

EARLY BRONZE AGE UMM SAYSABĀN EXCAVATION CONTINUED IN 2001: INSIGHTS AND CONJECTURES

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Introduction

After the excavation in the settlement on Umm Saysabān by the Naturhistorische Gesellschaft (NHG) Nürnberg (Germany) directed by Manfred Lindner (Lindner *et al.* 2001: 287-310), the project was, on his behalf, carried on by another team from NHG in June 2001 (Figs. 1, 2). The settlement on the plateau of Umm Saysabān is located to the north of the ad-Dayr monument of Petra above the abyss of the Wādī Mirwān, and backed



1. Umm Saysabān. End of excavation 1998/99 (photo: Gunsam).



2. Localisation and end of excavation 2001 (photo: Gunsam).

by the rock wall of Jabal ad-Dayr at 1000-1020m asl (Fig. 3). Two structures, rectilinear “broad-rooms”, one with a door in the eastern wall, had been sounded and excavated. They seemed to belong to a longhouse of 10.30m length that may, after the “Arad type” architecture of one structure, have been originally used or planned as a dwelling but later used only for storage^{1, 2}.

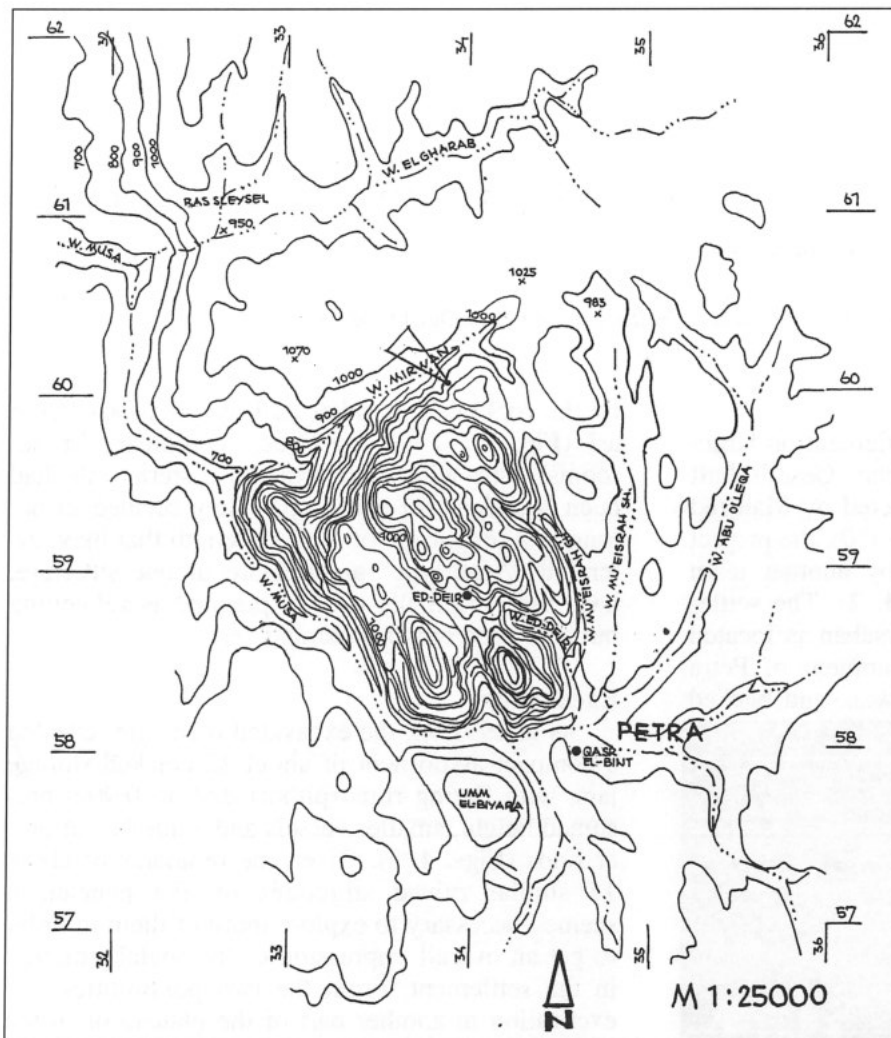
Excavation

As in 1997/98, the excavated rectangle revealed a compact assortment of about 22 cracked storage jars, with flaring rims (pithoi) 0.80 to 0.90m presumed height, smaller vessels and a number of other finds (Figs. 4, 5). Given the remnants of about 15 similar ruined structures on the plateau, it seemed necessary to explore more of them in order to get an overall impression of the social structure in the settlement. From the two possibilities, i.e. excavation in another part of the plateau or in the adjoining area, the latter was chosen. Because a prolongation to the south was to no avail, the new excavation area was placed 6m from the northern end of House 1 and also directed approximately towards the north (Fig. 6).

Beneath sand and debris in House 2, as it was called, bedrock was reached at a depth of 8cm, unfortunately preventing any stratigraphy but bearing witness to ample destruction of the exposed site at the rim of the plateau. The Ordovician sandstone slabs, which were still standing upright in House 1 had tumbled in House 2. Several were found lying inside the structure. There were no banks as in one of the previously excavated broadrooms. Seemingly the ground plan was not exactly aligned to House 1. Its size of 4.95 x 3.05m indicated that only part of the structure was revealed. In fact, a continuation towards the north was exposed, but

1. “The domestic architecture of EB II-III is characterized by rectilinear multi-roomed structures generally built of mud brick on stone foundations, sometimes with internal blanks” (Philip 2001: 180). Philip adds that locally available materials influenced the building practices.

2. Concerning House I and possibly others not yet explored, Holladay in another context suggested to differentiate between structures “primarily or completely relating to designed function; relating primarily to use function and final function” (1986: 108/109).



3. Location of Umm Saysabān. Palestine Map 1:25 000 (Gunsam).



4. Excavation in House 2, House 1 in background (photo: Schreyer). The excavation area showed the consequences of erosion and destruction.

covered again. Bedrock fell down towards the east where it revealed, between tumbled wall and broken floor slabs, a concentration of cracked jars. It was in that part of the excavation that among others, Jar 2/4 and a corresponding bottom were verified as an example of the whole contents. House 2 was excavated in two squares with a bulk, which was removed later on. As there was no significant difference between the two halves the finds are list-

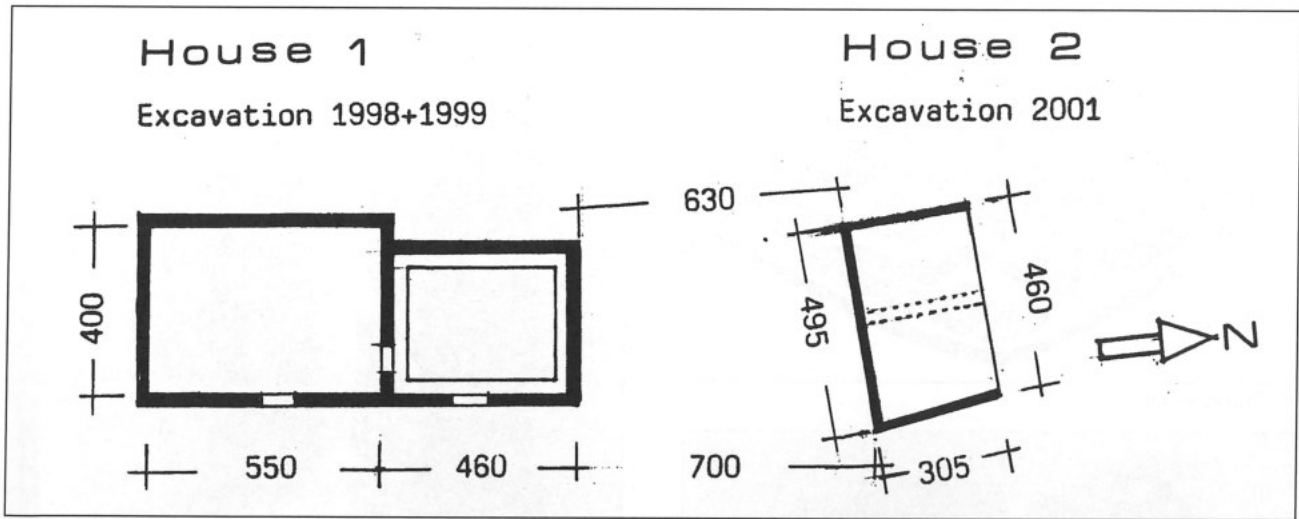


5. Detail of House 2 excavation (photo: Gunsam).

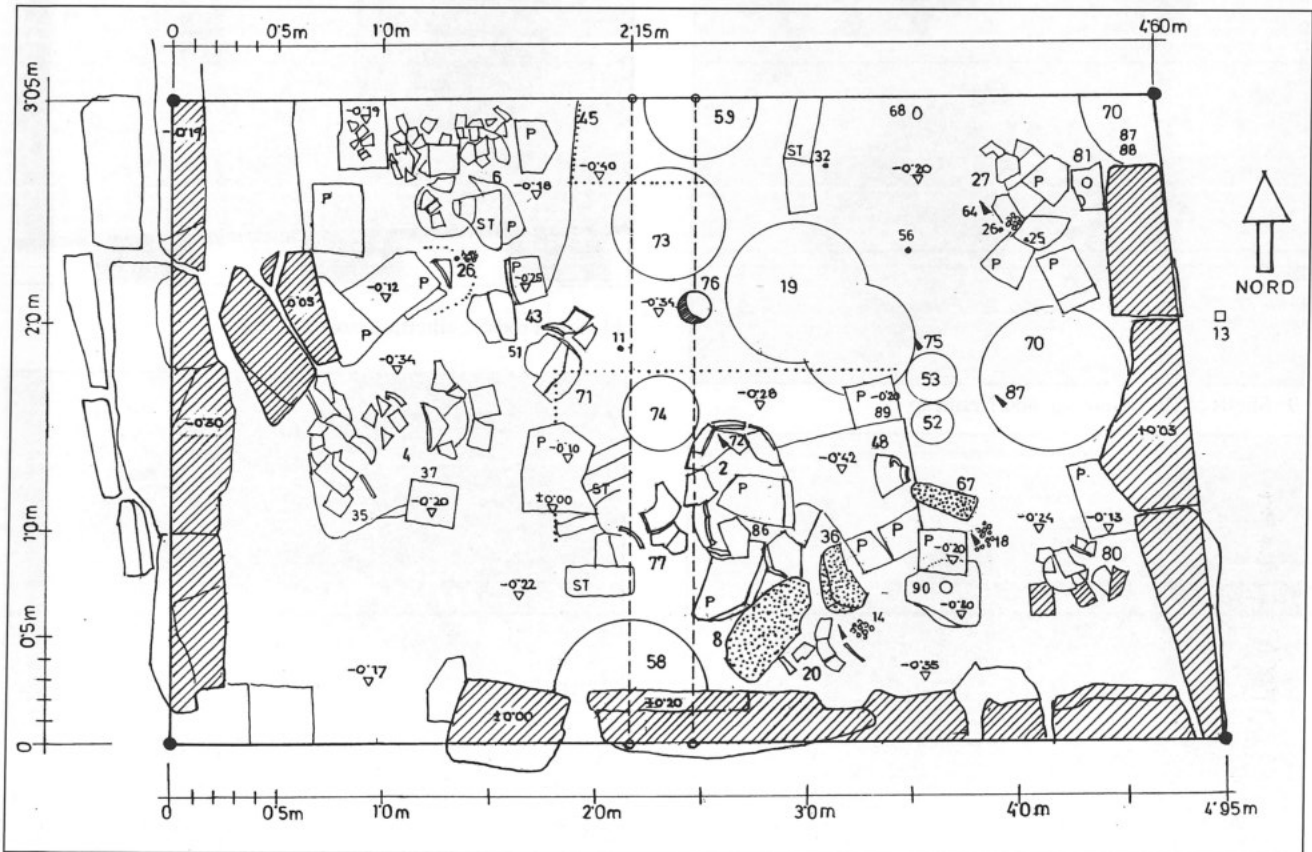
ed for the whole excavated structure (Fig. 7).

Non Pottery Finds from House 2 (2001) (Figs. 8-14)

1. "Prayer stone" — Surface (Fig. 8).
2. Snail shells (*Trochoida seetzenii*).



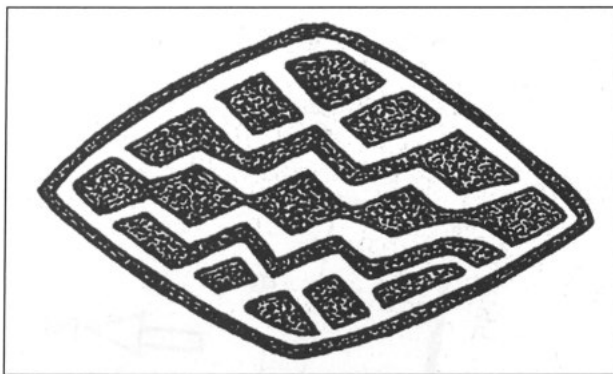
6. Locations of House 1 and 2 (Gunsam).



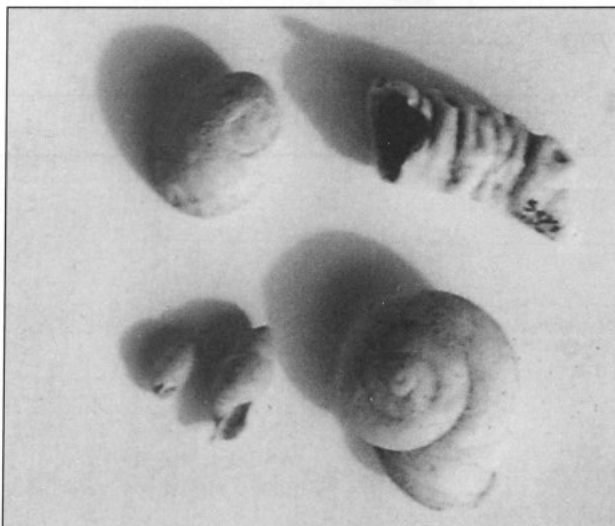
7. Excavation of House 2 (Gunsam).

3. Shells of *Buliminus* sp. and *Nerita* sp. (from the Red Sea according to H.G.K. Gebel) (Fig. 9).
4. Undetermined fossil, perhaps a piece of coral (2/88) (Fig. 9).
5. Fire places of different sizes, one a larger burnt patch (2/71) (2/18/71).
6. Fragments of charcoal.
7. Depositions of finely grained loam (2/18).
8. One round lid of grey slate (2/86).

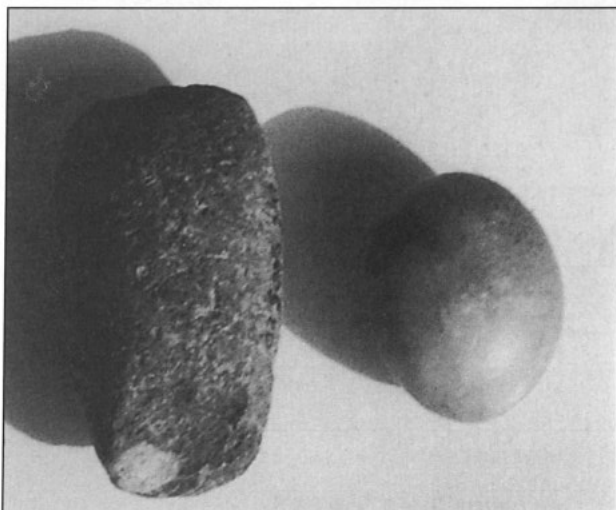
9. One quern 26 x 53cm (2/8).
10. One quern 10 x 34cm (2/67).
11. One rubbing stone (mano).
12. Stone chisel, used (2/51) (Fig. 10).
13. Rolled quartz pebbles, used (2/68).
14. Short "rods" of silicified stone fillings ca. 6cm long (broken) (Fig. 11).
15. Worked fragment of whitish stone (0.20 x 0.22m) 5cm thick (2/89).



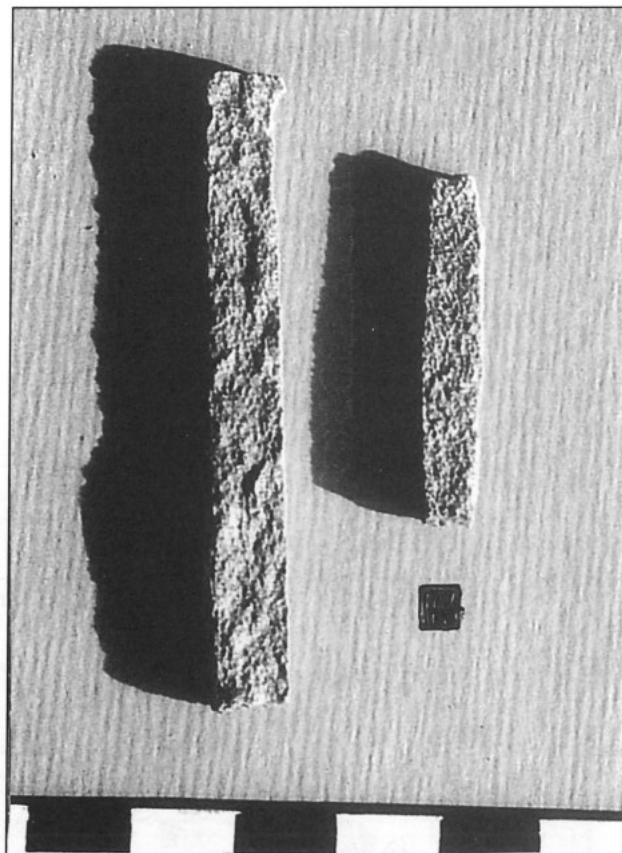
8. Prayer stone.



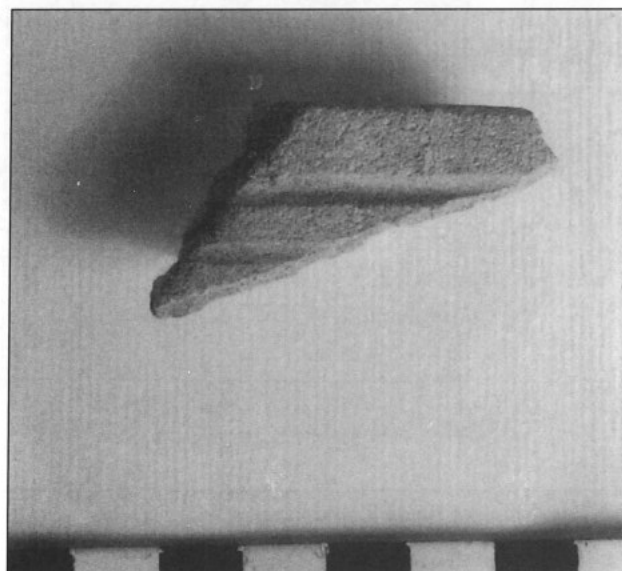
9. Shells of *Buliminus* sp. and *Nerita* sp.



10. Stone chisel.



11. Short rods of silicified stone fillings.



12. Undetermined fragment.

- 16. Whitish stone slab (0.36 x 0.30m) with socket (2/90).
- 17. Round socket (0.15 Ø, 0.13m deep) in bedrock (2/76).
- 18. Undetermined fragment, definitely not EBA (Fig. 12).

- 19. Naturally shattered flint sphere ("Hornknolle") (2/26) producing "debitage" (Fig. 13).
- 20. Worked white stone with a socket in the center (pivot?).
- 21. Small depot of ochre.
- 22. A couple of Nabataean sherds.



13. Naturally shattered flint sphere.

23. Lava encrusted sandstone (Fig. 14).

Observation

Compared with the big turnout of significant finds in 1998/99, the find material of 2001 was poor in variety as well as in number. The snail shells were the same as in House 1. The stone chisel and the rolled quartz pebbles, the only implements by the way, were not unexpected. Like a quern and a lid they had apparently survived due to their weight. Of interest might be the fragments of a worked flat stone, perhaps used for pivoting a door (?) and another worked stone presumably for erecting a roof pole as in House 1 (Fig. 15). The round socket in bedrock³ was similarly seen at Khirbat al-Fid (E. Gunsam pers. comm.) in an Ear-



14. Lava encrusted sandstone.

3. The houses were erected on and partly sunk into a tableland of white Ordovician sandstone breaking and easily broken into large slabs. Fallen from higher up, pieces of it are e



15. Storage jar in situ with a jug in background (photo: Gunsam).

ly Bronze context north of Petra. The short silicified "Stäbchen" with a quadrilateral cross section were washed out of the sand. Grey lids of different diameters were found in greater number in House I. The loam might have belonged to wall or roof or ground floor. The lesser yield of significant finds is probably due to the exposed place, but perhaps also to a different furniture and equipment (Fig. 16).

The Pottery of Umm Saysabān 2001 (Figs. 17-22)

The necked storage jars (pithoi) corresponded with the finds in House 1. They are obviously contemporaneous and were dated by H. Genz to "within the Early Bronze Age (3100-2700BC) in EBII/III". The difficulty of dating is explained by the peripheral location where, according to H. Genz, the development of new forms may have been slower. As far as could be made out, all vessels were hand-made from red clay with fine to medium grits, none

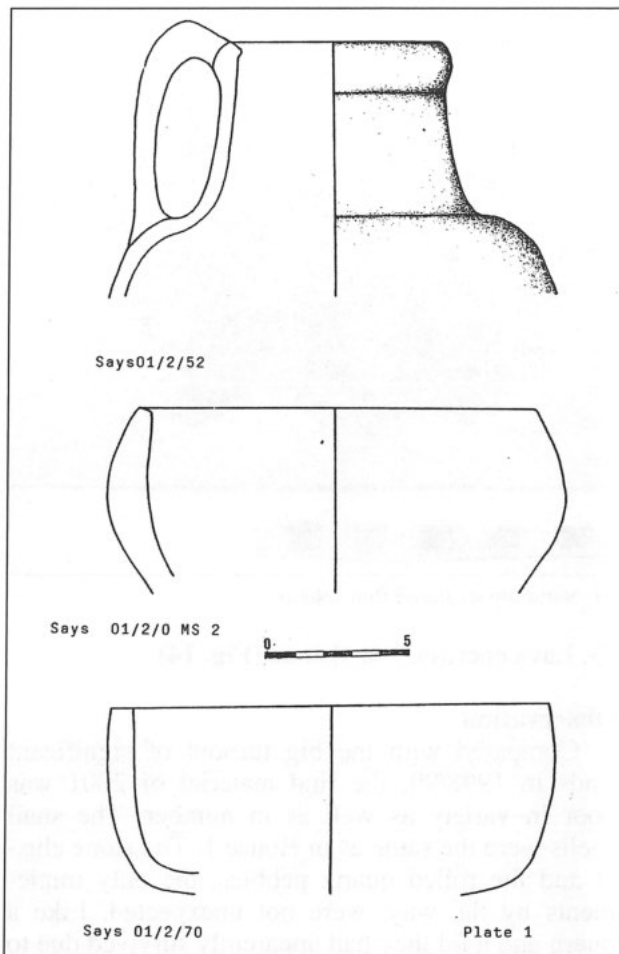
crusted with lava that had solidified in pie-sized form. Massive examples of more than ashlar-size were used as corner stones in House I.



16. End of excavation House 2. Note the hole in white stone (photo: Gunsam).

of them organic. Apparently they were not home worked but rather made by itinerant workers or in a workshop (Genz 2004)⁴. There were remarkable differences in the length and tilt of the necks. The apertures varied between 0.11 and 0.20cm. Surprisingly, several fragments belonged to vessels of estimated 0.60m corpus diameters. According to the number of presumed whole vessels they were originally stored with the lighter ones on top. Their fragments were of course found between the larger pithoi. The handling was alleviated by upturned ledges, one of them incised. A jug equipped with a loop handle, two bowls and a twin-bottle were stored household ware just as vessels with thin loops and lugs, all of them outside the storage pithos type. There were a few fragments of small spherical vessels but no cups to speak of and no platters to be identified. Contrary to House I and its surface no tabular scrapers were found in and

4. Regrettably, Hermann Genz who analyzed the EB pottery of Umm Saysabān in 1998/99 was not available for this publication. While assessing and analyzing EB potmarks, he concludes that visible potmarks are quite plausibly con-



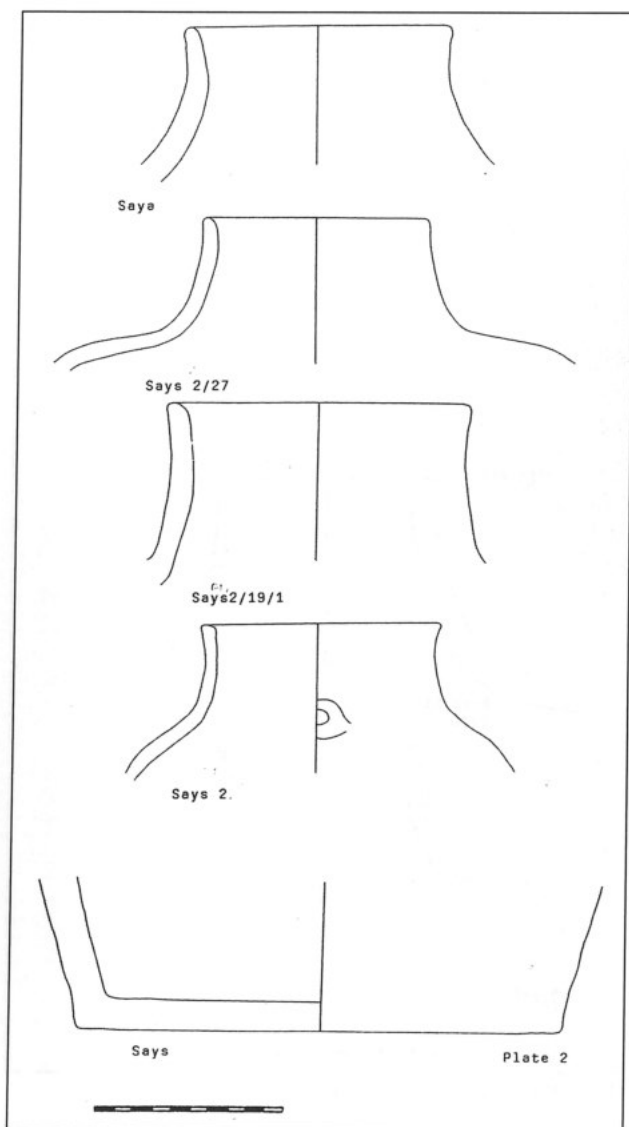
17. Pottery from Umm Saysabān.

around House II.

Discussion

In the first report on the 1997/98 project, the reader might have gained the impression that the storage jars of the Umm Saysabān plateau were all approximately the same size and configuration and were exclusively used for the storage of cereals, like barley or wheat (Fig. 23). With the openings of such different diameters and the variety of necks as to their length, tilt, and additionally the oversized pithoi, different contents of the vessels might be conjectured. It is true, short pieces of a bristle-like material were detected in House I after washing the soil. The microscope revealed "cubical plant cells probably of cereals" (Lindner *et al.* 2000), but that does not prove that all vessels were used for the same purpose, though cereals were well stored in the wind-protected place. Theoretically, peas, len-

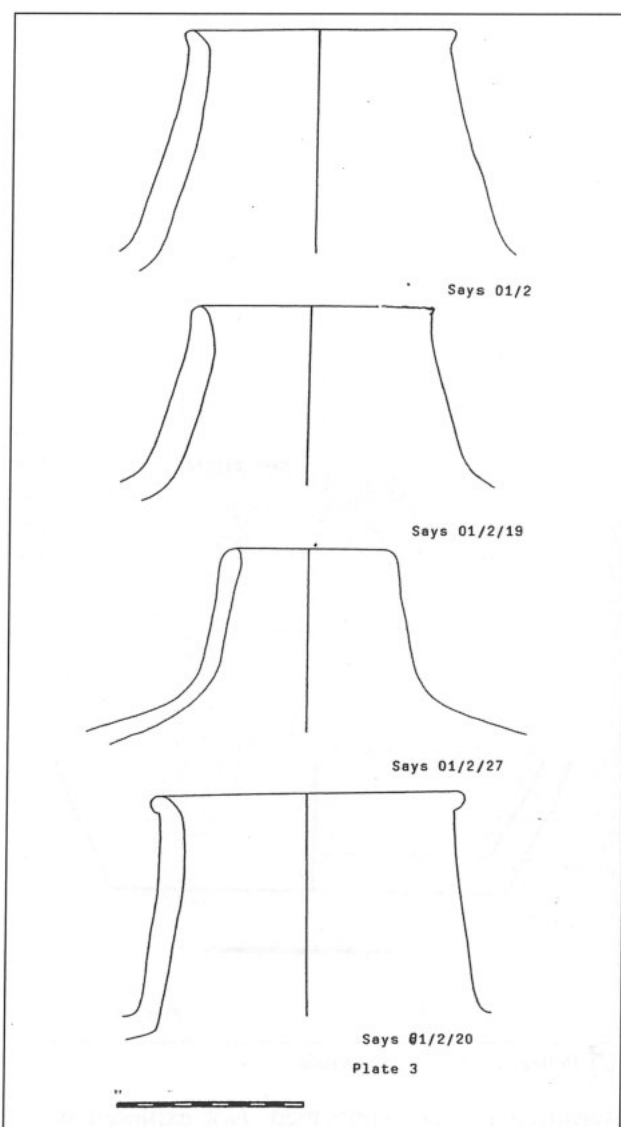
nected with the contents of the vessels. There were no potmarks at the Umm Saysabān jars so far, but, as H. Genz suggests, unmarked vessels could be used for storing varying contents (Genz 2001: 226-227).



18. Pottery from Umm Saysabān.

tils, chick-peas, (nut?) oil or even wine could have been stored⁵. Unfortunately, no residues of contents were found among the heavily eroded fragments. Though the whole pottery assemblage testifies to storage, lastly we do not know what exactly was stored.

Previously it was assumed that the people on the plateau lived there only in summer and moved in winter to the warmer climate of lower valleys to the north of Umm Saysabān. However, it was suggested that the people of the Saysabān plateau might have lived there all year round, only leaving it for agricultural, herding and trading activities. By using movable tents, they might not have suffered from the accumulation of vermin. Addi-



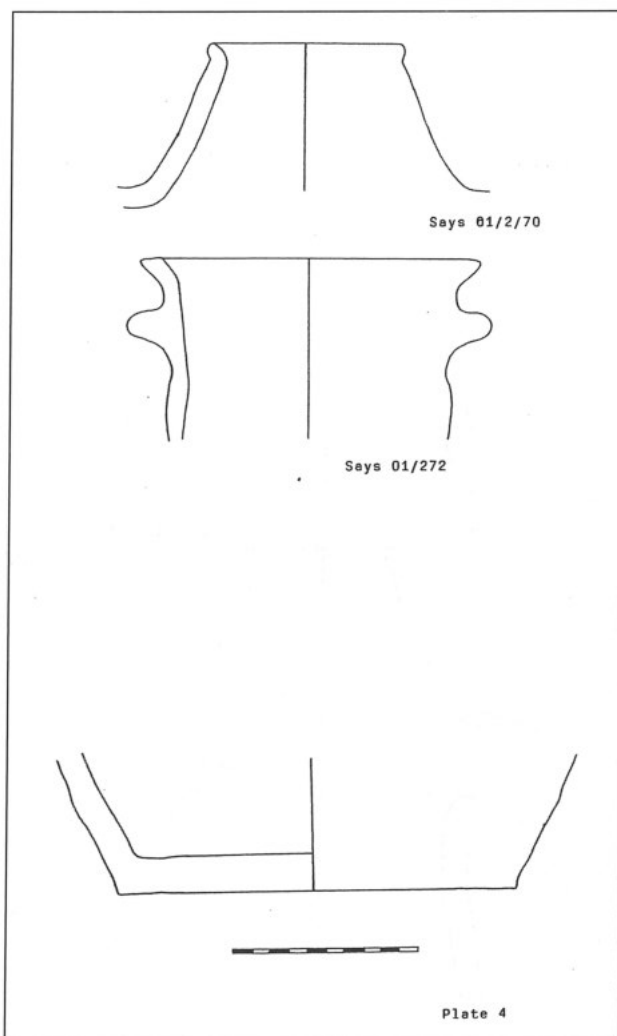
19. Pottery from Umm Saysabān.

tionally the number of the population was estimated to no more than 50 to 80 adults, conjecturally assuming that each family had their own storage facility, with animals and children, they would have lived in a crowded space.

Mineral deposits on a rock wall suggests water falling over a long time, and a large hole beneath is filled with heavy boulders. The hole would have allowed run-off water from (natural) catchments above to be stored. Originally the water ran down to the steep Wādī Umm Saysabān as it does now. Near the southern end of the plateau there is another run-off conducting water perhaps to a reservoir further down the mountain. The existence of a cistern to the north of the excavation area was

5. Admittedly, in a warmer climate, already in Neolithic and Chalcolithic periods cultivation of emmer, barley and lentils was practised. The inhabitants of the Umm Saysabān

plateau might have at least known about possibilities, even if they could not realize them or not all of them (Bourke *et al.* 2003: 377).

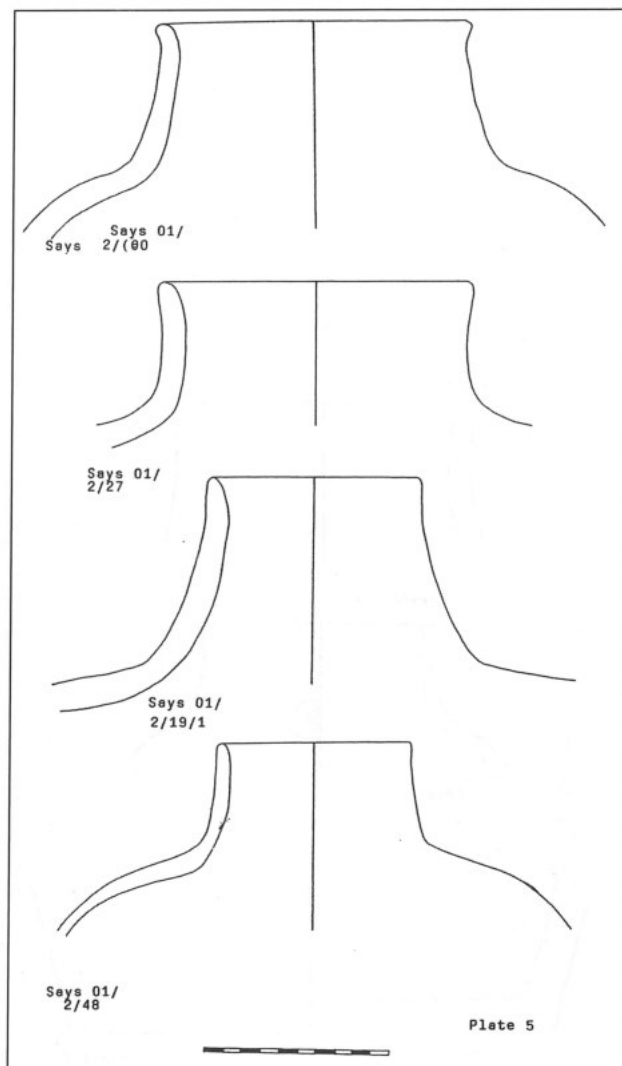


20. Pottery from Umm Saysabān.

surmised but not confirmed. Not explored was a cave in the rock-wall.

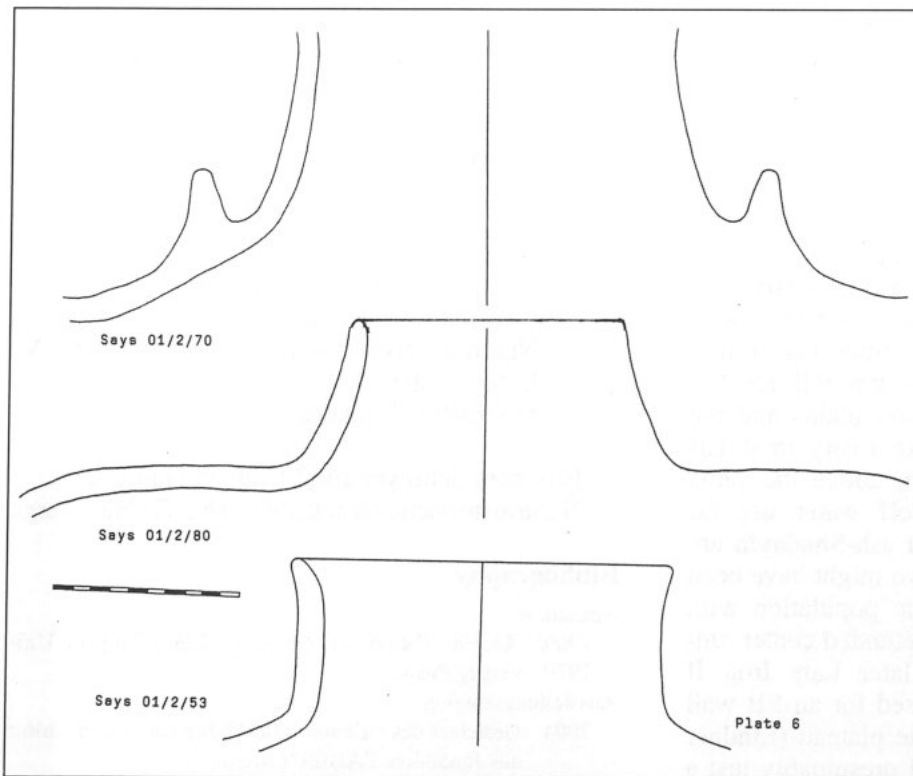
Traces of house foundations to the northeast of the walled settlement were noted on the way to Rās al-Mu‘ayşra al-Gharbiyya (Lindner *et al.* 2000) (Fig. 24). Such an extension of the settlement with storage houses or dwellings, if verified, would require an entirely new analysis of the inhabitation of Umm Saysabān. The majority of the population might have lived outside the walled place, which would in this case have been a kind of “acropolis”, a refuge and the storage center for an agricultural community.

When, why and how was the settlement of Umm Saysabān abandoned? No traces of a later occupation, except the use by Nabataean herders (and their successors to this day), were noticed. The “When” should have been still in the third millennium BC. The “Why” allows for different conjectures. Beside the fireplaces, which may be later, there are no remnants of a wanton destruction or an

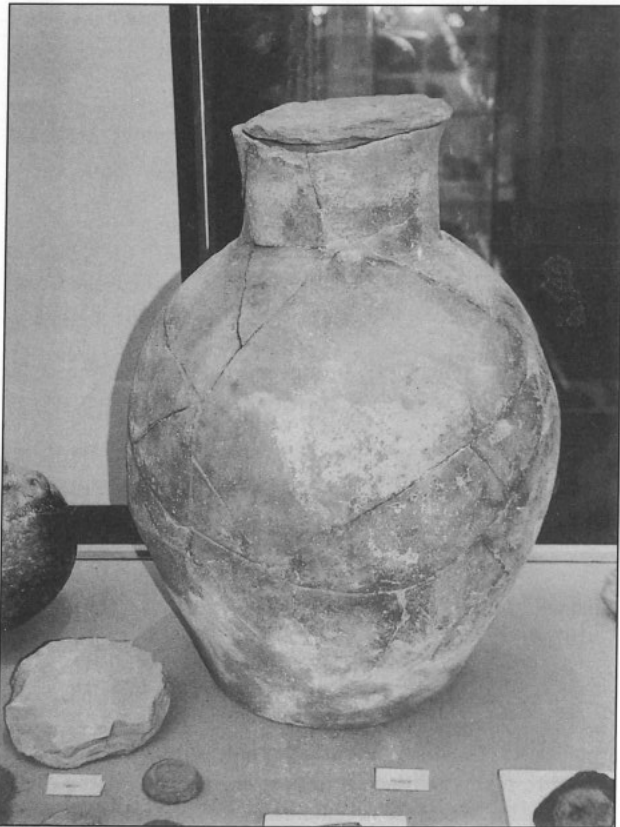


21. Pottery from Umm Saysabān.

extensive fire. Other hazards like deforestation, climatic changes with lack of rain, leaching of soil, earthquakes and epidemics can be imagined. The people of Umm Saysabān might have moved to one of the other seven EB sites around Petra, but so far none have revealed a similar assortment of storage jars. The “How” is somewhat easier to answer. The storage jars were left, because they were too heavy, respectively too inconvenient to be carried. Possibly they were later cracked by treasure-hunting or curious herders. Did the people depart in summer or winter? One should assume in summer when the harvest had been brought in. They might have left burials behind them, but no graves were discovered at Umm Saysabān, where shafts or burial houses are still to be detected. Though Umm Saysabān cannot be (yet) called an urban settlement, its fate might be related to the decline of urban culture with the end of Early Bronze Age III and the simultaneous abandonment of “all



22. Pottery from Umm Saysabān.



23. Restored storage jar from Umm Saysabān and lid (photo: Lindner).



24. House foundation to the northeast of the walled settlement.

Conclusions

The continued excavation of Umm Saysabān in 2001 allows a few insights and some conjectures as to how people of the EBA lived in southern Jordan, respectively in the mountainous region to the north and south of Petra. In his article on the “Early Bronze I-III Ages” Graham Philip (2001: 163-269) regrets that “the material from southern Jordan suffers from the fact that the non-sedentary subsistence strategies most common in this area tend to produce impoverished ceramic repertoires” and “(EB) evidence from southern Jordan is both limited in quality and difficult to interpret”. However, since 1988 till 1998 no less than eight new EBA

buildings” as attested again by S. Riehl recently (2004, 2: 101).

sites were discovered by the Naturhistorische Gesellschaft (NHG) Nürnberg directed by M. Lindner and subsequently with the (unstratified) pottery published (Lindner *et al.* 1990; Lindner and Genz 2000). The discovered EB sites vary extensively in all respects (Lindner *et al.* 2001: 307-308). They revealed all properties pertaining to non-urban settlements, but not all of them at the same place: at as-Sāda an unvalled but strategically defensive village of ca. 25 rectangular houses; at Šabrā (Rās Dakhallāh/Šabrā N) a relatively small plateau in a rockwall without any subsistence possibilities, but probably relying upon agricultural plains and the spring in the Wādī Šabrā just like a very small EB settlement (Šabrā 5) right down above the same wadi and profiting from run-off water not far away; Umm Babayn, Hāriq and ash-Shudayfa are so close together that the first two might have been "outposts" of one and the same population with ash-Shudayfa as the naturally defended center, unless the stone material of a later Late Iron II (Edomite) fort was originally used for an EB wall at the least protected side of the plateau (Lindner 2003); the saddle of Jabal Fidra presumably just a station protecting agricultural activities and herders down in the valley while enjoying the shadow of a large open cave room from where a wide panorama could be overseen. Eventually the plateau of Umm Saysabān became most significant because it was possible to uncover several structures with a large amount of pottery, a stone-built wall with a postern gate and a supposed cistern collecting the run-off from a steep rockwall (Lindner *et al.* 2001; Lindner and Genz 2000; Lindner, Genz and Gunsam 2000).

The storage character of walled Umm Saysabān might be explained by gaining prosperity under the protection of chiefdoms. Their staple finance would be evidenced by intensified production, storage and transport possibilities (Philip 2001: 167). But according to its size it seems more realistic to think of "villages, complex and socially and economically diverse" as described by Schwarz and Falconer (1994). "Such a concept can be better related to a flexible, heteroarchival world of corporate villagers". The stone wall built around the lesser protected part of the location indicates a subsistence overload. If the existence of more house ruins outside the wall should be verified, the walled place on the plateau might be considered as the "acropolis" or the refuge that was used as a storage center.

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