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Archaeological Research at Tall al-Mashhad 1999-2010: Preliminary Remarks

The site of Tall al-Mashhad / Khirbat 'Uyūn Mūsā (FIG. 1) was first visited by Nelson Glueck on 3 May 1932. He described the main archaeological features of the old settlement, located near the 'Uyūn Mūsā spring at the foot of Mount Nebo, and collected a number of sherds and clay figurine fragments. He also made the first rough map of the site, which dates mainly to the Iron Age (Glueck 1935: 110-111).

In the 1950s, the site was visited by the German scholar O. Henke (Henke 1959: 155-163), with the aim of collecting evidence that might allow Tall al-Mashhad to be identified with the ancient city of Bet-Peor / Baal-Peor, which is associated with the death of Moses. According to the Biblical account, Moses was buried in the valley immediately opposite facing Bet Peor. However, this identification is not universally accepted; Van Zyl (Van Zyl 1960:

90), for instance, associates it with Zeret Sahar.

Another systematic reconnaissance of Tall al-Mashhad was carried out in 1995 under the auspices of the Mount Nebo Survey (Mortensen and Thuesen 1998: 84-99), organised by the Danish Palestine Foundation and led by Prof. P. Mortensen. On that occasion, the main period of occupation of the site was identified as Iron II (between *ca.* 900 and *ca.* 600BC).

The most recent archaeological investigations at Tall al-Mashhad began in 1999 in response to an invitation from the Franciscan Archaeological Institute to the C. M. Lericci Foundation in Rome to help protect important archaeological evidence in the area, within the framework of the archaeological activities that have been carried out by the former institution in the Mount Nebo area over many years¹. This intervention has become all the more



1. Site of Tall al-Mashhad from the east, with the Jordan Valley in the foreground.

¹ For a summary of the excavations carried out in recent decades in the Mount Nebo area (see Piccirillo and Alliata 1998).

necessary after the widening of the modern road, which has literally cut the archaeological site in two².

The C. M. Lerici Foundation sponsored the 1999, 2000 and 2003 seasons of research at Tall al-Mashhad; the Project also benefited from an Italian Ministry of Foreign Affairs grant. The 2010 season was sponsored by a private grant from the OLIM Association in Rome.

Research Conducted at Tall al-Mashhad

Surface Survey

During site reconnaissance it was observed that, on the southern side of the modern road, the urban area extended further towards the west, as evidenced by architectural remains in the vicinity of the Byzantine Churches of Kayanos and Deacon Thomas. There was a concentration of masonry and surface sherds in this area, especially of fragments dating to the Iron II and Byzantine periods.

The pottery dates mainly to the latest phases of the Iron Age, specifically Iron Age IIC (*ca.* 722-586BC). No Early Bronze Age or Nabataean sherds were collected during the 1999 survey. Some Byzantine surface sherds were collected at various locations on the site. During the 2010 season, a fragment of Mamluk pottery was recovered.

An ostrakon was found along the modern road, bearing a legible graffito inscription composed of at least three letters (possibly "LPN") in a north-west Semitic language. At the present time no interpretation can be put forward; however, on the basis of a preliminary palaeographic analysis, the inscription may well date to the Iron II period.

Survey of the Modern Road Section

These structures, aligned along an axis some 13m long, are partially visible in the section approximately 6m above road-level and can be attributed to a large, presumably domestic building. Cleaning and recording of the section revealed two occupational phases characterised by different floors and pottery dated to the Iron II period.

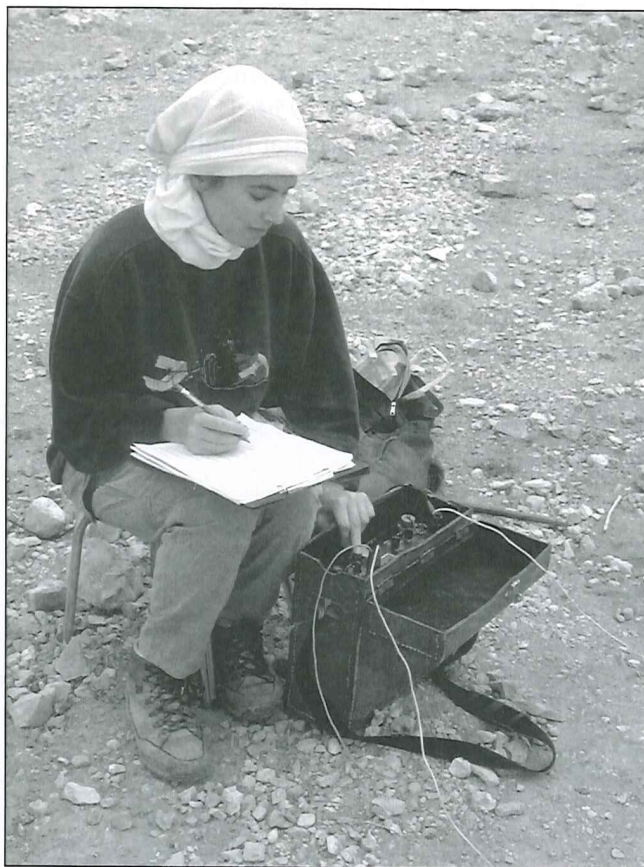
Geophysical Investigations

A geophysical survey was carried out in the 2000 season with the aim of providing further informa-

tion about the site in order to facilitate the planning of future excavation seasons (FIG. 2).

Three areas (A, B and C) were identified for survey. Areas A and C were selected on the basis of the presence of traces of stone structures on the ground surface, which may be indicative archaeological remains. Both of these areas are within the area of the site as defined by field survey. Area B was chosen because it consists of a large, flat area in a prominent position immediately behind the square structure on top of the hill. As the soil is dominated by sand and limestone, it was decided to use resistivity and ground-penetrating radar techniques.

In Area A, which measured 30 x 40 m, the north-eastern and part of the western areas were characterised by high resistivity readings owing to a near total lack of soil; in fact, limestone outcrops began at the edge of Area A. Readings were lower along a long, roughly north - south strip where at least one metre of soil was thought to cover the limestone



2. Geophysical investigations (2000).

² Since 1999, the team has consisted of Massimo Benedettucci, Fabio Parenti, Luca Aprile, Paola Conti, Sylvie Coubray, Stefano De Luca, Andrea Schiappelli, Fiammetta

Sforza, Giovanna Verde, Simona Bracci, Angelo Ghiroldi, Nicolò Pini, Giacomo Tabita and Francesco M. Benedettucci (Director).

bedrock. Within this area, some obvious discontinuities were detected. Considering their shape, the clear change in resistivity readings and their direction perpendicular to the slope, it is reasonable to hypothesise that these anomalies indicate the presence of buried masonry structures. In the eastern area it is more difficult to interpret the results because of the high resistivity readings. In this area, possible anomalies associated with stone structures are much less evident.

Area B was also investigated by resistivity and ground-penetrating radar techniques. Here, the effect of the geological setting is particularly clear, as readings decrease from west (where limestone outcrops are present immediately adjacent to the surveyed area) to east. It was also possible to detect this dipping of the bedrock in the ground-penetrating radar profiles, which become deeper to the east. The clearest anomaly is a possible rectangular stone structure, measuring approximately 5 x 7m, buried in the south-western area.

In Area C, on the edge of the archaeological site, only resistivity was used as the steep slope and abundant surface stones made use of ground-penetrating radar more complicated. Nevertheless, some possible archaeological features were detected, although the alignments of surface stones don't seem to continue below the surface.

Excavations

In the 1999 and 2000 seasons, excavations concentrated on a series of rooms identified south of the modern road, on a cliff some 20m above the wadi bed.

The most significant structure was a massive wall preserved for a length of about 20m and standing to a height of at least 1.5m above modern ground surface. It runs in an east - west direction and is constructed of large, roughly-dressed, dry-laid stones. On the south side it supports the walls of at least three rooms, two of which were excavated during the 1999 season.

The spaces defined as Rooms 1 and 2 reveal two different occupational phases, both related to the Iron II period and probably similar to those visible in the modern road-cut, where structures damaged during construction of the road were constructed on the limestone bedrock forming the basal layer of the tall.

The earliest phase was characterised in both rooms by a yellowish beaten silt / clay floor about

20 - 30cm thick, laid over rubble foundations to level the uneven original ground. On and within the beaten earth floor, several sherds dating to Iron Age II were found; the scarcity of finds, in combination with the absence of internal structural elements, prevent the use of the two rooms in this first occupation phase from being fully determined.

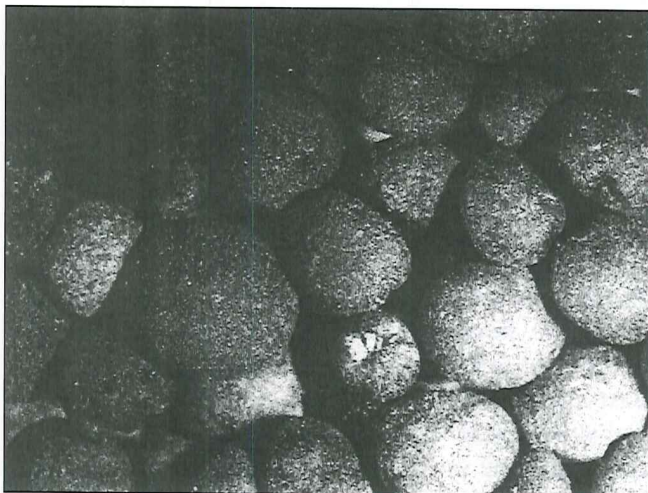
The upper deposit is similar to the upper layer found in the modern road-cut. In the excavation area it was friable in consistency and grey - black in colour, owing to the presence of ash; its average thickness was about 60cm. Room 1 (about 6 x 3m) had a square fire-place in the north-west corner; the remains of a charred, oval, olive wood (*Olea europaea*) container some 25cm in diameter were found along the adjacent north wall. The latter contained the remains of a large quantity of charred cereal grains, primarily barley *Hordeum vulgare* (4 - 6 rowed unhusked barley) (FIG. 3). On the eastern side of the room were several near-circular structures made of medium and large stones (FIG. 4). A number of these proved to be silos, in which vessels, especially ovoid jars, filled with food were placed. In Silo 3, near the north wall, there was a jar containing the remains of many lentils (*Lens culinaris*) (FIG. 5). Numerous fragments of other food-storage vessels (jars and kraters) were found throughout the deposit. In Room 2 (about 3 x 3m), the same floor was associated with the presence of at least three fire-places, one each in the north-east and north-west corners and a third in the central area; there was probably also a fourth, badly damaged one on the west side. The room seems to have been delimited on the south side by a row of



3. Barley grains from the 1999 excavations.



4. Excavations in Room 1 (1999).



5. Lentils from the 1999 excavations.

stones placed directly on the yellow beaten earth floor. Room 2 also contained food-storage vessels, some *in situ* though in fragmentary condition, with at least two kraters characterised by a very large mouth (*ca.* 50cm in diameter) and no less than eight vertical handles.

The most significant finds from Room 2 were a lamp of hitherto unknown type and a vertical handle fragment bearing an inscription.

The lamp was found in the north-east corner; it has three vertical elements in the bowl, the purpose of which remains uncertain. This characteristic has no parallel in the Iron Age Syro - Palestinian repertoire and makes the object particularly valuable, as it is of a completely new type.

The handle fragment belongs to a krater or jar

and bears the inscription "SMN", i.e. oil, which was incised in the clay whilst it was still soft, before the vessel was fired (FIG. 6). A preliminary palaeographic analysis undertaken by E. Puech (CNRS) dated the object to the period between the late seventh and early sixth centuries BC (Puech1999). In particular, the three letters show palaeographic similarities not only with the epigraphs on several Moabite and Ammonite seals, but also with a number of contemporary Phoenician and Aramaic inscriptions. On balance, the most probable dating would seem to be early sixth century BC. The practice of writing the name of a product on the vessel that contained it was apparently quite common in Syria - Palestine. Evidence for this has been found on several fragments from Tell Keisan (Puech



6. "SMN" inscription on handle from Room 2.

1980: 302-303) and Beirut (Badre 1998: 114), on which the same word "SMN" appears. The only difference, however, is that on these specimens the inscriptions were painted on the kiln-fired vessel; the handle fragment from Tall al-Mashhad seems to be the only one on which this was done before firing. This is the first definitive evidence from the region for the existence of pottery types specifically designed for the storage of a particular product.

On the basis of the finds, the use of these two rooms during this phase may be determined fairly accurately: the presence of silos containing jars and the wooden vessel containing barley indicates that Room 1 was in all likelihood used mainly as a food store; Room 2, on the other hand, may be identified as a kitchen owing to the presence of a large number of fire-places.

During the 2000 season, excavations were concentrated on the Room 3 (FIG. 7). Here, paving and fixed structures, such as fire-places, were completely absent, with the exception of a possible fire-place in the north-east corner. Very little pottery was recovered, and that which was derives from the latest phase of Iron Age II. The most interesting object was a small carinated bowl found in fragments at the base of the northern wall; this type is also well-represented in the pottery from Rooms 1 and 2.

Excavation of the Building on Top of the Hill

The main efforts of the 2003 and 2010 seasons at Tall al-Mashhad were focused on producing a preliminary sketch-plan of the building dominating

the site and the excavation of soundings in that same area. The sketch-plan of the building was completed during the 2003 season; it clearly shows the different lines of very well-preserved stone.

In 2010, during a preliminary visit, evidence for recent illicit digging in the form of a robber-pit, up to 6 m deep, was noted right in the centre of the site. This was a danger not only to the archaeology, but also to the safety of the people involved in the excavation. As a result, it was decided to refill the robber-pit with its own spoil heap, after closer examination to collect a possible pottery sequence; efforts were subsequently concentrated on the enclosure wall.

The enclosure wall has been completely excavated on its north and west sides. On the north side, it was constructed directly on bedrock and emerged from the ground to a height of at least 2.5 - 3m. It runs in an east - west direction and is built of large, roughly-dressed, dry-laid stones. The wall consists of a double line of stones, creating, in the vicinity of the north-west corner of the building, a smaller corner (FIG. 8). About 1 m from the wall, a smaller wall was noted, the height of which did not exceed 0.7m; it probably retained a sidewalk. On the western side, the wall was also constructed directly on bedrock; it emerged from the ground to a height of about 1.2 m; collapsed stones from the upper courses were present at its base.

On the east side, the enclosure wall was excavated in only two areas, starting at the north-east and south-east corners. In the central part of the east side, the presence of an unstable outer wall,



7. Excavations in Room 3 (2000).

similar to that facing the north side, made continuation of the excavations impossible. The south side, facing the ancient village, was not excavated.

The majority of objects recovered from the excavated areas seem to date to the latest phase of Iron Age II (eighth to sixth centuries BC). The best represented types are Ridged Neck Jars and kraters with a large mouth. Other artefacts include a few spindle whorls and a small fragment of a glazed object, perhaps part of an Egyptian or Egyptianising amulet.

During the four seasons of excavations at Tall al-Mashhad, a number of ground stone objects were collected from the site surface and excavated areas. At least four groups have been identified: (a) upper grinding stones, usually elongated / cigar-shaped and often with a flat side, (b) lower grinding stones, usually a flat, rectangular stone, most probably used in conjunction with (a) above, (c) pestles, usually a ball-shaped or cylindrical pebble, and (d) mortars, probably the most interesting type owing to the variety of shapes and sizes, ranging from basalt dishes with a ring base to large limestone mortars with a deep hole in the centre. All of these objects are typically manufactured on limestone or basalt.

Conclusion

The Nature of the Site

Tall al-Mashhad appears to have been a mainly agricultural settlement, as demonstrated by the great number of grinding stones, pestles and mortars scattered over the surface of the site. This hypothesis is also supported by the presence of a spring

and the richness and fertility of soils in the vicinity of the site. The settlement was probably situated on terraces constructed in response to the natural slope of the hill. This is confirmed by the presence of a number of lines of stones, usually running east - west. This is probably the situation in the case of the north wall of Rooms 1, 2 and 3, which were excavated in 1999 and 2000. The site is dominated by a large square building, the exact nature of which remains to be defined; excavation of this structure commenced in 2010.

Chronology

According to the archaeological data, the main phase of occupation at Tall al-Mashhad is Iron Age IIC, corresponding to the period of Assyrian and Babylonian domination of Transjordan; the majority of pottery types date to this period. During the following periods, the site doesn't seem have been inhabited. The second and last important phase of occupation was during the Byzantine period, particularly in the western part of the site where the remains of at least two small buildings, perhaps linked to the presence of the Churches of Kayanos and Deacon Thomas, can still be seen.

Acknowledgment

The archaeological research at Tall al-Mashhad has been possible thanks to the kind and helpful co-operation of the Department of Antiquities of Jordan. I wish to express my gratitude to the Director, Prof. Ziad al-Saad, and to all the people of the Department of Antiquities, especially Catreena Hamarneh



8. North and east sides of the fortress after the 2010 season.

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