

The 1972 Excavation of Khirbet Al-Hajjar

By

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For some decades, scholars and explorers have known about 18 tower fortresses along a line from the Beq'ah Valley to Naur, west of Amman. Amman is the ancient Rabbath Amman, capital of the Ammonites. It has long been assumed that these fortresses belong to a defense system of the Ammonites. The assumption has been based on a combination of location, Iron Age potsherds on the surface around the towers, and the architecture. The latter is sometimes called a megalithic style. The structures are built of large uncut field stones, roughly coursed. Individual stones run as large as 3 meters with 1 — 2 1/2 meters a common length. The building material seems to come from the immediate vicinity of each structure. This is commonly limestone but flint blocks seem to have been favored where available.

In his convenient summary of Ammonite architecture and culture, Landes has noted that it is now possible to define rather precisely the western border of the Ammonite Kingdom. But it is still difficult to date very precisely any particular fortress. Pottery surface surveys thus far have only indicated the general periods of Iron I — II.⁽¹⁾ The dates here (1200-600 B.C.) relate

closely to the period of the Ammonite Kingdom, c. 1300 — c. 580 B.C

The dating of the towers remained somewhat problematic also, for lack of excavation. However, the first excavation made the dating even more problematic. In 1969, Dr. Roger S. Boraas (Upsala College) directed an examination⁽²⁾ of the ruins of Rujm el-Malfuf, on Jabal Amman (Plate I, Fig. 1). Originally outside of Amman, this «Tower of the Cabbage» has now been enveloped by the rapidly expanding city. In a trench outside and against the base of the tower, Boraas found Roman pottery right down to bedrock. Within the tower, he found a split level entrance way leading into a ground floor «basement» and to a floor level above it. The floor (and the ceiling of the basement) was formed with corbel arching — long thin slabs of rock laid across the partitions of narrow rooms. This seems to be a Roman-Byzantine style of architecture with examples at Umm el-Jimal and Qasr Azraq. Some have argued however, that the megalithic style is so un-Roman, that we must consider the possibility that the Romans cleaned and rebuilt an originally Iron Age tower.

The excavation of Khirbet al-Hajjar has

1. George M. Landes, «The Material Civilization of the Ammonites,» *The Biblical Archaeologist* XXIV (1961), 66-86. Landes, «Ammon, Ammonites,» *Interpreter's Dictionary of the Bible* I (1962), 108-114. Roger S. Boraas also gives a

brief survey of the Ammonite literature on architecture, «A Preliminary Sounding at Rujm et-Malfouf,» *The Annual of the Department of Antiquities* XVI (1971), 31 - 46.

2. Boraas, *op. cit.*

once more tilted the question of dating in the direction of the Ammonites, while adding No. 19 to the list of western fortresses. The site is about half way between Wadi Sir and Naur (Antiquities Site 159). This site came to prominence in Oct 71, when Jamil Muti'ib began building a new house at the foot of the tell. His foundation trench uncovered pieces of broken statuary. The Department of Antiquities of Jordan was notified. Staff members investigated the area and tried to make a stratigraphic sounding but the thin soil over bedrock yielded no additional information. The pocket in the bedrock where the statuary was found yielded a few more pieces and eventually two statues — c. 50cm high — were reconstructed to form a man and a woman. These may represent the king and queen or a god and goddess.⁽³⁾

The statues were found in a saddle between the tell and a higher hill to the north-east (Plate I, Fig. 2). A surface survey of the area yielded Iron I (11-12 centuries B.C.) from the higher hill and both Iron and Iron II (6-7th centuries B.C.) from Khirbet al-Hajjar. The name of the latter means «The Ruin of the Stone-cutter» in the sense of quarryman. This does not seem to give any clue as to its ancient identity. It is also of interest that it is known locally as «Khirbet», rather than «tell.» The landowner, Abu Nassar Muti'ib, noted that rocks had been removed from the site for building roads, but he does not remember specific buildings on the hill, which might explain the use of the term «Khirbet.» The hill has the symmetrical outline (Plate II Fig. 1) of an artificial tell, suggesting soil built up and held in place by the remains of old walls. With limitations, the hill of Khirbet al-Hajjar is in a strategic location. To the north, one has a clear view to Wadi Sir and

Suweilah (Plate II, Fig 2). This view includes the ancient towers of Khirbet al-Kursi, Qasr es-Sar, Qasr er-Ronaq (Khirbet Ronak), perhaps Sweifiye and Shmaisani. To the east, one can see to the outskirts of Amman, and to the south to the juncture of the Amman-Naur and Wadi Sir-Naur roads. It is possible that the two towers at Naur (to the south west) and Khirbet al-Hajjar might have been visible to one another. But the view to the west is blocked by a low ridge. However, outposts stationed here would have put Khirbet al-Hajjar in touch with three other towers at Abhara, Qasr et-Tabaqe and Marqaba. So this limitation would have been easily overcome. This is important to note for Khirbet al-Hajjar stands at the headwaters of the Wadi Kefrein, which flows west to join the Wadi Rama (Hesban), forming the Wadi Abu Gharaba. This forms a major route to the Jordan Valley, a route followed today by the Amman-Naur-Jerusalem Road.

Khirbet al-Hajjar clearly invited excavation. The strategic location, the statues, the two Iron Age periods at the beginning and the end of the Ammonite Kingdom, plus fragments of basalt grindstones and stone bowls, and several slingstones gathered in the surface survey, all gave hints of its potential. As a practical matter, its closeness (9 1/2 road miles) to Amman was also a factor. Preliminary discussions with the Department of Antiquities led to a joint campaign with the American Center for Oriental Research in Amman.⁽⁴⁾ The ACOR is located on Jabel Amman on the western edge of the city and served as an admirable «dig» headquarters. The staff was housed here and commuted daily to the tell. The staff (Plate III, Fig. 1) consisted of the writer as Director and Dr. Fawzi Zayadine of the Department, as As-

3. Moawiyah Ibrahim, «What Gods are These?», Jordan magazine IV, No. 2 (1972), 10-17;

ADAJ XVI (1971).

4. The writer was Director of ACOR in 1971-2.

sociate Director. Miss Nazmiah Rida was the official Departmental Representative and directed the work of Area A, Square 2. Mrs. Janie Miller was Registrar for both pottery and objects. Four students from the University of Jordan served as co-supervisors and supervisors of Squares: Miss Katrina Zriakat, Mahmoud Bargawe, Seif Haddad, and Marwan Abu Khalaf. The four were earlier members of the Tell Siran excavation. Mr. Robert Miller was co-supervisor of Area A, Square 6, and Miss Yolande Steger drew a selection of sherds and served part-time as co-supervisor of Area B, Square 1. Mr. Khamis Fahd of Ruseifa and Jericho, served as technical man. Mr. Mohammed Adawi of the ACOR, was expedition cook, assisted by Ni'im Mashal. Mr. Mohammed Murshed Khadijah provided considerable assistance on a part-time basis, while the survey, the lay-out of the squares, and the top plan of the tower (Plate III, Fig. 2) was done by Mr. Ata Eleiwat of the staff of the University of Jordan and veteran draftsman of Jerusalem, Samaria, and Amman excavations. Dr. Farouk Khatib was Expedition doctor. Thompson and Zayadine served as photographers.

AREA C, Square 1

Five squares (Plate I, Fig. 1) were laid out for excavation in the five weeks from 26 June to 29 July, 1972. One of these is on the western slope of the tell. Several small wall stubbs appeared above the surface and Area C, Square 1, was designed to investigate two of these. Mr. Mahmoud Bargawe was the supervisor. The square was opened on 7 July and reached bedrock the last day of the digging. Excavation re-

vealed a confusing set of walls. The only reasonable interpretation at his point, seems to be that the square is in the middle of a tower or bastion in the western defenses.

Except for two rocks of wall 3, and one of wall 17, a light brown surface soil covered the entire 5 x 5 m square to a depth of 0.25 - 0.40 m. The surface soil was full of large stones ranging from 0.25 - .60 m. These may represent tumble from wall 3. Elevations here before excavation were 950.91 at the northeast corner and 950.83 at the southwest. There were no artifacts except potsherds. A few of these were Byzantine while a small quantity were Iron (11-12th centuries B.C.). The sherds were dominantly Iron II (6-7th centuries B.C.) There were also a few undistinguishable (hereafter «UD») sherds.

The principle wall of Area C, Square 1 is Locus 3. This is a wall of unhewn field stone ranging in size from 0.25 - 60 m. The wall extends from the south balk at a point 1.25 m from the west balk. It runs north for 3.50 m and curves west to touch the west balk 0.85 m south of the northwest corner. The wall is 1.75 - 2.00 m wide but as excavation proceeded, it was noted that the curving wall is 1.00 m wide while a straight wall (secondary?) is built flush against it on the east side. This second wall is 3.25 m north-south from wall 13 to wall 17. This wall has an extant height of 1.50 - 2.50 m. Its most interesting feature is a «window» or niche near the southern end (Plate IV, Fig. 1). The interior measurements are 1.00 m high x 0.75 m wide. The top of this window was above ground prior to excavation. The extant height of the

5. Unless otherwise designated, throughout the following text, Iron I equals the 11-12th centuries B.C. while Iron II means the 6-7th centuries B.C. The pottery is to be published by Dr. Fawzi Zayadine. Dr. James A. Sauer gave very valuable help with the dating

of the pottery. His assistance is gratefully acknowledged. Cf. also his report, «Seventh - Sixth Century B.C. Pottery from Area B at Heshban,» with E. N. Lugenbeal, *Andrews University Seminary Studies*, Vol. X (1972), 21 - 69.

west side of wall 3 is 0.75 - 1.75 - m. No foundation trench was observed for either side. The west side appears to have been founded on Locus 5 while the east side was founded on Locus 14. Small stones were removed from the top. A number of Iron II sherds were found in this process.

Wall 17 is an east-west wall extending from the east side of wall 3, 2.00 m to and into the east balk. An unknown portion remains under the south balk, projecting 0.00 - 75 m into the square from the south balk. The extant height is 2.00 m. Wall 13 is an east-west wall still partially under the north balk. It extends from the east balk to and along the back of the curve of wall 3. Its extant height is 1.70 m.

Locus 2 was a dark brown soil layer containing large stones 0.25 - .60 m wide. This locus is 2.00 x 4.00 m between the west balk and the west side of wall 3. It ranged from 0.25 - .30 m thick and contained Iron II sherds. Locus 4 was a light brown soil layer below Loc. 2. The stone fill was smaller, 0.15 - .30 m. The sherds were also Iron II with a few Iron I samples. Loc. 5 lay under Loc. 4. Loc. 5 was a dark brown soil with small rubble and black grits. The layer was 0.56 m thick, with Iron I and II sherds. An undecorated bronze fibula, Object No. 21, came from this layer (Plate IV, Fig. 2) Under Loc. 5 was Loc 7, a black soil layer with fragments of red brick, and from this locus (Obj. No. 30; Pl. II, Fig. 2) It is made of marly limestone with microfossils.⁽⁶⁾ A yellow and brown soil layer, Loc. 11, lay under Loc. 9 and over Wall 12. The pottery from Loc. 11 was Iron I while a few sherds from the removal of small stones of wall 12, were UD Wall 12 consists mainly of large stones ranging from 0.35 - .55 m It runs in a northwest-south-

east direction. As excavated, it looks like a platform built on the virgin soil of Loc. 16. The platform appearance may be deceptive, however, for the eastern edge of the wall is under soil layer 9 and wall 3. Between wall 12 and the west balk was a yellow soil layer with red bricky material. It yielded Iron I and UD pottery and lay over Loc. 16. The latter is red soil without stones, pottery or artifacts. The irregular rock surface under it appears to be bedrock, so Loc. 16 is assumed to be virgin soil.

Two burials were found in Area C, Square 1. One of these, Loc. 6, contained yellowish soil covered by small slabs. The burial was on a portion of wall 13, 0.56 m from the north balk, just under surface soil. While the potsherds were Iron I and II, the burial is a modern intrusive one. An 1875 Turkish coin was found under the skull. The skeleton was well preserved but there was no indication of cloth or ornamentation. Loc. 10 was a burial in the southeast corner of the square, near wall 17, under surface soil Loc. 1, and in soil layer Loc. 8. Loc. 10 consisted of dark brown soil, including yellow grits and large stones (0.35 - .65 m). While the pottery was Iron I and II, the burial is assumed to have been recent. A small bit of cloth was preserved over the left eye socket. A decorated bronze fibula, clasp only, Object No. 32, (Pl. IV, Fig. 2), was found in the soil of Loc. 10. It appeared to be in the soil fill rather than associated with the burial.

Loc. 8 was a brownish red soil layer between the east face of wall 3 and the east balk. It contained small stones (0.25 - .55 m) and Iron I and II, and UD pottery. It was over Loc. 14, a dark brown soil layer, with white grits and stones ranging

6 The analysis of stone objects was done by Mr. Talal Saadi whose assistance is gratefully acknowledged. Mr. Saadi is a geologist for the

Natural Resources Authority Laboratory of Jordan.

from 0.35 - 0.45 m. In the south end, it lay over bedrock. The northern portion of Loc. 14 lay over wall 18 and unexcavated rocks and soil. The pottery from Loc. 14 is Iron I and II, and UD. One of the Iron II sherds may be pre-seventh century B.C.

Locus 18 is a curving wall, apparently founded on bedrock. It curves from a point (0.85 m north of wall 17) under the east face of wall 3, to and into the north balk under wall 13. It is tempting to think of this as the foundation of a round tower but so little of it has been exposed that any interpretation is highly speculative.

In summary, one can note that the excavation of Area C, Square 1, reached bedrock on both sides of its principle wall 3. On the outside (western, down-hill side), excavation seems to have reached Iron I levels. The UD sherds leave a slight question about this, however. On the eastern, uphill side, occupation to bedrock was Iron II, though the unexcavated portion around wall 18, remains for future investigation.

AREA A, Squares 1 and 2

The four squares of Areas A and B were plotted along the northeast-southwest line connecting a Department of Lands and Survey bench-mark (959.80 m above sea level) and the high point (953.45 m) of Khirbet al-Hajjar (Pl. I, Fig. 2). Area A was located on the lower slope about 100 m from the findspot of the statues. The lower square, Square 1, touches the top of a low ridge along the southwestern edge of a depression. It was hoped that the ridge might represent a wall and the two squares would locate the outer defenses of the fortress. Success in this aim seems assured from walls found a few centimeters below the present surface.

Square 1

The excavation was under the direction of Miss Katrine Zriakat and Mr. Robert

Miller. The original 5 x 5 m of the square, was extended 1 m to the northeast to ease the excavation of the tumbled boulders (presumably fall from walls 6 and 4) of Loci 3, 5 and 15. Over the whole square was 0.10 - 0.15 m of crumbly black soil with much loose rock, called Locus 1. Surface levels before excavation were 949.10 on the northeast, 950.43 and 949.04 at the southeast and southwest corners respectively. The pottery was Iron I and II, Byzantine, and one possible Hellenistic sherd. A worked flint blade, Obj. No. 28 (Pl., V, Fig. 1) and a pottery fragment with a «wheel» design, Obj. 35 (Pl. II, Fig. 2) came from the surface soil. Locus 1 lay over soil layer 2 and walls 4 and 8.

Loc. 2 was gray-brown soil with clay, from 0.15 - 0.25 m thick. There were many stones, ranging from 0.15 - 0.35 in diameter. The pottery was Iron I and II, with two UD sherds, one of which may be Hellenistic while the other may date to the Persian period. Loc. 2 lay over soil layers 3 and 7, and parts of walls 4 and 8. Loc. 3 was a 0.50 m deep layer of sandy yellow loose soil with rubble, between Loc. 4 and the north balk. The pottery was Iron I and II with one possible Byzantine sherd. Loc. 3 lay over soil layer 5 and wall 6.

Wall 4 is an east-west wall with an extant height of 1.70 m.

The unhewn field stones average 4.46 m long. The excavated portion is 5.00 m from the east balk to the west balk. As first excavated, wall 4 appeared independent of, and preserved closer to the surface, than wall 6. Its function is still not clear in relation to the outer (to the northeast) wall 6. Its appearance and irregular depth gives the impression of a skin wall or an inner reinforcing wall of wall 6. The irregular coursing of the northeast face of wall 6, precludes certainty but there may be a rebuild at the same level as wall 4. The rock tumble of Loci 5 and 15 obscured the stratigraphy against the outer face

of 6, preventing assurance from this source, but the change from Loc. 6 to 15 roughly corresponds with the suspected rebuild.

Wall 6 (Pl. V, Fig. 2) has been interpreted as a megalithic defense wall, with stones 0.40- 80 m long. It extends from the east balk to the west balk, curving slightly near the west balk. Its extant height is 3.50 m. It is slightly battered toward the base. It is not founded upon bedrock (which was not reached in this square), but the lower courses are larger boulders, up to 0.80 x 0.60 m.

Wall 12 is also an east-west wall running across the square. It is 1.25 m wide and is formed by two rows of stones. (Pl. VI, Fig. 1). The south face is clear, with an extant height of 0.75 — .90 m. A foundation trench, Loc. 19, was found on this side. The top part of it is also a robber trench and the whole is 1.25 m deep and 0.05 — .10 m wide. The pottery from the foundation trench was Iron I. However, the pottery from a section of wall 12 which was removed along the east balk, was a mixture of Iron I and II.

Locus 14, between walls 12 and 4, was a soft brown soil with many rocks and boulders. At the beginning of the excavation, it was thought that this was tumble between the two walls. But a number of stones were bonded into wall 12, the north face of which is quite irregular. Several are also bonded into wall 4. Their position, however, may be interpreted as «in situ» boulders upon which wall 4 was built, either as a secondary strengthening of wall 6, or as a rebuild of the outer defense wall as noted above. In any event, the complex of walls 6, 4 and 12, and Loc. 14 form an outer defense wall of 3.50 m thickness.

Outside of wall 6, to the northeast, Loc. 5 consisted of loose grey soil around large rocks. The layer was from 0.95 — 1.25 m

deep, under Loc. 3 and over Loc. 15. The pottery was Iron I and II, with a UD sherd that might date from c. 500 B.C. Loc. 15 also contained many large rocks but the soil was soft brown with flecks of yellow huwwar. The locus was 2.00 m deep and contained Iron I and II pottery. One of the Iron I sherds may be from the 10th century B.C. Three objects also came from here: No. 24, a complete and still workable fibula; No. 26, a needle; No. 33, a bone spatula (Pls. IV, Fig. 2 & V, Fig. 1). Loc. 15 lay over Loc. 20 and wall 21.

Wall 21 was preserved to two courses high and composed of stones 0.25 m roughly (undressed) square. Only 0.85 m of its length was excavated owing to the necessity to narrow down the excavation probe to avoid the fall of boulders from Loci 3, 5 and 15. Wall 21 butted against the base of wall 6. The removal of wall 21 produced Iron I sherds, but Iron I and II pottery came from Loci 20 and 22. Loc. 20 was a probe against wall 21. The sandy brown soil contained fine yellow grits and small stones in contrast to the boulders of Loc. 15. Loc. 20 and 21 lay over 22, which was not materially different from Loc. 20. 22 was excavated to Loc. 23, a level of small flat stones. The excavation trench had narrowed to 1.60 (east-west) x 0.25 — .45 m. It is tempting to see the level as a pavement but the area is too small for definitive interpretation. Loc. 23 is one meter below wall 6 and has a level of 944.65, suggesting that bedrock is not much deeper, although bedrock was not reached in Square 1. As indicated above, the pottery down to Loc. 23 was a mixture of Iron I and II.

Loc. 25 is a north-south wall with 7 courses (2.20 m) extant (Pl. V, Fig. 2), bonded to the north side of wall 6, and largely still unexcavated (1.20 m of length is exposed) in the rubble of the west balk. It may represent earlier construction incorporated into wall 6, or it may be part of

an unexcavated tower northwest of Square 1.

Wall 8 extended from wall 4 to and into the south balk, 2.25 m from the east balk. Wall 8 was not bonded to wall 4. The extant remains were 0.75 — .90 m high and 1.10 m wide (2 courses with rubble between). The extant surface and base sloped down from the south balk to wall 4. The pottery from the removal of wall 8, was Iron I and II. A conical seal, Obj. No. 22 (Pls. VI, Fig. 2 & VII, Fig. 1) of limestone chalk and a bronze strip with holes along the edges, No. 27, were two objects from the wall (Pl. IV, Fig. 2). Wall 8 was over Loc. 16 while Loci 7, 9, 10 and 11 were against it. There was apparently no foundation trench or at least none was discerned during excavation. After the south balk had dried several weeks, what may have been a very narrow foundation trench appeared on both sides, but a number of long plant roots grew alongside of wall 8 and may have loosened the soil to give the appearance of a foundation trench. No pottery was isolated from it.

Loc. 7 was south of wall 4. This soil layer, 0.50 m deep, consisted of packed yellow-gray sandy soil, with small to medium stones. The pottery was mixed Iron I and II. There were three objects: No. 8, a limestone mace head, No. 11, a pottery button (?), and No. 12, a metal pin (Pls. IV, Fig. 2, V, Fig. 1, VII, Fig. 2). Loc. 7 was under Loc. 2 and over Loci 9, 10 and 11. Loc. 9 was a hard yellow layer with huwwar grits and no stones. It was 0.20 m thick and contained Iron I and II pottery. There are two registered objects: No. 15, a pottery jug rim with a point like the beak of a bird, and No. 16, a lamp reconstructed from fragments (Pl. VII, Fig. 2). Loc. 9 was in the southeast corner of the square and lay over Loc. 11. The latter was brown to black soil with brick fragments, ash and charcoal. The layer was 1.00 m thick and contained Iron I and II pottery. Loc. 10

was a yellow layer with huwwar, in the southwest corner of the square. It appears equivalent to Loc. 9 on the east side of wall 8. Loc. 10 was 0.25 m deep and contained Iron I and II pottery, a pottery cylinder (Obj. No. 14, Pl. V, Fig. 1) and a lamp fragment (No. 17; cf. Pl. VII, Fig. 2). Loc. 13 was a yellow sandy soil with huwwar. It was under 10 and over Loc. 17. The pottery is Iron I.

Locus 16 was a subsidiary balk under wall 8. It consisted of yellow huwwar with patches of ashy soil. Loc. 16 covered Loci 12 and 19 and was from 0.95 — 1.15 m deep. The soil contained Iron I and II pottery. Loc. 16 also lay over Loc. 17, a brown soil with ashes, plaster (?) and small stones, between wall 12 and the south balk. Loc. 17 was cut by Loc. 19, the foundation trench for wall 12. The layer sloped from east to west. It was 0.50 — .70 m deep and contained Iron and II sherds with the Iron I dominant. Loc. 17 lay over Loc. 18.

Locus 18 is a yellow grit, packed huwwar surface between Loci 12/19 and the south balk. It is 0.03 — .05 m thick and was partially cut by the foundation trench 19, so wall 12 was founded partially on 18 and partially on the underlying layer Loc. 24. Excavation cut through 18 in the southeast corner of the square to a depth of 0.50 m, into Loc. 24, a yellow gritty layer clearly lower than, and under, wall 12. Pottery from Loc. 24 is Iron I. Thus the excavation of Square 1 did not reach bedrock either inside or outside of the wall complex 6, 4 and 12, but did reach an Iron I occupation level which also served as the base for wall 12.

In summary, one might note that the most important element of Square 1 is the apparent defensive wall system of 6, 4, 12 and the interleaved Loc. 14. This would seem to be the outer defense wall of the fortress. A part of its importance comes from the earlier survey work of Nelson

Glueck who found little evidence of outer walls for the Ammonite fortresses noted above. He concluded that the towers were strong enough to be defensive units in themselves. The latter judgement probably continues to hold true but we now have the evidence for the additional fortification of outer walls. Whether other towers also have these, which merely await excavation, remains to be seen(7)

Square 2

The excavation of Square 2 was under the direction of Miss Nazmieh Rida and Mr. Marwan Abu Khalaf. Square 2 was plotted 2 m southwest of Square 1, leaving a 2 m balk between the squares. The larger balk gave easier and safer access between the squares. Square 2 was 5x5 m with levels of 950.65 and 950.35 on the north, and 951.44 and 951.19 m on the south, surface before excavation. Locus 1 was crumbly dark surface soil 0.05 — .35 m thick, with many large stones. The pottery was mixed Iron I and II, with two Byzantine sherds. A conical haematite stone, Obj. No. 3 (Pl. V, Fig. 1), was found here. Its shape suggests that it may be an unfinished stamp seal.

Walls 2, 5 and 17 were just below the surface. Wall 17 has 0.50 m of its width exposed. The rest remains unexcavated in the north balk. Its exposed length is 4.00 meters extending from the west balk. Its eastern end may be in line with Square 1, wall 8, possibly forming a corner. Wall 17 is made of unhewn stone 0.30 — .75 m.

Locus 4 was a probe trench in the northeast corner of the square. The probe was extended west for 5.00 m between walls 2 and 17. The dark brown soil con-

tained numerous stones, 0.25 — .40 m. After excavation, tip lines were noted in the west balk, which gave the impression of a back fill against (uphill) wall 2. This might strengthen the suggestion that wall 2 is a defensive wall built in relation to Square 1, walls 2, 4, 6 and 12. At the east balk, the probe cut through a pit with an irregular outline. The pottery was mixed Iron I and II with a UD sherd with what might be called rope molding.

Wall 2 (Pl. VIII, Fig. 1) is an east-west wall of unhewn stones, 0.20 — 60 m with small (0.05 — 15 m) stones as chink stones. The wall is 1.00 m its extant height varies from 3-5 courses, 0.75 — 1.15 m. Wall 5 was perpendicular to wall 2 on the south. Between wall 5 and the west balk was a 0.50 m wide wall of stone and rubble which appeared to be a secondary skin wall on the south side of wall 2 (Pl. VIII, Fig. 1) This skin wall or strengthening wall was not bonded into wall 5, which it turned abutting wall 2 without bonding. So the skin wall is later than wall 5. This skin wall was removed and yielded Iron II and possibly Iron I body sherds. No one of the three wall segments appeared to have a foundation trench. They are founded on Loc. 8 on the south side and Loc. 11 on the north (wall 2).

Wall 5 was 1.75 m wide with an extant height of 0.85 — 1.25 m (4 courses). Its excavated portion was 2.10 m between wall 2 and the south balk, 0.75 m from the east balk. It is made of unhewn stone, 0.15 — .40 m across, formed in an east and west face with rubble between. The removal of the exposed portion produced Iron I and II, and UD pottery fragments.

7. Nelson Glueck, «Explorations in the Land of Ammon,» The Bulletin of the American Schools for Oriental Research No. 68 (1973), 19; Landes, «Material Civilization.....» p. 70.

The function of the wall complex — 2, 4, and the skin wall — remains problematic. Its location 5.00 m uphill from the outer defence walls of Square 1, suggests the possibility that walls 2 and 5 are part of an inner defence system, possibly a casemate arrangement. The shallow founding of the walls might argue against this though as a secondary system, this would not be so serious a matter. It is possible too, that the exposed portion of walls 2 and 5 are part of a large house or public building.

Locus 3 was a probe trench in the southwest corner of the square, which produced Iron I and II pottery, and the broken pin of a fibula (Obj. No. 9, Pl. IV, Fig. 2). Loc. 3 is equivalent to Loci 6, 7 and 8, between the probe and wall I. Loc. 6 was a gray soil layer 0.45 — .75 m thick, mixed with many stones 0.10 — .40 m. It was materially similar to Loc. 9, east of wall 5, although Loc. 9 was only 0.15 — .32 m thick. Both loci yielded Iron I and II pottery. Loc. 6 lay over Loc. 7, a 0.25 — .32 m thick layer of yellow brown soil mixed with flecks of huwwar. Loc. 7 was materially identical to Loc. 10, east of wall 5. Loc. 10 was from 0.10 — .65 m thick. These loci appeared to be fill washed down from uphill, against wall 2.

Locus 8 was a hard packed soil with crumbled brick and charcoal. It was from 0.25 — .38 m thick and extended from the west balk (cf. Loc. 3) to the east balk, and from the south balk, under walls 2 and 5. It served as the founding surface for these walls. Its excavation yielded Iron I and II pottery. Loc. 8 lay over Loc. 15.

Locus 15 was a brown soil layer mixed with stones. It was from 0.10 — .15 m thick between the south balk and a subsidiary balk below the south face of wall 2. Its excavation produced Iron I and II pottery. It lay over Loc. 19, which was a bricky soil mixed with ash, 0.10 — .25 m thick. The pottery was Iron I and II. Loc.

19 lay over Loci 20 and 21. Locus 20 was a grayish red soil layer partially covering Loc. 21, a bricky muddy fill in the southwest corner of the square. The latter was 1.00 m square in the excavated area, and 0.24 m thick. Loc. 20 was 0.13 m thick. Loc. 20 had Iron I and II pottery while Loc. 21 was Iron I and UD. Both lay over Loc. 22, a stony packed gray soil with Iron I and UD pottery. This was the last locus excavated on the southern side of the square, south (uphill) from wall 2. Loc. 22 lay over a yellow packed surface which is presumed equivalent to Loc. 18, on the north of the square and Loc. 18 in Square 1.

Locus 11 began as a probe trench in the northwest corner of the square but was extended for 5.00 m between the subsidiary sections under walls 2 and 17. The locus consisted of a series of tip lines from 0.20 — .50 m thick. The lines were stony, light brown with flecks of charcoal, bricky red and dark (almost black). The pottery was Iron I and possibly II, and UD. This locus should be equivalent to Locus 8 as the founding surface of wall 2 but its consistency is quite different. There appears to be a marked change at some point under the wall. Loc. 11 lay over Loc. 12.

Loc. 12 was a 0.33 m thick layer of gray soil mixed with flecks of huwwar over Loc. 13. The latter was soft dark soil, 0.70 m thick, over Loc. 14. The latter was from 0.37 — .65 m thick. It was made up of dark soil with flecks of charcoal. Under it was Locus 16, a gray soil mixed with small stones, 0.16 — .32 m thick. The pottery from all four layers was Iron I. Loc. 16 lay over Locus 18, a grayish fill over a hard packed yellow surface. The pottery here was Iron I, one EB sherd, and several UD pieces, one of which had an EB type of rope molding. A worked flint and an animal figurine, No. 25 (Pl. V, Fig. 1) came from this locus also

The surface was penetrated in the northwest corner of the square in a probe 2.20 m long, between the subsidiary balks under walls 17 (north balk) and 2. Locus 23 here was a brown soil mixed with flecks of huwwar, 0.05 m thick. Under it was Locus 24, a 0.12 m thick layer of black ash with burned straw and many grains of wheat. The wheat and straw suggest the ashes of an oven, although no portion of an oven was found. Locus 25 was a brown soil layer 0.10 m thick. Under it was Locus 26, a yellow hard packed soil layer, with flecks of huwwar, 0.15 m thick. Locus 27 was a brown bricky soil layer with flecks of huwwar, 0.05 m thick. The last soil layer, Locus 28, was on bedrock. It was a dark soil with flecks of huwwar, 0.20 m thick. All of the above layers contained Iron I and UD pottery.

The excavation of Loc. 18, exposed two walls founded on Loc. 28, with no apparent foundation trenches. Wall 29 is in the north balk, extending 1.50 m from the west balk with an exposed width of 0.30 — .42 m. It is made of unhewn stones 0.45 — .90 m long. Wall 30 is a north-south wall with an exposed length of 1.85 m between the subsidiary balks under walls 17 (north balk) and 2. It is 2.20 m from the west balk and marks the limits of the probe in the northwest corner of the square. Its top is 0.69 m wide. The two walls have not been dismantled but the soil context is Iron I, so the walls presumably date from this period. At the present state of excavation, these and Area C, Wall 12, appear to be the only Iron I walls found so far on the site.

AREA B, Squares 1 and 2

Area B was on the upper northeast slope, along the northeast-southwest base line (Pl. I, Fig. 2). The principle feature of

the area was the foundation of a round tower, 11.70 m in diameter (Pl. III, Fig. 2), preserved to an extant height of 2.65 m. In Square 1, it is wall 16 and in Square 2 it is wall 6, which are described below. The foundation trenches (1:31 and 2:18,20) contained Iron I and II pottery giving an Iron II (6-7th centuries B.C.) date to the tower. This is the first tower to be dated by excavation to the Iron Age. It is thus the first of the so-called Ammonite towers/fortresses to be securely dated in the Ammonite period. The builders of the tower cut through an earlier Iron II occupation deposit and an Iron I occupation to found their tower on bedrock, except in the southeast corner of Square 1. The bedrock served as the interior floor of the tower. Rujm al-Malfouf was also founded on bedrock but there was no evidence of occupation on the bedrock floor of the « basement » rooms.⁽⁸⁾

Square 1

The excavation here was under the direction of Mr. Seif Haddad and Miss Yolande Steger. The 5 x 5 m square was extended 1.00 m to the west to include the full extent of an intrusive burial (Loc. 4). The levels were 953.23 & 953.43 on the south and 953.18 and 953.25 on the north. The black or dark gray surface soil (Locus 1) was from 0.10 — .35 m thick. The pottery was Iron I and II, Byzantine and UD. One object, No. 2 (Pl. V, Fig. 1), came from this locus. It's a rectangular piece of limestone with a hole drilled through one corner. It's a bit heavy for an amulet but seems too small (7.5 x 4 x 2 cm) for a whet stone.

Locus 4 was a pit with black soil, 0.10 — .20 m thick, indistinguishable from the surface soil. It was 1.00 m wide along

8. Boraas, op. cit.

the outside of wall 16 (the tower) x 2.00 3.00 m east-west from the west balk. The pit contained a somewhat deteriorated but articulated skeleton of a man about 40 years old at the time of death.

A circle of stones surrounded the skull and a stone under the skull appeared to be a pillow. The body had been buried on its back but with the legs crossed at the ankles. The face was turned to the southwest, suggesting a Muslim burial though Mecca is really southeast. The pottery immediately under the skeleton was Iron I and II but the burial is presumed to be a relatively modern intrusion.

Under the surface soil was a rocky layer, Locus 2, which covered most of the square except Locus 4 and part of 3 in the northwest corner. It was c. 0.25 m thick and contained Iron I and II, Byzantine and UD pottery. A flat (0.2 — 1.3 cm thick) smooth green stone, Obj. No. 7, (Pl. V, Fig. 1), came from this Loc. It is igneous in origin and probably a form of basalt. It is broken at both ends but its general shape, 4.3 x 5 cm, suggests a whet-stone.

Locus 3 was a soft yellow layer between the east and west balks, and between wall 16 and the north balk. It was 0.25 — .35 m thick and contained Iron I and II pottery plus a few Byzantine body sherds and several UD sherds. Obj. No. 13, a silver ring (Pl. IV, Fig. 2) came from this locus. Loc. 3 appeared similar in consistency to Loci 5 and 12. Loc. 5 was in the south-east corner of the square, separated from Loc. 3 by wall 16, and bounded by wall 17 and the east and south balks with average dimensions of 2.60 (N-S) x 1.30

average dimensions of 2.60 (N-S) x 1.30 x 0.40 m thick. Its excavation and that of Locus 12 yielded Iron I and II pottery. Loc. 12 was in the southeast corner along the south balk and between the west balk and wall 17. It was separated from wall 16 by Loc. 4. A bronze pin (No. 19 Pl. IV, Fig. 2) and a fragment of a basalt bowl or plate (No. 18, Pl. VII, Fig. 2) came from Loc. 12.

Inside the tower was a 0.15 m thick layer of soft yellow soil, Locus 6, below Loc. 3. It extended from the west balk to the east balk, and lay over wall 16 at the east end and over Loc. 7 between the curve of wall 16 and the west and north balks. Loc. 6 contained Iron I and II pottery along with several UD sherds. One of the Iron II sherds may date as late as 500 B.C. This late sherd is too vague for certainty but it is of interest in the light of Obj. No. 36 found in this layer in the northwest corner of the square. It is a Phoenician coin (Pls., IV, Fig. 2 & VIII, Fig. 3) from Tyre from the pre-Alexandrian period. Since other coins of this type that date between 400 — 332 B.C. usually have a date mark, Obj. 36 would seem to date from 400 — 450 B.C.⁽⁹⁾ While one is tempted to let the pottery of the 6-7th century B.C. suggest that the coin should be dated earlier, it would seem more likely that the coin is intrusive in this context. As found, it was heavily corroded and simply looked like a disc, presumably metal. So it does not seem likely to have been a plant, especially since no baksheesh was paid to the workers for small finds. Animal burrowing action might conceivably have worked the coin down to such a depth, or perhaps the interior of the tower remained open for several centuries after its aband-

9. George Francis Hill, *Catalogue of the Greek Coins of Phoenicia*; London: British Museum, 1910. Clifford M. Jones, *Old Testament Illustrations*; Cambridge: University Press, 1971. Dimitri

Baramki, *The Coins Exhibited in the Archaeological Museum of The American University of Beirut*; Beirut: AUB Centennial Publications, 1968.

onment. A passing merchant may have taken shelter inside the walls, although there was nothing else to indicate this late intrusion. The coin, however, seems to be unique in this area. There is no parallel to it in the collections of the Department of Antiquities.

Locus 7 was a hard yellow layer, 0.20 m thick. Under it was Locus 8, a reddish brown layer, of undetermined thickness. The latter lay within a triangle formed by walls 14 and 15 and the north balk (Pl. VI, Fig. 1). Its excavation was halted for lack of digging space. Locus 9 lay under Loc. 7, between walls 16 and 15, and the north and west balks (Pl. III, Fig. 2). Loc. 9 was a hard yellow layer with stones. Under 9, was an irregular line of stone called wall 14. After excavation, the stones seemed to be accidental tumble. A broken figurine came from among the stones (Obj. No. 31, Pl. V, Fig. 1). Loc. 14 divided Loci 10 and 11, both consisting of yellow soil with stones. The former was 0.75 m thick while the latter was 0.85 m. Locus 24 was a reddish gray soil under Loc. 11 and over bedrock. Locus 23 was a hard brown soil 0.10 m thick under Loc. 10 and over Loc. 35, and bedrock. Locus 35 is a semi-circular hole in the bedrock, 1.30 m in diameter from the west balk and between the north balk and wall 16. It contained mixed yellow and ashy soil and Iron I pottery. All of the other Loci described here, had Iron I and II pottery with the Iron II as the dominant fabric, along with a few UD sherds.

Wall 15 appears to be an interior partition wall of the tower. It forms a right angle (Pl. III, Fig. 2) with wall 8 of Square 2, although wall 15 is much thinner (0.90 m compared to 1.70 m). It is not bonded to wall 16 and its exposed length is 1.10 m. It is made of unhewn stones, 0.20 — .60 m

long, and it is located 1.90 m from the northwest corner, where it enters the north balk.

Wall 17 was outside the tower, butted against the tower but not bonded to it. As found, it extended from the tower to and into the south balk at points 1.20 — 2.75 m from the southeast corner. It was 1.55 m wide and 1.50 m long on the west face and 2.10 m long on the east face. The preserved height for the east face was 1.75 m (6 courses) and the west face was 1.25 m (4 courses). No foundation trench was observed and the wall was founded on Loc. 19 on the west side and Loc. 27 on the east. Between the two faces was a rubble fill. The removal of the wall yielded Iron II and a few Iron I sherds and a stone loomweight, Obj. No. 34 (Pl. V, Fig. 1).

In the southeast corner of the square, between walls 17 and 16 and the east and south balks, was a layer of plaster (surface?) of yellowish clay, Locus 13, under Loc. 5 and over Loc. 20. The layer was 0.27 m thick x 1.15 (E-W) x 3.00 (N-S). Its irregular surface and numerous chunks of plaster, may indicate fallen plaster from the walls. The outside of wall 16 had several stones with plaster still intact (Pl. VIII, Fig. 3), west of wall 17. This plastering may indicate that wall 17 was part of a housewall. Landes reports courtyard walls built up against Ammonite towers.⁽¹⁰⁾

Locus 20 was a brown soil with dark yellow patches of clay; it was 0.35 m thick. It lay over Loc. 27 which at first appeared darker because of a streak of black ash which appeared in section after excavation. But the greater depth of Loc. 27 (1.25 m) was of similar consistency. A similar soil, brown with patches of yellow clay, appeared among the boulders of

10. Landes, «Material Civilization.....» p. 71.

Loc. 15 in Area A, Square 1. Loc. 27 lay over wall 30 and soil layers unexcavated at the end of the digging season. The pottery from Loci 20 and 27 was Iron I and II A bronze seal,⁽¹¹⁾ Obj. No. 29 (Pls. IV Fig 1, VI, Fig 2, VII, Fig. 1) was found in Loc. 27. Wall 30 is a north-south wall exposed for a length of 1.60 m and a width of 0.60 m in the east balk, running into the south balk. Its west face was cleared to a depth of 0.80 m. In this depth, no observable foundation trench was noted.

In the southwest corner of the square, soil layer 18 was excavated between the south balk and wall 16 (1.25 m) and the west balk and wall 17 (3.30 m). The hard yellow soil was 0.35 - 0.60 m thick. Loc. 18 lay under Loc. 12 and over 19. The latter was soft brown soil with stones; it was 0.35 — 0.60 m thick. It ran under wall 17 and was presumably the surface on which the wall was founded.

Locus 19 lay over soil layers 21 and 22, and the foundation trench, Loc. 31, for the tower wall (Pl. XVIII). Locus 21 was an irregular patch of black ashy soil extending from the south balk, 2.70 m from the southwest corner. This dark soil may relate to the dark soil streak or tip line near the top of Loc. 27 in the southeast corner of the square. However, the line could not be traced for a clear stratigraphic connection. Locus 22 was a soft dark gray soil with stones. It was between Loc. 31 and the south balk and between the west balk and a newly exposed wall 33. The layer was 0.70 m thick. The pottery for Loci 18, 19, 21 and 22, was clearly Iron II.

Loc. 22 lay over Loc. 25, a 0.20 m thick soil layer of dark brown soil with stones

and fragments of mud brick. The next layer down, Loc. 26, was light brown and 0.15 m thick. Its western end (1.75 m) lay over Locus 29, a huwwar and rock layer over bedrock. The eastern end, 0.75 — 1.00 m of Loc. 26 lay over Locus 28, a black ashy layer, 0.20 m thick. A large fragment of tabun ware found in the layer, suggests that the ashes came from an oven. The pottery found in Loci 25, 26 and 28 was Iron I, with two Iron II sherds considered intrusive. A small quantity of UD sherds was found in Loc. 29.

Loc. 28 lay in a pocket of bedrock between wall 33 and the bedrock under Loc. 29. Loc. 28 like Loci 21, 22, 25 and 26, was cut by the foundation trench, Loc. 31. Under 28, was Locus 32, a hard brown soil which ran under wall 16 and its foundation trench, Loc. 31. It in turn lay over Locus 34, a gray soil mixed with huwwar. This Locus is the limit of excavation outside the tower, in the pocket of bedrock. The pottery from both Loci 32 and 34 was Iron I.

Locus 33 is a wall which appeared under the area of wall 17, outside the tower and running into the south balk. It is built of 5 courses of field stone, 0.15 — 0.30 m long. The extant remains are 1.15 high x 0.70 m wide. In plan, it touches the south balk 1.80 m from the east balk and 3.50 from the west balk. After excavation, a very thin foundation trench could be observed in the balk. This trench cut Loci 22, 25 and 28 on the west side of the wall. The east side is not clear. This stratigraphy suggests that the foundation trench was cut from the top of Loc. 22, making it an Iron II wall. The north end of the wall as excavated, was cut by Loc. 31, the

11. Siegfried H. Horn notes a similar triangular bronze seal in the Amman Museum, Museum No. J11959 and four parallels. One of the latter came from the Amman Citadel, two are in the

Egyptian Museum in Berlin Charlottenburg and one is in the Berlin Museum. The latter three have Egyptian designs. Cf. «Three Seals from Sahab Tomb C.» ADAJ XVI (1971), pp.

foundation trench for the tower wall 16, except for the lowest course of wall 33. This lowest course runs under wall 16. Wall 33 then represents an Iron II occupation of Khirbet al-Hajjar. This pre-tower Iron II occupation may be equivalent to the possible earlier phase of the outer wall, A. 1:6 discussed above. The stratification described above, indicates an Iron (11-12th centuries B.C.) period of occupation on the bedrock of the hill. It is possible that wall 30 in this square and walls 29 and 30 in Area A, Square 2, belong to this occupation. After a gap of 400 or more years, the site was re-occupied in the 6-7th centuries B.C. Wall 3 above, the possible earlier Iron I wall phasing in A.1, and the walls on bedrock in Area C, may all belong to this Iron II phase. The tower and the upper walls of Area C and Area A, appear to be the last occupation period but wall 17 in Area B, Square 1, represents the very last phase of occupation. However, we cannot at this time tell whether wall 17 came a day or a century after the construction of the tower.

The tower itself (pl. III, Fig. 2) is represented in B.1 by wall 16 (Pl. X, Fig. 1), the foundation trench, Loc. 31 (Pl. IX), and the inner partition wall 15 discussed above. The trench was cut to bedrock except for the hard brown layer 32, wall 33 (bottom course) and the base of Loc. 27 in the southeast corner, between wall 33 and the east balk. The pottery from Loc. 31 was Iron I. However, the pottery from the foundation trench in Square 2, Loci 18 and 20, was Iron II, giving the latter date to the tower.

Wall 16 was made of unhewn stones, 0.35 — 0.90 m long. The wall itself is 1.80 m wide x 5.30 m (south side) — 5.95 m (north side) long (cf. Pl. X, Fig. 1). Its ex-

tant height ranges from 2.25 — 2.75 m. It curves across the square, leaving the west balk 1.45 m from the northwest corner and 1.60 m from the southwest corner. It touches the east balk 2.40 m from the southeast corner and the north balk 0.80 m from the northeast corner. The west end was partially robbed of the top preserved course. The outer face near wall 17 had a dimpled plaster (Pls. VIII, Fig. 3, X, Fig. 1) face still surviving on several stones, as noted above. At Rujm el-Maifuf, Boraas found plaster on the outside of the tower at the base, near and over bedrock. It apparently formed part of a drainage system designed to drain rain water away from the tower. The plaster still preserved the hand prints of the applicators.¹² The latter might be equivalent to the «dimples» at Hajjar but there is no evidence of a drainage system at Hajjar.

Square 2

This square was supervised by Mr. Dan Schak and for the first 1 1/2 weeks, by Mr. Mahmoud Bargawe as co-supervisor. The square was plotted as 5 x 5 m but was expanded 2.00 m north to include the tower wall. The levels were 953.27 and 953.11 on the south, and 952.86 and 952.63 on the north. The top soil, Locus 1, was black crumbly dirt c. 0.25 m thick, with many stones 0.10 — .25 m thick. The pottery was Byzantine, Iron I and II, and several UD. Three objects came from this locus: a fragment of a basalt bowl, Obj. No. 4 (Pl. VII, Fig. 2), a scarab seal (made of marly limestone) with a lion motif, No. 5, and the flat seal, No. 6 (Pls. VI, Fig. 2 & VII, Fig. 1). The last is a low grade banded crystalline calcite alabaster. Just under the top soil were two Loci, 2 and 3, of brown to black soil with many stones from 0.10 — .30 m. Each was c. 0.50 m thick

12. Boraas, *op. cit.*

over the square, and contained Byzantine sherds, and Iron I and II sherds with the Iron II quite dominant. Obj. No. 20, a javelin or arrow-head (Pl. IV, Fig. 2) came from Loc. 3. Loc. 2 was somewhat softer and was found primarily over walls 6 (the tower) and 8 (the inner partition wall) while Loc. 3 lay over the surrounding fill area. It is possible that the softer soil of Loc. 2 comes from the robbing of stones from the walls, with resultant later filling in the robber trenches but in excavation, the Loc. 2 areas appeared to be shallow undulating ditches or patches rather than consistent trenches. Locus 4 would seem to be more clearly a robber trench. Its soil fill was consistent with Loc. 1, in the north-west corner of the square in an area of 0.60 × 50 × m deep. The pottery here was Iron I, UD, and one Byzantine sherd. Locus 5 may also be a robber trench. Its soft brown soil seemed equivalent to Loci 2 and 3 except for a quantity of small stones, 0.05 — .10 m. It was under Loci 1 and 2, and over 2.40 m of wall 6 on the east side of the square. The pottery was Iron I and II.

Wall 6 was a curved wall (Pl. X Fig. 2) running from the west balk (0.75 — 2.60 from the north balk) to and into the east balk, 2.35 m from the north balk. The wall is made of unhewn stone 0.20 — 1.50 m in size. It corresponds to wall 16 in square 1 and together they form the tower (Pl. III, Fig. 2). The extant remains are 1.80 m wide and 1.60 — 2.50 m high. On the outside of the tower, to the north, was a foundation trench, Loci 18 and 20, as noted earlier. Loc. 18 was 0.85 — 1.00 m wide (wider on the eastern end) and 0.50 — .75 m thick, with many 0.20 — .30 m stones and a reddish brown soil. The pottery was a mixture of Iron I and II. Below Loc. 18, was a gray brown soil in the bottom of the trench. The pottery here was Iron I and II with the Iron I dominant, plus a number of UD. As noted above, the presence of the Iron II pottery in Loci 18 and 20, confirm an Iron II date for the tower. This is sup-

plemented by the Iron II pottery down to bedrock inside the tower.

Wall 8 is a large interior wall (Pls. III, Fig. 2) which is not bonded to wall 6. It is made of unhewn stones, 0.30 — .80 m. Its extant remains are 2.50 m high x 1.80 m wide. From 0.20 — .25 m of this width is formed by a shelf on the western side. This shelf may indicate a rebuild of the wall with the rebuild slightly narrower. However, the rebuild is not apparent on the eastern face. An alternative suggestion is a low ceiling of now lost beams across to wall 13. While numerous were found in the interior fill, none were long thin slabs of the corbel arching type familiar in Roman — Byzantine construction at Rujm al-Malfuf and elsewhere. This presumably means wooden beams which were probably robbed out since there was no indication of sufficient carbon to represent them in the fill, either in situ or on the floor. A small support for the beam theory may be in the 5 courses of stone on the south end of the wall as excavated, just at the edge of the south balk. These could represent the end of a doorway through the partition wall into another section of the tower.

Two doorways were found in wall 13. One of these (Pl. III, Fig. 2) was cleared (Locus 21) while the other remains blocked with dirt and tumbled stone. Loc. 21 was similar in consistency to Loc. 9 (below) and contained Iron I and II pottery. The second doorway is between wall 13 and the tower wall, Loc. 6. Wall 13 is made of unhewn wall, Loc. 6. Wall 13 is made of unhewn stone, 0.50 — 1.00 m, while its extant remains are 0.50 — 1.00 m wide x 1.85 m high x 2.80 m long. It appears to be a small partition wall inside the tower

No foundation trenches were found for walls 8 and 13, nor for the inside of wall 6. This agrees with the evidence for B. 1, walls 15 and 16. This supports the theory that the builders of the tower, dug through

soil fill to found the tower on bedrock. Inside the tower, the bedrock served as a floor for the rooms formed by the partition walls.

A small triangle can be seen in the plan (Pl. III, Fig. 2) in the southeast corner of the square. Locus 7 here was a fine, light brown soil, 0.75 m thick. There was 1 Byzantine sherd along with a few UD sherds. Most of the pottery was Iron II with small quantities of Iron I. A broken pottery plaque, Obj. No. 10 (Pl. V, Fig. 1) with the rear half of a lion was found here. Under Loc. 7 was Locus 10, a dark reddish brown soil layer, 1.10 m thick, down to the bedrock surface, Locus 11. There were occasional stones, 0.10 — .30 m, along with small (0.03 — 0.5 m) chunks of clay like soil somewhat like that in B. 1:27 and A. 1:15. The pottery was once more Iron II with a few pieces of Iron I.

West of wall 8, Locus 9 was a fine brown soil similar to Loc. 7, but 1.25 m thick. This layer extended down to bedrock, Locus 12, without the intervening reddish soil like Loc. 10. The pottery in Loc. 9 was dominantly Iron II with a few Iron I sherds. Locus 14 was the area between wall 13 and the west balk. A small probe showed its material make-up to be the same as Loc. 9. The probe was stopped for lack of space.

The floor, Loc. 12, was rougher than that of Loc. 11. Flagstones were set at the southern end, presumably to make the surface more level. This also suggests that the original hill of Khirbet al-Hajjar, began its southward slope here rather than at the southeast corner of B. 1 as the present surface does. The huwwar surface at the north end of Loc. 12, was blackened with soot and ashes. In a small depression in the northeast corner, were the remains of half of an Iron II cookpot (Pl. XI). Both Loci 11 and 12 were probed to investigate small quantities of dirt in them. These proved to be fissures of sterile soil in contrast to the round pit, Loc. 35, in

Square 1, which contained Iron I pottery.

Outside the tower, excavation was carried down to bedrock on the north side. Below the surface soil, Loc. 1, were three layers of brown soil, Loci 15, 22 and 23. Loc. 22 was darker brown than 15, while Loc. 23 was darker than 22. They were respectively 0.10 — .35 m, 0.40 m, 0.35 m thick, and lay between the tower wall and the north balk, and from the east to the west balks. Loc. 23 lay over Loci 17 and 18 (the foundation trench). The pottery of all three Loci was dominantly Iron II with a small mixture of Iron I sherds.

Locus 17 was a very thin black soil layer which was cut by the foundation trench. It was at first indistinguishable from the dark brown of Loc. 23, so if there was pottery in it, the pottery is mixed with that of Loc. 23. Locus 19 was a hard packed white huwwar also cut by the foundation trench. The pot-sherds were only body sherds, which were Iron I in date. This huwwar lay over bedrock and two pits in the bedrock. Both Pit 24 and 25 contained a mixture of red and brown clay like soil and Iron sherds. The pits were probably storage pits considering the large number of storage jar fragments.

SUMMARY

The 1972 investigation of Khirbet-al-Hajjar has shown it to have been a natural hill first occupied in the 11-12th centuries B.C. of the Iron I period. The walls on bedrock in C.1 and B.2 belong to this occupation. Wall 30 in the lower southeast corner of B.1, may also belong to this horizon.

Apparently there was then a gap in occupation of 400 years. A few sherds come from these centuries so it is possible that elsewhere on the mound one might still find occupation strata. However, at this time, it seems most likely that the stray sherds represent simply an occasional visitor. The site was occupied once again in the Iron II period, the 6-7th centuries B.C. Wall 33, B.1, belongs to this period.

A.1, wall 12, Loc. 14 and the lower portion of wall 6 may also belong to this occupation, which one might call the pre-tower phase of Iron II occupation.

It appears at this point, that the walls just under the present surface represent the last occupation of the hill. These walls include the tower, wall 3 in C.1, walls 17, 2 and 5 in A.2, and walls 4, 6 (the possible rebuild), and probably 8. The last phase of occupation may include A.1:8 and A.1:17, 2 and 5. The last along with the skin wall on the south of wall 2, would seem the most likely candidate for the last phase of occupation. B.1, wall 17, is the last architectural feature but how long it was built after the tower, is quite speculative. The lack of a foundation trench and its founding on top of Loc. 19, the first soil layer over the foundation trench of the tower, suggests that wall 17 followed fairly soon after the tower was built.

The excavation found no evidence of destruction by fire in any of the squares. The last occupation period showed no signs of destruction. It would seem that the site was simply abandoned. Why? If we assume that Khirbet al-Hajjar was one of a series of Ammonite fortresses guarding the capital city of Rabbath Ammon, there is a possible explanation in the historical situation. Apparently the Ammonite kingdom was eliminated by a Babylonian invasion c. 580 B.C. The neighboring kingdom of Judah was wiped out at this time

in the third and final capture of Jerusalem. It is possible that the small band of defenders at the fortress of Khirbet al-Hajjar, could see the smoke of destruction from Ammon. Rather than stay and face an overwhelming enemy when their own duty of guarding the capital was already finished, the defenders simply slipped away, perhaps to live to fight another day.⁽¹³⁾ They would, of course, take as much of their personal property as they could carry. This in turn might account for the paucity of small finds in the excavation. In addition to the thirty-seven registered objects, twenty sling stones, and several pestles,⁽¹⁴⁾ broken grinders, saddle querns and bowls were noted.

The tower may have stood open and only gradually filled with debris. While there was no evidence of subsequent occupation, the 400 B.C. Phoenician coin in B.1:6, may be accounted for in this way. The small quantity of Byzantine sherds in the surface soil indicates a Byzantine presence. It is possible that structures or hearths might yet be found but so far this Byzantine presence can only be noted, though one would expect it to be at least evidence of camping. There was too much pottery for a casual visitor. In recent decades, the site became a burial ground. Local inhabitants reported this use by the bedouin. Lastly, the owner of Khirbet al-Hajjar noted that a quantity of stone was removed for local road work. Mr. Mutiib has recently planted olive trees on the

13. Boraas, op. cit., suggests that the ruin of Rujm al-Malfuf was a peaceful (abandonment) collapse.

14. One pestle is of particular interest. It is 0.20 m long and 0.06 m in diameter and is made of black basalt. It was found in B.1:9, with the pottery of pail 48, Iron I and II with the Iron II dominant. Locus 9 is inside the tower. Its interest comes primarily from its similarity to a «hoard» of pestles with many samples varying in shape from squat to thin but with at least a dozen in the exact shape as the example from Kh. al-Hajjar. The hoard was found dur-

ing the digging of a ditch to lay cable near the Amman sewer plant in the Wadi Amman. The writer did not see the entire hoard but saw and obtained several samples. The group was in one place, according to verbal reports, with nothing else in context, about 2.00 m deep. One might surmise a shipment of pestles from the basalt fields of Syria. For reasons unknown, the shipment was abandoned en route in the Wadi. Mr. D. K. Fowler was helpful in supplying information on the location of the find and in supplying several examples from the hoard. His assistance is gratefully acknowledged.

northeast slope and the lower slopes are used for grain.

The Department of Antiquities of Jordan plans to purchase the top of Khirbet al-

Hajjar. Hopefully funds can be raised to continue the excavations in future seasons. The site might be described as a uniquely preserved Ammonite fortress. A more complete investigation will add to our knowledge of the Ammonite kingdom.

*Henry O. Thompson,
Director, 1971-1972,
ACOR, Amman*

KHIRBAT AL-HAJJAR 1972: OBJECT REGISTRATION

OBJECT	DATE DUG	PAIL NO	LOC. NO.	POTTERY FIELD	MEASUREMENTS	COMMENTS
1. Rim of hole mouth jar		Surface	1	Iron II	est. diameter - 14cm width of rim - 5cm	Inscribed Pl. XIV
2. Oblong stone	26 June	B.1.1.	1	Iron I & II	length - 7.5cm width - 4cm height - 2cm diameter of hole - .4 cm	grey limestone smooth with rounded corners hole near one corner Pl. IX
3. Conical stone	27 June	A.2.3.	1	Ir. I & II	height - 2.1cm diameter of base - 1.9cm diameter of top - .9cm	purple haematite truncated cone Pl. IX
4. Stone bowl fragment	27 June	B.2.3	1	Ir. I & II, 1 Byz, 1 UD	height from base to rim - 5cm diameter of rim - 26cm	black stone, probably basalt ring base carination Pl. XIV
5. Scareb	28 June	B.2.4	1	Ir. I & II, 2 Byz	length - 1.9cm width - 1.5cm height - .8cm	yellow marly limestone two lions fighting over a gazelle Pls. XII & XIII

KHIRBET AL HAJJAR 1972: OBJECT REGISTRATION

OBJECT	DATE DUG	PAIL NO	LOC. NO.	POTTERY		MEASUREMENTS	COMMENTS
				FIELD	DATING		
6. Seal	28 June	B.2.4	1	Ir. I & II, Byz.		Length - 1.4cm width - 1.1cm height - .5cm	banded crystalline calcite alabaster (Low grade) motif: (?) a hunter after a gazelle Pls. XII & XIII
7. Square stone	3 July	B.1.14	2	Ir. I & II		length - 4.3cm width - 5 cm height at edges - 1.3cm height at edges - .2cm	dark green, igneous rock, probably smooth basalt. apparently broken at both ends Pl. IX
8. Spherical stone	4 July	A.1.21	7	Ir. I & II		diameter - 5cm height - 5cm	grey, smooth limestone one end flattened one hole in one end, three holes in opposite end (?) mace head Pl. XIV
9. Metal pin	4 July	A.2.25	3	Ir. II		length - 3.3cm diameter of bulb - .6cm	broken fibula pin Pl. VIII
10. Broken pottery plaque	4 July	B.2.22	7	Ir. I & II		length - 6.5cm width - 5cm height at midpoint 1.3cm	red with white grits rear half of lion (?) with tail over its back superimposed on the sherd Pl. IX

KHIRBET AL HAJJAR 1972: OBJECT REGISTRATION
POTTERY

OBJECT	DATE DUG	PALE NO.	LOC. NO.	FIELD DATING	MEASUREMENTS	COMMENTS
11. Round disc	5 July	A.1.22	7	Ir. I & II	diameter - 2.6cm thickness - .8cm	two holes, button-like in appearance reddish color pottery Pl. IX
12. Metal pin	5 July	A.1.25	7	Ir. II	length - 13.11	flattened at one end Pl. VIII
13. Metal ring	5 July	B.1.27	3	Ir. II	diameter - 1.8cm	grey, silver. Pl. VIII
14. Pottery cylinder	7 July	A.1.30	10	Ir. I & II	length - 3.4cm length of foot - 2.3cm width of foot - 1.4cm diameter of top - 1.3cm	light orange color possibly foot and leg of a figurine Pl. IX
15. Spout and handle of jar with animal features	7 July	A.1.31	9	Ir. I & II	diameter of top of spout - 3cm height of spout - 2.7cm	red gritty ware Black inside Pl. XIV

KHIRBET AL-HAJJAR 1972: OBJECT REGISTRATION

OBJECT	DATE DUG	PAIL NO.	LOC. NO.	FIELD DATING	MEASUREMENTS	COMMENTS
16. Lamp	7 July	A.1.33	9	Ir. II	diameter of base - 9cm width of spout - 1cm. diameter from spout - 12.9cm	originally red, now grey Pl. XIV
17. Lamp fragment	7 July	A.1.34	10	Ir. II	diameter of base - approx. 8.5cm width of spout - .6cm	red Pl. XIV
18. Stone bowl fragment	7 July	B.1.41	12	Ir. I & II	height from base to rim - 5.5cm diameter of rim - 26cm	grey-black, probably basalt devoid of design Pl. XIV
19. Metal pin	7 July	B.1.41	12	Ir. I & II	length from bend to one end - 7.1cm length from bend to other end - 5.5cm	bent Pl. VIII
20. Metal javelin point	10 July	B.2.43	3	Ir. I & II	length from tip to end of tang - 6.9cm width at widest point - 1.6cm	ridge down the center round tang Pl. VIII

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KHIRBEH AL-HAJJAR 1972: OBJECT REGISTRATION

OBJECT	DATE DUG	PAIL NO	LOC. NO. FIELD	DATING	MEASUREMENTS	COMMENTS
21 ¹ / ₂ Fibula	11 July	C.1.7	5	Ir. II	length of pointed arm - 6.3cm width from pointed arm to clasp at widest point - 1.9cm	bronze clasp devoid of design Pl. VIII
22. Seal	13 July	A.1.52	8	Ir. I & II	length - 2.8cm width - 1.8cm breadth - 1.4cm	white limestone chalk with microfossils oblong Pls. XII & XIII
23. Flint	13 July	A.2.50	18	Ir. I, 1 UD 1 RB	length - 3.7cm width at midpoint - 1.6cm	reddish secondary working strong bulb of percussion Pl. IX
24. Fibula	14 July	A.1.57	15	Ir. II	length of pin - 6cm width at midpoint - 2.5cm	bronze Pin still closes, unclases Pl. VIII
25. Pottery figurine	14 July	A.2.52	18	Ir. I	length - 4cm height from back leg to shoulder - 2.2cm	light orange color possibly the body of a cow (?) Pl. IX

KHIRBET AL-HAJJAR : OBJECT REGISTRATION

OBJECT	DATE DUG	PAIL NO	LOC.NO.	FIELD DATING	MEASUREMENTS	COMMENTS
26. Metal needle (?)	12 July	A.1.49	15	Ir. I & II	length - 6.7cm	bronze:hook at one end point at other end Pl. VIII
27. Metal strip	13 July	A.1.52	8	Ir. I & II	length - 8cm width at one end - 5.3cm width at other end - 3.6cm	bronze small holes around the edges roughly rectangular Pl.VIII
28. Flint blade	17 July	A.1	1		length - 10cm width - 3.3cm	slight secondary work Pl.IX
29. Metal ring with seal	17 July	B.1.68	27	Ir. II	length of seal - 2.5cm width of seal - 1.7cm width of ring from seal to midpoint - 2cm	bronze roughly triangular shaped ring perhaps worn as pendent Pls VIII, XII, XIII

KHIRBEH AL-HAJJAR1972: OBJECT REGISTRATION

OBJECT	DATE DUG	PAIL NO	LOC. NO.	FIELD DATING	MEASUREMENTS	COMMENTS
30. Bead	17 July	C.1.22	9	Ir. II	diameter at top - .3cm and .4cm diameter in middle -.8cm height - .5cm	black smooth marly limestone with microfossils Pl. IX
31. Broken pottery figurine	19 July	B.1.75	14	Ir. II	diameter of body - 2.3cm height from foot to shoulder - 5.4cm	red pottery back half surviving outline of tail on the rump Pl. IX
32. Clasp of fibula	19 July	C.1.29	10	Ir. II	length from clasp to coil - 6cm	bronze Pl. VIII
33. Pointed piece of bone	24 July	A.1.78	15	Ir. I & II	length - 13.2cm width - 1.8cm	curved possibly an awl Pl. IX

KHIRBET AL-HAJJAR 1972: OBJECT REGISTRATION

8

OBJECT	Date Dug	PAIL NO	LOC. NO.	FIELD DATING	MEASUREMENTS	COMMENTS
34. Stone cylinder with.	24 July	B.1.82	17	Ir. II	length - 2.5cm diameter of bottom - 2.8cm diameter of hole - .8cm	grey smooth limestone rounded at one end probably a loomweight Pl. IX
35. Potsherd with circular design	27 June	A.1.3	1	Ir. I & II, 3 Byz.	length at midpoint - 3.1cm width at midpoint - 1.9cm thickness (average) - .35cm	soft, red pottery fine grain Pl. IX
36. Coin	7 July	B.1.30	6	pottery Ir. I & II	2.5cm diameter .3cm thick	Phoenician coin from Tyre, dated C. 400 B.C. Bronze Pls VIII, XVI
37. Spatula	27 June	A.1.3	1	Byz, Ir. I & II	13.8cm long .3 cm diameter	Bronze. Flattened and split at one end. Pl. VIII