

**EXCAVATIONS ON THE CITADEL
(AL QAL' A), AMMAN, 1978 FOURTH
PRELIMINARY REPORT**

by
Crystal-M. Bennett

At the end of the 1975 season¹, I suggested that the chronology of Area B, on the Upper Citadel (Fig. 1) varied between the individual trenches, but that the overall picture showed an occupation (including present day and Turkish) from the Mamluk down to and including the Byzantine, with a possible Early Bronze occupation without structures in one isolated area.

It was not until the 1978 season that I was able to excavate Area B more fully². Work was resumed in the very important B.XXX.4 trench and a new trench B.XXXI. laid out, measuring 5.50 m. north-south by 5.0 m. west-east, immediately to the east of B.XXX.4 with no intervening baulk. (Fig. 2). The eastern half of the new trench was only excavated to a depth of about 1.0 m. and comprised mostly of a modern fill and some collapse. One item of interest, however, was a small roughly circular group 35 cms.x 30 cms. of 30 pebble-like stones about 5 cms. in size, all blackened and obviously used as firestones in a hearth. (This was also found in Area A in 1975 above the Umayyad paved floor).

Mamluk - Umayyad

As will be seen from the section drawing (Fig. 3), there is nothing complicated about

the stratigraphy, and the history of B.XXX.4 and B.XXXI.1 falls neatly into the pattern that we have already outlined. An interesting feature in the western half of B.XXXI. was a poorly built structure consisting basically of two large stones set on edge with some loose stones to the west and built against the southern wall. (Pl. LXIX.1). A very similar feature (Pl. LXIX.2) was found in B.XXX.4 only a metre away to the west, but at a lower level - suggesting a difference in time - the former Ayyubid and the latter Fatimid. As we had already picked up in 1975 a quantity of slag and in this season 22 kilos of it, we decided that we might have some kind of iron smelting installation, which, judging from the pottery found in the structures could belong to the Ayyubid/Mamluk periods. Samples of the slag were sent to England for analysis and Dr. Tylecote's report will be found in Appendix A.

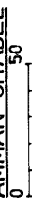
Only the western half of B.XXXI was excavated below the upper fill and this, in conjunction with B.XXX.4 gave us a rectangular room of some 2.40 m. x 2.20 m. A modern walking surface sealed the contemporary fill which had been thrown in over the remains of Fatimid walls, which themselves had been re-used in the Ayyubid/Mamluk period. The walls were initially Umayyad but

1. A.D.A.J., Vol. XX. 1975, p. 137

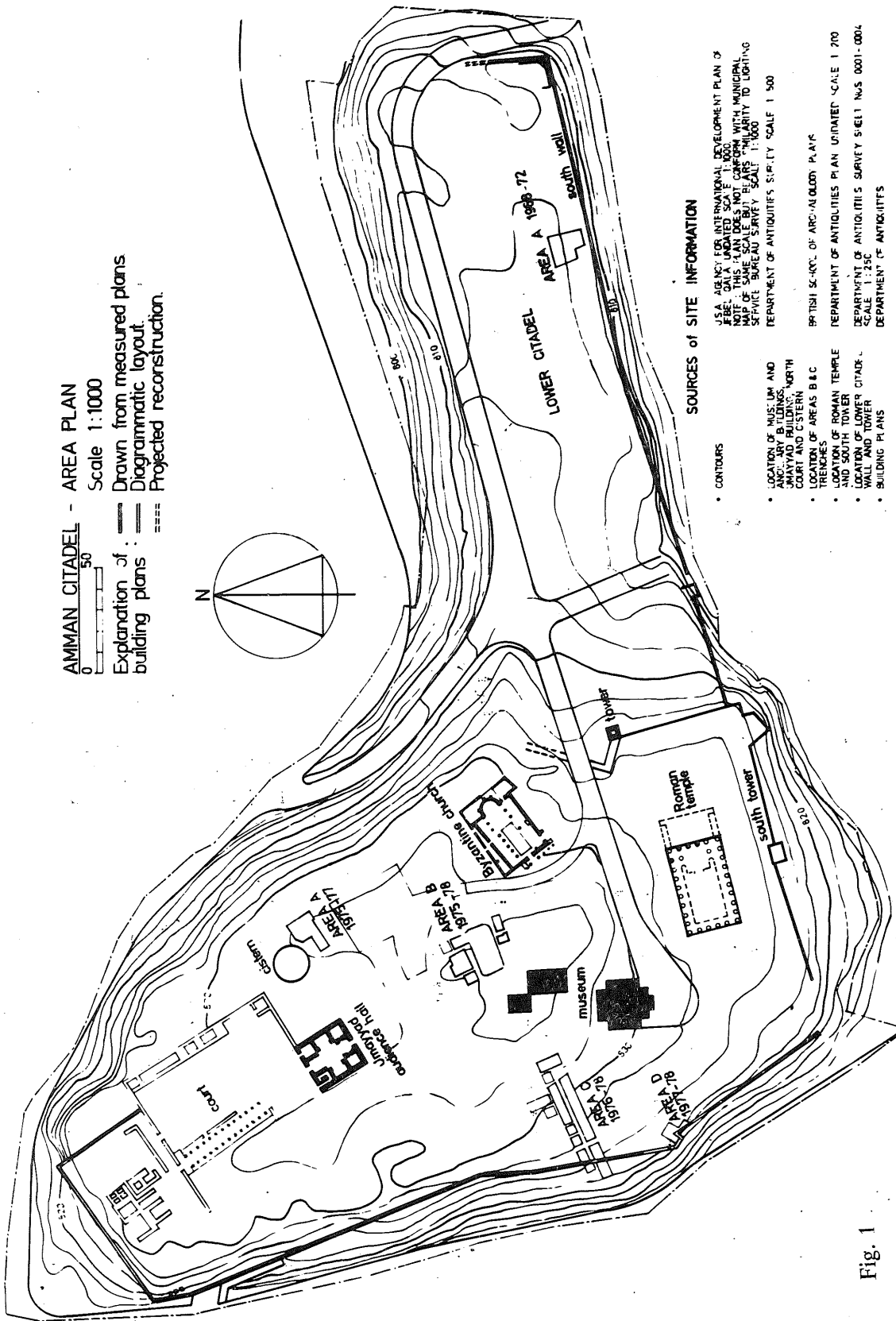
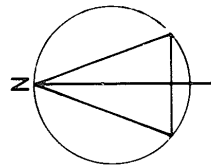
2. The following were members of the team: A.E. Northedge, Assistant Director: Misses A. Bamber and V. Clewes; Messrs. A. Killick, J. Irvine, M. Kuypers and S. Reid. were Site Supervisors as was Mr. A. Walmsley, who was also the photo-

grapher. Miss N. Assinder was draughtswoman, registrar and housekeeper and Mrs. Sue Balderson, the architect. Our most grateful thanks are due to Dr. Adnan Hadidi and his staff at the Department of Antiquities.

AMMAN CITADEL - AREA PLAN
Scale 1:1000



Explanation of:
 ————— Drawn from measured plans
 - - - - - Diagrammatic layout
 ===== Projected reconstruction



SOURCES OF SITE INFORMATION

- CONTOURS
- USA AGENCY FOR INTERNATIONAL DEVELOPMENT PLAN OF FEB. 54 A. UNDATED SCALE 1:1000
- NOTE: THIS PLAN DOES NOT CORRELATE WITH MUNICIPAL SERVICE BUREAU SURVEY SCALES 1:1000
- DEPARTMENT OF ANTIQUITIES S.P.E.Y. SCALE 1:500
- BRITISH S.C.I.O.C. OF ARCHAEOL. PLAYS
- DEPARTMENT OF ANTIQUITIES PLAN UNDATED SCALE 1:200
- DEPARTMENT OF ANTIQUITIES SURVEY SHEET NUS 0001-0004 SCALE 1:250
- DEPARTMENT OF ANTIQUITIES
- LOCATION OF MUSLIM AND ANCIENT BUILDINGS
- JANAYAD BUILDING NORTH COURT AND CISTERN
- LOCATION OF AREAS B & C
- TRENCHES
- LOCATION OF ROMAN TEMPLE
- LOCATION OF TOWER
- LOCATION OF LOWER CITADEL WALL AND TOWER
- BUILDING PLANS

Fig. 1

if we can judge by the walls to the north of B.XXX.4 and B.XXX.1, they were based on Byzantine walls. The excavations in B.XXXI and B.XXX.4 ceased at the level shown in Fig. 3. The earliest structure found in this area was a round bin, comprising 8 standing stones, built up against the western wall and sitting on a mud plaster floor (Pl LXIX. 2) of the Umayyad period.

In order to clarify the house plans which had been revealed in the B. area generally in 1975, two new trenches B.XXV and B.XXXVI. were opened up, the latter measuring 5 m. x 5 m. and the former 6 m. x 5 m. with an intervening 1 m. baulk (In fact B.XXV had already been opened up in 1975 but very little work was done in it because of the priority of work in the C Area). The section (Fig. 4) shows the stark simplicity of the overall stratigraphy and the ever-recurring sequence of post 10th 11th C.A.D., 10th/11th C.A.D. or Fatimid, and Umayyad. It is worth commenting on the size of the room in B.XXVI/XXV. - 2.70 m. x 1.70 m. These rectangular rooms seem to have been a dominant feature in Umayyad domestic architecture on the Citadel. The blocked doorways in both B.XXVI and B XXV testified to a re-use of these rooms. An interesting feature in B.XXVI was the two holes in the threshold stone (Fig.2 and Pl. LXX,1. They cannot be old door sockets: perhaps they were used for grinding meal or some such domestic activity. Excavation in B.XXVI ceased at a very interesting level - a mud plaster floor, which had been cut into for a later pit. Some time earlier in the excavations, a disturbance had been noticed to the south of the threshold (Fig.2 and Pl.LXX,2), cutting through

one of the floors which had sealed another pit to the west of the threshold. The eastern pit measured roughly 8 cms. in diameter at the top and sloped in gradually to 67 cms. at the base, the total depth being 85 cms. The lower part of the pit had cut through a rubble fill. The southern edge of this pit was made up of a long stone going East-West, which formed part of the floor surface. The western pit measured 85 cms. approx. in diameter and sloped to 74 cms. at the base, the depth being 95 cms. As with the eastern pit, it had cut through a rubble fill. Both contained debris, glass and pottery sherds, but the outstanding find was the glass bowl (Pls LXXI,1 and LXXI,2). Amazingly, the base has survived intact and shows a very high degree of artistic merit. A seven pointed star is the centre of the base and from it radiates a whole series of lozenges which spread up the body of the bowl. Judging from the latest pottery found with it in the pit, we suggest a very early Fatimid date - it is certainly Early Islamic.

The Byzantine Period in Areas B and C,

One knew, from other excavations, that the Byzantine period existed in large measure on the Upper Citadel³. It was still gratifying, however, to get below the Umayyad levels in B.XXV and find the pier of a wall, (perhaps an entrance) in the south-west corner of the trench and associated with it a paved stone floor (Pl. LXXII,1). This latter is just about at the same level as the paved floors found in BXIX in 1975 and which belonged to rooms going out under the eastern baulk. It is hoped that further excavation, particularly to the east, will give us a direct link up with the Byzantine Church (Fig. 1).

3. See particularly Dr. F. Zayadine: Excavations on the Upper Citadel of Amman, Area A. (1975 and 1977), A.D.A.J., Vol. XXII. 1977-78.

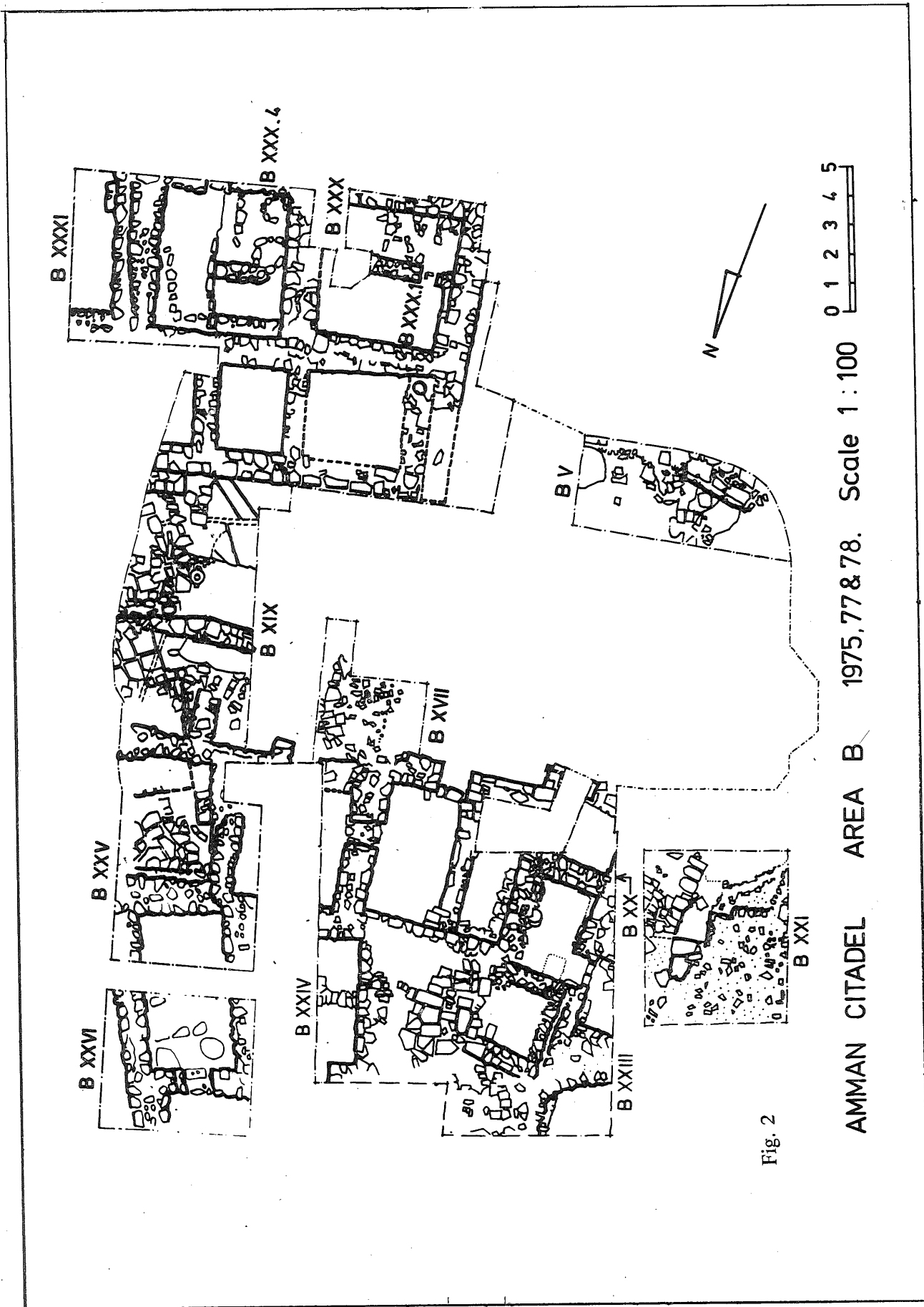


Fig. 2

AMMAN CITADEL AREA B 1975, 77 & 78. Scale 1:100

B XXX. 4 East Section, N-S.

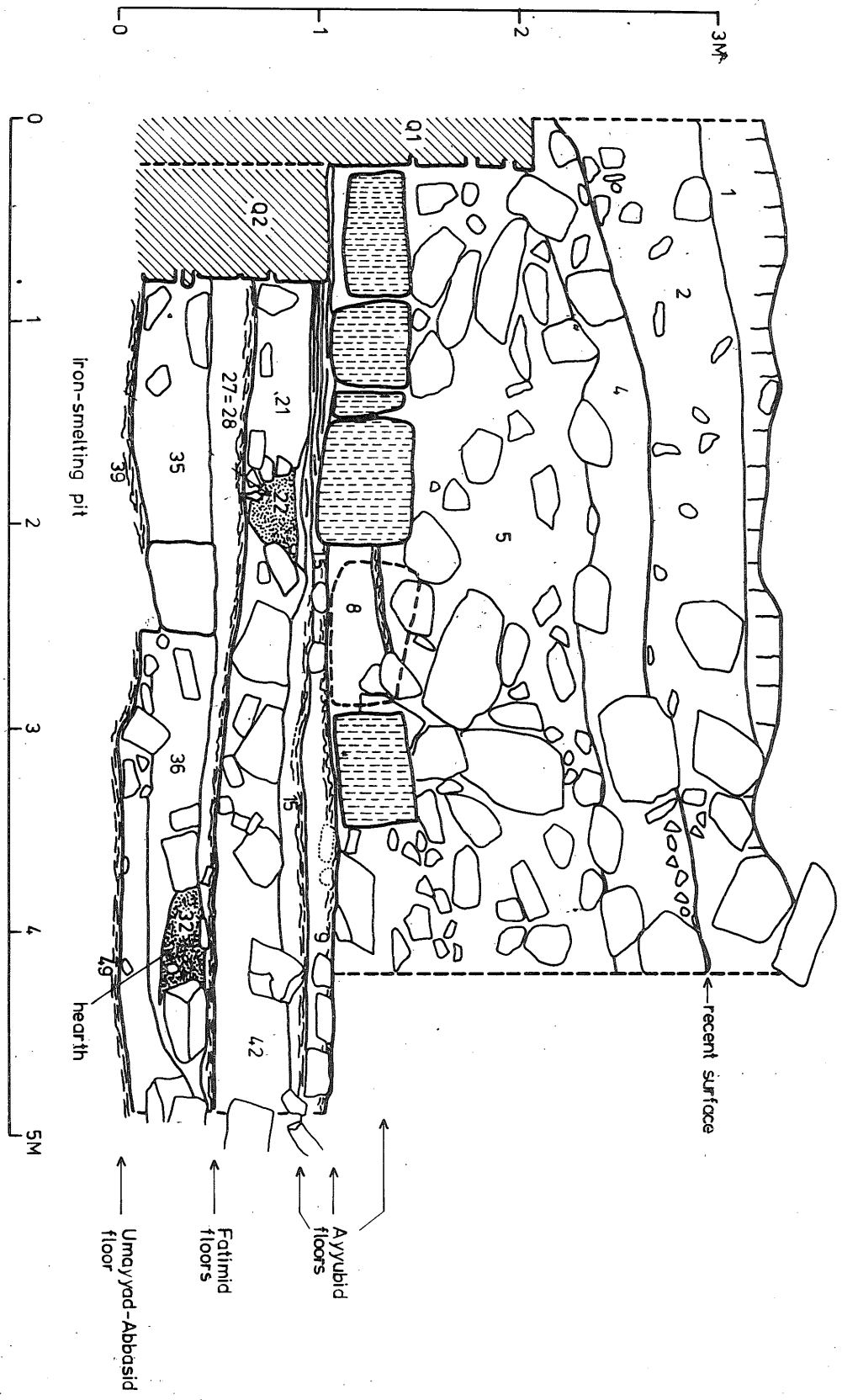


Fig. 3

One of the more interesting results of this series of excavations on the Citadel has been the extensive Byzantine occupation revealed on the western slope. (Figs 5 and 6): It is most unfortunate that the whole of the central area, trenches CI, to V, inclusive have been "cnewed-up" or subject to subsidence, to such an extent that it is almost impossible to get a coherent plan. But, as will be seen from the plan (Fig. 5) there were a whole series of walls and doorways. In 1977, in trenches C.O. and C.XXX we had discovered Byzantine walls outside and to the west of the Umayyad defensive wall, and which had some link with the Byzantine doorway in C.I. (Fig. 5). In 1978, we opened up a small area 3 m. x 5 m. to the north of C.O. with an intervening baulk of 1 m. There were no problems about this small area; the stratigraphy behaved according to the pattern established in previous seasons and we ceased excavations for the season on a broken but very nice plaster floor, which had some typical Byzantine pots sitting on it. (Pl. LXXII,2). The Byzantine wall, running north-south, to which this floor ran up, went through the baulk into C.O. where it made a right angle to go east-west. What is important to notice is that these Byzantine buildings, which give no indication of being anything other than domestic, are *outside* the Umayyad defensive wall, which is not, in itself, an original structure, but based on earlier fortifications, some of which are certainly Roman. Where, then is the Byzantine fortification wall?

In C.X. and just to the north and east of the threshold (Pl. LXXIII,1). There is an egg-shaped basin measuring north to south 66 cms. x east to west 85 cms. in diameter and of a

depth of 72 cms. The entire basin is plaster lined and is contemporary with the floor on which the pots sat. It is interesting to record that a somewhat similar phenomenon was found in the Byzantine house in BXXX in 1975⁴. Another interesting feature in this room was the inset in the north-south wall, which undoubtedly had been made deliberately. It measured 95 cms. north-south by 33 cms. in depth and was 82 cms. above the Byzantine floor level.

The Roman Period and Earlier

Remains of the Roman period are well attested on the Citadel⁵. What is not sure is whether there was any domestic occupation or whether the occupation was solely devoted to cultic rites - as for example, in the Temple of Hercules - and the erection of outlying walls for their protection. On Area A. Dr. Zayadine found fills containing undoubtedly very early Roman and Late Hellenistic sherds.⁶

In 1977, we had opened up C XXX (Fig.5) because in the 1976 season in C.O. we had found a jug of the Late M.B/L.B period and we hoped to find this period of occupation on the Citadel in this area. Most of the upper levels of C.XXX. however were a very recent fill overlying modern terrace walls. In the lower levels, which were still fill and underneath the Byzantine walls, we began to get almost exclusively Roman and Late Hellenistic sherds, in between a series of walls clustered together. It was impossible to disentangle their sequence, as I pointed out in the 1977 report, and thus in 1978 we extended our excavations, removed some of the terrace walls and dug deeper into the western section of C.XXX. We also removed the baulk between C.O. and C.XXX. It has been extremely difficult to

4. See A.D.A.J., Vol. XX. 1975, p. 139

5. See G. Lankester Harding; *The Antiquities of*

Jordan, 1967, - new edition Lutterworth Press.

6. op cit. Zayadine, pps. 27 and 28.

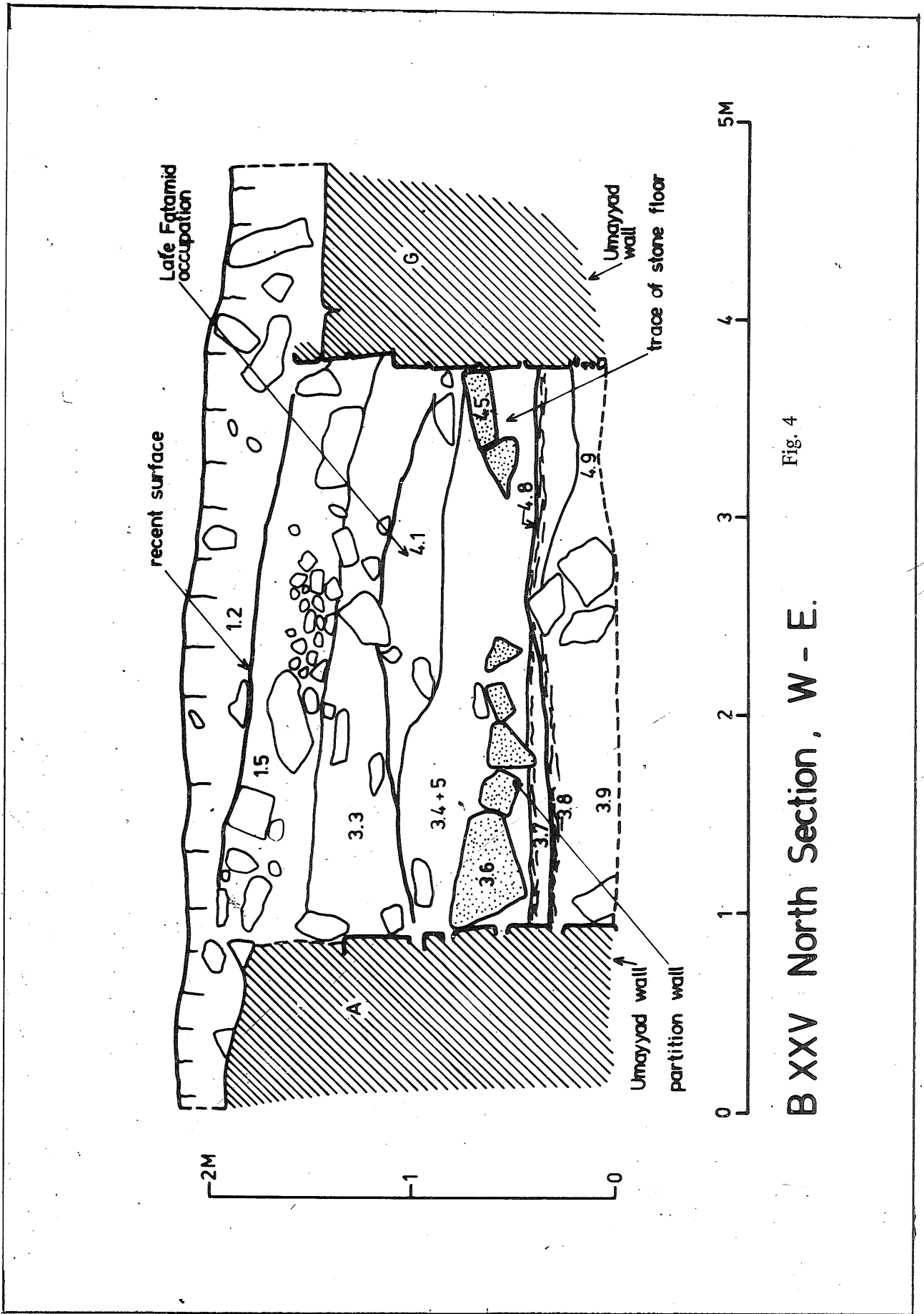


Fig. 4

B XXV North Section, W - E.

excavate this area because of the very loose fill which overlies the early walls and of the steepness of the slope to the west. The furthest point of our excavations hangs almost vertically at a height of about 8 metres over the Shari'el Qal'a. (Pl.LXXIII,2). Obviously further excavation in this area will be impossible, which is sad, because it is one of the few spots on this western slope where we might have a good sequence for the pre-Christian era.

Underlying the Byzantine wall in the north section (the west-east wall which forms a corner to go shooting off south/north in C.X.), is a wall of completely different construction from the Byzantine walls and which is part of a complex of three walls forming three sides of a rectangular room: all three walls are bonded. The fourth and southern wall lies under the southern baulk. The walls varied in height from 2.70 m. to 1.50 m. All three walls were well built in medium sized stones and were covered with a mud plaster. So far as could be judged, the walls were uncoursed.

Inside these three walls and roughly equidistant from them was a rectangular structure some 2.5 m. in height and measuring 1.27 m. 1.35 m. x 1.23m. 1.44m. It had been well built, but uncoursed, the average size of the stones being 40cms.x 30cms. The whole had been encased in a mud plaster. Excavation ceased at the base of the structure on a possible floor level - the only one to be found from the top of the structure to its base. Everything around was an early Roman, Late Hellenistic fill, with sherds of Megarian and Greek black glazed ware. The function of this structure is uncertain - a tower foundation or a stairwell? (Plate.LXXIV,1).

Surprisingly, a similar structure (Pl.LXXIV,2) was picked up in the extreme western end of the trench; again one side (the western) is

under the baulk. Its measurements were 1.45 m. x 2.28 m. x 1.72 m. and it rested on an offset of rough medium sized stones. Its height to this offset was 1.37 m. An earlier floor which ran under the structure ran up to the western wall of the building enclosing the similar eastern structure. (Fig. 6). The western structure was built of much smaller stones than the eastern one, the average size of stone being about 20 cms. x 15 cms. It was uncoursed and had a mud plastering similar to that on the eastern structure.

In the fill between the western structure and the western south-north wall of the ? early Roman room in C.XXX. was found a very fine but shattered Hellenistic squat lykthoi (Pl. LXXIV,2). It is of very pure cream to buff, uniformly fired clay; a possible self slip, very smooth as much of Hellenistic ware is, with bands of reddish brown paint. Unfortunately it was in the fill and cannot help us with our dating of these "tower" / stairwell structures. And it is impossible for us to extend our excavations to the west in this trench.

CONCLUSIONS

There is little to add to the overall conclusions already arrived at and stated in the report for the 1977 season. The most important result from this season has been the presence of Early Roman and Hellenistic fills with possibly associated structures in Area C and which seem to have a direct relationship with the earlier periods on Area A. If these two areas can be linked up, then the whole picture of classical Amman could change.

I have made no mention of Area D. as once again this was closely supervised by the Assistant Director of the excavations Mr. Alastair Northedge and his findings on that area are attached to this report as Appendix B.

AMMAN CIVIL AREA C
 BYZANTINE PHASE
 Scale 1:50

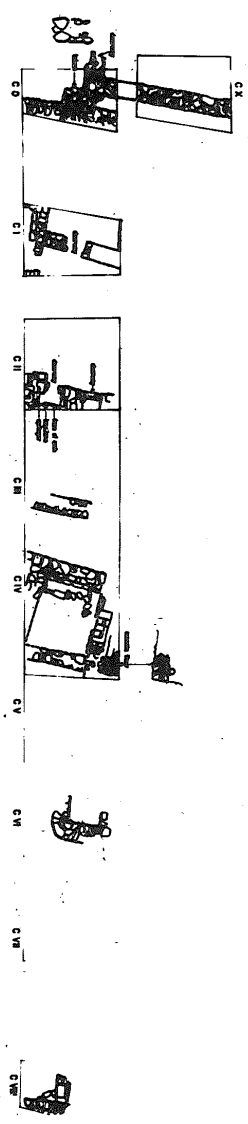


Fig. 5

AMMAN CIVIL AREA C 1976 & 1977 & 1978
 Scale 1:50
 Legend:
 Late phase (11th-13th)
 Unexcavated
 Middle / Late Byzantine

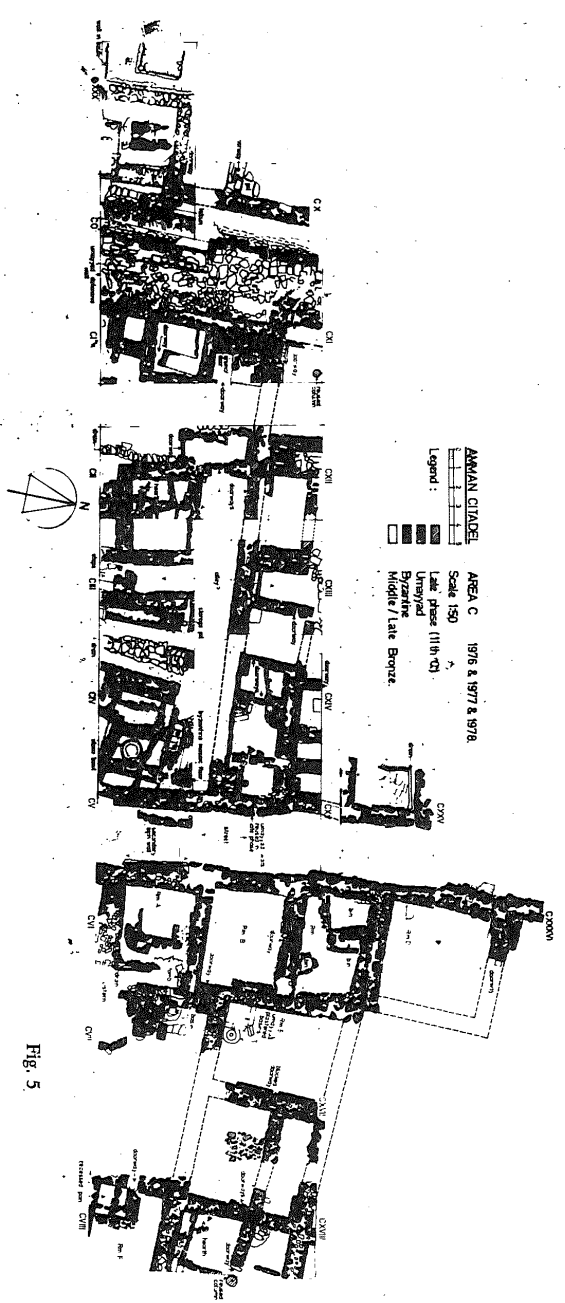
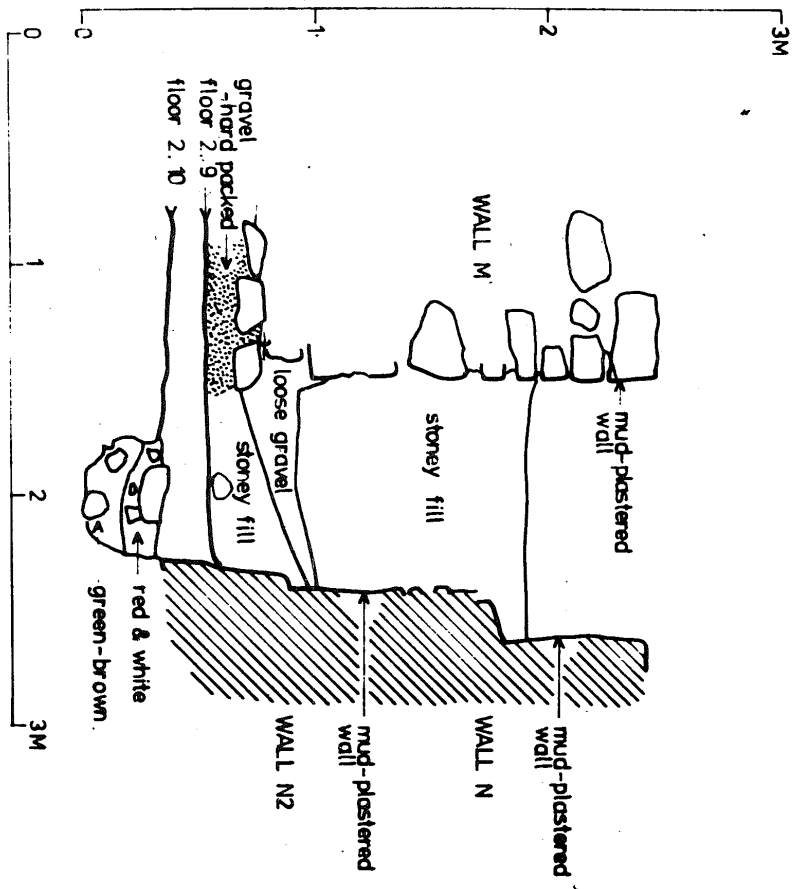
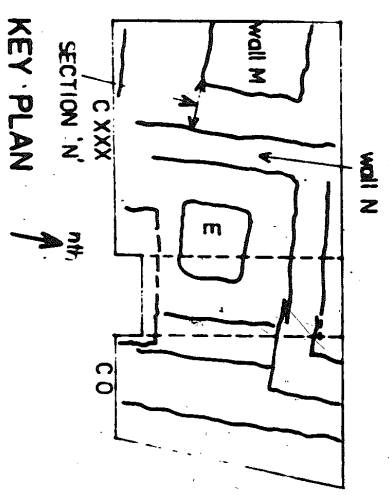


Fig. 5



C XXX. 2
NORTH SECTION 'N', W - E.

Fig. 7



KEY PLAN

APPENDIX A.

SLAG FROM THE CITADEL, AMMAN, JORDAN.

This is a dark grey slag of high density and therefore not merely vitrified fuel ash. It is porous and slightly magnetic. Its shape is that of a ball flattened on one side - hardly plano - convex - but more like a "Bun".

A piece was broken off and mounted and polished using the standard metallurgical techniques which are applicable to slags as well as metals.

Fig 1 (X 100) is a low - power photograph showing the slag (light) with pores (dark). As these pores are not very rounded they have not been formed by gas, i.e. they are not due

to bubbles forming in a highly fluid medium. Higher magnification (Fig.2 x X400) shows the presence of thin, contorted, films of iron (light).

Conclusions.

This is a smithing slag formed by the coalescence of viscous particles of fuel ash and scale from the hot surface of the iron. The temperature has been below the free-running temperature (1000° - 1100 C). This is therefore not a "tap-slag" but a "smithing furnace bottom" which is removed mechanically from the smithing hearth when necessary.

R. F. Tylecote

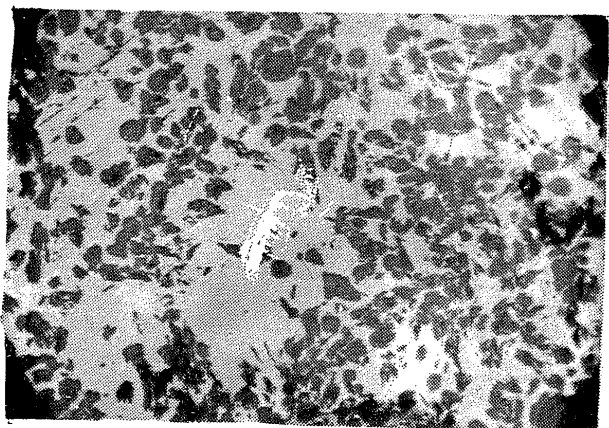


Fig. 1 Amman slag showing pores (grey) X 100

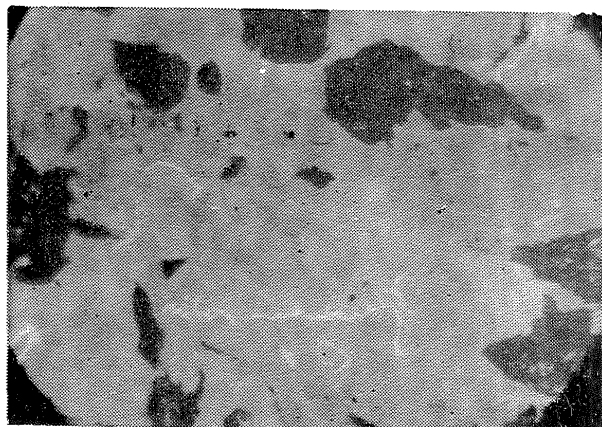


Fig. 2. Amman slag showing metal films (light) in slag matrix (light grey) X 400

APPENDIX B
AMMAN CITADEL
EXCAVATIONS ON D AREA

1977 - 1978

by

Alastair Northedge

In 1976 a 12m. section of the western wall of the Qal'a was excavated in Area C¹: this section, 4m. wide has an outer face of soft limestone ashlar, and an inner face of snecked rubble walling, with a fill of rubble packed in *terra rossa*. The foundations on the inside are trench-built with no face, but on the outside a probe in trench C.O showed that on this side the foundation is a freestanding rubble wall. One can conclude from this that the ashlar are in fact merely a facing for what is properly a rubble wall. The outside face is also adorned with a series of shallow rectangular buttresses 6m. long and 70cms. deep. Surprisingly, the stratigraphy dated the original construction of this wall to the Umayyad period.

D Area, 30m. to the south of Area C, was intended to confirm the stratigraphy of that area and to explore the history of this wall at the site of an anomaly in its line, an S-bend. The area has been worked on for two seasons: in the first a pair of 5m. squares, one of which was later extended to 6 x 5m., were dug over the outside line of the wall; and in the second season a third trench was added on the inside line². In fact penetration to bedrock was not attempted in view of time and resources, but study was limited to the fortification wall and its succeeding phases.

The sequence of the area consisted broadly of modern remains - a modern spoil dump and a slit trench - overlying domestic architecture,

which itself is built over the fortification wall. This may be presented schematically:

Modern

House Phase 4b

4a

Phase 3

Phase 2

Phase 1

Wall Phase 3

Phase 2

Phase 1

Byzantine Pottery

Fortification Wall (Pl. LXXV,1)

Phase 1 : Construction

The line of the fortification wall is clear both north and south of D Area. The same construction links C to D, and to the south a variant 2.50m. wide, with buttresses 4.50m. long, which project 20cms., continues as far as the southwest corner of the Citadel. In other words the majority of the western wall is of this construction.

Facing southwest in trench D1 is a structure 5.80m. long with a southeast side which projects 3.60m. from the southern wall. Three courses of limestone ashlar possibly reused - are visible. The contemporary ground surface on the southeast side shows that only the top course was originally exposed, and on this there are traces of the typical (for this site) Umayyad stone-studded plaster behind the Phase 3 additions. On the inside a small area of a hard

1. ADAJ, XXII, pp. 172-179.

2. Site Supervisors were: (1977) Virginia Segreti;
(1978) Michel Kuypers.

D.I.S

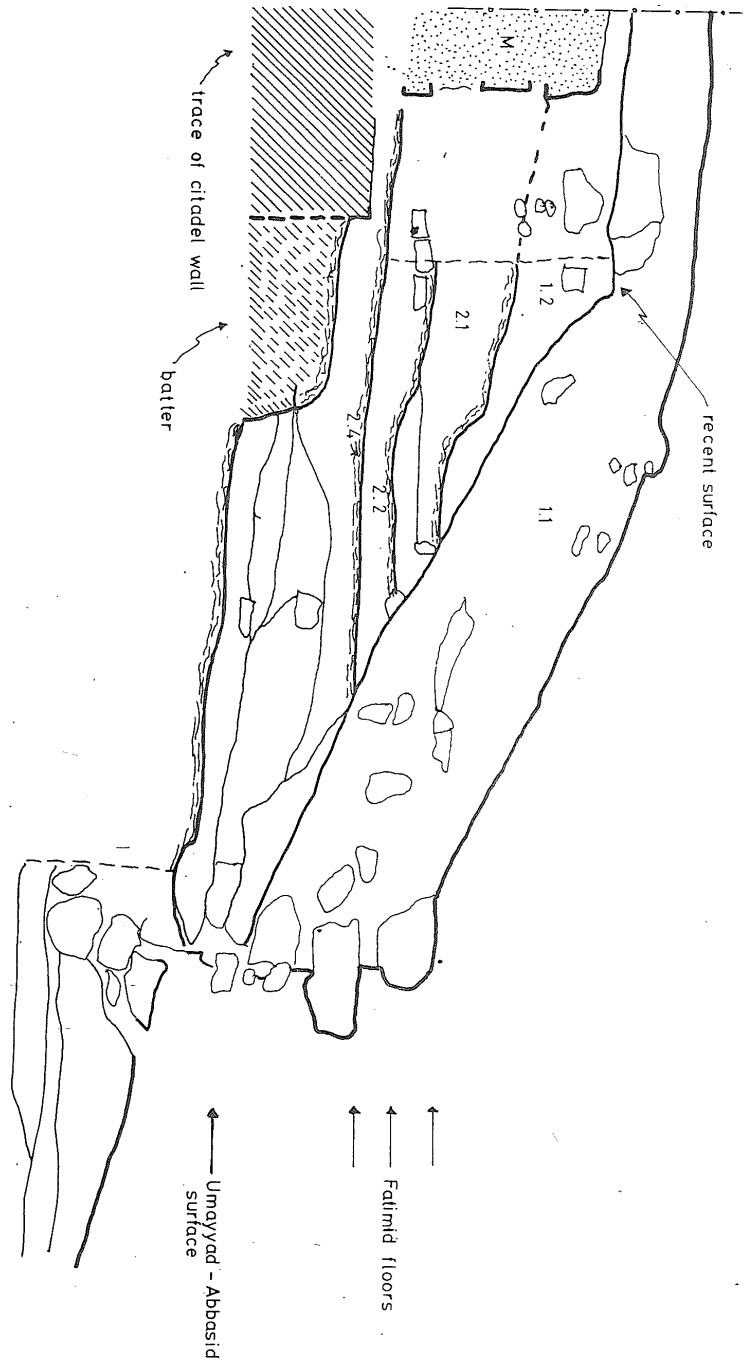


Fig. 1

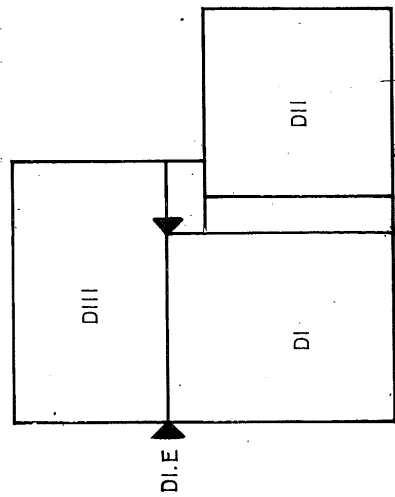
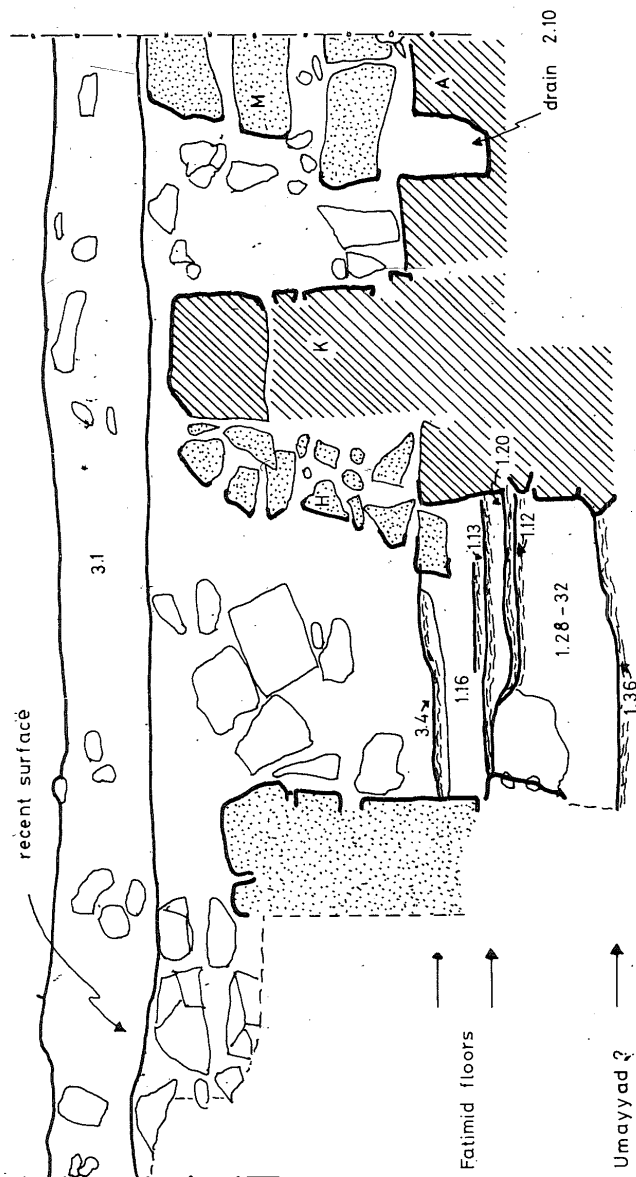


Fig. 2

VPS/AEN

mud floor survives, level with the exterior ground surface. Elsewhere the floor foundation of a bed of small stones is the only indicator of a floor. In the acute angle formed with the wall running south is a plastered drain invert. The excavation of DIII in 1978 failed to resolve conclusively where the back line of this structure is, but showed that later occupation has cut through levels contemporary with the construction of the fortification, and in DIII.4 in the southwest corner has even destroyed traces of the fortification wall down to its foundations.

This is the only point on the fortification wall so far uncovered that has an interior room, while the foundations are constructed of ashlar. Therefore this structure may well be a square tower set at an angle to the main run of the wall. Although no sealed levels directly linked to the construction of this phase were uncovered, there was a general context of Umayyad pottery, and the relationship with the fortification wall dated by C Area is clear.

Phase 2

The first buttress south of D Area has been rebuilt with a sloping facade on a projecting vertical sided base. Construction is of small rubble stones in *terra rossa* plastered with a coarse plaster of lime and woodash, studded with pieces of lime or chalk, a style differing from but closely related to the Phase I plastering. Investigation suggested that the original buttress in this place had simply collapsed. Two complete examples of this kind of buttress may be seen north of C Area.

Phase 3: The "Batter"

The last structural addition to the fortification wall was a sloping revetment approximately 1m. high. Traces of this are to be seen

widely on different parts of the Citadel's fortification wall. At one time it was thought that this revetment was a modern support, but in D Area it underlies the house phase. During the construction of this revetment the drain in the re-entrant angle was extended, the revetment ending against a stone block.

In addition to this formal evidence of the development of the fortification wall, there is evidence - presumably later than the three phases described - of unmortared repair work on the face of the wall.

In the relationship between the fortification wall and the subsequent domestic phases there still remain difficulties; for example what caused the collapse or destruction of the fortifications? Was there an abandonment between the destruction of the wall and the appearance of the subsequent phases of domestic architecture? In one respect there is evidence to support continuity: a new drain-line blocks off, and feeds into, the drain discussed above. The new line then matches construction of the later period.

House Period

Following the collapse of the wall, new construction was built over the top of the tower. There are four main phases, but the 1978 excavation has not resolved completely the relationship between different parts of the construction.

Phase 1 :

This is the best construction of this period, which is otherwise undistinguished. It is a building over the northern half of the tower, of which a corridor and an east-west wall have been uncovered. This may be contemporary with the re-aligned drain mentioned earlier.

Phase 2 :

Later than the rebuilt drain is the room in

the south part of DIII (DIII.4). This had a basin and short drain leading to the cistern in DII. (Pl. LXXV,2)

Phase 3:

A room was built over the southern half of the tower and the cistern, thus extending outside the line of the wall. This phase of this room has two major floors, the earlier of which has two ash hearths. In DIII.4 a new floor was laid over the Phase 2 basin, and two *tabuns* added on the east side of DII.

Phase 4:

This is marked by the reduction in size of the new Phase 3 room (Phase 4a). The new south wall then has one rebuild (Phase 4b). This phase has one associated floor level in DI, and some pottery in a destruction level. It is possible that the reduction was prompted by the collapse of the Phase 3 floor into the Phase 2 cistern or down the side of the hill.

The floors of the last two phases clearly attest the Fatimid pottery of the 11th Century phase seen in Area C, while the destruction level is of a distinguishable horizon that we shall call Late Fatimid.

Discussion

The excavations in this area have given us a clear sequence of development for the fortifications in the Islamic period, that can be extended in the future by comparison with other parts of the site. The wall, known from C Area to have been constructed in the Umayyad

period, went through three phases but was destroyed before the Fatimid occupation at the site. However, we have no absolute date for its destruction, although its development implies a date later than the end of the Umayyad period (750 AD). Perhaps the most likely time is a date in the 9th Century, or possibly, as late as the 10th Century. Whatever of timescale is postulated, it is striking how **short-lived these fortifications were, perhaps little more than 100 years.** And it is also **true that no Roman fortifications has yet come to light on this side of the hill.**

The occupation of the Fatimid period (11th Century) resembles that found elsewhere on the site, small irregular rubble built houses, in this case going through four phases, but finishing before the introduction of the hand-made painted wares of the Ayyubid-Mamluk period, 12th Century. In trench B.XXX.4 the Late Fatimid types found in the destruction level which is usually dated to the second half of the here are the last horizon before the introduction of the Ayyubid-Mamluk wares. This would suggest, still tentatively in the absence of coin evidence, an end to the occupation in this area at the beginning of the 12th Century, that is, in the early years of the Latin Kingdom. As this ceramic picture is applicable to large areas of the Citadel (Areas B, C, and the Terrace area), B.XXX.4 being the notable exception, it may be that this gives us a date for the end of major occupation on the Citadel.