

UDRUH — 1980, 1981, 1982 SEASONS, A PRELIMINARY REPORT

by
A. C. Killick

Introduction

The village of Udruh lies 20 km north-west of Ma'an and 10 km. east of Wadi Musa, at a height of 1,300 m. above sea level (Fig. 1). The present village comprises sixty houses with an estimated population of 700. The area has an annual rainfall of less than 0.20 m. and a perennial spring has consequently attracted settlement to the site throughout antiquity. The main site at Udruh lies to the west of the village and consists of a large fortress with 200.00 m. long walls and projecting defensive towers (Fig. 2; Pl. LI, 1). The area inside these walls is strewn with large masonry rubble and building debris. Astride the north perimeter wall of the fortress is an Ottoman fort with walls standing 6.00 m. high. Outside the south-west corner tower of the fortress is a Byzantine church. Brunnow and Domaszewski recorded the site of Udruh/udhruh and its fortifications on the 14-15th March 1897 and the 24-27th March 1898 (1904: 431). Much of the site had been destroyed by modern building activity before any further serious work was conducted there.

The historical references to Udruh begin in the mid-second century A.D. when *Ἀδρου* is mentioned as a town in Arabia Petraea (Ptolemy V, 16,4). The town is missing from the military lists of the *Notitia Dignitatum* at the end of the fourth century A.D. This is surprising since the trade route from Arabia northwards to Syria passed through Udruh in the Nabataean period and that same route later became part of the *via Traiana Nova*, the Roman road constructed in A.D. 111-114 between Syria and the Red

Sea coast.

The Justinianic tax edict from Beersheba clearly refers to Udruh (*ἀπὸ Ἀδρου*) Clermont-Ganneau, 1906) at the top of the list of all towns of Palaestina Tertia, paying a tax of sixty-five gold pieces. This is the largest tax in the list and indicates the importance of Udruh at this date. Yakut (I: 174; II: 36 and 46), and al-Bakri (1: 239) describe Udruh together with the site of Al-Jarba, a mile away, both of which were conquered during Muhammad's lifetime in A.D. 658 and the population of Udruh was granted peace for a tax of 100 dinars. At this same date at Udruh there was a conference between Amr ibn al Aasi representing Muawiya ibn abi Sofian, governor of Syria, and Abu Musa al Asari representing Khalif Ali ibn abi Talib, cousin and son-in-law of the prophet (see Lammens, 1907).

1980 Survey Season

In September a British expedition spent a month re-surveying Udruh and the immediate area.¹ Surface artefacts from the main site were found to indicate occupation during the Lower Palaeolithic, Neolithic, Iron Age, Hellenistic, Nabataean, Late Roman, Byzantine, and from Early Islamic times through into the Ottoman period.

The main standing architecture at Udruh are the walls of a military fortress. It is trapezoidal in outline, with its shorter axis aligned north to south (Pl. LI, 1; Fig. 2). There were six interval towers projecting from the north and south walls (246.00 and 248.00 m. long) and four on

¹ In 1980 the project was funded by the British School of Archaeology in Jerusalem, the British Institute at Amman for Archaeology and History and the author. I am very grateful to Mrs. C.-M. Bennett for all her support and to the Department of Antiquities of Jordan which provided a valuable

representative, Mr. Nabil el Qadi. I am very grateful for the energy and assistance of the survey team: Mr. J. Bruce, Mr. D. Jones, Mr. R. G. Killick, Mr. W. Lean, Miss J. Moon, and Mr. G. Summers.

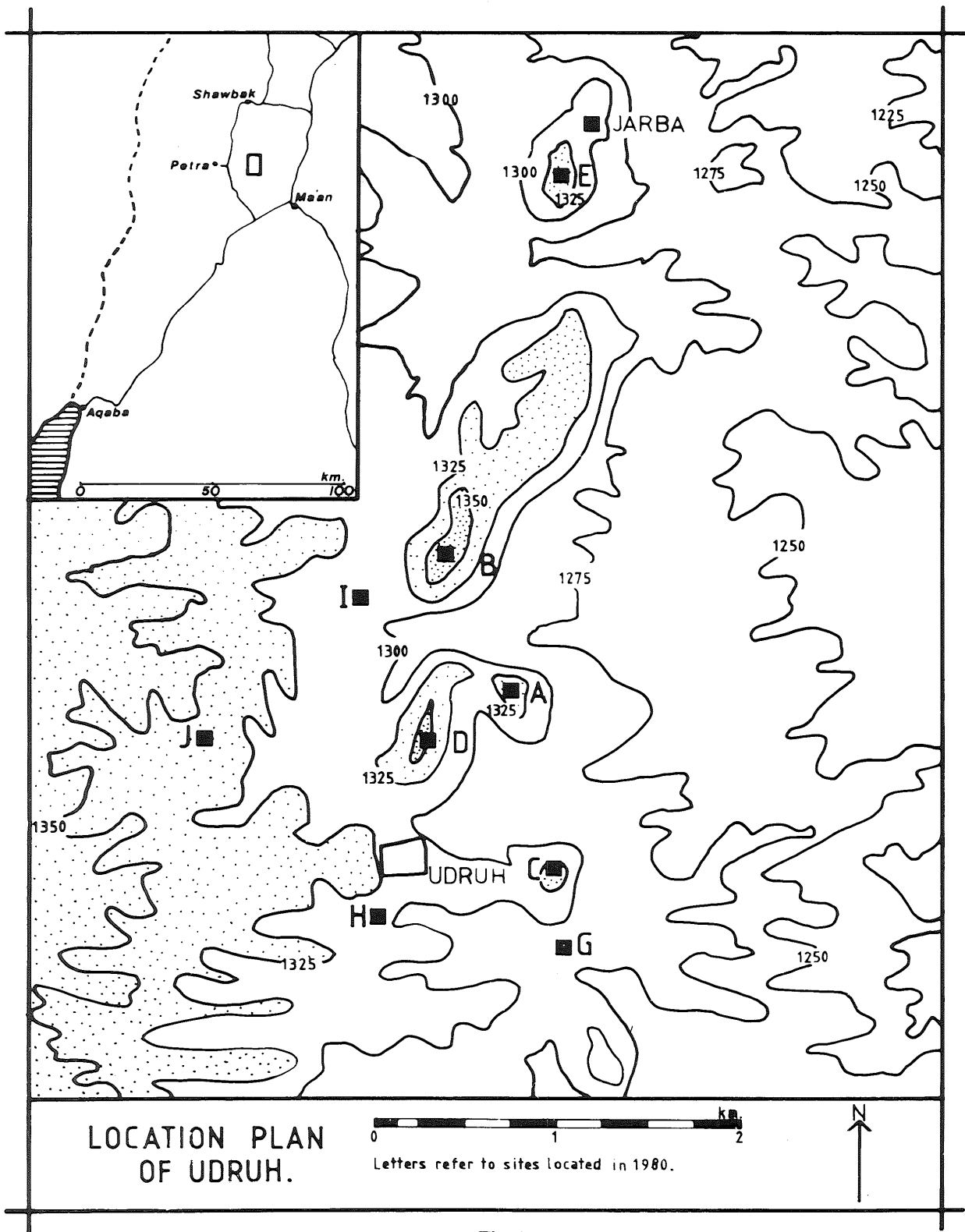


Fig. 1

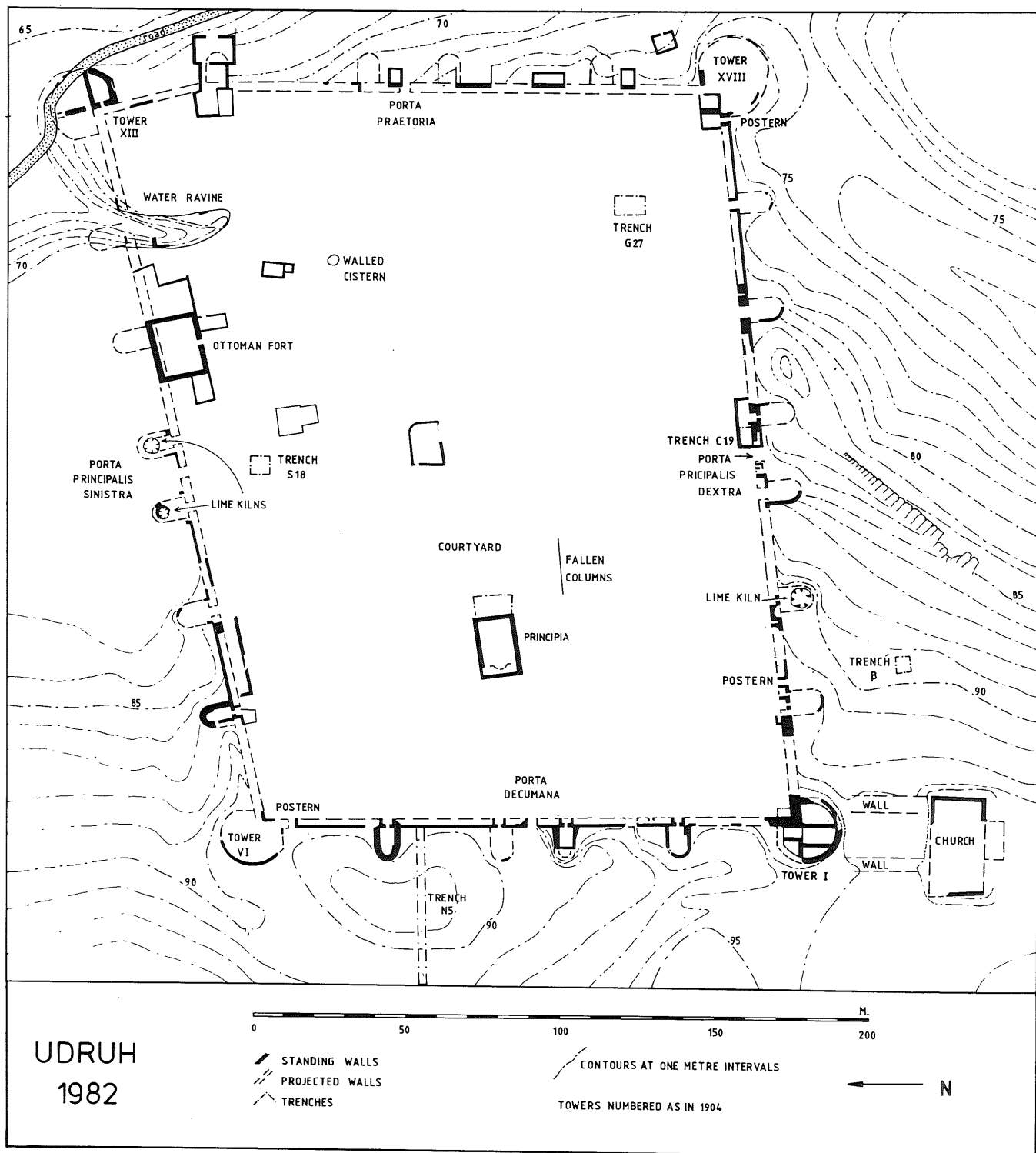


Fig. 2

the west and east walls 177.00 and 207.00 m. long). Arched gateways mid-way down each wall were flanked on either side by an interval tower. The site falls 30.00 m. from west to east. Brunnow and Domaszewski (whose tower numbering system we retain in Fig. 2) state that “the destroyed parts of the perimeter wall have been completed in so far as can be done by analogy with the congruent complete parts” (1904: 435), but they fail to show this distinction on their overall plan. Figure 2 demonstrates that the north-east corner is the source of an irregularity in what would otherwise be a standard rectilinear fort plan. The perimeter wall was positioned so that the main water source could be included within its protection. In 1907 Lammens wrote of a “powerful spring... issuing at the base of the citadel in a sort of funnel” (1907: 18). This refers to the water-cut ravine to the east of the Ottoman fort, although the main spring is now 40.00 m. lower down on the plain to the east. In the section of the ravine the walls of tower XII can be seen. The bend in the east wall may also be due to the location of the spring. The perimeter wall is constructed from two faces of large well-drafted ashlar with a rubble core.

Interval towers IX, X, and XXIII have been extensively altered and towers XI, XII, XIV, XV and XVI have been completely removed (Fig. 2). The remaining extant towers are 10.50-11.50 m. long and 8.00-9.00 m. wide and they are all similar in construction to tower III. This is the best preserved interval tower, although recently its rounded rear wall has been dismantled and rebuilt. The ground floor entrance to the tower is vaulted and a barrel vault covers the ground floor room (Fig. 3). The ground floor has been rebuilt at one end although it would have originally had a horse-shoe shape half dome. The front entrance to the tower is recessed and the front face of its vault is in line with the back face of the perimeter wall (Fig. 2). There is a large single stone lintel over the ground floor entrance, above which is a five stone relieving arch which leaves a bow-shaped gap of 0.12-0.20 m. above the lintel. Above the relieving arch is a rectangular window. The walls of

the upper tower room, nowhere surviving, probably rested on the outside walls of the ground floor. The threshold stone for the upper room of tower III is in position and there are three other first floor thresholds elsewhere in the fortress which suggest that the doors were one metre wide and opened inwards. The stairs up to the first story were at one side of the tower, inside the perimeter wall, and had arched entrances on the ground floor (Fig. 3). The tower walls are constructed with small blocks and large cut limestone ashlar are used to form the vaulting.

The west gateway, the *porta decumana* of the fortress, is 3.00 m. wide and is the only gate surviving above foundations. From one voussoir in position and the measurements of the other fallen stones, the elevation of this gateway is suggested (Fig. 3 Pl. L1, 2). There is also evidence of a moulding on the face of the arch. There are three barrel shape postern passages through the perimeter wall (1.80 m. wide) but their use is unclear; perhaps others have been dismantled for building stone. Prior to excavation, suggested published dates for the fortress ranged from Trajanic (Vincent, 1898: 445) to sixth century A.D. (Bowersock, 1976: 226). The fact that the towers and perimeter wall are contemporary in construction is clear from their architecture.

There are two buildings on the site which are ancillary to the fortress but worthy of note. Outside the south-west corner tower (tower 1) is a rectangular Byzantine church, measuring 32.50 by 17.50 m. It has an extension on its south side measuring 15.00 x 5.80 m. The whole structure appears to be connected to tower I by two walls, of which only the foundations are visible. The external walls of the church have a rubble core with mortar which is exposed and many of the drafted facing stones have been removed (for a detailed plan see Vincent, 1898: 445). Built over the fortress wall and tower XI is the so-called Ottoman fort (21.00 x 16.50 x 6.00 m. high; Pl. LII, 1), although its precise date is still unknown. The elevation and plan exhibit several different stages of rebuilding. Within the fort and arranged around the south-east corner are

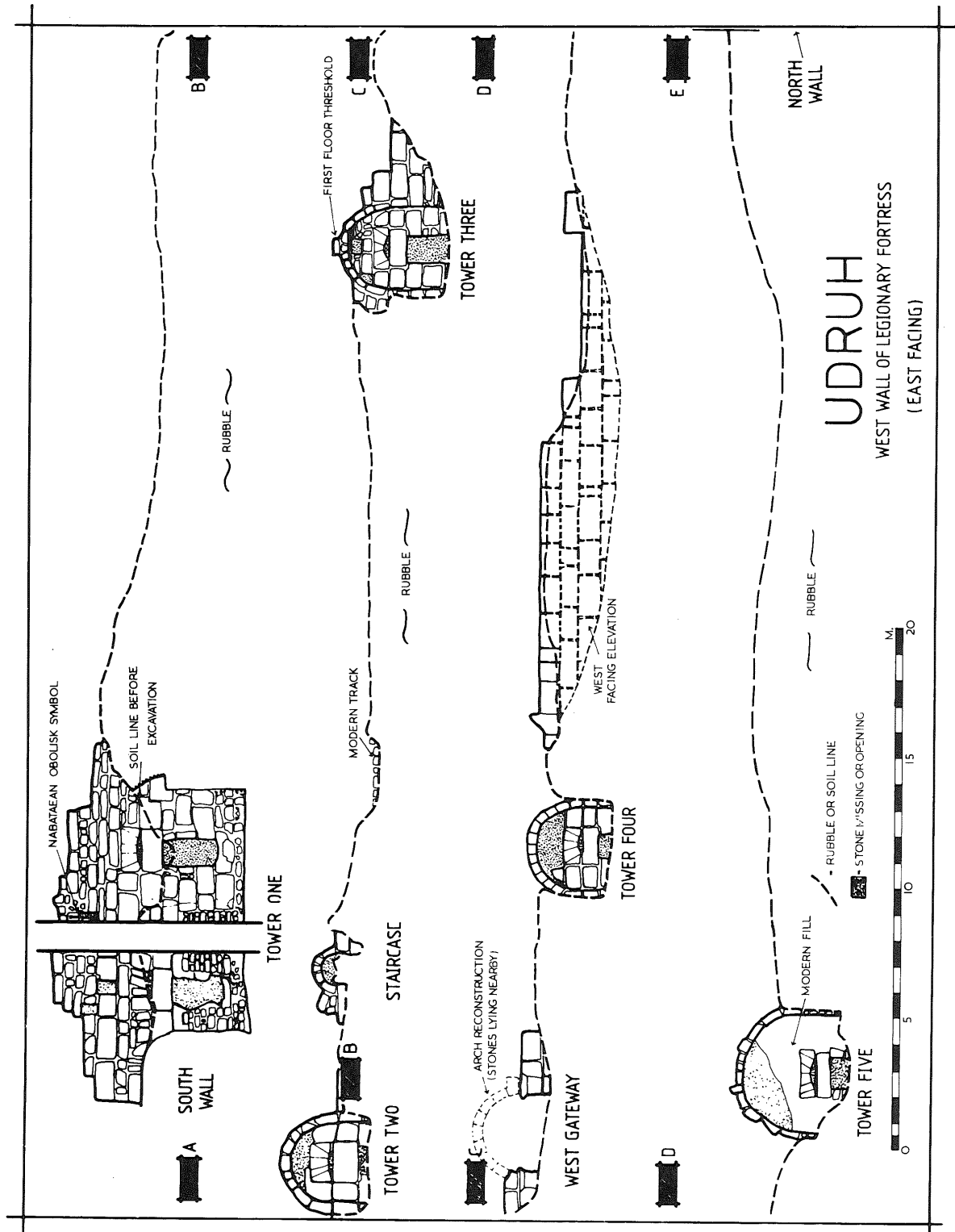


Fig. 3

several buildings still standing to first storey height. The remainder of the interior is a large open courtyard with foundations of other buildings visible at ground level (Pl. LII, 1; Fig. 2). Rebuilt in the walls are two Christian motifs similar to the one in the Byzantine church and a broken inscription in Greek reading $\Theta\lambda\theta\epsilon$. There is also a fragmentary Thamudic inscription (Pl. LIII, 1).

Within the fortress most of the traces of major buildings are obscured by general building debris or have been robbed of their drafted masonry. A small rear portion of the possible *principia* or headquarters building is discernible with an apse at its west end (Fig. 2). The walls have two faces and a rubble core and there is a triple lintel standing over the doorway to a small room. Along the sides of an open area in front of this building are several pillars which have been rolled back, and they form the edge of the *principia* courtyard.

The area around the main site of Udruh was examined in 1980 and several new sites were located, mainly on hill tops. A pattern appears on the map when these sites are plotted, which suggests the region to the east of the *via Traiana Nova* was overlooked by a series of connected watch towers or signal posts. This series of towers, protecting the road and perhaps the fortress, continues northwards to Shawbak (Fig. 1).

Tell Udruh (site 'C') lies 500.00 m. east of the main site and commands a wide view over the plain on three sides, except to the north, where sites 'A' and 'B' are visible on the hillside (Fig. 1). Brunnow and Domaszewski mention the site and Glueck (1934-35 and 1951) notes the quantity of Nabataean pottery there. Neither writer commented on the ring ditch which encircles two-thirds of the site and has fourteen causeways. It is 1.20 m. wide and up to 0.59 m. deep, with its upcast thrown back on the outside. There is a badly eroded Nabataean inscription rebuilt into the fragmentary wall foundations on the highest point of the site (Fig. 7).

Site "A" lies 750.00 m. north-east of Udruh, 10.00 m. below the summit of a

small hill, and commands extensive views over the plain to the east and south-east. The site consists of a large number of dressed limestone blocks forming the foundations of a building (12.00 x 12.00 m.) with walls of up to 1.50 m. thickness.

Site "B" is located on top of a prominent hill, Khirbet el Temei'ah, 2 kms. to the north-east of Udruh. There are at least two buildings standing on the hill top (Fig. 7) and both are rectangular and constructed from ashlar blocks. The larger building (13.50 x 10.50 m.) has two external buttresses and an entrance on the south side.

All three sites have surface pottery which is Late Byzantine/Early Islamic. Tell Udruh has predominantly Iron II pottery as well as a little Nabataean which is also present on the other two sites. Excavation is required to clarify their periods of occupation. A fourth site may be connected with this tower system. On a low hill 5 kms. along the road north of Udruh is the site of Djerba/Jarba (site 'E'), a large and extensive hill top settlement. Three hundred metres to the south of the main site are the foundations of a tower, with ashlar masonry and a few fragments of surface Nabataean pottery. The town is mentioned by Yakut (I: 174; II: 36 and 48), as being connected with Udruh.

Just over a kilometre to the north of Udruh, on either side of the *via Traiana Nova*, are a group of milestones (site 'I'). There are seven stone fragments, and Brunnow and Domaszewski recorded an inscription on one of them (Brunnow and Domaszewski, 1904: 463; Vincent, 1898: 441). Only parts of the inscription are now discernible under heavy erosion.

Two kilometres to the north-west of Udruh, on the slopes of the Wadi Ash'ar, is a large quarry site more than a kilometre in diameter (site 'J'), previously unrecorded. This is a large open cast limestone quarry which provided the building stone for the main site of Udruh and the tower system. Blocks of various dimensions and perhaps of different periods can be seen drafted *in situ*, ready to be broken away on one face. The site may well be the most extensive ancient

quarry in Jordan.

1981 Excavation Season

In August and September a British expedition spent two months in excavation at Udruh.² The fortress was divided into a 10.00 m. grid and work in 1981 was concentrated on tower I, where in 1980 all the major elevations had been drawn. The remains stand partially to the first storey. Only with much difficulty could access be gained to the interior rooms before excavation. The tower projects 15.00 m. either side of the west and south fortress walls. The tower walls butt onto the perimeter wall at right angles and run for 6.00-7.00 m. before turning to form a horse-shoe shape projection (Fig. 2). In area and shape tower I closely resembles tower VI. After excavation it is clear that there were four rooms on the ground floor of the original structure and a staircase with side corridors. From the inside corner of the fortress two doorways lead into the tower. The doorway on the south leads into the largest of the rooms, the roof of which has collapsed. The doorway on the west wall leads to a staircase rising to the first floor set around a stone pillar. A further two ground floor rooms led off landings on the stairs and through one of these rooms access was gained to the fourth and smallest room (Fig. 4).

The walls and vaults of the staircase and corridors are constructed from large limestone ashlar and the occasional re-used Nabataean dressed block. While most of the walls in the tower rooms have similar small block foundations to the walls of tower III (see above), their upper courses have been rebuilt. The roof of the rooms are of a corbelled small stone type, and have also been rebuilt in a later period than the original structure. The first storey, apart from the top of the staircase, is also later. On the ground floor the original wall lines were not significantly altered

subsequent to their first construction. The evidence suggests that the first floor surfaces and the later structural phase are contemporary and probably Umayyad in date (Pl. LIII, 3; LIII, 4).

Inside the perimeter wall, trench CI9 (4.00 x 4.00 m) was excavated, close to the south gateway (Fig. 2). The foundational method of the perimeter wall and its construction date were clarified and a building butting onto the inside face of the wall was cleared. For the foundations of the wall a shallow trench was first cut in the limestone bedrock into which the basalt lower stones were set with packing stones. The top of the trench and the lower part of the wall were mortar faced. Over the top of bedrock and the trench was a worn stone surface, contemporary with the earliest phase of the fortress, which sealed beneath it Nabataean pottery. In subsequent phases, the area close to the wall was filled with rubble and a low retaining wall built. In the last phase the staircase to tower XXI was blocked and a long building built up against the perimeter wall. One room of this building was cleared together with a doorway on the east side. The last structural phase is Early Islamic.

The *principia* or headquarters building was the second major area of excavation. Only a small part of the building is visible and that is probably only because of its later use as a church. There is a considerable amount of rubble and debris within the fortress and this is the only building clearly identifiable. Two areas were excavated and in both areas further confirmation of the original constructional techniques was obtained. The wall consist of basalt blocks set on bedrock with mortar running over the wall face and down over bedrock. In trench K13 at the front of the *principia*, several phases of alteration to the original walls are exposed, including a narrowing of the doorway in a later phase. A bell-shaped

² In 1981 the project was funded by the British School of Archaeology in Jerusalem, The British Academy, the British Institute at Amman for Archaeology and History, the Palestine Exploration Fund, and Ashmolean Museum, the Manchester Museum and the author. Mrs. C.-M. Bennett again gave her full support. The Department of Antiquities of Jordan kindly

allowed us to live in Nazzal's Camp in Petra and provided a second vehicle to transport workmen as well as contributing towards their cost. I am grateful for the assistance of: Mr. P. Bien Kowski, Mr. J. Bowsher, Mr. J. Bruce, Miss M. Cassar, Mr. Nabil el Qadi, and especially Mr. S. Reid and Miss M. Rozan. I am also grateful to H.R.H. Princess Alia for her small find drawings.

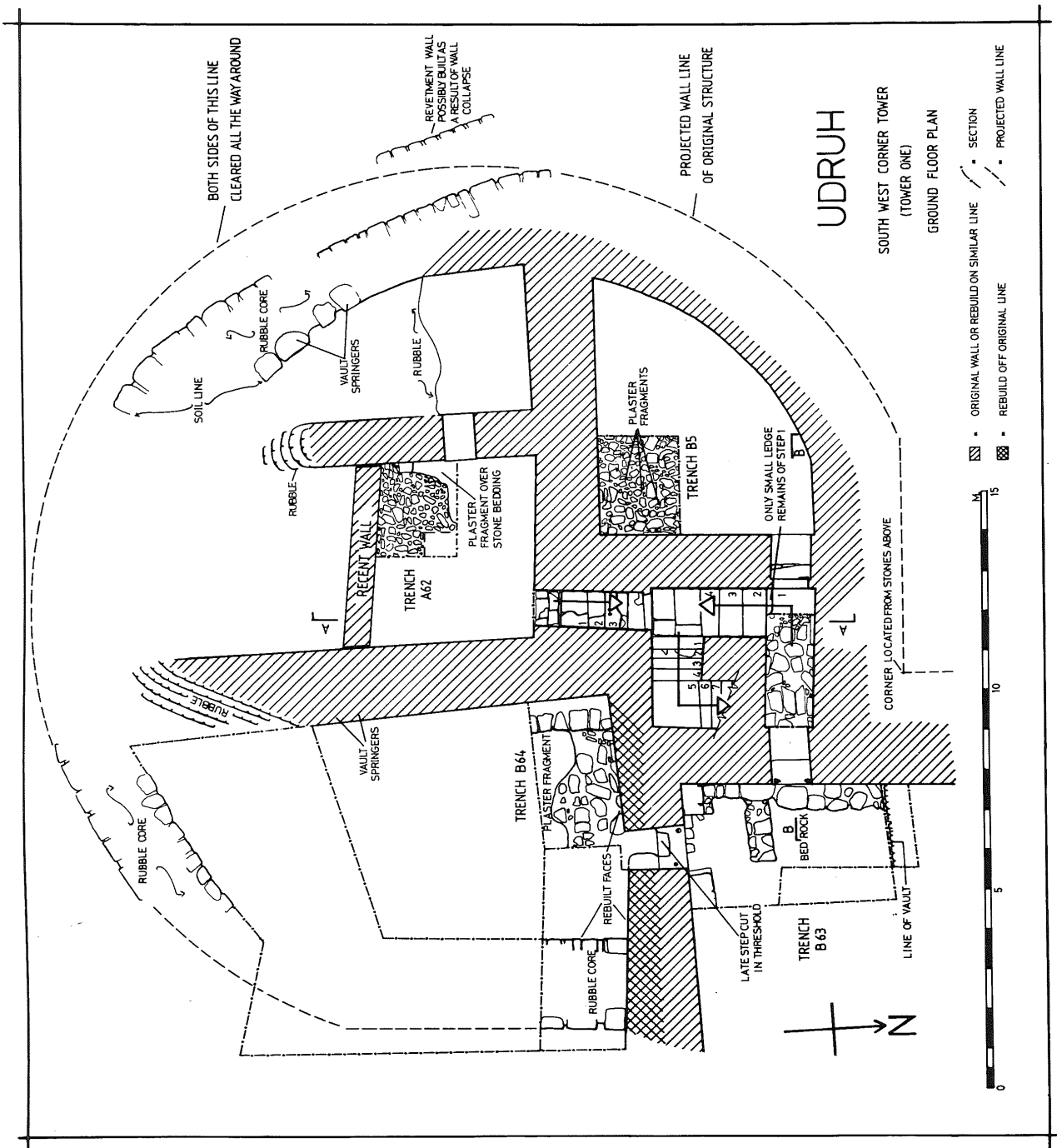


Fig. 4

cistern, cut into the limestone bedrock with a 5.00 m. wide top opening was partially excavated. A third century A.D. entablature is re-used in a low wall built directly over the cistern.

The second trench was placed inside the *principia*. Excavation was hampered by fallen ashlar so that above bedrock the trench was restricted in area to 2.00 m. x 1.00 m. In the latest phase, a rough stone floor and walls to the south and west were constructed from fallen ashlar. The south wall had an Umayyad *Tabula Ansata* rebuilt into it. The floor sealed several fragmentary surfaces which contained Early Islamic pottery. Although the area of excavation was narrow, the wall of the *principia* was constructed with basalt blocks set in a foundation trench on bedrock. The wall was mortared similarly to the other trenches. A stone surface was laid over bedrock as in trench C19. The pottery from these levels was sealed and exclusively Early Roman material.

1982 Excavation Season

In August and September a British expedition spent a further two months in excavation at Udruh.³ A threat to tower XIII from a road widening scheme required its immediate excavation. The three rooms of the tower nearest the road were excavated (Fig. 5). Five structural phases were identified from Early Roman through to Mamluk, although the major re-structuring phase came in the Byzantine/Early Islamic period (cf. tower I, 1981) when arches and vaults with stylobate walls were constructed. Five other areas were worked, the results of which await further excavation in 1983. A trench was placed in the south-east corner of the fortress where (Fig. 2, trench G27) it

was hoped to find evidence of internal military-style buildings. However, a sequence of Islamic buildings had robbed out almost to bedrock traces of earlier occupation, while outside the fortress (Fig. 2, trench B) an area revealed a significant quantity of Nabataean fine wares, lamps, glass and other artefacts.

Preliminary Dating and Future Work

Throughout antiquity settlement was drawn to Udruh because of its location on the trade route running along the edge of the eastern desert and the presence of a perennial spring on the site together with extensive agricultural plains to the north-east. In Roman and Nabataean times the site may have taken on a strategic importance because of the proximity of Petra and the construction of the Roman road network.

While Paleolithic (Mousterian) and Neolithic (PPNB/PPNA) artefacts have been found scattered around the main site there have been no indications from excavations to date of any settlement. Iron Age pottery from lower levels in several trenches as yet also have no structural associations. Nabataean artefacts and masonry however indicate a substantial settlement which pre-dates the foundation of the perimeter wall. Apart from this perimeter wall (Early Roman from ceramic evidence only) there have been no other real indications of any other military aspect of the site and thus one cannot reject the possibility of a defended trading establishment with a small military garrison. The importance of the site in the very Early Islamic period, as the literary sources suggest, has been found in the rebuilding of towers I and XIII at that time. The extent of rebuilding in this

³ In 1982 the project was funded by the British School of Archaeology in Jerusalem, the British Institute at Amman for Archaeology and History, the British Academy, the Palestine Exploration Fund, the Society of Antiquaries of London, the Ashmolean Museum, an anonymous donor, the Seven Pillars of Wisdom Trust, Miss M. Saacke, the Manchester Museum and the author. I am very grateful for the assistance of the Department of Antiquities in the setting up of the Ottoman fort as an excavation house and contributing towards the

workmen again. I am also grateful to the Petra Tourism Project who lent the excavation large earth moving machinery and also to the people of Udruh who always make us so welcome. I am indebted to Mr. Nabil el Qadi for his help again and also to Miss Marie Rozan who was the cook, registrar, lithics and bones specialist. I am also grateful to the other staff: Miss W. Horton, Miss K. McDiarmid, Miss C. Cox, Mr. P. Bienkowski and Miss E. Hargreaves.

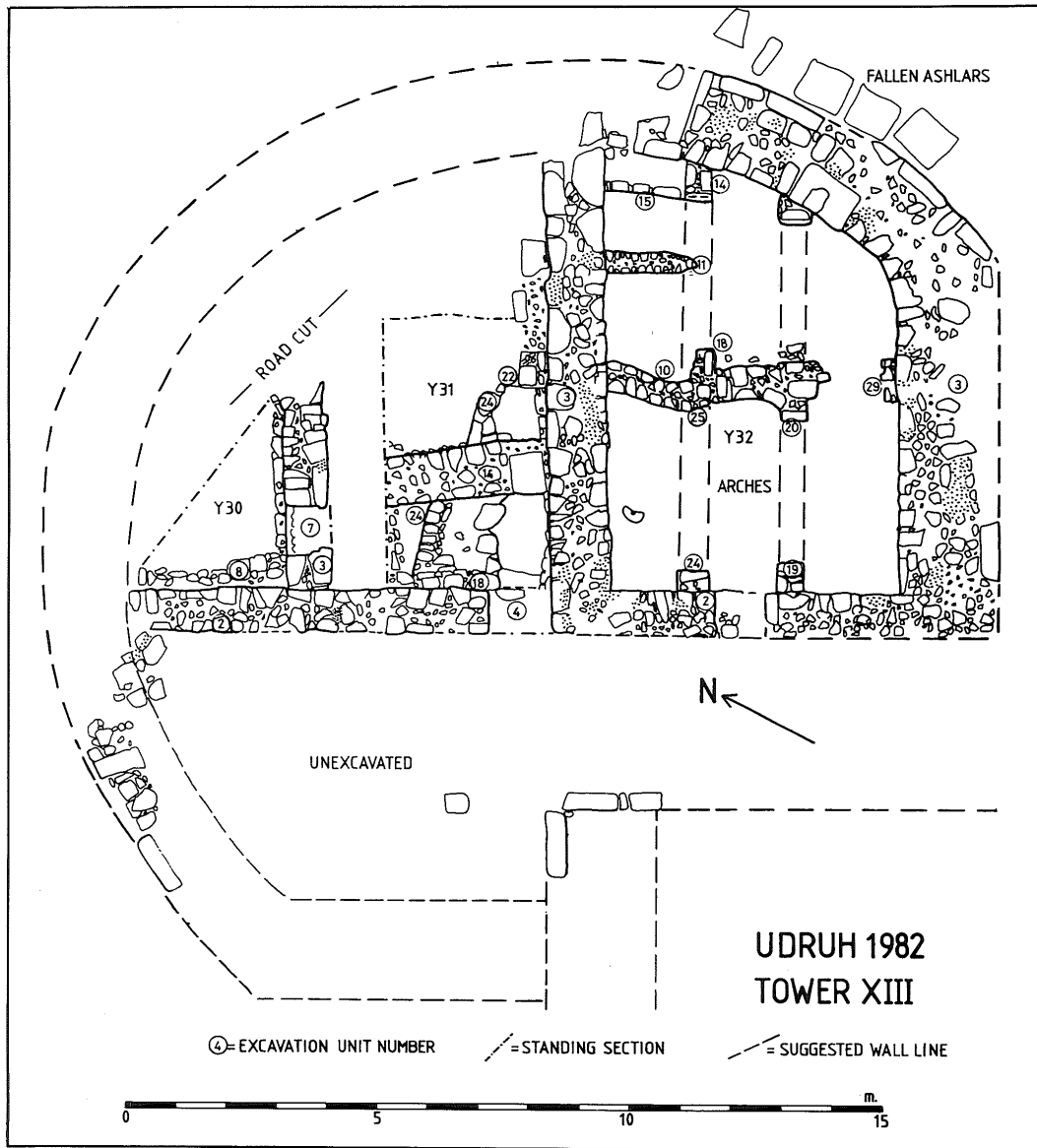


Fig. 5

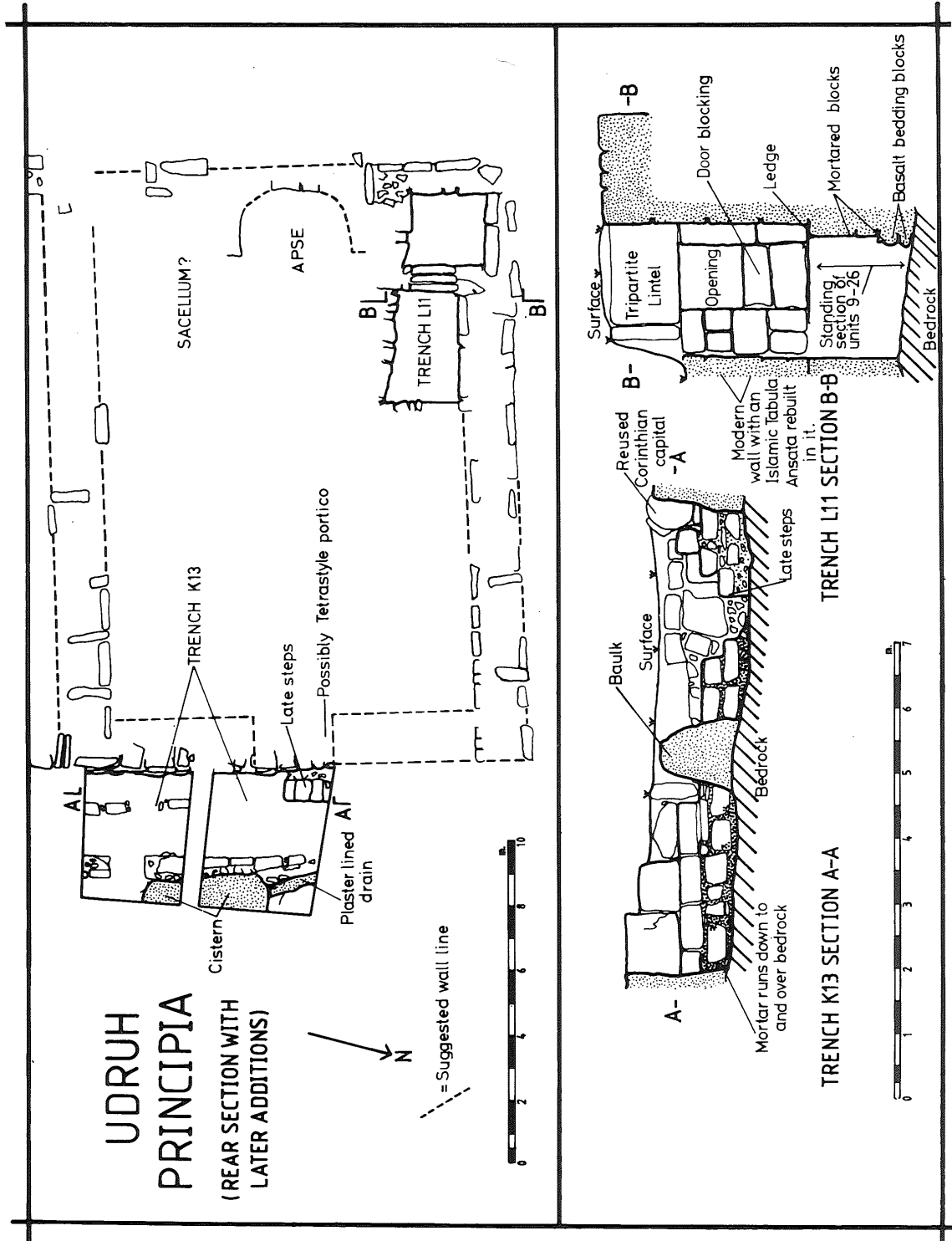


Fig. 6

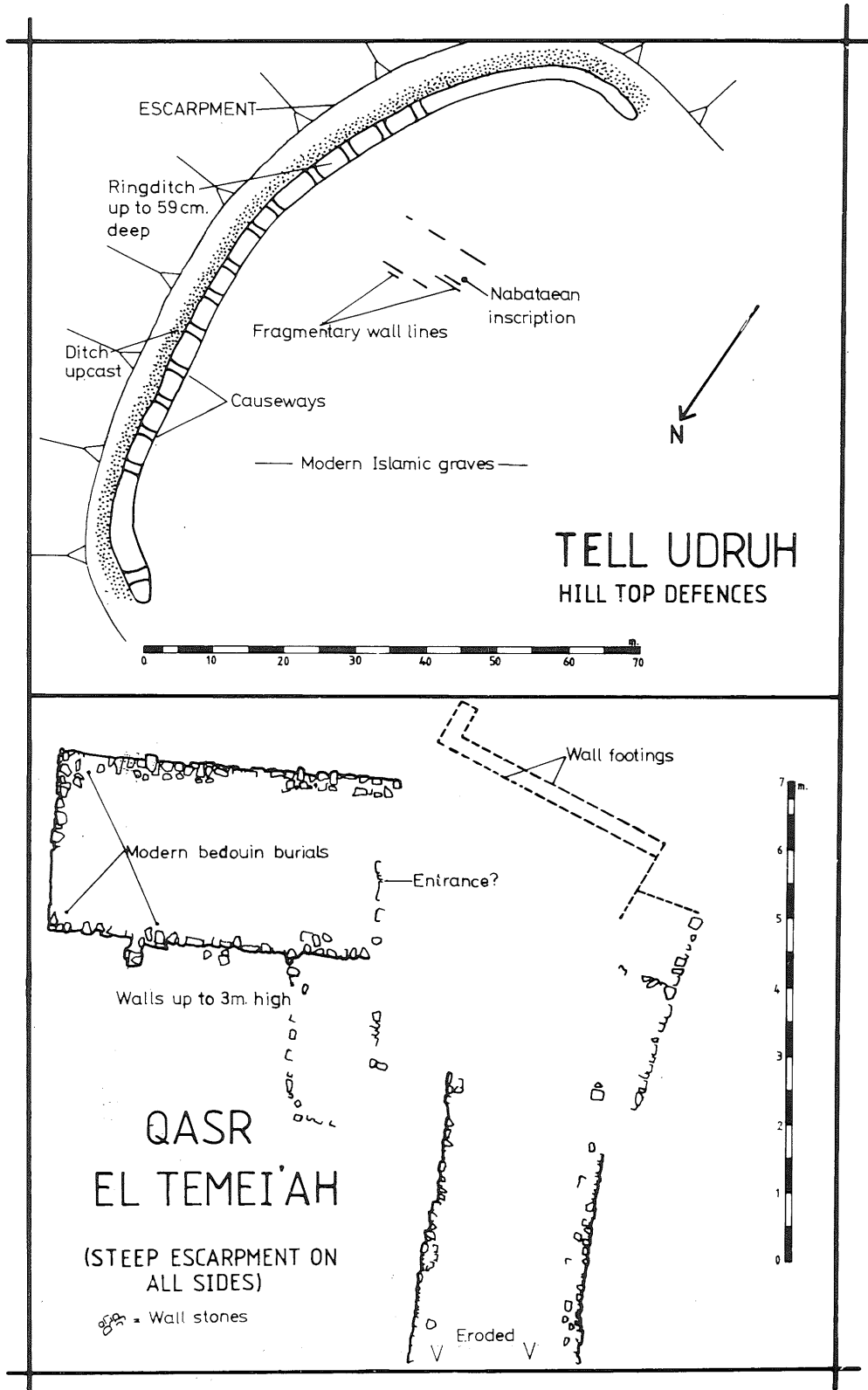


Fig. 7

period must be tested. A considerable amount of Late Islamic occupation is present everywhere. The work is still in

progress and future excavation should clarify the important historical problems which the site still presents.

A. C. Killick
London, England.

Bibliography

- I. Al-Bakri, ed. by Wüstenfeld, Gottingen, 1897.
G. W. Bowersock, Limes Arabicus, *Harvard Studies in Classical Philology*, 80 (1976) p. 219.
R. Brünnow and A. von Domaszewski, *Die Provincia Arabia*, I, Strassburg, 1904.
Clermont-Ganneau, L'edit Byzantin de Bersabee, *RB*, (1906) p. 412.
N. Glueck, Explorations in Eastern Palestine, II, *AASOR*, XV (1935).
Explorations in Eastern Palestine, IV, *AASOR*, XXV-XXVIII (1951).
P. H. Lammens, Etudes sur la règne du Calife Omayyade Moâwia 1^{er}, *Melanges de la Faculte Orientale*, 17 (1907).
O. Seeck, *Notitia Dignitatutum in partibus orientis occidentus*, Berlin, 1876.
H. Vincent, *RB*, (1898) p. 418.
Yakut, ed. by Wüstenfeld, I-II, Leipzig, 1866-1870.