

MĀDABĀ PLAINS PROJECT 1997: EXCAVATIONS AND RESTORATION WORK AT TALL ḤISBĀN AND VICINITY

by

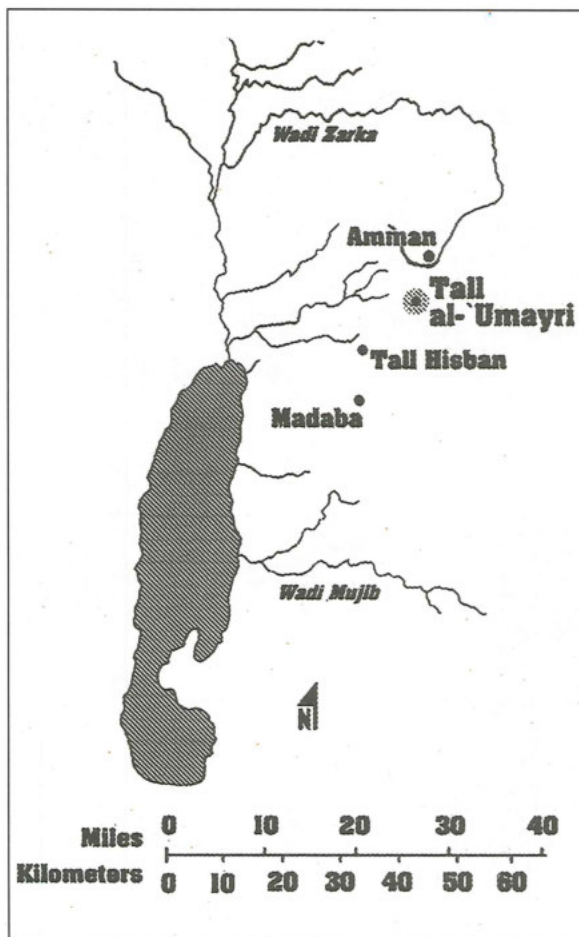
Øystein S. LaBianca and Paul J. Ray Jr.

Introduction

A short three and a half week season was conducted at Tall Ḥisbān between June 18 and July 11 in the summer of 1997. This was a continuation of the work that had begun during the sixth season of excavation and survey by the Mādabā Plains Project in 1996. At that time, cleaning and restoration work was begun at the tall under the direction of Øystein S. LaBianca and Lawrence T. Geraty (Younker *et al.* 1997: 230). This site (Fig. 1), which had been excavated by Andrews University and other institutions between 1968 and 1976 had greatly de-

teriorated since its last season of excavation some twenty years ago. Preliminary reports (Borass and Horn 1969, 1973 and 1975; Borass and Geraty 1976 and 1978; Horn 1972 and 1974; Geraty 1975 and 1976) as well as some final reports (LaBianca 1990; Mitchel 1992) have since been published. Plans had been made for the restoration of the site in 1976, however, it had never been the recipient of any such work. Its importance, due to its location on two trade routes and its long occupational history make it a good candidate for restoration and the idea of finally starting such a project received strong support from the director of the Department of Antiquities as well as the mayor of the town of Ḥisbān. Although the primary reason for returning to the site was its restoration and development as a tourist site, it was also felt that the earlier excavations had left some unanswered questions that further excavation might possibly address. In addition, much of the tall had never been excavated and further work was seen as desirable.

The 1997 season at Tall Ḥisbān, though short and for the most part designed to deal with specific aspects of the earlier excavations, nevertheless represents a preliminary campaign of a new (phase 2) series of excavations at the tall. The research design, in addition to the basic objectives of the Mādabā Plains Project, which focuses on cycles of intensification and abatement in settlement and land use in the region and employs the food system's concept to operationalize it (Geraty *et al.* 1986: 117-119), seeks to: 1) answer questions remaining from the earlier (phase 1) excavations; 2) pursue further excavations in selected areas; and 3) preserve certain features, both previous



1. Map of the Mādabā Plains region.

and currently excavated, for tourist purposes. In addition, the new regional survey in the vicinity of Tall Ḥisbān, that was begun in 1996 (Younker *et al.* 1997: 229), was continued.

Although Tall Ḥisbān is a well known and relatively frequently visited archaeological site in Jordan, very little has been done to highlight its most important archaeological features for the visitor. As mentioned above, this situation began to change during the summer of 1996.

The effort to clean up the site was continued in 1997, resulting in improved presentation of the Iron I bedrock trench, the Late Iron I reservoir, the Hellenistic tower and fortification wall, the Roman staircase and "temple," the Byzantine church, the Mamluk bath, and the "Ottoman cave village." To bring these features into focus for the visitor, viewing platforms were constructed in selected locations throughout the mound, and paths were constructed leading the visitor from the bottom of the tall to each of the viewing platforms. On each viewing platform, signs were mounted which explained about the ruins brought into clear view by each platform.

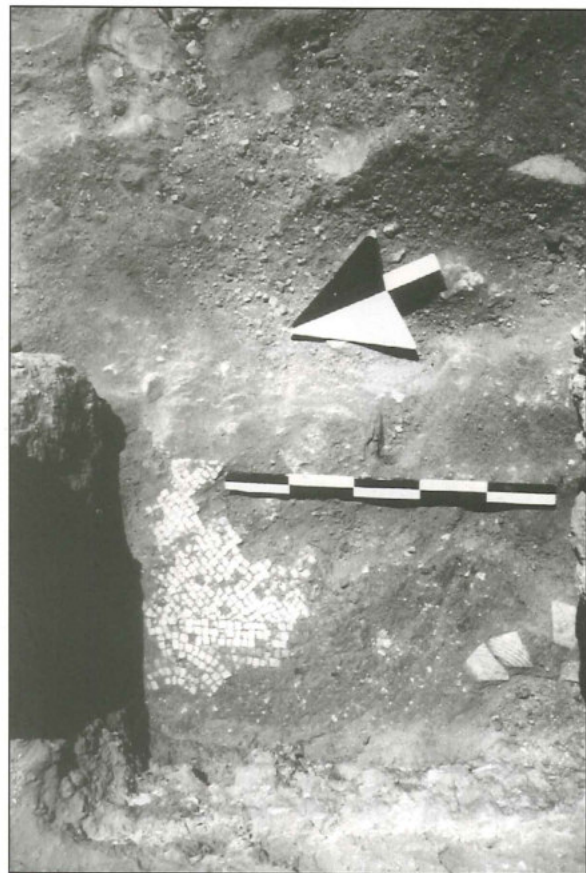
A deliberate effort was made to involve village residents in this effort. To this end, the cooperation of the village mayor, was sought and obtained. The local blacksmith was hired to make the signs and a local school teacher, did the painting of the signs. Tours were provided on a daily basis for village visitors to the site and the workmen were empowered through daily instruction about the site's history to teach their family and friends about the history and significance of the village. A local resident, was trained to serve as a guide for tourists visiting the site throughout the year. New road signs were also made (free of charge) and mounted by the Ministry of Public Works along the 'Ammān-Na'ūr-Mādabā road to make the site easier to find.

In 1996 a number of large building stones

were laid upon what was thought to be the foundation of a Roman temple, as depicted on Ebus coins from that time, to the east and below the Middle Islamic Bath complex. In the process of their removal for reconstruction purposes in 1997, part of a mosaic (Fig. 2) was found approximately on the same level as the Byzantine church raising the possibility that the church ran further west than had previously been thought. If this is correct, then the Roman temple could have been located either on a lower level, is elsewhere on the acropolis, or otherwise, it was only an extrapolation from the coin. The relationship between the "temple," church and bath complex must be explored further in future seasons.

Excavation at Tall Ḥisbān

This season concentrated on two as yet unresolved interpretational problems remaining from the earlier (phase 1) excava-



2. Mosaic fragments on the acropolis.

tions at the site. Both of these involved Iron Age features. In addition, exploratory probes were made in a large cave complex to follow-up the preliminary exploration and mapping done in 1996. Specifically, two soundings (C.3:N; D.7) were made on the western and southern terraces of the tall and four additional probes in (G.22, 24 and 25) and adjacent to (G.23), the cave complex, also located on the southern shelf.

Field C: The Western Shelf (Phil Drey)

On the western shelf of the tall, excavations were begun again on the north side of Area C, Square C.3. The original excavations conducted there in 1973-74 had revealed a north-south wall (C.3:34), which zig-zagged or off-set as Wall C.3:26 to the west, continuing south into Square C.7 as Wall C.7:44 (Fig. 3). This wall line was founded on a bedrock shelf. Further to the west, there was a large wall (C.3:32), founded in a bedrock crevice. This wall was stepped up for 3.5 m, the extant portion abutting walls C.3:26 and 34 close to the point of off-set. Running parallel to and underneath this wall was a line of large unhewn boulders (Wall C.3:43), 2 courses (or 0.75-1.00 m) high, in part down in the crevice (Fig. 4). While walls C.3:26, 32 and 34 were originally dated to the Iron IIC/Persian period, Wall C.3:34 produced only Iron Age sherds. Wall C.7:44 also produced



3. Offset-inset Wall C.3:34/26A/C.7:44 in Area C (looking S).



4. Walls C.3:32 (right) and 43 (bottom center)(looking E).

Iron Age sherds on bedrock immediately below the first course on both sides of the wall. However, when parts of it were dismantled, Hellenistic sherds were found underneath the second and third (or top extant) courses. In addition, two phases of another wall abutted Wall C.3:26 on the west and extended into Square C.2 as Wall C.2:26. This wall was more poorly-built than the off-set wall, but before the discovery of Wall C.7:44 the following season, it was thought to be part of the same wall and thus given the same numerical designation (C.3:26B and C). This added to the confusion in that this wall dates to the Hellenistic/Early Roman period. Sherds from these periods were also found among fallen rock lying immediately west of Wall C.7:44, possibly from Wall C.3:26B and C. As a result, this overall wall system has been variously dated from Iron Age II to the Roman period in the literature (Thompson 1975 179-80; Mitchel 1992: 57).

In his dissertation on the Iron Age Stratigraphy at Tall Ḥisbān, one of the authors (Ray forthcoming) had tentatively redated this wall system to the Iron IIC/Persian period with later periods of rebuilding in the Hellenistic/Early Roman period. In order to test this hypothesis, a 7 x 2 m trench was laid perpendicular to Wall C.3:34 at the edge of a sub-balk left by the original excavators. Following the removal of 23 years of inter-seasonal debris, a 1 x 2 m trench along the

western (or outer) face of the wall was excavated (Fig. 5). Due to the rocky nature of the sediment no stratigraphy was encountered here. Therefore, pottery pails were changed every 0.30 m in order to gain control of datable pottery. The top 0.30 m yielded sherds from Iron II through the Early Islamic (Umayyad) periods. The remaining 0.60+ m, however, yielded pure Iron IIC/Persian period pottery (Fig. 6) including burnished black ware sherds. A clearly datable seventh century wheel burnished rim sherd (Fig. 6:6) was found almost on bedrock.

An attempt to find a foundation trench on the east (or inner) side of the wall yielded mostly large stones with a small amount of

soil. This fill was laid between the wall and another, vertical section of bedrock (Fig. 7), accompanied by very few (mostly body) sherds. There was no pottery whatsoever within the last several cm over bedrock. Above this stone fill, flagstones were laid between the wall and the vertical section of bedrock at the level of the greatest extant height of the wall. The flagstones (C.3:28) seem to have been laid in the Late Roman/Early Byzantine period, as dated by the previous excavators, and this would seem to account for the few sherds from this time found immediately beneath them.

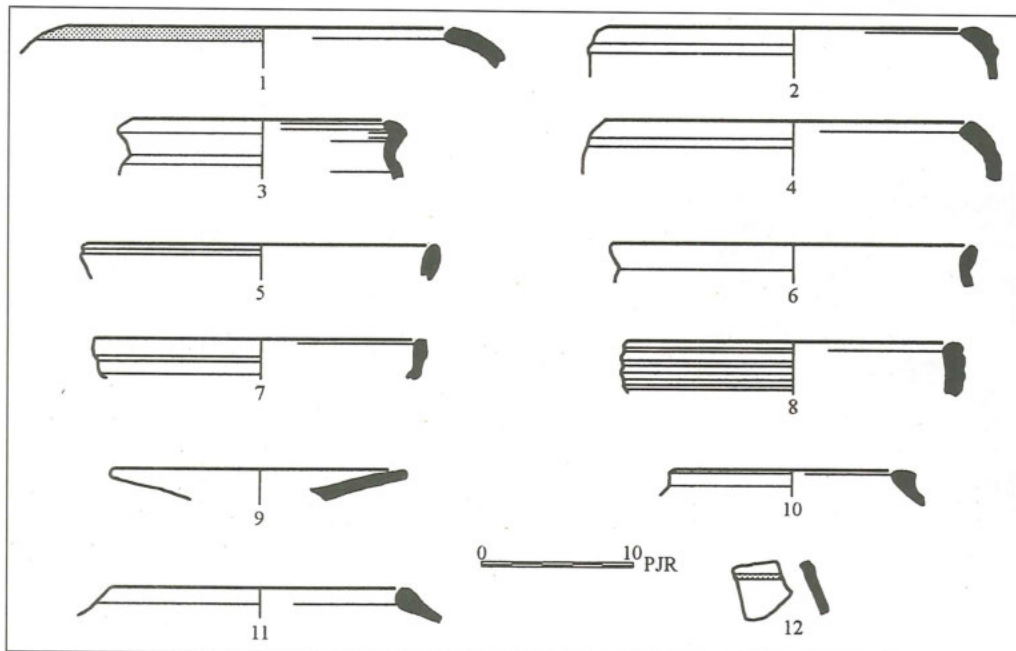
It would appear that Wall C.3:34 was laid directly on bedrock and that the wall system



5. New excavation trench along Wall C.3:34 (looking E).



7. Inner (eastern) side of Wall C.3:34 (looking S).



6. Iron IIC/Persian period sherds dating Wall C.3:34.

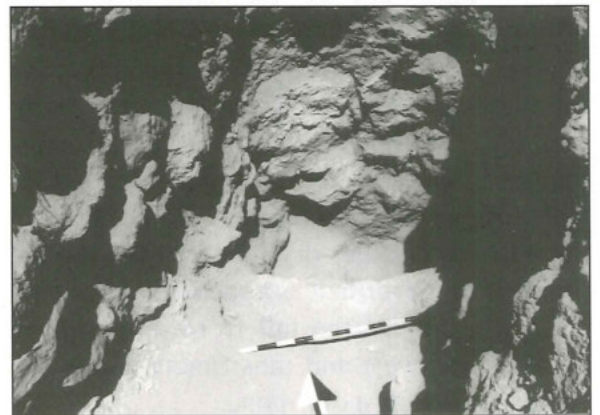
as a whole dates to the Iron IIC/Persian period. It would also seem that the whole system was defensive in nature with Walls C.3:26A, 34 and C.7:44 representing an offset-inset section with Wall C.3:32 functioning as a revetment wall retained lower down by Wall C.3:43. Walls C.3:26A, 34 and C.7:44 were evidently reused during the Hellenistic/Early Roman periods, at which time, new courses were inserted into them.

Field D: The Southern Shelf (Lael Caesar)

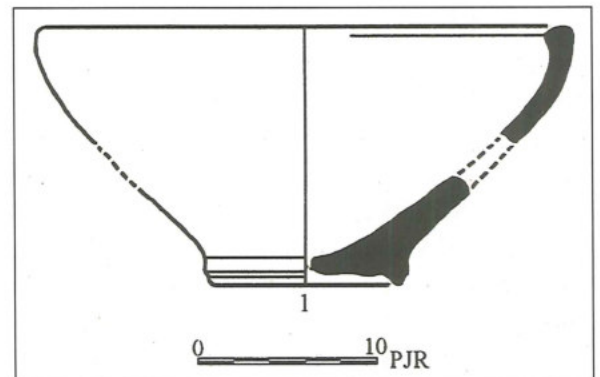
D.7 was a 6 x 2 m trench opened for the purpose of trying to intercept the eastern extension of a bedrock trench which was originally excavated in the 1974 and 76 seasons in Area B, Squares 2 and 3 and Area D, Square 4. It was reencountered again in the 1996 season during cleaning operations. The feature, as originally excavated, averaged between 2-2.5 m in width at the top to about 0.75 m at its bottom, 4 m below. A length of about 13.85 m had been excavated during the original campaigns, most of which had since been backfilled. In order to get an idea of its original extent, and for reconstruction purposes, a ca. 5 x 3 m section at its western end, where it had later been cut by the Iron Age reservoir, was re-exposed. As revealed there, the bedrock trench was originally cut in a SE direction. Thus, the new operations to the east, were concentrated on the southern half of the square at the beginning of the season. The excavations here revealed massive wall collapse along with a fallen arch. As digging continued, a four course wall emerged in the east balk, which appears to date to the Middle Islamic (or Mamluk) period. A closer look at the easternmost extension of the earlier excavated portion of the bedrock trench, as exposed beneath the entrance to a small cave which was cleaned in 1996, led to the conclusion that the feature was arc-shaped and should be encountered further to the north, at which point the northern part of the

square was brought into phase. A fissure in the bedrock soon emerged in the middle of the trench, but was devoid of pottery. This sterile bedrock feature, which was later back-filled, might suggest that those who cut the trench originally, might have made use of natural bedrock anomalies for at least part of the operation. A probe at the northern edge of the sounding however, revealed early Iron Age I ceramics, of the type originally found in the trench. Though the excavators were unable to reach the bottom of the bedrock trench (7 m below the current ground surface) before the end of the season, excavation revealed its southern edge (Fig. 8). The 1.5 m of material that was exposed included vast quantities of Iron Age I sherds, among which were some similar to the so-called "Manasseh bowls" (Fig. 9) of the central hill country of Cis-Jordan.

Among the possible explanations for this feature after the phase 1 excavations is that



8. Early Iron Age I bedrock trench, Area D.7 (looking N).



9. Early Iron Age I sherd from Area D.7.

it was a dry-moat. This was rejected early on due to the lack of exact parallels. The concurrent excavation of a huge 17.5 x 17.5 x 7 m Iron Age reservoir led to the proposal that the bedrock trench was actually a water channel to an earlier prototype. This explanation would seem to be unlikely since the water channels exposed along with the excavated reservoir were only 0.20-0.65 m wide and 0.15-0.55 m deep. In addition, early Iron Age moats are now known to exist at Khirbat 'Ayūn Mūsā and Khirbat al-Mukhayyaṭ in proximity to Tall Ḥisbān as well as south of the Wādī al-Mūjib, at the sites of Khirbat al-Mudayna al-Mraygha (North) and Khirbat Mudaynat 'Alia (South). All of these exist on only the most vulnerable sides of their respective tall, their other sides, as at Ḥisbān, being naturally defensible due to deeply cut wadis. In addition, a large Late Hellenistic or Early Roman period wall (B.1:17=B.2:62) was later built at approximately the same location on the southern portion of the tall, indicating, it would seem, the need of special defensive measures on this part of the site (Ray forthcoming). Although there is a lack of exact parallels, and the trench is narrower and located rather high up on the tall instead of at its base, as at other dry moats in the region, the feature nevertheless appears to have successfully cut off the tall from its approach on the southwest and thus functioned in the same manner as a dry moat.

Although the location of yet another section of this feature does not substantiate or negate the above interpretation of its function, it does however show that the bedrock trench existed further to the east.

G Probes: Cave Complex (Bill Fagal and Bob McDaniel)

Originally located and explored in 1976, a large tri-level cave complex was found on the southern shelf of the tall, immediately southwest of the reservoir, from which one of its openings appeared. It was further ex-

plored and mapped in 1996 and yielded large quantities of Middle Islamic (or Mamluk) pottery.

A trial trench, 2 x 2 m in size (G.22), was laid on the northwest corner of the second (or middle) level, underneath one of the three arches (Fig. 10) which were found at that level. A probe of 2 m x 0.50 m revealed dung and ash layers mixed with roof collapse. It was excavated ca. 0.75 m down to the original cave floor, allowing one to stand upright and move comfortably underneath the arch. The ceramic evidence embedded in the floor indicates that the arches were probably originally made during the Byzantine period, though the extensive fill material above the floor shows that the cave continued to be used during later times. Objects included tesserae, glass fragments, beads and coins. Bones included human, chicken, rodent, turtle and porcupine in addition to the more usual sheep and goat. Seeds included grape, olives, wheat, barley and lentils.

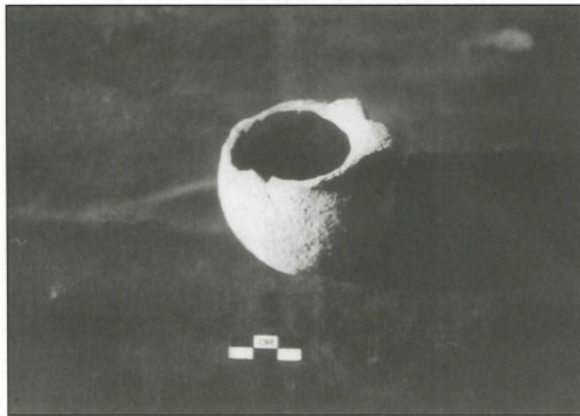
Northeast of the above-mentioned trench, two cisterns or storage silos ca. 1.5 m deep were located and excavated. Both had evidence of plastering. The easternmost one (G.24; Fig. 11) yielded a nearly complete juglet (Fig. 12) with a concave disc-base within the top 0.25 m of the fill material and underneath a shallow "retaining" wall, skirting the upper part of the silo on its south side. Although it appears to be Early Bronze



10. G.22 excavation below the arch in the cave complex.



11. G.24 storage silo.



12. Juglet from G.24 silo.

in date, it also resembles similar vessels of the Late Islamic (or Ottoman) period found in the al-Karak Plateau area. The later dating would seem to be more likely at this point since stratigraphically, Middle Islamic (or Mamluk) pottery dominated the fill material found below the vessel. This material consisted of loamy soil and dung along with chicken, rodent, sheep and goat bones. The seed evidence consisted of wheat, barley, and wild grasses. Apart from a nail, objects were practically non-existent.

The second of these features (G.25) vaguely resembled an Early Bronze single-chamber shaft tomb (Fig. 13). The fill material in the "shaft" area was similar to that of the other storage silo, and also contained mostly Middle Islamic (Mamluk) sherds. The "chamber" area, however, which was only partially cleared and consisted of alternating fill and ash layers (Fig. 14) con-



13. G.25 storage silo.



14. Alternating ash and fill layers in "chamber" area of G.25.

tained predominately Iron Age II pottery. In addition, the entrance to the so-called "chamber" did not begin at the bottom of the shaft and project down further below the "floor-level" of the shaft. Instead, it appeared in the center of the vertical wall of the shaft and bottomed out at its floor level. A blocking wall above the structure, proved both, difficult and too dangerous to remove in the attempt to ascertain what was above the fill material, and was left to be tackled at

some future date. Objects were found only in the "shaft" area and included metal pieces, beads, nails, and a coin. Seeds were also found, but only in this part of the structure, although bones were found in both sections.

Several attempts were made at locating the original entrance of the cave. Probe G.23 was successful in this respect, and also in locating 2 walls and arches (Fig. 15), one of which was fallen, within the probe. While these were drawn and measured, they were left unexcavated during this season. The original entrance to the cave (Fig. 16) was located ca. 2.5 m below the surface and was found to be bipartite in nature, entering both the middle level, where the above probes were made, as well as the upper level, the major feature of which was a barrel vault. Byzantine pottery was found on the threshold of the entrance making it apparent that both the entrance and the architecture of the middle level date to this time, though it continued to be used during later periods as well. An almost complete sugar pot was found on a higher level in the entrance way, together with Middle Islamic (Mamluk) sherds and a ram's horn (Fig. 17). The



16. Entrance to cave complex (looking E).

probe contained numerous artifacts including bangles, coins, nails, tesserae, a cosmetic (?)



15. Walls and arches in probe G.23.

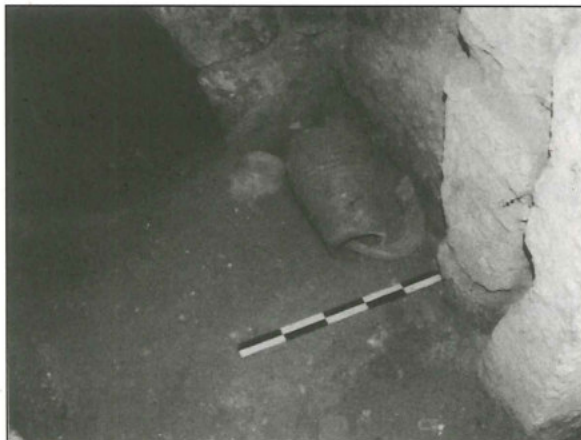
pallette, and glass fragments. Bones and seeds were also numerous.

The Regional Survey

The purpose of this survey was to re-investigate part of the area of the earlier Heshbon survey, which was conducted between 1973-76 (Ibach 1987), using the current survey methodology developed by the Mādabā Plains Project. In order to do this, one hundred 200 x 200 m squares within a 5km radius of the site were randomly generated with the use of ARC/INFO GIS software by Gary Christopherson of the Advanced Resource Technology Group at the University of Arizona. These were superimposed on a Jordan 1:25,000 series Palestine Grid topographical map which employs 1000 m grid coordinates. Of these, 100 were randomly selected. The first 50 squares had been explored in the 1996 season, while the remaining 50 were examined between July 1 and 30, 1997. Although a number of new sites were found, in addition to the 20 sites located in 1996, these were left to be followed up in 1998. In addition, information was collected on trees in order to try to reconstruct where forests might have been located at various times in the history of the region.

Deforestation Study

A grant from the National Geographic Society enabled the continuation of the field re-



17. Ceramic and faunal finds in cave entrance.

search begun in 1996 concerned with reconstructing the history of deforestation in the Ḥisbān Project Area. The study built on previous research on the historical environment of the Ḥisbān region by the Hesban Environmental Survey (LaBianca and Lacelle 1986). Methods used included an arboreal survey to ascertain the current and potential state of the forest; an archaeological survey (see above) to deepen understanding of long-term changes in settlement patterns and technologies for managing soil and water resources; geoarchaeological research in selected wadis to determine patterns of erosion and soil loss; and a re-examination of faunal data on hand from earlier excavations at Tall Ḥisbān to search for clues that might help fill out the picture regarding long-term environmental changes. The survey succeeded in establishing a link between episodes of food system intensification and abatement and cycles of environmental degeneration and regeneration in the project area (LaBianca 1998).

Acknowledgments

The authors are indebted to Dr Ghazi Bisheh, then Director-General of the Department of Antiquities for the support that he provided for this season, including 10 laborers, payed by the department, for the restoration work. Thanks are also due to Taysir 'Atiyyat, our Department of Antiquities representative as well as other members of the Department of Antiquities who assisted us with various aspects of the excavation.

The staff was again housed at the Amman Training College thanks to Dr Fakhri Tumahieh, principal of the UNRWA-sponsored institution. Special appreciation also go to his staff, who extended to us every courtesy in making our stay comfortable. In addition, we would like to thank Yusef al Awawdah, the mayor of the town of Ḥisbān for his support, Mahfooth Abdul Hafiz, the teacher of the Ḥisbān school for his help with sign painting and Abū-Nūr, a local res-

ident for storage of on-site equipment, for catering our second-breakfast needs and for help with various logistical problems.

We would also like to extend our thanks to Dr Patricia Bikai and Dr Pierre Bikai as well as the staff of the American Center of Oriental Research (ACOR) for their support and the use of their facilities while we were in the field.

The excavation took place because of the financial assistance of Andrews University, our principal sponsor, and a grant from the National Geographic Society.

The staff of this season, much smaller than the normal Mādabā Plains Project's group, consisted of 30 archaeologists, students and volunteers and about 20 Jordanian specialists and workers. The director of the excavation was Øystein S. LaBianca, the chief archaeologist was Paul J. Ray Jr., and Gary Christopherson was in charge of the regional survey. Area supervisors included Phil Drey (C.3), Lael Caesar (D.7), Bill Fagal (probes G.22, 24 and 25) and Bob McDaniel (G.23).

The authors would like to thank Jennifer Groves and Phil Drey for their help with scanning and cleaning up the sherd drawings for the pottery plates, which were done on Adobe Photo Shop software.

Besides the groups at Tall Ḥisbān and the regional survey, there was another group of about the same size at al-Azraq. This excavation developed out of the environmental survey begun in the 1996 season (Younker *et al.* 1997: 229-30). The group, which had their own camp and facilities, but which shared equipment and two specialists, was directed by Rick Watson and Doug Schnurrenberger of San Jaun College and will be reported on elsewhere.

Ø.S. LaBianca
 P.J. Ray Jr.
 Institute of Archaeology
 and Department of
 Behavioral Sciences
 Andrews University
 Berrien Springs, Michigan
 USA

Bibliography

- Borass, R. S. and Geraty, L. T.
 1976 The Fourth Campaign at Tell Hesban (1974). *Andrews University Seminary Studies* 14: 1-16.
 1978 The Fifth Campaign at Tell Hesban (1976). *Andrews University Seminary Studies* 16: 1-18.
- Borass, R. S. and Horn, S. H.
 1969 The First Campaign at Tell Hesban (1968). *Andrews University Seminary Studies* 7: 97-117.
 1973 The Second Campaign at Tell Hesban (1971). *Andrews University Seminary Studies* 11: 1-16.
 1975 The Third Campaign at Tell Hesban (1973). *Andrews University Seminary Studies* 13: 101-116.
- Geraty, L. T.
 1975 The 1974 Season of Excavations at Tell Hesban. *ADAJ* 20: 47-56.
 1976 The 1976 Season of Excavations at Tell Hesban. *ADAJ* 21: 41-53.
- Geraty, L. T., Herr, L. G. and LaBianca, Ø. S.
 1986 Madaba Plains Project: A Preliminary Report of the 1984 Season at Tell el-'Umeiri and Vicinity. *BASOR* Suppl. 24: 117-119.

- Horn, S. H.
1972 The 1971 Season of Excavations at Tell Hesban. *ADAJ* 17: 15-22, 111-115.
1974 The 1973 Season of Excavations at Tell Hesban. *ADAJ* 19: 151-156.
- Ibach, R. D.
1987 *Hesban 5: Archaeological Survey of the Hesban Region*. Berrien Springs, MI: Institute of Archaeology, Andrews University.
- LaBianca, Ø. S.
1990 *Hesban 1: Sedentarization and Nomadization: Food System Cycles at Hesban and Vicinity in Transjordan*. Berrien Springs, MI: Institute of Archaeology, Andrews University.
1998 *A Forest that Refuses to Disappear: Cycles of Environmental Degradation and Regeneration in Jordan*. Unpublished Report to the National Geographic Society, Research Grant 5758-96. (see also <http://www.andrews.edu/BHSC/ngs>).
- LaBianca, Ø. S. and Lacelle, L.
1986 *Hesban 2: Environmental Foundations: Studies of Climatological, Geological, Hydrological and Phytological Conditions in Hesban and Vicinity*. Berrien Springs, MI: Institute of Archaeology, Andrews University.
- Mitchel, L. A.
1992 *Hesban 7: Hellenistic and Roman Strata: A Study of the Stratigraphy of Tell Hesban From the 2nd Century B.C. to the 4th Century A.D.* Berrien Springs, MI: Institute of Archaeology, Andrews University.
- Ray, P. J.
forth-coming *Tell Hesban and Vicinity in the Iron Age*. Ph. D. dissertation. Andrews University, Berrien Springs, MI.
- Thompson, H. O.
1975 Andrews University Heshbon Expedition: The Third Campaign at Tell Hesban (1973) Area C. *Andrews University Seminary Studies* 13: 179-180.
- Yunker, R. W., Geraty, L. T., Herr, L. G., LaBianca, Ø. S. and Clark, D. R.
1997 Preliminary Report of the 1996 Season of the Madaba Plains Project: Regional Survey, Tall al-'Umayri and Tall Jalul Excavations (June 19 to July 31, 1996). *Andrews University Seminary Studies* 35: 227-240.