

KHIRBAT MARBAṬ BADRĀN/ RUJŪM ABŪ NUṢAYR: INDUSTRIAL AND AGRICULTURAL PRODUCTION CENTER PRELIMINARY STUDY OF THE EXCAVATIONS DURING 2003-2005

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First, I would like to express my appreciation to General Director Dr. Fawwaz al-Khraysheh for his special support of the first season, and the encouragement of digging to achieve a new reason or idea of building these massive structures. Our discovery would not have been possible without his efforts.

Adeib Abu Shmais, the archaeologist, directed the local team: Ashraf al-Khraysheh, Mashhour Abu Mater, M. Sarhan, M. Saqer and Mus'ab Abu Izhari. The drafter and surveyor was Qutayba Dasuqi, Gandhi and Osama were photographers.

According to an archaeological survey in 1988 (ASGA) carried out by the Department of Antiquities, this site was assigned as Wādī Marbat sites from (No. 8-23.Pal.G. 23910-15275). The settlement was established during the Late Iron II/ Persian period, often called Ammonite towers despite the reuse and extension of these structures in the Roman period.

Our fieldwork and regional survey began on May 14 until July 3, 2002. The background studies included:

1- This region has heavy cultural remains during the Ammonite period, from the late part of eighth century until the end of sixth century BC, spread out along the eastern plateau of al-Baq'a valley revealing large architectural structures; rectangular, squared with external additions/courtyards and circular units (Thompson 1972). These were built from rough-cut megalithic stones (the stone hewn from the outer face) spread on a flat area. Most scholars classified this type of building as military camps and signal towers at the frontal border of the Ammonite state. Others said it might be associated with agricultural fields, over looking farm stores or permanent watchtowers (Younk-

er 1991).

These structures may have served during the political conditions of late Iron II period to protect the industrial rural centers of the Ammonite Kingdom. This settlement consisted of an integrated village with architectural landmarks and clear cultural accumulations, so our exploration had taken place for the first time and revealed the presence of layers of cultural remains.

There are still three examples of these forms of settlements, considered by some as watchtowers for their occurrence of the site such as Rujūm 'Ayn al-Bayḍa, and Umm as-Suwaywina.

2- One kilometer northeast of al-Marbat settlement is another site called Khirbat Badrān (Glueck 1939), Umm Ballāna. It is a large tall containing a square structure from the same period, and other remains from Roman/Byzantine and early Islamic village.

3- The archaeological survey of greater 'Ammān ASGA took place in the year 1988 and also mentioned these cultural remains. Presence on settlements includes Iron Age, Roman/ Byzantine and early Islamic culture (Abu-Dayyeh *et al.* 1991).

Geographical Situation

The region is on the northern plateau of the al-'Aṣīma governorate area (UTM 772568E 3552400N, asl 913m), and extends for nine hectares. This area is influenced now with dense development of the Abū-Nuṣayr Housing City and the Jordan highway road (Fig. 1).

They have completed the infrastructure of this new settlements, and have effected directly the cultural remains which spread on the eastern mountains of Wādī al-Baq'a (Shafā Badrān*, al-Marj, Rujum al-Muraygha, Khirbat Umm Ballāna, Ṭāb

lands for planting sorts of trees (McGovern 1983) described Wādī al-Baq'a as the largest hydrological basin in east Jordan. The anthropological and archaeological studies result based in facts on the cultural evidence because of the existence of water resources.

* Al-Baq'a — the Cananite origin of this word continued in Aramaic dialect and in old Hebrew; Buq'at Hayam, means the lake.

Shafa means nature terrace, and sediment situated on the banks of the valleys in the hinterlands. The Aramaic word has the same meaning in Arabic (the lip); the best-fertile



1. Geographical and contour map. Rujūm Abū Nuṣayr.



2. Abū Nuṣayr housing city.

Krā': Abu Ghanemah: 1982) (Fig. 2).

Cultural Evidence

The traditional history referred to Ammonite Kingdom territories (Jel'ad I Kgs 4: 13, 4:19) in the Bible text it is referred to as Bani 'Amon.

Moreover, Beit Amman is mentioned in Assyrian inscription in the seventh century BC.

The impression is that this culture was connected with Persian-Hellenistic one. Very few Ro-

man pottery sherds were found in these structures (Glueck 1937-1939, 1970: 181). Glueck mentioned this site in a sketch drawing and called it 'Kherbit Morbat Bedran'. On a Jordanian map today, Rujum al-Muraygha is 500m southeast of our site (See Fig. 1).

Al-Marbat is a valley across the east side of the settlement and falls into the az-Zarqā' River. It is an essential position for an occupation. This site has proved this within the fields of the al-Marbat valley.

The environment of this area still has springs with the highest average rainfall in the eastern bank of Jordan River. Moreover, birds immigrate to these fields yearly. These two events were observed on 29/8/2002 and 6/9/2003.

In July 2002 work began for suggesting to excavate the site, there was no proposed planning more than what I mentioned before. The team examined the occupational mound beyond to choose sectors between structures large stones were scattered on a flat area. Some of these stones were used as animal pens from about one hundred year ago. 35 days were used to document, survey and clean the area before excavation took place.

Phase I

Modern animal pens covered the surface of this ancient settlement mound, reusing the falling stones by stacking them as a rectangular or oval shapes consisting of one course. It spread over 85% of the site. The earth was used as the floor of these pens, which mixed with the remains of sheep and goats was 40cm thick. This could date back to 100 years ago.

In a systematic survey, we identified 30 fragments of various basalt basins, 14 upper loaf shape millstones (ULSM), 8 querns, 2 obvious cisterns, group of cup holes, 3 wine presses, and a group of caves. These caves are in general, tombs of Bronze Age and Iron Age, some have a hole in the ceiling, so the cave at one time was used as a dwelling, 113 characteristic pottery sherds of the Iron Age and some other architectural elements were found. This collection indicated a seasonal domestic life. The destruction consisted of hewn stones reused as shelters for animals. This place is now called Rujum aş-Şunnā', which means the 'makers taken place', and to the northeast there is a cemetery. The study of these artifacts, which were discovered among the destruction, dated mainly to late Iron II period (Fig. 3).

The topsoil layer contained the same typology of these tools that were collected from the destruction of the site. There are the remains of the



3. Discovery of walls in the destructions of Iron II period. Area: A. looking east.

upper story of the structure.

Phase IIa

A rock tumble is the major destruction of this layer, 120cm deep. It consists of rough-cut limestone mixed with soft soil (10YR5/3 Brown), fragments of loom weights, charcoal and pottery sherds; in between domestic buildings A: A1: 3, A: A2: 4, C: A2: 2. This excavated area is located between structures No. 1 and No. 2 (Fig. 4).

The stratigraphic relationship of these walls is not visible from any direction in order to connect it with the structures mentioned above, A: A1: 7. The place of mud fabric used to prepare loom weight was discovered *in situ*, and plaster walls consisted of light red soil mixed with marl built



4. Location of excavated area.

against wall no. 3. This could have functioned as a store (U shape basin) (Fig. 5).

The following items could explain that function

- 1- Measures 90cm curve plaster line wall, 7-5cm thick, this could be a wall ca.102cm diameter, 120cm high and has a smooth surface from both sides. Ashy soil and collapse material filled the basin. The majority of loom weights were discovered in this fill; including 152 complete objects, it is well-fired, and there were a number of fragments. This number would seem to indicate a factory and production center. We found an amount of clay used to prepare loom weights.
- 2- The base of the U-shaped plaster walls laid on top of a rubble surface.
- 3- The bottom of the basin was built directly on the floor, similar to the one that discovered in Ḥisbān (Paul 2000).
- 4- There is no trace of firing from the exterior or the interior of the plaster wall.
- 5- There is a pillar stand in front of the basin used as a door jamb, 65cm high and situated on the floor (Fig. 6).
- 6- Platform/bench located 1.5m opposite the plaster store where the paste of clay was prepared, A: A: 12. It consisted of two courses along the west side of the room.

The function of plaster fragments curved to make a wall of a big storage pit. Therefore, the large number of loom weights discovered right there would indicate evidence of a production store. In addition, it could be related to this complex, and dated to the end of sixth century BC.

Phase IIb

The collapse debris in A: A1: 13-15 and A: A2: 15-16 related in general to the second story of the construction, which consisted of parallel corridors/walls (Fig. 6).

The thickness of this stratum measured 104cm.



5. Assemblage of loom weights and the store case of U shape plaster wall.

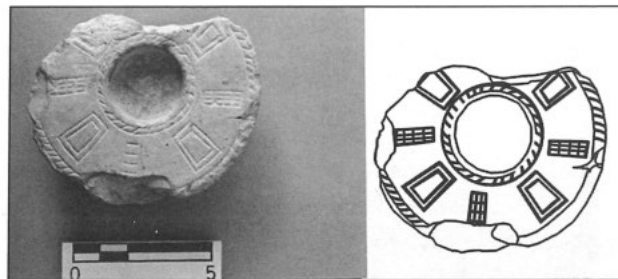


6. Pillars in structure No. 5, looking south.

Each wall integrated to the same building, and a basalt quern for grinding was found on the floor. This collapse could indicate an earthquake occurred during the control of Persian but the Ammonite presence was still commonly influenced with eastern culture; such as ornamental designs, in the discovery of bronze fragments.

In A: A2: 12, a subsidiary wall of 35cm thick, and one row of stones occurred in the eastern section of the stone pit (kuwwāra). This kind of architectural feature used in ancient times and continuing in local traditional system is called al-Khābyia (store room). The main walls are running in an east-west direction. Pottery sherds include two sherds of Attic ware (fifth to the fourth century BC). The presence of late Iron II/Persian pottery and the type of construction provided the main reason for dating these huge structures to the sixth century BC (Younker 1996; Bienkowski 2000). This destruction strata has the following finds:

- Burnt wheat seeds found just above the floor and beside the kuwwāra.
- Iron sickle, in a very bad condition, which appears to be similar to the new shapes.
- The black ashy layer 7cm thick containing animal bones, including a unique deer horn (Persian fallow deer).
- One of the finds in season 2003; A circular disk of local marble (steatite stone), interpreted as an Iron Age cosmetic palettes (Thompson 1971), and a weight object with Ammonite inscription (Fig. 7).



7. Cosmetic palette.

- Some of the pillars consisted of one stone (Fig. 6) (structure No. 5 pillar house) and floor pavements consisted of flagstones or hard beaten earth, Sqs A: A2: 16 and B: A2: 14 this technical style spread out before the Iron age, but more specially during Iron II. The pillar of wall construction A: A2: 3 has three holes as a socket. This could be a new technique in this phase in this period. Parallels include al-'Umayri (Herr 1999), Jalul (Younker 1996; Younker and Merling 1999), and Jāwā (Daviau 1996).

Pottery Assemblage

1. Surface collection has a very few late Hellenistic/Roman ones found in the first level of the destruction.
2. The dominant is late Iron age and close to Ammonite pottery. This remains had been located in general between structures 1 and 2.
3. Two sherds of Attic ware, fifth-fourth century BC. were found in this fill. My next study will emphasized on pottery sherds to clarify the connections of Iron Age culture and dating.

Conclusion

This type of construction still needs more discussion. Some observations have come from old sources; The Bible, Egyptian, Assyrian and Holy Qur'an mentioned the people who lived in the land of Can'an (Tyrant nation) or Giants. I guess that this title came from the huge size of boulders used in their buildings. These styles of structures can be seen around 'Ammān area today, scattered on the open fields, that called Ammonite towers, the period of biblical Ammonite. However, many of these structures flourished under the Persian impression (late Iron II):

- 1- These constructions did not command strategic views of the surrounding regions. However, it looks after agricultural fields as permanent watchtowers (Najjar 1992). Therefore, it could be constructed as production centers and stores, trace of cement plaster covered 2.8m of wall 1 in B: A2 : Structure 2 from the exterior side (Fig. 8), so this massive structures must be used



8. Cement plaster covered the exterior wall of structure No. II.

to keep their production, and it is out of military functions. In addition, this production needs to be in safe so as to help them in the next dry seasons. Some fortifications built in the Roman period as farmsteads as an example similar to this style of buildings. Therefore it is the center of production and the storage of the rule of the region, (Shaykh of the tribe or the feudal prince).

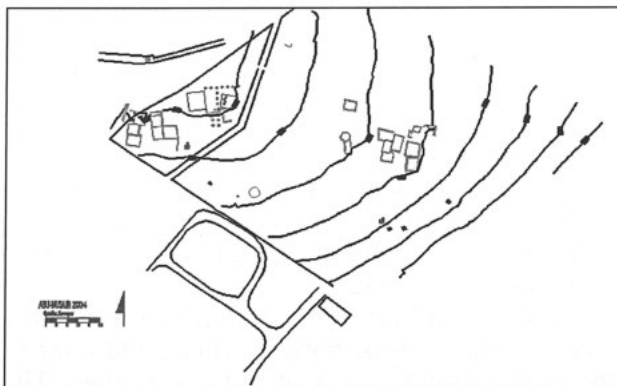
- 2- There is no military function such as fortified gate, surrounding wall (casement wall). None of spears or weapons found in or out side these buildings or city fences. More over the largest fields around 'Ammān today have these structures.
- 3- These constructions are not located near or on any ancient site. It is just among the main fields. So it is considered as agricultural complex. (Najjar 1992; Waheeb 1992). I can add it could be related to the important commercial roads and stability, and this will arrange independent economy.
- 4- These centers referred to the authority and orders under the kingdoms of Iron II period, so as to turn the direction of the tribes.
- 5- The conflict in late Iron II - Hellenistic period was the major reason to protect these centers by building this style of structures in view of the economical situation. In addition, to investigate this idea, Siran inscriptions referred to the cen-

ters of farming production, which mentioned agricultural constructions such as: cisterns, springs and gardens (Siran: Aramaic word means gardens, and still used in Arabic dialect today). The inscription dated to the seventh century BC, Ammonite culture (Thompson and Zayadine 1973). Moreover, statistics show numbers of loom weights indicate a center of wool production/textile (Fig. 5).

In Arabic, al-Marbat means place for resting the animals' (eg. camels, horses). This could refer to the economical function of these structures. The weaving process needed permanent sources of water for wool production in the places where loom weights were found (mass produce). The stream in the valley confirmed the reason for establishing the wool industry fabric in the al-Marbat settlement.

Therefore this site reflects or emphasizes the trade roots managed by the Ammonite Kingdom. In addition, the nature of their land was strengthened because:

- Ammonite Kingdom depends on trade routes and their region touches the desert area, which is expressed in their culture.
 - The people still live as tribes in a semi nomadic life. That is a good reason to build it in the rural regions (more than 20km from the center of Rabbit 'Ammon). And they still believe in 'Ash-tar which is represented in the land or earth.
- 6- In west bank of Jordan River the structure that called Migdalin has the same style of al-Marbat structures (new discovery in Ṭabaqat Faḥl revealed a temple of early Iron I in this style of architecture).
 - 7- Some scholars called these structures real estate and private administrative buildings. Is this too far off for this type of structure? Therefore, they had stored the industrial productions; for example, wine was the tribute sends to Persia instead of their protection (Herr 1995a and b). The majority of pottery finds are wine jars, and Keltter mentioned to these sites as a vassal state (Keltter 1991). This could be represented in al-Marbat site as followings
 - 1- This site still has eleven major buildings in seven hectares. It is considered as one settlement occupied in the late Ammonite period (Fig. 9).
 - 2- In Arabic the name of the site means 'the place were horses or camels stayed' and in the Holy Qur'ān it is mentioned as a military camp, which supports the truth of the old commercial ways (al-Munjd 1986).
 - 3- Rujum al-Muraygha has the same meaning as that mentioned above (item 2), but this could be so-called in the late Ottoman period, which is



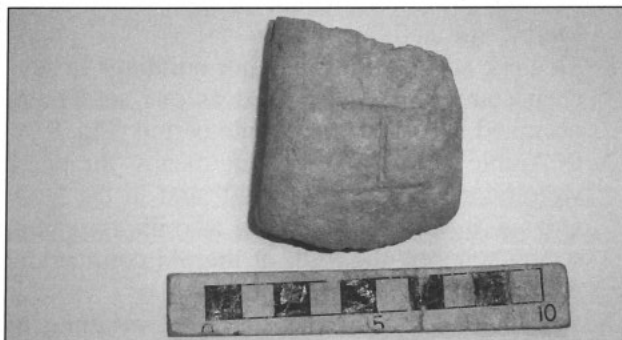
9. Top plan of the settlement showing the contour topography area.

close to this site.

- 4- This site leads to the main trade routes during Iron Age period. The smelting Iron Age site of Abū ath-Thawwāb/ar-Rumān (Herr 1995b), 2km north, supported this idea as a production center of loom weights and cloth. The number of weights was required for the number of threads on each loom weight and the density of the woven fabric. Moreover, there must be large number of sheep and goats, water and labor.
- 5- Clay weight with an Ammonite inscription (*alif*) reflects the trade routes and the progressive nature in this culture. Therefore a group of stone weights found in the Iron Age construction and potter's mark Ammonite letter *Zayn* found on a handle of a jar (Fig. 10).

Late Ammonite had obtained their independence under the foreign ruler, Persians, and organized their production dependent on natural sources in the agricultural landscape. Hence, the water produces the mechanism of making wool, and this is implicated in our understanding of controlling the hinterland. In addition, their regular contact provides the wool textile from their environment life.

Through this study we can say that the last stage of Iron II based on this model of structures and Abū-Nuṣayr was a kind of architectural models that reflected the power of the existing system of sov-



10. Ammonite inscriptions.

ereignty on their land.

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