

MADABA PLAINS PROJECT: EXCAVATIONS AT TALL AL-‘UMAYRĪ, 2010

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Introduction

A thirteenth season of excavation by the Madaba Plains Project at Tall al-‘Umayrī occurred between 23 June and 28 July 2010. It was sponsored by La Sierra University, in consortium with Andrews University School of Architecture (Michigan, USA), Canadian University College (Alberta, Canada), Mount Royal College (Alberta, Canada) and Walla Walla University (Washington State, USA). Full reports have already been published for the first five seasons: (first season (1984): Geraty *et al.* eds 1989, second season (1987): Herr *et al.* eds 1991, third season (1989): Herr *et al.* eds 1997, fourth season (1992): Herr *et al.* eds 2000 and fifth season (1994): Herr *et al.* eds 2002). The sixth (1996 - 1998) is in press and the seventh (2000) is being edited. Preliminary reports have also been published (first season (1984): Geraty 1985, Geraty *et al.* 1986, 1987, second season (1987): Geraty *et al.* 1988, 1989, 1990, third season (1989): Younker *et al.* 1990, Herr *et al.* 1991, LaBianca *et al.* 1995, fourth season (1992): Younker *et al.* 1993, Herr *et al.* 1994, fifth season (1994): Younker *et al.* 1996, Herr *et al.* 1996, sixth season (1996): Younker *et al.* 1997, Herr *et al.* 1997, seventh season (1998): Herr *et al.* 1999, 2000, eighth season (2000): Herr, Clark and Trenchard 2001, 2002, ninth season (2002): Herr and Clark 2003, 2004, tenth season (2004): Herr and Clark 2005a, 2005b, eleventh season (2006): Herr and Clark 2008a, 2008b and twelfth season (2008): Herr and Clark, in press. For a summary report of the first 12 seasons (1984 - 2008), see Clark (2011) and Herr in Clark *et al.* (2011).

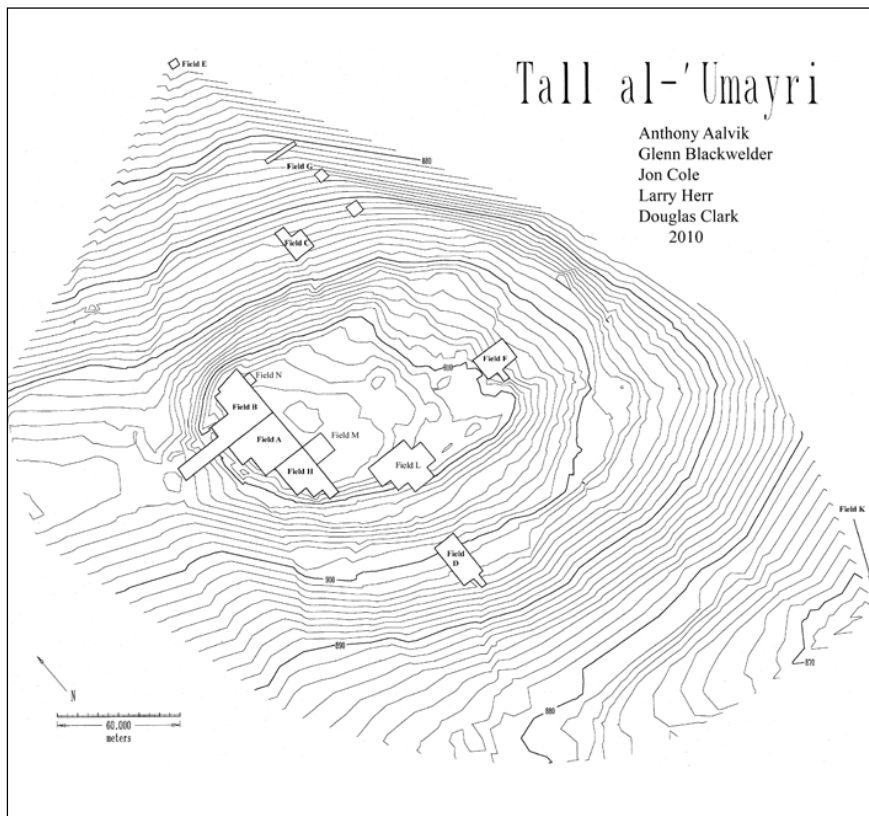
In the 2010 season, a team of 16 Jordanians and 38 foreigners participated in the fieldwork and camp activities of the interdisciplinary project at ‘Umayrī, located 12 km south of Am-

man’s Seventh Circle on the Queen Alia Airport Highway at the turn-off for Amman National Park (Fig. 1).

In the first season (1984) four fields of excavation were opened (Fields A, B, C and D) (Fig. 2). During the second season (1987) three of the four were expanded (Fields A, B and D), one was completed to bedrock (Field C) and two new fields were opened (Fields E and F). In the third season (1989) one field expanded (Field A), three fields re-opened old squares and expanded slightly (Fields B, D and F), another reduced excavation from two squares to one (Field E) and a new field was opened on the northern slope as a series of three soundings (Field G). In the fourth season (1992) three fields deepened previously opened squares (Fields A, D and F), one deepened existing squares while expanding by one square (Field B) and two fields were discontinued (Fields E and G). During the fifth season (1994) one field deepened (Field A), another expanded and deepened (Field B) and one was added (Field H). In the sixth season (1996) three fields expanded (Fields A, B and H). The tomb excavations on the south-eastern slopes of the tall, already begun under the hinterland survey in 1994, became part of the ‘Umayrī tall excavations as Field K. During the seventh season (1998) two fields deepened their squares (Fields A and B), two expanded (Fields H and K) and a new field was opened on the southern lip of the site (Field L). In the eighth season (2000) we deepened three fields (Fields A, B and H) and expanded and deepened in two fields (Fields K and L). During the ninth season (2002) Field A was not worked, while Field B expanded to the north and continued in two other squares; Field H limited itself to the large plastered and cobbled courtyard near the northern extent of the



1. Al-'Umayrī aerial photo (photo David Kennedy).



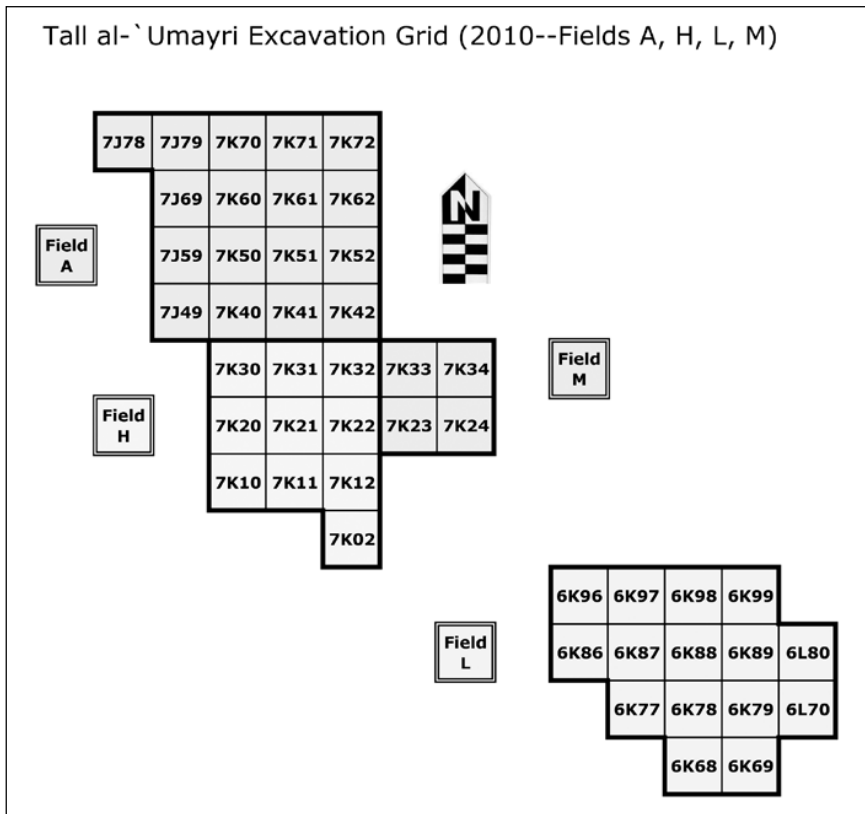
2. Topographic map of tall.

field (next to Field A); in Field L we exposed more of the Hellenistic structure by opening two new squares and re-opening one other. During the tenth season (2004) Field A deepened squares begun in the 1980s, Field B deepened three earlier squares and expanded to the north to intersect the northern edge of the site, Field H deepened earlier squares in its northern part and Field L deepened three previous squares and opened one new square. During the eleventh season (2006) Field A concentrated on removing balks and small areas between walls to deepen the western part of the field to late Iron I levels; one square was opened at the south-west corner of the field to examine the possible existence of a gateway. In Field B excavation concentrated on uncovering the floors of the northern extent of the remarkably preserved LB building. Excavation in Field H concentrated on bringing the southern part of the open-air sanctuary down to late Iron I levels. Field L, on the southern lip of the site, expanded to the east and north with three new squares.

The 2008 season saw Field A expose the third LB / Iron I house in the southern part of the field

by going deeper in most squares. Field B completed the excavation of the LB building and added a square to the east with a new field designation, Field N. Field H went deeper in four squares, exposing the top of the LB / Iron I levels and locating the bottom of the southern portion of the perimeter wall. Field L went lower in three squares and added two more squares to the west. Additionally, a new field was opened, Field M, east of Field H in our overall goal of connecting Fields H and L. This season also marked the initiation of the use of high-resolution GPS for the location of fields, squares and architecture. It forced a slight change of orientation to align all our squares with true north and we chose to locate squares on primary grid lines, causing some squares to be smaller in their east-west measurements.

The thirteenth field season (2010) continued work in four fields (Fields A, H, L and M) (Fig. 3). Field A extended the exposure of LB / Iron I domestic structures, clearing the third building and uncovering the major portion of a fourth. The clearance of the late Iron I sacred precinct in Field H brought the team to domes-



3. Grid of Fields A, H, L and M.

tic structures post-dating the Early Iron I buildings in Field A, but preceding the precinct. Field L cleared Hellenistic remains in several balks, clarifying in the process the function of an Iron II oil press, and exposing the tops of several Iron II walls. Field M cleared late Iron II paved plaza levels surrounding what appear to be domestic buildings.

After 12 seasons, we can be confident talking about final stratum numbers for the site. We think, reasonably, that no new significant settlements will be discovered beyond those we have already found. We thus include a stratigraphic chart (Fig. 4).

Field A: The Western Acropolis (Stephanie Brown, University of California, Berkeley)

Field A is located on the western acropolis of

Tall al-`Umayri	
Comprehensive Strata Chart	
(1984-2010)	
Stratum 22 (Chalcolithic Period) – 4500-3300 BC	
Hiatus	
Stratum 21 (Early Bronze Age IB) – 3200-3000 BC	
Stratum 20 (Early Bronze Age II) – 3000-2600 BC	
Stratum 19 (Early Bronze Age III) – 2600-2300 BC	
Stratum 18 (Early Bronze Age IV) – 2300-2250 BC	
Stratum 17 (Early Bronze Age IV) – 2250-2200 BC	
Hiatus	
Stratum 16 (Middle Bronze Age IIC) – 1650-1600 BC	
Stratum 15 (Middle Bronze Age IIC) – 1600-1550 BC	
Hiatus	
Stratum 14 (Late Bronze Age II) – 1350-1230 BC	
Stratum 13 (Late Bronze IIB/Early Iron I) – 1230-1200 BC	
Stratum 12B (Late Bronze IIB/Early Iron I) – 1200-1150 BC	
Stratum 12A (Late Bronze IIB/Early Iron I) – 1200-1150 BC	
Hiatus	
Stratum 11 (Iron IB) – 1100-1050 BC	
Stratum 10 (Iron IB) – 1050-1000 BC	
Stratum 9 (Iron IIA) – 1000-850 BC	
Stratum 8 (Iron IIA) – 850-600 BC	
Stratum 7 (Late Iron II/Persian) – 600-550 BC	
Stratum 6 (Late Iron II/Persian) – 550-500 BC	
Stratum 5 (Persian) – 500-400 BC	
Hiatus	
Stratum 4 (Hellenistic) – 200-50 BC	
Stratum 3 (Early Roman) – 50 BC - AD 135	
Hiatus	
Stratum 2 (Byzantine) – AD 350-650	
Stratum 1 (Islamic) – AD 650-present	

4. Al-`Umayri strata chart.

Tall al-`Umayri, and has been excavated in eleven previous seasons (1984, 1987, 1989, 1992, 1994, 1996, 1998, 2000, 2004, 2006 and 2008). Seasons 1984 - 1996 focused on the Late Iron II / Persian period of occupation in the eastern part of the field. Here a large Ammonite administrative complex was identified and excavated. Seasons 1998 - 2008 focused on the LB / Iron I occupation in the western part of the field. Here the excavators realized the relationship between the LB / Iron I (ca. 1200 BC) architecture and its subsequent destruction in the north-western area of Field A and south-western area of Field B. This architecture includes Field B's Building B, al-`Umayri's well-known 'four-room house' (Clark MPP 5: 57-100). During the 2008 season excavators attempted to bring most of Field A into phase with the 'four-room house' in Field B. However, by the end of the 2008 season this goal was only partially achieved.

During the 2010 excavations at Tall al-`Umayri four squares were excavated in Field A: 7J69, 7J78, 7J79 and 7K70. Squares 7J78, 7J79 and 7K70 incorporate three rooms in Building C, an LB / Iron I domestic dwelling whose north wall equates with the south wall of Building A in Field B. From west to east these rooms are C1, C2 and C3. Portions of these rooms were excavated in 2008, but the surface had only been identified in a small part of room C1. Square 7J69 is directly south of Square 7J79 and its associated architecture is likely part of Building D, another LB / Iron I domestic dwelling.

The primary objective in Field A for the 2010 season was to locate and expose the LB / Iron I surfaces in each square. These surfaces were thought to exist underneath a massive destruction layer, attested from earlier excavations in both Field A and Field B. This objective was achieved during the last week of the 2010 season; by the end of the season the LB / Iron I surfaces in each square were exposed (Fig. 5).

Stratum 14 (LB II - Field A phase 14)

Previous excavations exposed several phase 12 foundation trenches and walls in Squares 7K70 and 7J69. Beneath these was an earth layer, 7K70:77. Further excavation is needed to understand the extent of this layer and its relationship to other LB II loci.



5. Four Field A buildings (photo John McDowell).

Stratum 12 (LB / Iron I - Field A phase 12)

The phasing for the four squares excavated in 2010 was clearly identified in previous seasons when their relationship to Buildings A and B in Field B was determined. Buildings A, B, C and D were all discovered beneath a massive destruction layer that was dated to the LB / Iron I period.

Of the Field A squares excavated during the 2010 season this destruction seemed to be the most dynamic in Square 7J69. In this square there was *ca.* 1.4 m of destruction above the surface, consisting of layers of rubble, black ash, dark reddish - brown mud-brick and dark yellowish - brown clay roofing material. Above the *ca.* 0.20 m of fallen roofing material there rested an extremely large grindstone, *ca.* 1 m x 0.50 m in size, which had clearly fallen from a second storey. On the surface of this structure (Building D) the remains of at least two large pithoi and several odd, naturally-shaped stone objects were

found (Fig. 6). Building D appears to have been a domestic building.

Building C was excavated and described in detail in previous seasons (see Bates MPP 10, forthcoming) (Fig. 7). Portions of its rooms were exposed in 2008, but the surface had only been identified in a small part of Room C1. Most of the destruction which leveled Building C was excavated during the 2008 season, its depth decreasing as the rooms extended to the east. Found within this destruction were several



6. Field A Building D remains (photo #10A69315, John McDowell).



7. Field A Building C (photo John McDowell).

household objects, including at least five hand-held grindstones, three spindle whorls, several jar stoppers, a gaming piece (A100036), a metal arrowhead (A100290) and two broken bronze plates (A100146 and A100147).

During the 2010 season two phases of an LB / Iron I plaster surface were found in Rooms C2 and C3. The surface in Room C1 appears to have been made of beaten earth rather than plaster. It appears that the earlier surface was continually re-plastered, perhaps annually, thereby creating multiple layers of plaster. To complicate matters, it appears that several installations were used without alteration throughout both phases, while others were used exclusively in one phase or the other.

In 2010, Room C1 yielded the remains of at least two collared pithoi, bringing the total to eight when added to previous excavation results. In addition to all of the large storage jars, a saddle kern atop a mud-brick grinding installation, which seemed to serve as a small table (found in 2008), was supplemented in 2010 with the discovery of a sizeable stone table abutting the western perimeter wall (**Fig. 8**).

Abutting the grinding installation was a small, semi-circular stone hearth (**Fig. 9**), asso-



8. Field A Building C stone table (photo #10A78156, John McDowell).



9. Field A Building C hearth (photo #10A79102, John McDowell).

ciated with a great deal of ash. A small north-south limestone curtain wall abutted the hearth. The existence of the storage jars found in Room C1 during the 2008 season, the grindstone and grinding installation, the stone table and the small hearth all support the likelihood that the room was used for food preparation.

Room C2, a long, hall-like room measuring almost five meters in length, yielded little in the way of artifacts. However, the southern wall of Rooms C2 and C3 was exposed for 6 m until it disappeared beneath later structural remains from phase 8.

Room C3 exhibited the least amount of destruction debris, save some mud-brick fragments and some ash deposits in the east side of the room. Furthermore, there were very few artifacts associated with this room, leaving its specific function in question. A small bin in the north-west corner suggests food storage.

As with Buildings A and B in Field B, the purpose of both LB / Iron I buildings in Field A (Buildings C and D) appears to have been domestic. Most of the finds appeared to be common household objects, *viz.* upper and lower grindstones, flints and ceramic remains. The installations (hearth, table, grinding mound etc.) found in Building C also support the interpretation of these buildings as domestic. Even the relatively small number of collared pithoi ($n = ca. 12$ in total from Field A) imply that nothing beyond ordinary day-to-day domestic life was occurring in the two LB / Iron I buildings in Field A.

Questions remain about how Buildings C and D related to each other, given different ground-floor levels and the precise line of the perimeter wall at this location. Further excavation is required to help clarify several issues.

Stratum 8 (Iron IIB - Field A phase 8B)

Previous excavations exposed Wall 7J69:52, cleared in 2006, but a short segment of the wall remained in adjacent Square 7J79. The 2010 season saw the removal of this remaining portion, exposing phase 12 Wall 7J79:58.

Field H: The South-Western Acropolis (Monique Vincent, University of Chicago)

Field H is located on the south-western corner of Tall al-‘Umayrī, with several of the squares

located partially over the brow of the hill. Excavations during the early seasons, beginning in 1994, concentrated on the numerous phases of an open-air, cobbled courtyard sanctuary in use from the Late Iron I to the Persian periods. Model shrine and ceramic figurine fragments found between layers of the cobbled floors indicated a cultic function for the courtyard in at least some of its periods of use. In the 2008 season we focused on excavating the rooms south of this courtyard in order to study their relationship with the courtyard's main area. We also excavated the Late Iron I preparatory fill layers of the courtyard, studied particularly in the 2006 season, to reach LB / Iron I levels in the central part of the field. Having established the stratigraphy of the southern rooms, we removed the walls of the rooms so that in 2010 we could excavate this area down to the LB / Iron I period as well.

In 2010 we set out to remove the large western wall associated with the Late Iron I courtyard, as it sat on top of LB / Iron I architecture and post-abandonment debris. The wall's removal opened up the space between the central area and the perimeter wall to the west, connecting a series of LB / Iron I rooms excavated in 1996 to our current excavations. We also removed the final fill layers and cobbled surfaces associated with the courtyard sanctuary phases, primarily from Square 7K32. Excavations against the southern wall of the courtyard sanctuary determined that it was founded in the Late Iron I period. Finally,

we turned our attention to excavating the post-abandonment debris from the Early Iron I building, ultimately reaching the surfaces in four of its rooms.

Stratum 12A (LB / Iron I - Field H phase 12)

Excavation of this phase previously concentrated in separate probes around Field H, mainly a series of rooms in 7K30 and 7K20, the domestic room in 7K31, and some walls and surfaces in the north of 7K32. This season we were able to connect some of these areas through our excavations in 7K21, though more work is necessary to completely reveal the phase across the field. Currently, however, we can outline a large, complex building spreading across most of the field, Building M (**Fig. 10**). The substantially larger outer walls of the building, consistently two rows and several courses of medium and large boulders, are from an earlier phase, re-used in phase 12 by people who consistently built an early form of quoin and pier or single-row walls to divide the large space into inner rooms.

While we have not yet found a substantial southern wall matching the construction of these walls, the central area was divided into a living space resembling the floor plan of a four-room or pillared house, with three long rooms excavated this season (Rooms 1 - 3) and a possible broad room (Room 4) starting to appear in the south. The outer areas between parallel walls appear to be opportunistic additions surrounding the four-



10. *Field H four-room building (photo John McDowell).*

room central area to the north and west (Rooms 5 - 11, all previously excavated except Room 7, which we excavated more fully this season, and Room 5, which remains to be excavated).

Room M1

The central room of the structure was accessed from the north through an entrance between two east - west walls. Looking from this doorway south, one faces the central long room of a four-room house plan, with quoin and pier walls separating it from eastern and western long rooms and a southern broad room. Directly opposite the doorway, an east - west quoin and pier wall defines the southern boundary of the room. A cobble floor covers part of the room, the only remnant of any intentional flooring in Room 1. Several patches of ash were found throughout Room 1, most likely build-up on the surfaces associated with the use of an oven. The initial surface of Room 1 was uneven and ill-formed, re-using earlier debris accumulations as an exposure surface.

Room M2

The eastern long room is entered from Room 1 by a doorway between the northern wall of the building and the north - south dividing wall. Further walls to the south continue the separation of Room 2 from Room 1, including a low wall segment which blocked the doorway between them in a later sub-phase. And while the eastern wall to the room and building survives to several courses, an anticipated southern wall has not been excavated. A cobble surface covered the space between these walls, though it is very rough and uneven. A basalt hand grinder and limestone mortar were found lying between cobbles in the northern half of the room.

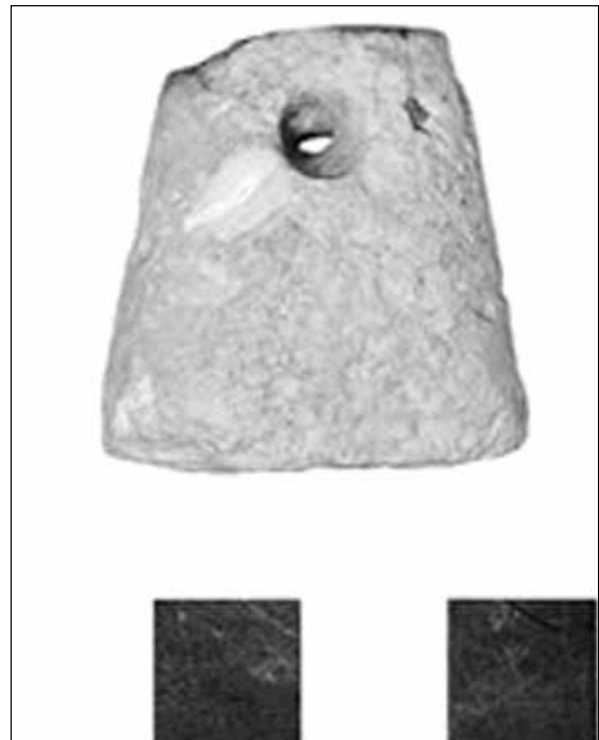
Coming from this room's living surface were a model door, reworked from a pithos sherd and complete with hinges and a small hole cut out in one side (**Fig. 11**), and a small tuff pendant (**Fig. 12**). Apart from these two objects, the room would have served perfectly to house animals, with the rough cobble floor, the low wall blocking an earlier threshold and the narrow doorway just off the main entrance.

Room M3

The western room was entered from Room



11. Field H model door (B100015; photo Jillian Logee).



12. Field H pendant seal (B100013; photo Jillian Logee).

1 through a large opening between two walls. Opposite the doorway, the western wall of the room separated Room 3 from Rooms 9 and 10

further to the west. In the northern wall of the room a doorway led into Room 6, though the surface is higher in Room 6 by roughly 0.2 m. Four stones immediately inside the doorway in Room 3 could have served as steps, or - as the four stones sit on a layer of dirt on top of the cobble floor in Room 3 - they could be the last remnants of a later cobble surface. Most of the room was cobble-paved.

Room M4

The potential broad room is not yet fully excavated, and awaits removal of a later wall before further exposure.

Rooms M5 - M11

Through its north-western doorway, Room 3 gives access to Room 6, the first of a series of small rooms accessed from the central rooms of the building. None of these peripheral rooms has obvious doorways in their partition walls, which tend to have been preserved to only a single course high. It is possible these partition walls were never more than small barriers easily walked over, or the superstructure of the walls left a gap above the single course for passage. Three rooms, 9 - 11, were cobble-paved. The two ovens, hearth, stone hand tools, weaving implements and numerous cooking pot fragments indicate that most of these rooms served a domestic purpose where the inhabitants lived and worked to feed and clothe themselves.

The hard-packed, unburned mud-brick debris layers above the surface build-up show that no fiery conflagration burned through the rooms to destroy them. Instead, the mud-brick walls re-consolidated into a bricky mass after collapsing in on the rooms, probably after the rooms had been abandoned. There is no evidence at this point to indicate that Building M had two storeys; the amount of debris seems to indicate a single-storey, ground-level building with stone and mud-brick walls.

Compacted mud-brick detritus contained numerous hand grinders, millstones and ceramic spindle whorls, as well as a pendant seal and metal needle. Unlike the LB / Iron I transitional houses in Fields B and A to the north, no evidence of sudden evacuation or widespread destruction were found in the rooms. The floors were mostly clean of objects except for several

chert hammerstones, a ceramic whirlygig, three hand grinders, four millstones and three ceramic spindle whorls. The greatest depth of the fill layers covered most of the interior dividing walls. For the most part, the interior rooms of this phase were covered after the building's abandonment and only the outer eastern, western and northern walls were re-used in the next phase.

Stratum 11 (Iron IB - Field H phase 11)

In 2006 the first evidence of phase 11 was revealed by a wall and exposure surfaces in Squares 7K21 and 7K31, as well as extensive boulder tumble throughout the field. Excavation of architectural elements in the southern part of the field this season showed that instead of belonging to an earlier phase, as proposed in 2008, all of these remains, including an additional wall and pillar base, actually belong to this phase.

After the abandonment and collapse of the Early Iron I building, in which the mud-brick walls tumbled and re-consolidated into a hard mass of earth, the builders of Phase 11 used the hard earth as a foundation for building new walls in the west and in the south, while re-using the still visible northern and eastern walls. Since the northern walls do not form a continuous wall, it may be that the northern side of the structure was left open for entry during this phase.

The majority of the area contained within these walls was left open, without any internal divisions or roofing support apparent. In the southern third, however, the architectural elements suggest they could have supported a roof or superstructure, given the presence of three potential pillar bases. These three pillar bases are in line with each other and mark off the boundaries of a southern area, perhaps a room, in this phase, which in later phases developed into a walled area with several shifting internal divisions.

Three abutting walls created a small corner room in the south-west area of the larger space. The purpose of this room, no more than 1 m² in size, is unclear. Further excavation to the south may clear up this uncertainty.

This phase's beaten earth and exposure surfaces suggest a short time span of use before the design culminated in the extensive preparatory plaster earth layers and cobble floors of the following phase. Remnants of a cobble floor in the

southern portion of the field suggest that at least the southern area was paved in this phase, though preservation is poor. The open-air courtyard pattern, with a separate southern area, suggests that the structure was designed for a use necessary not only to the inhabitants of this phase, but also those of subsequent phases. No cultic objects were found for this phase, so a sanctuary use is unsupported except by argument of comparison with the later cultic levels. The fill of this early structure had only a few domestic items such as spindle whorls and hand grinders. In light of the similarity between the outline of this structure and those that followed, it would seem this area was continuously used and improved through a succession of many phases.

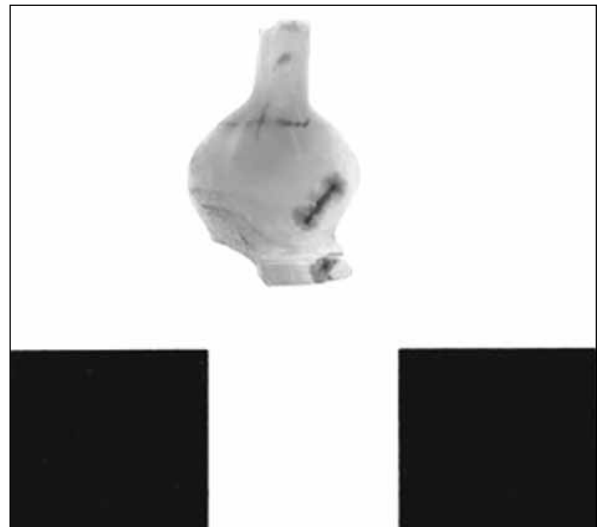
Stratum 10 (Iron IB - Field H phase 10B)

This earliest phase of the cobbled floor courtyard has been well explained and documented in earlier field reports. Our work this season removed the last vestiges of cobble and plaster floors from the east balk of 7K32 and 7K31, and their supporting fill layers, completing removal of Phase 10B from the field. In the process of completing these excavations, we discovered a pit filled with loose earth and pottery with a greenish cast to it, perhaps from some organic material thrown into the pit.

Stratum 10 (Iron IB - Field H phase 10A)

The second sub-phase of the cobbled floor courtyard was completely removed this season after excavating remaining surfaces and walls. Excavation produced a number of objects and bones, including a cowry shell, metal needle, two carnelian beads, a carnelian lotus-seed vessel pendant (**Fig. 13**), a basalt hand grinder, a basalt millstone and an ostrich egg shell fragment. This rich assortment is not datable to any specific phase of the wall from which it was taken, as it was found between the stones of the wall and could have fallen into the wall at any point during its use. The lotus-seed vessel pendant resembles one found in 1996 (#6047) in the topsoil of 7K21 (MPP6). These are the only two flat examples from al-'Umayrī excavated thus far, though three of the rounded lotus-seed vessel pendants have been found in Iron I and Iron II contexts in Fields A and B.

Our goals this season included removing the



13. Field H lotus-seed vessel pendant (B100014; photo Jillian Logee).

final remains of the courtyard sanctuary phases and further exploring the complex Early Iron I structure. Our goals for future excavation will include final removal of the northern and southern walls, though we will need to re-open excavation of the southern half of Squares 7K11 and 7K12 before this can be accomplished for the southern wall. Questions to investigate include the chronological relationship of this structure with the transitional period domestic buildings further north on the tall, as well as the relationship of this phase with earlier phases of use of the substantial walls of the building. The size of the building's walls in parallel with the Late Bronze temple / palace on the north-west corner of the tall, and the frequency of Late Bronze pottery mixed with the Iron I in the layers excavated, hint at a Late Bronze origin, but only future probes will tell.

Field L: The South-Eastern Acropolis (Carrie Elaine Duncan, University of North Carolina at Chapel Hill)

Field L was opened on the south-eastern edge of Tall al-'Umayrī's acropolis in the 1998 excavation season. The initial purpose of the field was to explore the various architectural features visible in the transition from the top of the tall to the southern slope. Excavators posited a continuation in Field L of the Early Bronze Age remains found in Field D, located lower on the southern edge of the tall. Ensuing seasons of excavation have identified significant architect-

tural and material culture remains from the Iron I, Late Iron II / Persian and Hellenistic periods, corresponding to site-wide Strata 12, 7 and 4 respectively.

The previously excavated Iron I remains in Field L consist of a massive wall running roughly east - west the length of three squares (6L80, 6K89 and 6K88). Additional Iron I material was found on the north side of this wall at its westernmost exposure (Square 6K98), although the relationship between the wall and this additional material is not yet clear. From the wall's width of *ca.* 1.5 - 1.75 m we infer that it comprises part of a monumental, non-domestic architectural feature, comparable – and perhaps related – to similar discoveries in Fields A and H.

Earlier seasons' excavation of Late Iron II / Persian material in Field L revealed the southwest corner of a domestic structure at the eastern end of the field with associated occupation surfaces. Pillar bases were thought to divide a courtyard containing a *tābūn* to the south from a room open to the courtyard, but poorly preserved in Square 6L80. The phasing of the Late Iron II / Persian material was unclear, due in large part to perceived Hellenistic disturbance.

The Hellenistic remains in Field L are extensive and have been the focus of excavation for many seasons. The farmstead complex appears bound by major walls on the north, west and south. The eastern wall of the farmstead structure is not currently extant, either because it lies to the east of the excavated area or because of the poor preservation apparent on the eastern sides of Squares 6L80 and 6L70. Several of the rooms associated with this complex had plaster floors. Scattered remains of agricultural production equipment and facilities found in Squares 6L80, 6L70 and 6K79, including press weights, pithos installations and a drain were interpreted as an olive or wine press associated with the Hellenistic farmstead. The 2010 season's excavation has led to a revision of the date assigned to the drain and other press features, which will be discussed below.

The 2010 season of excavation in Field L had two main foci: first, to remove a series of balks in the eastern section of the field (Squares 6K79 and 6K89) in order to uncover fully the Hellenistic farmstead and to begin removal of its associated walls, better exposing the Late Iron II

structures in this area; second, to continue the project started in the 2008 season of expanding Field L to the west and north towards Fields H and M by opening two new squares at the west edge of the field (Squares 6K86 and 6K96) (Fig. 14).

Given that excavation occurred exclusively in balks, topsoil and sub-topsoil this season, it is not surprising that no new major architectural features were discerned. Nevertheless, several longstanding questions were answered and the field's phasing as a whole became clearer. Findings include (1) continuity of the Hellenistic plaster surface unifying the eastern room of the Hellenistic farmstead, (2) a stone surface related to the Late Iron II / Persian pressing installation and (3) the continuation of Late Iron II / Persian architecture in the western part of the field.

Stratum 12 (Iron I - Field L phase 7)

During the removal of the east balk in Square 6K89, a gap was noticed between two of the large stones in the one visible course of Wall 6K89:10's southern row. This gap suggested a possible original doorway blocked in a later period. Excavation of later fill material against the



14. Field L aerial photo (photo David Kennedy).

wall's face revealed an unbroken second course of stones. The apparent gap is best explained by the robbing out of chink stones.

Stratum 7 (Late Iron II / Persian - Field L phase 6)

The Late Iron II / Persian period is represented in two field phases (6 and 5) in Field L. However, no earth layers associated with phase 6 were excavated in the 2010 season. The multiple phases of Iron II / Persian occupation are attested by several phase 6 features being robbed out and covered over or reused by phase 5 structures.

Thus, several walls in 6K79 and 6K89 appear to have been built in phase 6 of Late Iron II / Persian construction and comprise the extant walls of the phase 6 Late Iron II / Persian building in Field L. No eastern wall of this building has been found as of yet. It is possible that the building's east wall could be outside the current excavation area, but it is equally possible that this wall fell victim to the poor preservation apparent in the eastern portion of the field. As noted above, no earth layers associated with the phase 6 occupation of this building were excavated this season, leaving unanswered questions of the building's use and the precise date in this

phase.

At the west edge of Field L a large wall was found in a newly opened square (7K86). Although excavation of the wall has exposed only one course thus far, it has been assigned to the Late Iron II / Persian period based on its association with a contemporary wall line in 6K87 to the east (**Fig. 15**), with which it shares alignment and megalithic construction techniques. Further excavation is needed before we can assign the wall to phase 6 with certainty.

Stratum 7 (Late Iron II / Persian - Field L phase 5)

Numerous elements related to the Phase 5 occupation in Field L were found during the course of balk removal in Squares 6K79 and 6K89. In most cases, these finds could be connected to previously excavated architectural or installation elements, although preservation was not always such that their function could be clearly discerned.

During the 2006 season of excavation, three large pressing weights were discovered in Square 6L80, which were interpreted as indications of an oil or grape pressing installation. Neither pressing surface nor beam anchor wall was found in association with the weights



15. Field L aerial Photo West (photo David Kennedy).

during that or the subsequent season. Possible remnants of both, however, were identified this season, albeit in a poor state of preservation. An installation consisting of a round, flat piece of limestone, *ca.* 0.42 m in diameter and 0.20 m thick, was set in a poorly preserved plaster bed. The installation surface is sealed against on the south by an earth layer. Immediately to the east, an installation wall runs between the pressing surface and the weights (**Fig. 16**). On the north side of the stone surface is a jar set into a plaster layer, while to the east an earth layer preserves significant portions of a pithos jar set into a plaster and earth surface.

These elements should combine to form a complete pressing installation in phase 5 of the Late Iron II / Persian occupation. However, the installation wall is composed of unhewn stones set in a haphazard manner and stands between the weights and surface, causing concern about how this wall could aid in the placement of a pressing beam; the surface preserves no mechanism for the channeling of pressed liquid and, finally, the suggestively located ceramics cannot be collection vessels themselves nor stands for such vessels. Therefore, although all the necessary elements for a pressing installation have been found in proximity to one another, no coherent picture of how the installation functioned can be drawn.

The central section of a drain in 6K79 was identified during balk removal, establishing a continuous, *ca.* 6.7 m line from the drain’s south-west terminus in a wall in 6K79 to its north-east extent in 6L70. As elsewhere, the drain section



16. Field L pressing surface and weights (photo John McDowell).

excavated this season was lined with stones on the sides and top (**Fig. 17**). Although this drain was associated initially with the Hellenistic occupation at al-‘Umayrī, its location beneath a Hellenistic surface and the presence of Late Iron II / Persian pottery in drain fill argue for the drain’s placement in phase 5. Despite the excellent preservation of the drain itself, discerning how the drain functioned has proved difficult. What exactly was being drained, whence and whither remains unclear.

Stratum 4 (Hellenistic - Field L phase 4)

Excavation in the north and east balks of Square 6K79 and the east balk of Square 6K89 has unified the Hellenistic room bounded by walls in both squares on the west, south and north sides, by stratigraphically linking the plaster surfaces uncovered in 6K79, 6K89, 6L70 and 6L80 which cover, albeit patchily, the entirety of the extant room.

Stratum 4 (Hellenistic - Field L phase 3)

The later phase of the east room of the Hellenistic farmstead is represented in the south-east corner by a surface, on which a figurine fragment was found. The abandonment of the Hellenistic phases appears to be marked by earth and tumble in 6K89.

Stratum 1 (Islamic - Modern - Field L phase 2)

Work in sub-topsoil layers in 6K96 exposed a thick deposit of stone tumble and ceramic debris in a loose matrix of soil. Although the tall begins to slope sharply to the south in the area of 6K96, the dense deposit of stones and pottery in this square cannot be accounted for by natural processes. Rather, this accumulation would seem to result from deliberate clearing of debris from the top of the tall, perhaps for agricultural purposes. In addition to the thick accumulation



17. Field L drain channel (photo John McDowell).

of rocks and pottery, the sub-topsoil layers of 6K96 were characterized by a scatter of very large, *ex situ* boulders.

Several objects were excavated as part of the sub-topsoil in squares 6K86 and 6K96, including two beads (B100021 and B100023), three figurine fragments (B100017, B100018 and B100019) and a metal ring (B100022).

Stratum I (Islamic - Modern - Field L phase I)

As is often the case, topsoil in a plow zone can produce a trove of artifacts. Field L was no exception to this rule. Objects included a stamp seal, two seal impressions (**Fig. 18**), two beads and a cowry shell.

Our goals for Field L in the 2010 season included the removal of balks and walls associated with the Hellenistic farmstead and the expansion of the field to the west. Progress has been made on each of these fronts. Balk removal in Squares 6K79 and 6K89 improved our understanding of the Late Iron II / Persian and Hellenistic stratigraphy in these and adjacent squares. Removal of topsoil and sub-topsoil layers in Squares 6K96 and 6K86 has cleared the way for excavation of stratigraphically significant loci and architectural features.

Field M: The West-Central Acropolis (Elizabeth Brown, Andrews University)

Field M is located on the west-central acropolis of Tall al-'Umayrī. It was first opened in 2008 directly east of Field H with four squares: 7K23 (south-west) square, 7K24 (south-east) square, 7K33 (north-west) square and 7K34



18. Field L griffin seal impression (B100005; photo Jillian Logee).

(north-east) square.

In 2008 the new squares yielded a Late Iron II / Persian building (Building A) in the southern half of the field and several surfaces covering most of the eastern and northern part of the field, also dating to Late Iron II / Persian. However, it was difficult to see how these different features related to each other from square to square, given the lack of stratigraphic connection due to extant balks.

In 2010 excavation resumed in these four squares (**Fig. 19**), the main objective being the removal of all four interior balks. This would expose the multiple surfaces in 7K24, 7K34 and



19. Field M (photo David Kennedy).

7K33 and would also more fully expose Room A1 (Building A) in 7K23 and 7K24. The aim was to gain a better understanding of how these architectural features and surfaces related to each other.

Stratum 8 (Iron II - Field M phase 4)

Phase 4 was the earliest phase reached in Field M in the 2010 season. While the architecture in this phase was used through later phases, it seems that the lower courses of the walls that make up Building A, as seen in Room A1, were constructed in this phase and added to in Phase 3b. Building A, only partially exposed in the south-west and southern part of Field M, was dug into the ground. The room was 4.5 x 2.5 m in size.

In 2010 a flagstone and beaten earth surface was exposed. The surface covers the entirety of Room A1 and is approximately 65 percent flagstone and 35 percent beaten earth with the beaten earth section mostly near the stairs. Flagstones in the center of the room formed a hollow circle, directly in front of a possible domestic press that is resting on the surface along the southern wall (**Fig. 20**).

Wall construction is unusual, the upper course formed of a single row of limestone megaliths that is inconsistent with the rubble construction of the lower courses. In addition, the eastern and southern walls of the room do not appear to have the second phase of construction and seem to be of another style altogether.

Stratum 7 (Late Iron II / Persian - Field M phase 3b)

A series of walls in 7K33 and 7K24, once thought to have come from the Hellenistic period, were linked stratigraphically by means of a surface in 2010 and clearly date to the Late Iron II / Persian period based on ceramic evidence. Room A1 saw a second phase of use with the appearance of a subsequent surface level and the addition of stairs into the building.

The relationships between several surfaces in Squares 7K24, 7K33 and 7K34 became clear only after removal of all interior field balks. There were, in fact, two separate surfaces dating to Phase 3b, based on ceramic evidence discovered within and above them. The surfaces cover a large area in the eastern and northern parts of the field. This suggests some sort of large courtyard. The entire set of surfaces is also sloping to the north-east.

A cobble surface was exposed in the north-west corner of Square 7K33. Uneven and possibly damaged, the surface seems to match with the other surfaces running across the field.

Stratum 6 (Late Iron II / Persian - Field M phase 3a)

Phase 3a is the second phase within the Late Iron II / Persian period. It seems that most of the architecture that was in use across the field in Phase 3b was no longer being utilized. Room A1 was filled with rubble and the extensive courtyard surfaces in the north-eastern part of



20. Room A1 (photo John McDowell).

the field were cut through by a pit.

Marking the end of use of the uppermost surfaces in Squares 7K24, 7K33 and 7K34, a large pit was dug, cutting through all the surface layers. Filled with loose, dark yellowish - brown soil, the pit contained little pottery. However, a possible architectural model (B100025) was found in the fill.

Strata 2 - 1 (Byzantine - Islamic - Field M phase 2)

Topsoil was excavated in the 2010 season during balk removal in the north and east balks of 7K23, north balk of 7K24 and east balk of 7K33, producing little in the way of finds.

The 2010 season in Field M clarified many questions that were left unanswered from the 2008 season. The relationships between the surfaces in 7K24, 7K33 and 7K34 were finally revealed, giving a new dating for much of the architecture in the field; an earlier date was established for at least Room A1 of Building A.

Plans for 2011

The project is planning a small study season during the month of July 2011 in order to expose what remains of an emerging 'four-room' house in Field H. Excavation over the past two seasons, in 2008 and 2010, has revealed part of a large domestic structure dated by ceramics to the Early Iron I period. Several well-preserved domestic buildings from transitional LB / Iron I strata in Fields A and B have been uncovered, but the Field H ceramics suggest that this building is slightly later. The 2011 research will focus on the nature of the domestic structure in Field H, exploring architectural features in order to understand social and economic patterns.

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Bibliography

- Clark, D.R.
2011 The Late Bronze and Early Iron Ages at Tall al-'Umayri. Pp. 43-57 in Douglas R. Clark, Larry G. Herr, Øystein S. LaBianca, Randall W. Younker (eds.), *The Madaba Plains Project: Forty Years of Excavating into Jordan's Past*. Equinox.
Clark, D.R., Herr, L.G., LaBianca, Ø.S., Younker, R.W. (eds.)
2011 *The Madaba Plains Project: Forty Years of Ex-*

- cavating into Jordan's Past. Equinox.
- Geraty, L. G.
 1985 The Andrews University Madaba Plains Project: A Preliminary Report on the First Season at Tell el-‘Umeiri. *Andrews University Seminary Studies* 23: 85-110.
- 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. *Bulletin of the American Schools of Oriental Research Supplement* 24: 117-119.
 1987 The Madaba Plains Project: A Preliminary Report on the First Season at Tell el-‘Umeiri and Vicinity. *Annual of the Department of Antiquities of Jordan* 31: 187-199.
 1988 The Joint Madaba Plains Project: A Preliminary Report on the Second Season at Tell el-‘Umeiri and Vicinity (June 18 to August 6, 1987). *Andrews University Seminary Studies* 26: 217-252.
 1989 Madaba Plains Project: The 1987 Season at Tell el-‘Umeiri and Vicinity. *Annual of the Department of Antiquities of Jordan* 33: 145-176.
 1990 Madaba Plains Project: A Preliminary Report of the 1987 Season at Tell el-‘Umeiri and Vicinity. *Bulletin of the American Schools of Oriental Research Supplement* 26: 59-88.
- Geraty, L. T., Herr, L. G., LaBianca, Ø. S. and Younker, R. W. (eds.)
 1989 *Madaba Plains Project 1: The 1984 Season at Tell el-‘Umeiri and Vicinity and Subsequent Studies*. Berrien Springs, MI: Andrews University/Institute of Archaeology.
- Herr, L.G.
 2011 Tall al-‘Umayri in the Early and Middle Bronze Ages, and the Late Iron I, Iron II, Late IronII/Persian, Hellenistic, Early Roman, Byzantine, and Islamic Periods. Pp. 28-42 in Douglas R. Clark, Larry G. Herr, Øystein S. LaBianca, Randall W. Younker (eds.), *The Madaba Plains Project: Forty Years of Excavating into Jordan's Past*. Equinox.
- Herr, L. G. and Clark, D. R.
 2003 Madaba Plains Project: Excavations at Tall al-‘Umayri, 2002. *Annual of the Department of Antiquities of Jordan* 47: 279-294.
 2004 Madaba Plains Project—Tall al-‘Umayri, 2002. *Andrews University Seminary Studies* 42: 113-127.
 2005a Madaba Plains Project: Excavations at Tall al-‘Umayri, 2004. *Annual of the Department of Antiquities of Jordan* 49: 245-260.
 2005b Madaba Plains Project—Tall al-‘Umayri, 2004. *Andrews University Seminary Studies* 43: 229-246.
 2008a Madaba Plains Project: Excavations at Tall al-‘Umayri, 2006. *Annual of the Department of Antiquities of Jordan* 52: 181-202.
 2008b Madaba Plains Project—Tall al-‘Umayri, 2006. *Andrews University Seminary Studies* 46: 65-81.
 2009 From the Stone Age to the Middle Ages in Jordan: Digging up Tall al-‘Umayri. *Near Eastern Archaeology* 72/2: 68-97.
 In press Madaba Plains Project: Excavations at Tall al-‘Umayri, 2008. *Annual of the Department of Antiquities of Jordan*.
 In press Madaba Plains Project—Tall al-‘Umayri, 2008. *Andrews University Seminary Studies*.
- Herr, L. G., Clark, D. R., Geraty, L. T. and LaBianca, Ø. S.
 1999 Madaba Plains Project: Excavations at Tall al-‘Umayri, 1998. *Annual of the Department of Antiquities of Jordan* 43: 99-114.
 2000 Madaba Plains Project: Tall al-‘Umayri, 1998. *Andrews University Seminary Studies* 38: 29-44.
- Herr, L. G., Clark, D. R., Geraty, L. T., Younker, R. W. and LaBianca, Ø. S. (eds).
Madaba Plains Project 4: The 1992 Season at Tall al-‘Umayri and Subsequent Studies. Berrien Springs, MI: Andrews University/Institute of Archaeology.
 2002 *Madaba Plains Project 5: The 1994 Season at Tall al-‘Umayri and Subsequent Studies*. Berrien Springs, MI: Andrews University/Institute of Archaeology.
- Herr, L. G., Clark, D. R. and Trenchard, W. C.
 Madaba Plains Project: Excavations at Tall al-‘Umayri, 2000. *Annual of the Department of Antiquities of Jordan* 45: 237-252.
 Madaba Plains Project: Excavations at Tall al-‘Umayri, 2000. *Andrews University Seminary Studies* 40: 105-123.
- Herr, L. G., Geraty, L. T., LaBianca, Ø. S. and Younker, R. W.
 1991 Madaba Plains Project: The 1989 Excavations at Tell el-‘Umeiri and Vicinity. *Annual of the Department of Antiquities of Jordan* 35: 155-180.
 1994 Madaba Plains Project: The 1992 Excavations at Tell el-‘Umeiri, Tell Jalul, and Vicinity. *Annual of the Department of Antiquities of Jordan* 38: 147-172.
- Herr, L. G., Geraty, L. T., LaBianca, Ø. S., Younker, R. W. and Clark, D. R.
 1996 Madaba Plains Project 1994: Excavations at Tall al-‘Umayri, Tall Jalul, and Vicinity. *Annual of the Department of Antiquities of Jordan* 40: 63-82.
 1997 Madaba Plains Project 1996: Excavations at Tall al-‘Umayri, Tall Jalul and Vicinity. *Annual of the Department of Antiquities of Jordan* 41: 145-168.

Herr, L. G., Geraty, L. T., LaBianca, Ø. S. and Younker, R. W. (eds.)

- 1991 *Madaba Plains Project 2: The 1987 Season at Tell el-'Umeiri and Vicinity and Subsequent Studies*. Berrien Springs, MI: Andrews University/Institute of Archaeology.

Herr, L. G., Geraty, L. T., LaBianca, Ø. S., Younker, R. W. and Clark, D. R. (eds.)

- 1997 *Madaba Plains Project 3: The 1989 Season at Tall al-'Umayri and Vicinity and Subsequent Studies*. Berrien Springs, MI: Andrews University/Institute of Archaeology.

LaBianca, Ø. S., *et al.*

- 1995 Madaba Plains Project: A Preliminary Report on the 1989 Season at Tell el-'Umeiri and Hinterland. Pp. 93-120 in W. G. Dever (ed.), *Preliminary Excavation Reports*. Annual of the American Schools of Oriental Research 52. Atlanta: American Schools of Oriental Research.

Younker, R. W., *et al.*

- 1990 The Joint Madaba Plains Project: A Prelimi-

nary Report of the 1989 Season, Including the Regional Survey and Excavations at El-Dreijat, Tell Jawa, and Tell el-'Umeiri (June 19 to August 8, 1989). *Andrews University Seminary Studies* 28: 5-52.

- 1993 The Joint Madaba Plains Project: A Preliminary Report of the 1992 Season, Including the Regional Survey and Excavations at Tell Jalul and Tell el-'Umeiri (June 16 to July 31, 1992). *Andrews University Seminary Studies* 31: 205-238.

Preliminary Report of the 1994 Season of the Madaba Plains Project: Regional Survey, Tall al-'Umayri and Tall Jalul Excavations (June 15 to July 30, 1994). *Andrews University Seminary Studies* 34: 65-92.

- 1997 Preliminary Report of the 1996 Season of the Madaba Plains Project: Regional Survey, Tall al-'Umayri and Tall Jalul Excavations. *Andrews University Seminary Studies* 35: 227-240.