction to the Urartian fortress. This, and the discovery of the inscribed basalt base of a stele with a text of Menua,¹⁴ now in the village of Kanişvan some two miles from Kancıklı, makes it likely that there was an Urartian town near the fortress: perhaps it was in the valley below, since the ridge on which the Citadel is built has insufficient area for a town.

AZNAVUR

The character and situation of this fortified site give it the appearance of a military camp rather than a town. It comprises a large lower enclosure and a fortified citadel or keep, on a hilltop about 900 feet above. The best preserved and most prominent feature of the site is the enclosure wall, which is 3.70 to 3.90 m. thick and built in the usual Urartian manner, with large stones along each face and rather smaller stones or rubble in the middle: the hard stone used (andesite?) is not found in the immediate vicinity. The towers, built at more or less uniform intervals of about 20 m. along the enclosure wall, are approximately square, though their dimensions vary from about 8.00 to about 8.80 m., and some are rectangular rather than square: they have a clear face on all four sides, suggesting that they were built as self-contained units of masonry within the wall. Very probably the towers were built of stone up to a greater height than the wall, which may well have resembled Karmir-Blur, in having a stone footing not more than two or three courses high, surmounted by mud brick. Some of the towers are filled fairly solidly with rough stones, but others are filled with rubble and earth: all, however, have large stones along all four faces. There is nowhere any conclusive evidence of a gateway, although it might possibly have been at the north end of that stretch of the wall which runs almost due north-south, where the corner was cut off by a short length of wall now badly destroyed (A3); but this is quite uncertain, and, since the wall is nowhere preserved more than two courses high, the gateway could have been at any point. Towards the upper end of the enclosure the wall peters out (A6 and F7). The perimeter wall to the north-east has either disappeared or been buried; but almost certainly it took advantage of the natural contours to turn inwards and up the ridge to the hilltop, where stands the Citadel (C8).

Within the enclosure the most prominent feature is a long narrow mound (D2 and E2) associated with a depression immediately to the north-east, both undoubtedly artificial. By local tradition this mound

¹⁴ *Handbuch*, no. 140 (Vol. II, pp. 165-6 find pl. 111).



covers the tomb of a chieftain, supposedly of medieval date ; but a far more plausible suggestion is that made by Mr. Seton Lloyd, namely, that the depression marks a cistern or reservoir, contemporary with the fortifications, the mound being simply the spoil-heap from the excavation of the reservoir, which was so placed as to take the fullest advantage of the catchment-area. This theory explains how so waterless a site could be chosen for so large a stronghold. A group of small mounds at one corner of the enclosure (A₃ and B₂₋₃) indicates the position of buildings. There are traces of terraces within the enclosure, not far below the foot of the Citadel hill, and the thickness of the visible internal walls (such as that in E₅ and F₅) indicates structures of considerable size. But it is doubtful to what extent the enclosure was occupied by houses or other buildings ; the comparative scarcity of surface pottery does not suggest that more than a small proportion of the area was so.

Surface pottery was rather more abundant on the slopes of the Citadel, and seemed to be of late Urartian type, perhaps seventh- rather than eighth-century in date. Only on part of two sides can the uppermost wall of the Citadel (C₈) be traced. This seems to stand near the top of a hill that may have been to some degree artificially built up with a masonry revetment. A little further down the steep hillside to the south there is visible a corner-tower of a lower defensive wall. Perhaps the whole Citadel comprised a series of masonry platforms built up against the natural rock of the hill. Just to the north of the Citadel, not far below the summit, there is a squarish level area, possibly part of the fortifications.

BOSTANKAYA

This fortress is not large, but it must have been of some importance, if only on account of the Shrine at its foot (B₅). The rock on which the Citadel stands is precipitous on every side except the north-east, from which direction alone it is easily accessible. Not much remains of the masonry of the main fortress, except along the north-east side (B₄ and C₄) ; but elsewhere the outermost in the series of rock-cut ledges gives the approximate line of the wall-face. On the west side, except at the south end, there is an earth slope, and only a little masonry is visible (C₃). The rock-cut ledges, originally suggested to be the result of quarrying,¹⁵ are in fact the bedding for blocks of masonry. The explanation of the multiplicity of ledges is as follows : these ledges run in lengths that change direction according to the line of the wall, in turn being determined by the edge of the escarpment ; there are several parallel ledges along each length, these being cut to provide a bedding for a masonry platform, built all round the top of the rock. The Citadel would have been a flat platform, its central portion simply the natural rock cut flat, as can be seen in places now, and extended on either side by masonry : thus there would have been a great height of wall revetting this platform. There is at present a thin layer of earth, nowhere more than 1 m. deep, over most of the top

¹⁵ *AS.* VII, pp. 41 and 51.

of the rock. A major transverse wall within the Citadel is suggested by ledges on a rock about 50 m. from the south end (C3). Just to the east is a small cistern (D3), which must have been not more than 2 m. from the inner face of the perimeter wall. At the foot of the south end, on the south-west side, are remains of part of the Lower Defences of the site (D2) ; there are also similar traces to the south-east, suggesting that there was a wall right round the foot of the rock. Several small springs along the east side may well have been enclosed.

The Shrine (B5) resembles those on the castle-rock of Van : like those, only the outline as cut out of the rock remains. The Shrine appears to be orientated to the north-east, facing the long, smoothly dressed rock-face, which runs approximately from north-west to south-east : in this rock-face is the Niche for Offerings, a recess with two ledges, too high to be steps, and possibly serving as an altar as well as an offering-place. There are steps, at right-angles to the rock-face. Ledges on the south-east side suggest that the rock platform was extended a short distance in that direction with masonry. The Rock-Cut Steps (B5), at the north-east limit of the area of the Shrine, lead down to the south-east. The Major Building indicated on the plan is strongly suggested by surface evidence, including the fragment of a remarkably massive wall, running up to the corner of the Shrine (C5). It does not seem unreasonable to suggest that this might be a temple. There is no evidence of the situation of the cistern whose construction is recorded by Menua, the greatest builder of the Urartian dynasty, in an inscription found close to the site.¹⁶

¹⁶ *Handbuch*, no. 39 (Vol. I, pp. 8 and 71, and pl. 34).