TALL DHĪBĀN 2004 PILOT SEASON: PROSPECTION, PRESERVATION, AND PLANNING

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Introduction

The Dhībān Archaeological Project seeks to develop strategies for ensuring the long-term sustainability of archaeological research and archaeological landscapes in Jordan by integrating traditional research questions with site development. These two activities converge at Dhībān on the question of local connections to place in the face of long-term and apparently radical changes in the modes and intensity of dwelling, land-use, and collective identification. Even when apparently abandoned, Dhībān has remained a place of significant human activity, as is attested by the history of the Banī Ḥamīda tribe who settled the modern town in the early twentieth century after more than a century of seasonal use of the site. This long term pattern of attachment to place manifest through widely divergent intensities and modes of settlement is a central characteristic of Jordanian history and one of the distinct intellectual insights to be gained from its archaeological record. What follows is a report of the pilot season of the Tall Dhībān Project undertaken from June 2-26, 2004[1].

Context and Previous Investigations

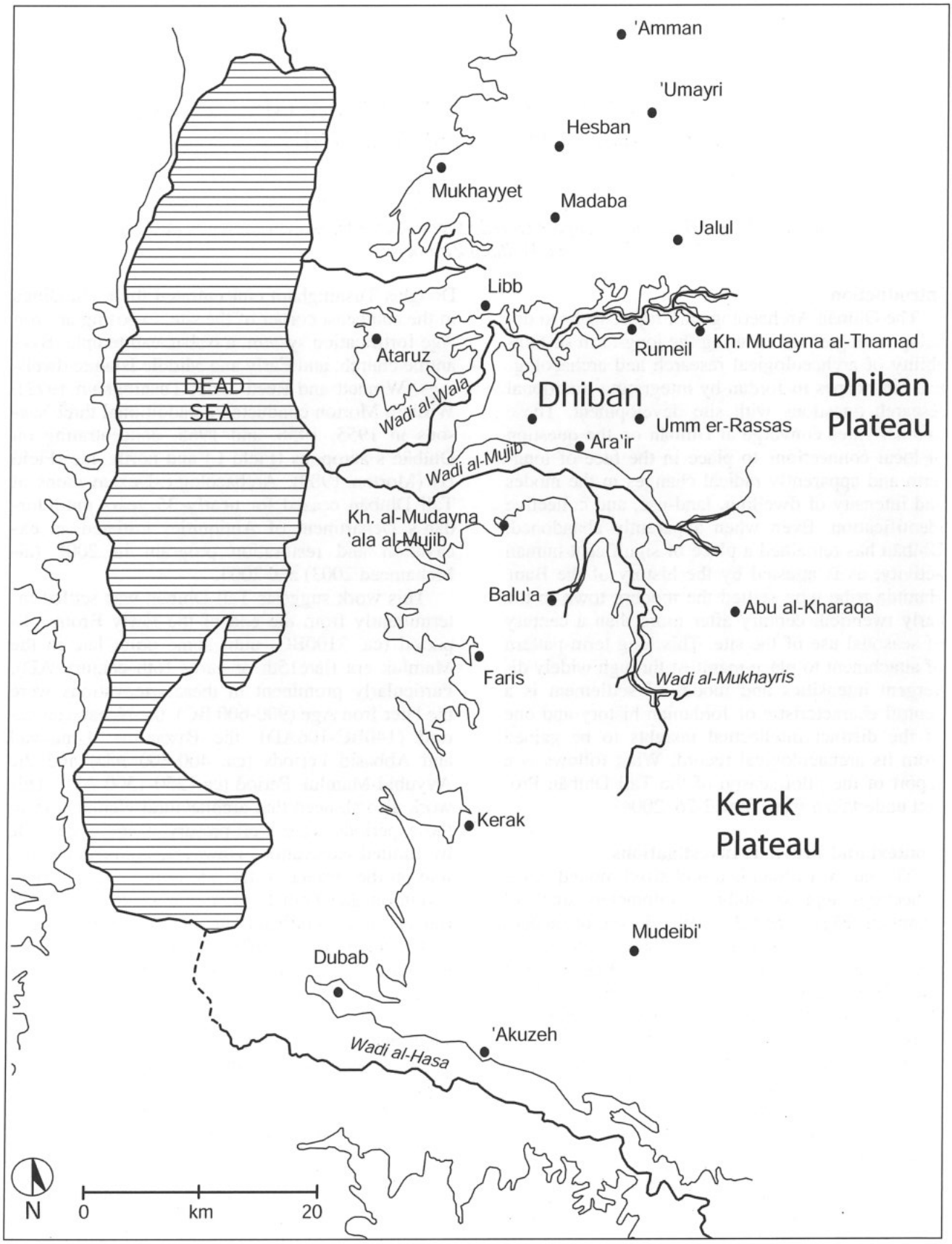
The tall of Dhībān is a mid-sized mound of ca. 5 hectares approximately 70 kilometers south of 'Ammān (**Figs. 1 and 2**). While devoid of modern settlement, the mound is immediately adjacent to the modern community of Dhībān (**Fig. 3**). The site is well-known from both the discovery of the Mesha' Inscription in 1868 as well as for the pioneering excavations of the American Schools of Oriental Research from 1950 to 1953 and again, in 1955 and 1956. Fred Winnett, William Reed, and Douglas Tushingham concentrated their soundings in the southeast corner of the site, exposing an Iron Age fortification system, a Nabataean temple, Byzantine church, and Early and Middle Islamic dwellings (Winnett and Reed 1965; Tushingham 1972). William Morton conducted an additional three seasons in 1955, 1956, and 1965, concentrating on Dhībān's acropolis (Field L) and north side (Field H) (Morton 1989). Archaeological excavations at Tall Dhībān ceased for nearly 35 years until Jordan's Department of Antiquities initiated an excavation and restoration program in 2002 (al-Mahameed 2003) and 2004.

This work suggests Tall Dhībān was settled intermittently from the end of the Early Bronze 1b period (ca. 3100BC) until some point late in the Mamluk era (late15th or early 16th century AD). Particularly prominent in these excavations were the later Iron Age (900-600 BC), the Nabataean period (140BC-106AD), the Byzantine, Umayyad and Abbasid Periods (ca. 400-800 AD) and the Ayyubid-Mamluk Period (ca.1250-1500 AD). This work also showed that architectural elements from these periods were well-preserved and accessible by limited excavation. However, architecture visible on the surface of the site is in relatively poor condition due both to G. Lancaster-Harding's removal of a significant number of above ground walls and arches in 1949[2] and to the lack of post-excavation conservation on the part of earlier excavators.

2004 Season Objectives

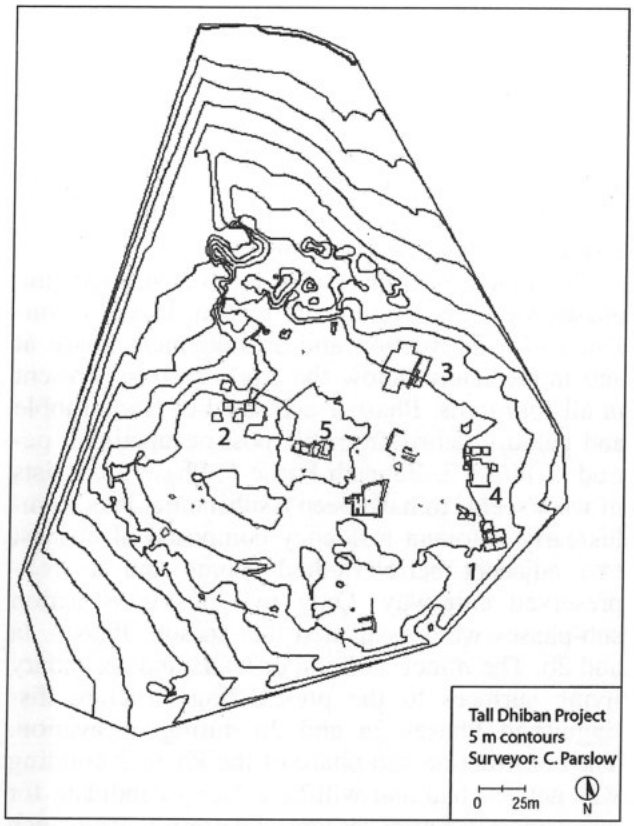
Four objectives shaped this year's research design:

1. The University of Liverpool, the University of Pennsylvania, Stanford University, and the National Science Foundation sponsored the Dhiban Archaeological Project in 2004. Staff included Dr. Bruce Routledge (U. Liverpool, Director), Benjamin Porter (U. Pennsylvania, Associate Director), Danielle Steen (Stanford U. Associate Director), Ali al-Khayyat (Department of Antiquities representative), Reem Shqour (Department of Antiquities representative), Lidewijde de Jong (Stanford U.), Jack Green (U.C. London), Aubrey Baadsgaard (U. Pennsylvania), William Zimmerle (U. Pennsylvania), Carla Parslow (U. Toronto), John Hakes (U. Liverpool), Jennifer Jacobs (U. of Pennsylvania) and Jamie Porter (Montana State U.).
2. Lancaster-Harding, then director of Jordan's Department of Antiquities, apparently stripped the stone and had it donated for the construction of a nearby road in order to render Dhiban more attractive to archaeologists interested in the site's pre-Islamic layers (Winnett 1964: 11).

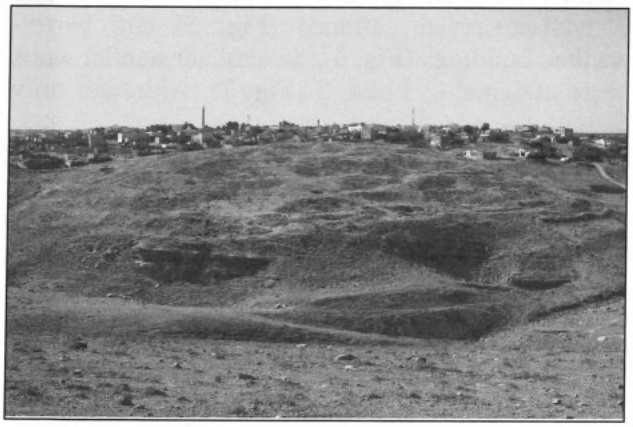


1. Map of Central Jordan.

1. To produce an accurate and up-to-date topographic map of Tall Dhībān in a digital format as the basis for developing a GIS database of cultural resources in the immediate vicinity of Dhībān.
2. To perform a Ground Penetrating Radar (GPR) survey of several open areas on the central and southern portions of the site in order to locate coherent architectural units from the latest phases of occupation on the tall suitable for exposure and reconstruction for site interpretation.
3. To conduct trial excavations to the west of William Morton's unpublished Area L excavations of 1955, 1956, and 1965 in order to test the viability of opening up this area on a large scale.
4. To gather preliminary data that would facilitate future collaboration with the Department of Antiquities in establishing a plan for the preservation and development of the site for domestic and international tourism.



2. Tall Dhībān topographic map detailing past and present excavation areas and visible surface architecture. 1. ASOR soundings (Winnett, Reed, and Tushingham, 1950-1953); 2. Field H (Morton, 1955-1956); 3. Field L (Morton, 1955-1956, 1965; Routledge *et al.*, 2004); 4. Jordanian Department of Antiquities' excavations (2002, 2004); 5. partially exposed Mamluk-Ottoman house.



3. Tall Dhībān from the north (Photo: J. Porter).

These objectives were selected in order to gather the necessary information for a viable long-term field project. All objectives were addressed to varying degrees and results are described in greater detail in the following sections.

Site Mapping

A total station survey was undertaken under the supervision of C. Parslow and B. Porter for the duration of the field season[3]. The goals of this survey were multiple: 1) record a topographic map of the site; 2) establish a five-meter grid system for excavation units; 3) record previously excavated architectural units, and 4) map all extant unexcavated surface architecture. 85% of the site was recorded this season, an additional two weeks of mapping will be necessary before the mapping component of this project is completed.

The result of this survey was a fully GIS-referencable map where all natural and cultural features as well as material culture can be recorded with precision for research and publication (**Fig. 4**). In particular, the collected data will help identify sub-surface features that are potential candidates for prospection.

Ground Penetrating Radar (GPR) Survey

A GPR survey of selected areas of the site was performed under the supervision of John Hakes and Bruce Routledge for a ten-day period of the season. This survey was conducted with the goal

3. The University of Pennsylvania's Museum's Applied Science Center (MASCA) kindly provided the surveying equipment free of charge. We would like to thank MASCA's director Dr. Stuart Fleming for their help in securing surveying equipment. The team used a TopCon GTS-3B and a Zire 71 Palm Pilot as a data collector supported by ShootPoints software, designed by Dr. W. R. Fitts. ShootPoints software is available free of charge from MASCA by contacting Dr. Fitts at wfitts@sas.upenn.edu. Data was collected as text files and downloaded daily into VectorWorks software. A datum point was established at the highest point of the site with a height of 750 meters above sea level.

4. John Hakes and Bruce Routledge conducting the ground penetrating radar survey.

of identifying sub-surface architectural units. A total area of ca. 1000 square meters was investigated to determine the nature and extent of architectural units lying at a depth of up to three meters beneath topsoil. The selected areas were cleared of all debris and a reference grid of one-meter intervals was established. Data was collected using a Pulse EKKO 100 GPR and a Noggin 500 GPR, both of which interfaced with field computers that provided immediate results for preliminary analysis. Results from this survey were hampered by the density of rock-fall found immediately below the surface in all areas surveyed. Efforts to filter out this "noise" are still underway, but preliminary observations indicate the presence of a large courtyard with a central cistern adjacent to late Mamluk or early Ottoman barrel vaulted buildings visible on the surface. Information from this survey will be integrated into the site map and analyzed alongside extant surface remains to facilitate testing by selective excavation in subsequent seasons.

Excavations

Four (4) five-by-five meter units were excavated at the site's acropolis where the largely unpublished work of William Morton suggested well-preserved and well-stratified deposits from the Early Bronze Age through Ottoman periods. Excavation of these units extended for the duration of the season. Routledge and Steen supervised the area and DeJong, Green, Shgour, Zimmerlee, and Baadsgaard supervised individual units. Unit supervisors recorded their results in a modified version of the Mādabā Plains Project record keeping system. All soil, wall, and installation loci as well as individual objects and samples were recorded with the TopCon GTS-3B and integrated into the site map. Excavated soil was sieved using 5mm mesh screen, guaranteeing maximum recovery of all artifacts and ecofacts. All objects and samples were properly registered and recorded in the project database. A soil sample was collected from each locus in order to retrieve palaeobotanical samples by means of water flotation. J. Porter was responsible for excavation photography using a combination of digital, SLR, and video camera platforms. At the end of the season, all units were backfilled to preserve excavated features for preservation in subsequent seasons.

To summarize our results, two (2) stratigraphic phases were discovered this season. Phase 1 consisted of a destruction and abandonment phase at and immediately below the site's surface. Present in all four units, Phase 1 consisted of stone rubble and cultural debris from the post-occupational period of Phase 2. Beneath Phase 1, Phase 2 consists of what seems to have been a substantial late Mamluk/early Ottoman residency composed of at least two adjacent barrel-vaulted rooms and a well-preserved entryway. Only two post-construction sub-phases were excavated this season, Phases 2a and 2b. The minor addition of walls and secondary living surfaces to the pre-existing structure distinguished Phases 2a and 2b during excavation. The construction sub-phase of the Phase 2 building was not reached and will be a likely candidate for excavation in future seasons. The results from each phase are described in more detail in the following sub-sections.

Phase 2

Phase 2 is an occupation phase containing a substantial late Mamluk/early Ottoman residency with a well-preserved entrance (**Fig. 5**) and barrel-vaulted buildings (**Fig. 6**). Several substantial walls were assigned to Phase 2 (**Fig. 7**). Although only

5. Walls BS44.005, BS44.009, and BS44.013 in Unit BS44 from the south (Photo: J. Porter).

6. Walls BR43.002, BR43.003, and BR43.009 in Unit BR43 from the north (Photo: J. Porter).

partially exposed in excavated soundings, the east-west walls of this phase (BR43.002/ BR43.009 and BS44.009) are visible on the surface, continuing well beyond the limits of the 2004 soundings and apparently running relatively parallel to each other. These walls share a common construction pattern of two abutting rows with an inner rubble fill. The exposed portions of these walls indicate that each abutting row arched in the opposite direction, and likely formed two abutting barrel arches running from wall BS44.009 to wall BR43.009 and from BR43.002 to an as yet undiscovered east-west wall located south of unit BR43. The discovery of an infilled window (locus BR43.022) in wall BR43.002 suggests the wall was reused over multiple occupational periods (see Phase 2b discussion). Running parallel to wall BS44.009 is east-west wall BS44.013, with the intervening space constituting an entrance to the residency complete with recessed doorjambs and a pivot socket. A collapsed arch visible at the eastern end of the southern section of unit BS44 suggests that one encountered a corridor turning sharply to the right (south) immediately upon passing through this door-way. North-south wall BS44.005 partially abuts wall BS44.013 on its north face, forming a room on the northeast side of unit BS44. The north-south wall BR43.003 abuts wall BR43.002 on its south face, dividing the southern half of unit BR43 into two rooms. The north-south wall BR43.020, visible in the western section of the units, abuts Wall BR43.009 on its north face and hence ends or subdivides the room on the northern half of BR43. Further west, Walls BR42.017 and BR42.018 abut each other and a threshold may be present. Two north-south Walls BR41.009 and BR41.013 run parallel to each other and may abut a prominent east-west Wall BR41.003 that is visible on the surface (not illustrated).

Unfortunately, the construction sub-phase for most of these walls was not reached during the 2004 season, making it impossible at this time either to date their construction or to determine if they were built contemporaneously. The post-construction cultural deposits associated with these walls, however, do permit further insight into the later occupation of the building.

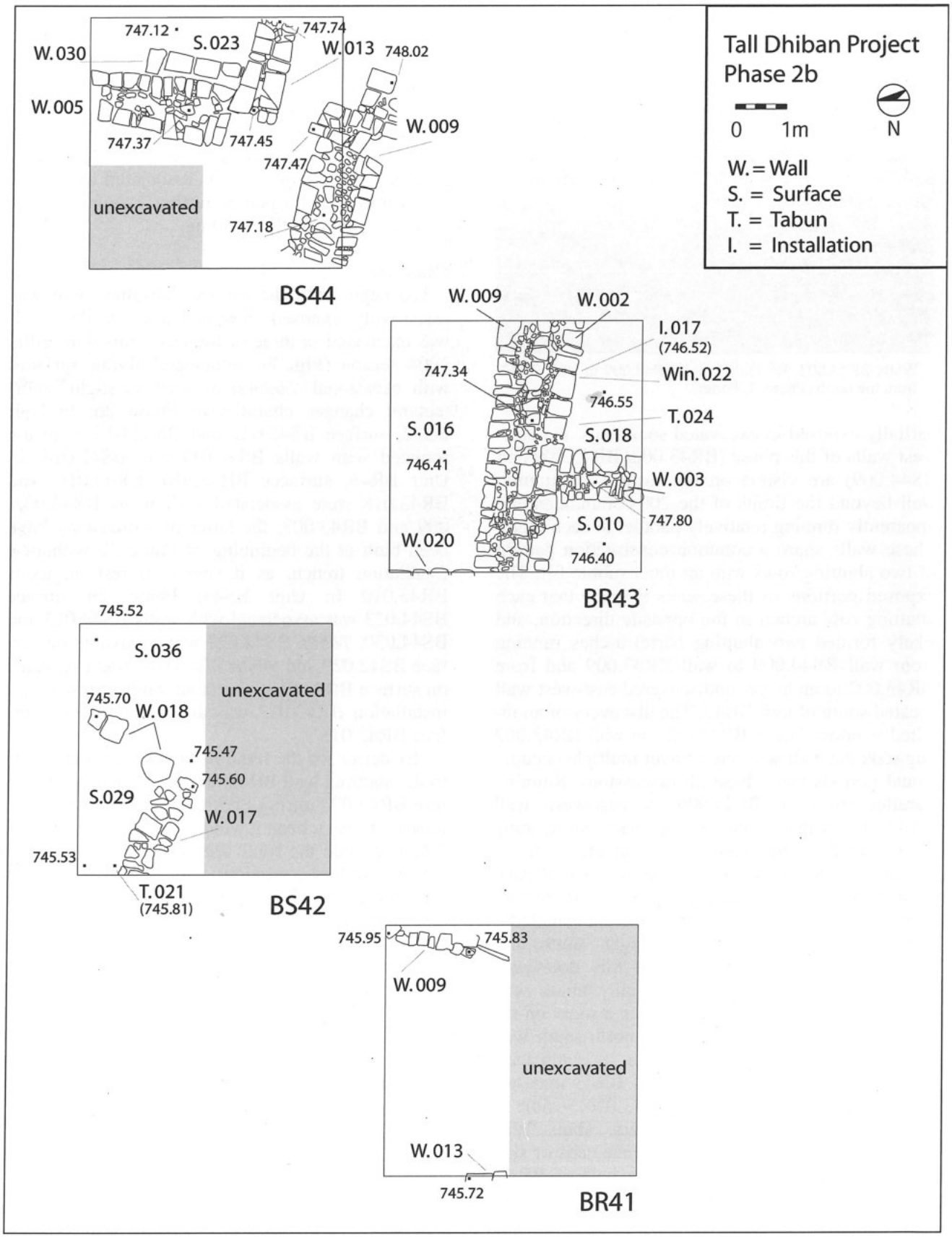
Phase 2b

To begin with the earliest sub-phase that was extensively exposed, post-construction Phase 2b was excavated in three of the four units during the 2004 season (**Fig. 7**). Ephemeral living surfaces with occasional *ṭābūn*(s) as well as slight architectural changes characterize Phase 2b. In Unit BS42, surface BS42.029 and BS42.036 were associated with walls BS42.017 and BS42.018. In Unit BR43, surfaces BR43.010, BR43.016, and BR43.018 were associated with walls BR43.002/ 009 and BR43.003, the latter of which may have been built at the beginning of Phase 2b without a foundation trench, as it seems to rest on locus BR43.010 In Unit BS44, Phase 2b surface BS44.023 was associated with walls BS44.013 and BS44.030. *Ṭābūn* BS42.021 was excavated on surface BS42.029 and *ṭābūn* BR43.024 was excavated on surface BR43.018. The stone-built semi-circular installation BR43.017 was also excavated on surface BR43.018

Evidence for the relationship of wall BR43.002 to the abutting wall BR43.009 was provided by feature BR43.022 during Phase 2b. Feature BR43.022 appears to have been a window measuring 0.43m x 0.60m set into the south face of wall BR43.002. If this was indeed a window, then its external access was blocked by the construction of wall BR43.009 up against BR43.002. It was subsequently in-filled by locus BR43.023, whose matrix was consistent with the adjacent fill BR43.011, a layer covering the Phase 2b surface (BR43.018) south of Wall BR43.002. Clearly, feature BR43.022 was not in use during the subsequent Phase 2a. Furthermore, if our interpretation of BR43.022 as a window is correct, then wall BR43.009 and the vaulted ceiling it supported post-date wall BR 43.002 and its vaulted ceiling. Of course, further excavation below Phase 2b is required before this interpretation can be confirmed.

Phase 2a

Post-construction Phase 2a was excavated in all four units during the 2004 season. Thick fill de-



7. Map of excavated units.

posits separated Phase 2a from Phase 2b. Like Phase 2b, Phase 2a consists of living surfaces with occasional *ṭābūn*(s) as well as slight architectural changes. In Unit BR41, a Phase 2a surface BR41.012/BR41.016 ran up to walls BR41.009 and BR41.013 consisting of flagstones, plaster, and beaten earth. Phase 2a was identified in Unit BS42's surface BS42.011, a sloping 5cm thick, compacted surface extant in the northwest corner of the unit. No walls were associated with this surface and none were assigned to this phase.

Phase 2a in Unit BR43 was excavated in two surfaces associated with the upper levels of walls BR43.002/009 and BR43.003. Surface BR43.007 was excavated in the southwest corner of the unit and surface BR43.015 was excavated north of Walls BR43.002/009. At some point in the transition from Phase 2b to 2a in Unit BR43, an opening in wall BR43.003 that may have served as a narrow doorway appears to have been blocked-up. In Unit BS44 surface BS44.018 was excavated between walls BS44.005/ BS44.030 and BS44.013, and above Phase 2b surface BS44.023. Surface BS44.035 was located between walls BS44.009 and BS44.013, and east of threshold BS44.027. *Ṭābūn* BS44.017 was partly built over the top of wall BS44.030, which was flush with a plastered surface in this sub-phase. *Ṭābūn* BS44.032 was excavated on surface BS44.035, immediately inside the doorway, and a door socket was found associated with threshold BS44.027.

Phase 1

Phase 1 is a destruction and abandonment phase at or immediately below the site's surface. Present in all four units and between 0.6 and 1 meter thick, Phase 1 consists of stone rubble and cultural debris from post-occupation activity following Phase 2. A combination of natural and human activities shaped Phase 1's matrix. Slope erosion moving from east to west moved materials from higher to lower levels. Additionally, pockets of homogenous soil matrices throughout the area are likely the result of periodic cistern cleaning. Ceramic, glass, and metal fragments from multiple time periods were recovered from Phase 1.

Objects

Objects and samples were recovered from Phases 1 and 2 and assigned unique identification numbers. A selection of objects useful in assigning a secure date to each phase is presented in **Figs. 8-9, Table 1, 2** and a brief discussion of the ceramic and glass objects are presented below. Objects and samples collected but not discussed here include architectural and metal fragments, spindle whorls and loom weights, groundstones, and beads. All faunal evidence and a soil sample from each excavated loci was collected for subsequent analysis.

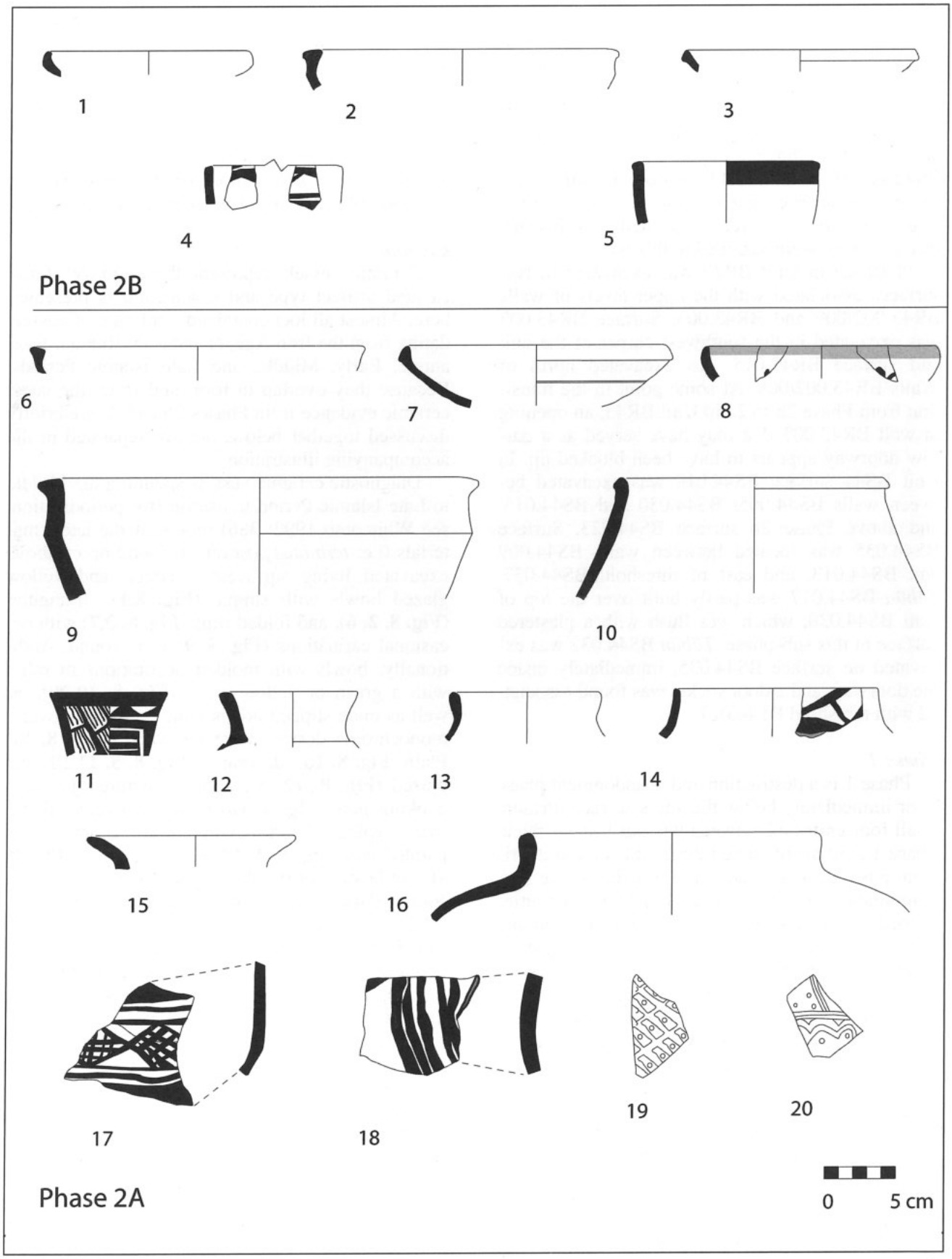
Ceramic

Ceramic vessels represent the majority of excavated artifact type and a selection is presented here. Almost all loci contained a mixture of vessels dating from the Iron Age, Nabataean, Roman, Byzantine, Early, Middle, and Late Islamic Periods. Because they overlap in form and style, the latest ceramic evidence from Phases 2b and 2a are briefly discussed together below, but are separated in the accompanying illustration.

Diagnostic ceramic vessels spanning the Middle to Late Islamic Period transition (for periodization, see Whitcomb 1992: 386) represent the latest materials (i.e. *terminus post quem*) found on or above excavated living surfaces[4]. Green and yellow glazed bowls with simple (**Fig. 8.1**), triangular (**Fig. 8. 2, 6**), and folded rims (**Fig. 8. 3,7**) with occasional carinations (**Fig. 8. 9**) were found. Additionally, bowls with molded decorations in relief with a green or yellow glaze (**Fig. 8. 19-20**), as well as underslipped bowls with clear glaze over a monochrome design, were recovered (**Fig. 8. 8**). Plain (**Fig. 8. 16**), decorated (**Fig. 8. 5, 11,18**) and glazed (**Fig. 8. 12**) wheel-manufactured jars and cooking pots (**Fig. 8. 15**) were discovered alongside typical hand-manufactured geometrically painted jars (**Fig. 8. 4, 14, 17**). Sugar jars (**Fig. 8. 10**), indicative of the thriving sugar industry in the Jordan Valley, were present as well.

Two nearly complete lamps were excavated. The first is a mould-manufactured lamp bearing a geometric design in relief, a tall conical handle, and a flat base; the wick hole is absent (**Fig. 9.1**). This lamp was excavated in the fill above Phase 2A surface BS44.035 between walls BS44.009 and BS44.013, and east of threshold BS44.027. The second lamp is wheel-manufactured, but lacks any decoration or glaze (**Fig. 9.2**). The lamp is open, finished with a ring base, and exhibits a long, pinched nozzle and an inner reservoir; there is no

4. Unfortunately, there is no space here for a discussion of vessel characteristics. For parallels from other well-stratified and published contexts, see Karak Castle (Brown 1989), the Karak Plateau Survey (Brown 1991); Tilāl Abū Qa'dān and Abū Sarbūṭ (Franken and Kalsbeek 1975); Khirbat Fāris (Johns *et al.* 1989; McQuitty and Falkner 1993); al-Burj al-Aḥmar (Pringle 1986); Hama (Poulsen 1957); Ḥisbān (Sauer 1973 and 1994); and Pella (Walmsley and Smith 1992).



8. Ceramic vessels from Phases 2b and 2a.

Table 1: Ware and surface treatment descriptions for Fig. 8 examples.

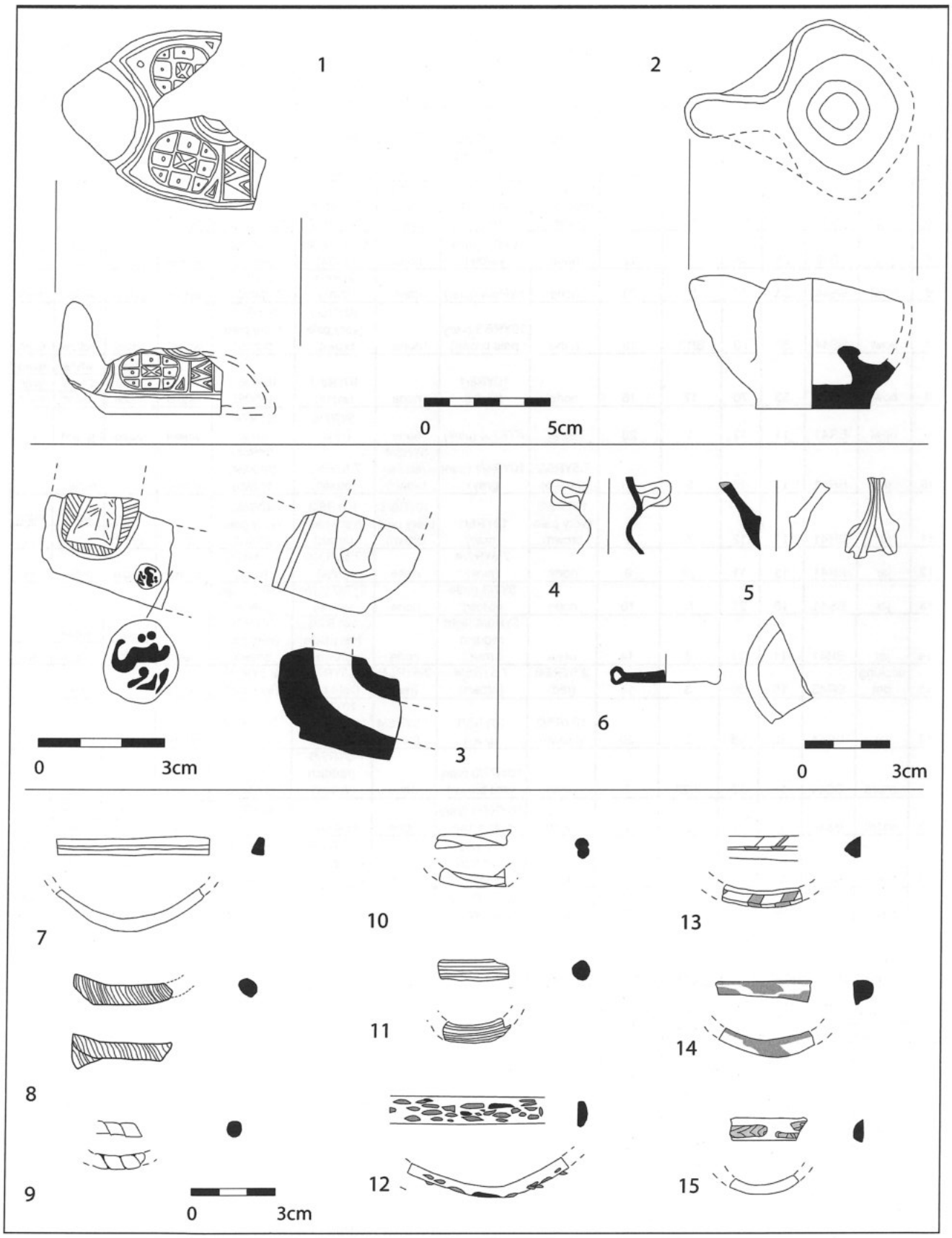
No.	Type	Unit	Locus	Pail	Number	Dm (cm)	Fabric Color			Surface Color		Wheel/ Hand	Treatment		
							Exterior	Core	Interior	Exterior	Interior		Type	Color	Ex/In
1	bowl	BS44	23	41	1	14	none	7.5YR8/4 (pink)	none	10YR8/4 (pale brown)	10YR8/4 (pale brown)	wheel	glaze	yellow	ex/in
2	bowl	BS44	23	49	1	20	none	10YR8/4 (pale brown)	none	10YR8/4 (pale brown)	10YR8/4 (pale brown)	wheel	glaze	green	ex/in
3	bowl	BR43	10	33	1	16	none	10YR8/4 (pale brown)	none	unknown	uknown	wheel	glaze	green	ex/in
4	jug	BS42	15	51	12	?	10YR8/4 (very pale brown)	10YR5/1 (gray)	10YR6/3 (pale brown)	2.5YR7/6 (light red)	10YR6/3 (pale brown)	hand	paint	black	ex/in
5	jug	BS42	25	38	1	12	none	5Y8/2 (pale yellow)	none	5Y8/2 (pale yellow)	5Y8/2 (pale yellow)	wheel	slip paint	white black	ex/in ex
6	bowl	BS44	33	70	11	23	none	5YR8/4 (pink)	none	5YR8/4 (pink)	5YR8/4 (pink)	wheel	glaze	yellow	ex/in
7	bowl	BS44	33	70	8/18	18	none	10YR8/3 (very pale brown)	none	10YR8/3 (very pale brown)	10YR8/3 (very pale brown)	wheel	glaze	yellow	ex/in
8	bowl	BS44	33	70	17	16	none	10YR8/1 (white)	none	10YR8/1 (white)	10YR8/1 (white)	wheel	slip paint glaze	white black clear	ex/in ex/in ex/in
9	bowl	BR41	11	12	1	28	none	5YR7/4 (pink)	none	5YR7/4 (pink)	5YR7/4 (pink)	wheel	glaze	green	ex/in
10	jar	BR41	11	15	5	18	7.5YR5/2 (brown)	10YR4/1 (dark grey)	5YR5/4 (reddish brown)	7.5YR5/2 (brown)	5YR5/4 (reddish brown)	wheel	none		
11	jar	BR41	11	12	7	8	10YR8/3 (very pale brown)	10YR5/1 (gray)	10YR8/3 (very pale brown)	10YR8/3 (very pale brown)	10YR8/3 (very pale brown)	wheel	slip paint	white red	ex/in ex/in
12	jar	BR41	11	11	13	9	none	7.5YR7/4 (pink)	none	7.5YR7/4 (pink)	7.5YR7/4 (pink)	wheel	glaze	green	ex
13	jar	BS44	15	25	5	10	none	5Y7/3 (pale yellow)	none	5Y8/2 (pale yellow)	5Y8/2 (pale yellow)	wheel	none		
14	jar	BR41	11	11	8	14	none	5YR6/4 (light reddish brown)	none	10YR7/3 (very pale brown)	10YR7/3 (very pale brown)	hand	slip paint	white black	ex ex
15	cooking pot	BR43	15	30	3	14	2.5YR5/6 (red)	7.5YR5/4 (brown)	2.5YR5/6 (red)	2.5YR7/6 (light red)	2.5YR7/6 (light red)	wheel	none		
16	jar	BS44	16	26	3	20	10YR5/3 (brown)	10YR5/1 (gray)	7.5YR8/4 (pink)	10YR8/3 (very pale brown)	7.5YR8/4 (pink)	wheel	none		
17	sherd	BS44	15	23	7/23	0	none	10YR7/3 (very pale brown)	none	5YR7/6 (reddish yellow)	7.5YR6/4 (light brown)	hand	paint	black	ex
18	sherd	BS44	15	19	2	0	none	10YR7/4 (very pale brown	none	unknown	10YR7/1 (light gray)	wheel	slip paint	white black	ex ex
19	sherd	BR41	11	15	6	0	none	5YR7/6 (reddish yellow)	none	5YR7/6 (reddish yellow)	5YR7/6 (reddish yellow)	wheel	glaze glaze molded	green yellow	in ex ex
20	sherd	BR41	6	17	10	?	none	10YR7/3 (very pale brown)	none	unknown	uknown	wheel	molded glaze	yellow	ex ex/in

Table 2: Object information for Fig. 9 examples.

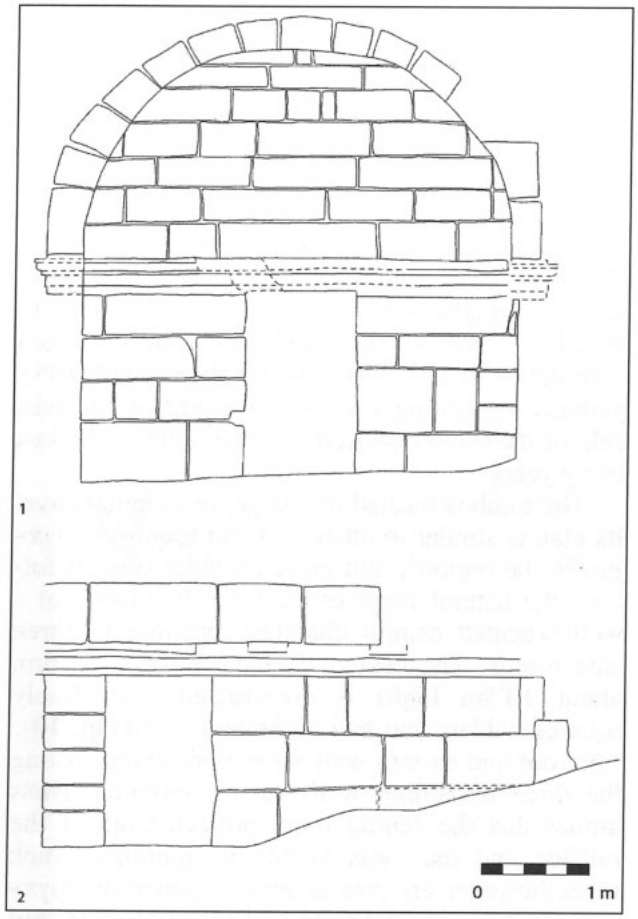
No.	Object	Material	Number	Unit	Locus	Pail
1	lamp	ceramic	44.027	BS44	21	48
2	lamp	ceramic	42.005	BS42	16	40
3	pipe	ceramic	44.003	BS44	12	20
4	vessel	glass	42.003	BS42	6	7
5	vessel	glass	44.042	BS44	23	44
6	vessel	glass	42.007	BS42	15	51
7	bracelet	glass	43.024	BR43	11	27
8	bracelet	glass	43.003	BR43	4	3
9	bracelet	glass	44.031	BS44	24	55
10	bracelet	glass	44.013	BS44	20	39
11	bracelet	glass	44.018	BS44	1	43
12	bracelet	glass	44.039	BS44	1	66
13	bracelet	glass	44.030	BS44	1	52
14	bracelet	glass	44.040	BS44	33	70
15	bracelet	glass	43.030	BR43	12	23

indication that a loop handle extended from the inner reservoir to the outer bowl, as is characteristic of medieval lamps with inner reservoirs (e.g. Poulsen 1957, Fig. 1064). This lamp was excavated in a context associated with *ṭābūn* BS42.021 and above Phase 2b surface BS42.029. Although different in form and style, both lamps bear features characteristic of medieval lamps (e.g. mould-manufacturing, geometric designs, conical handles, and inner reservoirs) and parallel other excavated examples at medieval sites throughout the Levant (e.g. Hama (ibid.); Beth Shean (Hadad 1999)).

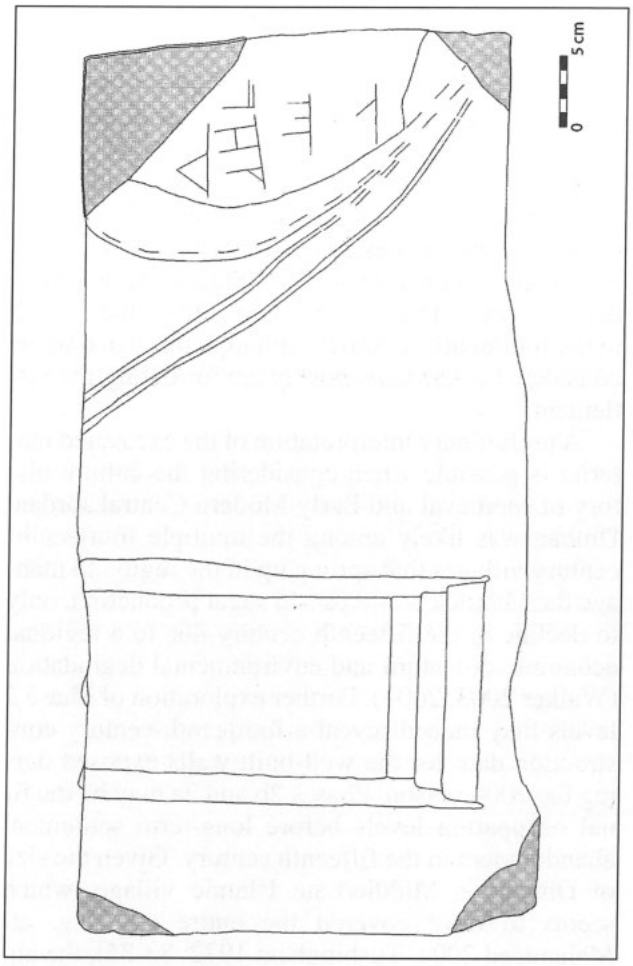
One broken ceramic pipe was excavated in a Phase 1 fill in Unit BS44 bearing a decoration on both sides and a maker's mark reading "Darwish"



9. Ceramic and glass objects from Phases 2b, 2a and 1.



10. West (1) and north (2) sections of the Roman tomb's central chamber.



11. Nabataean inscription.

(**Fig. 9.3**)[5]. Only the junction between the pipe's bowl and stem was recovered. The pipe was heavily burnished with a dark red slip and a notch on the end leading to the stem. Although incomplete, this pipe likely fits with one of Simpson's red-slipped and burnished categories (Groups 4-8) from his Belmont Castle corpus, dating from the late eighteenth to the nineteenth centuries AD (Simpson 2000; 2002 (esp. Fig. 3.21))[6].

Glass

Glass vessel and bracelet fragments were found in all phases of excavation. A selection of these items is illustrated here. No complete glass vessel was discovered; handles (**Fig. 9.4, 5**) and bases (**Fig. 9. 6**) were common. Rounded, semi-circular, and obliquely pointed monochrome and polychrome bracelet fragments were extant throughout all phases. Simple monochrome (**Fig. 9. 7**) and bichrome (**Fig. 9. 13**), twisted monochrome (**Fig. 9. 8-11**), speck (**Fig. 9. 12**), mosaic eye (**Fig. 9. 14**), and patch patterns (**Fig. 9. 15**) are represented in the bracelet corpus[7].

Dating and Interpretation

Without further excavation, precise dating of the phases described above is difficult. No objects such as coins or inscriptions were excavated that could provide absolute dates for these phases. Ceramic vessels, and to some extent, the glass bracelets do provide some help with assigning relative dates to each phase. As mentioned earlier, it is impossible at this time to assign a date for the construction of Phase 2 as the foundation of these walls have yet to be reached. Evidence from post-construction Phases 2b and 2a suggest a date between the late thirteenth and fifteenth centuries AD, if not slightly later. At this point in time, published evidence is insufficient to date when diagnostic ceramic forms such as wheel-made glazed bowls and hand-made geometrically painted jars ceased to be manufactured in

5. Thanks to Ahmed Momani for his help in translating the maker's mark.
6. Thanks to Uzi Baram who examined a drawing of the pipe and offered parallels examples in the literature.
7. See Spaer 1992 for a detailed study of Islamic glass bracelets.

Central Jordan (see Brown 1992, Johns 1998, Milwright 2000, Walmsley 2001: 545-552). Indeed, some evidence suggests that these wares continued to be manufactured at least into the seventeenth century (e.g. Ziadeh 1995). Likewise, disciplinary knowledge of the glass bracelet corpus is not so developed that a date other than "Mamluk" or "Ottoman" can be suggested. Tushingham (1972: 84) cites coin evidence from the ASOR excavations to date the equivalent of our Phase 2 from the twelfth to the fourteenth centuries, although this can only be considered a *terminus post quem* for dating the settlement.

A preliminary interpretation of the excavated material is possible when considering the culture history of Medieval and Early Modern Central Jordan. Dhībān was likely among the multiple fourteenth-century villages that sprung up in the region to manage the Mamluk's interests in sugar production, only to decline in the fifteenth century due to a regional economic downturn and environmental degradation (Walker 2003, 2004). Further exploration of Phase 2 levels may indeed reveal a fourteenth-century construction date for the well-built walls exposed during the 2004 season. Phases 2b and 2a may be the final occupation levels before long-term settlement abandonment in the fifteenth century. Given the size of Dhībān 's Middle/Late Islamic village, which seems to have covered the entire tell (e.g. al-Mahameed 2003, Tushingham 1972: 83-85), the absence of Dhībān from the 1538 and 1596 Ottoman *defter* for Transjordan (see Hutteroth and Abdulfattah 1977) would seem to favor a pre-sixteenth century abandonment of the village.

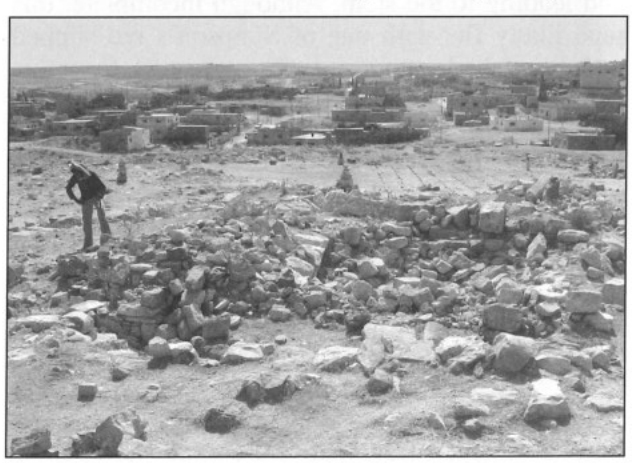
A date for Phase 1 is equally problematic as the ceramic evidence was mixed and the latest evidence spanned the early Ottoman to Hashemite Periods. The pipe does point to an eighteenth or nineteenth-century date, suggesting that limited occupation of the site took place even though substantial architectural remains have not been identified (cf. Tushingham 1972: 84-85). Travelers' accounts certainly indicate that Tall Dhībān was a seasonal encampment for the Bani Hamida before the modern community was established at the beginning of the twentieth century AD (see Graham 1989: 45-52).

Roman Tomb

A large Roman tomb on the eastern edge of the site was investigated, drawn, and photographed in the final week of the season. This is almost certainly the tomb described briefly by Fredrick Bliss in 1895 (Bliss 1895: 227-228). While the main components of the tomb remain much as Bliss described, its situation has changed in that the eastern side of the main chamber is now exposed to the air, rather than in-filled with collapsed stone. In his brief report on a large Roman or Byzantine tomb (Tomb H) was found between the tell and the highway, Tushingham mentions that what he takes to be Bliss' tomb is still visible but "badly choked with debris of all kinds" (Tushingham 1972: 105), perhaps suggesting that the exposure of the east side of the tomb occurred at some point in the last thirty years.

The tomb is located in a large, rectangular cave. Its plan is similar to other rock-cut tombs or *hypogea* in the region[8], but more irregular since it follows the natural shape of the cave. It consists of a well-executed central chamber, opening to three side rooms. The central chamber (4.66 x 4.16m, about 10.5m high) is constructed with finely squared ashlars and had an arched roof (**Fig. 10**). The roof and eastern wall are not preserved. Along the three remaining walls runs a molding. Bliss argues that the central room projected out of the hillside and thus was visible in antiquity. Such types however are rare in Jordan; generally *hypogea* can have an elaborate and visible facade, but the actual burial space is underground and hidden. It is not unlikely that this central room was buried and that there once was a kind of dromos, or long corridor leading to the room[9].

The northern room is long and irregular (17.85



12. A collapsed Late Mamluk or Ottoman barrel vaulted building, located east of Field L, has been targeted for reconstruction (Photo: J. Porter).

8. Many tombs have been identified in the region, see for instance at Tell el-'Umeiri (Herr *et.al.* 1991, 356-369), Hesbon (Boraas and Horn, 1973) and Abila (overview in Wineland 2001). For a general overview see Kuhnen 1990.

9. This is common for rock-cut graves in the Roman/Byzantine period, see for instance at Pella (McNicoll 1992, 124, 132-134).

x 1.72-2.86m wide). It has 6 loculi or niches cut into the east wall that are accessible from the short side (1.45-2 x 0.55-0.70m, about 0.50m deep). These rectangular loculi are cut out in the bedrock and have ridges along the sides (about 10 cm thick) on top of which stone closing-slabs would have originally rested. One loculus still had one of the original closing slabs. A larger niche in the western wall might have served as burial space as well, perhaps for a standing sarcophagus.

The western room (13.35 x 4.20-3.52m) is the central burial space. It is rectangular and less irregular than the other rooms, with three loculi accessible from the short side (one in the northwest with two original closing slabs). Four rectangular niches may have served as burial space, since one contained a sarcophagus in the time Bliss entered the tomb[10]. This room was re-used in later periods as evidenced by supporting and securing of the roof. An arch extends diagonally over the eastern part of the roof and in the middle of the room two pillars are made of re-used stones in support of the roof. Two stone sarcophagi (undecorated) were used in these pillars. This could indicate that the tomb was no longer used as a tomb, but as a house, stable or storage space[11].

The southern room (5.67+ x 8.50-1.19 m) curved to the west and has an opening towards the western room. The full extent could not be measured as it was buried in modern debris and ancient collapse. It has three loculi; two accessible from the short side in the southern part of the room and one accessible from the long side in the west.

Large tombs like these are common in the Near East from the Nabataean through to Byzantine periods, and generally interpreted as family tombs. Without finds, decoration or inscriptions they are very difficult to date. The shape, well-executed central room with simple decoration might point to a Roman date. Tombs like this however are generally reused for centuries. The tomb is robbed, but careful excavation might yield some finds that the robbers left or did not find, as well as clues about the later periods of use. The tomb is well kept, and especially the central room is worth restoring as part of the archaeological zone in Dhībān . Future work here will require stabilization of the tomb's ceiling as well as removal of recently deposited debris.

Nabataean Inscription

A Nabataean inscription was discovered inside a partly collapsed building located in the center of the tall during general cleaning (**Fig. 11**). The stone was only partially complete and the inscription was heavily damaged. On the stone's extreme right, a medallion circumscribed a heavily damaged inscription. On the stone's extreme left, the base of a false door characteristic of Nabataean imagery permitted an approximate date for the stone's cutting. A preliminary study suggests the medallion that circumscribes the inscription is a badly damaged Nabataean inscription. The stone bears six non-connective inscribed letters amidst a series of striation marks running across the inscription. The six letters were identified and no complete words are present. Four of the six letters were identified as early Nabataean script.

Starting from the top of the stone and reading downward from the right to the left, the first letter is read as a Nabataean *'Alif*. This *'Alif*, with its triangular form and a short extension line protruding from its right side, is similar in form to the *'Alifs* found in the Nabataean inscriptions from Ḥaurān (Cantineau 1932: 12), the Sinai (Cantineau 1930: 29-30); and an incantation text found at Ḥorvat Raqīq, near Beersheba, which is the earliest Nabataean cursive script known to date (ca. 125-100 BC) (Gruendler 1993: 7, 32 (N2); Naveh 1987: 156).

Reading downward, the first letter of the second line of the inscription is a Nabataean *Sīn/$īn*. The form of the *Sīn/$īn* is a vertical line with two parallel lines extending from its right side angularly. This *Sīn/$īn* is similar to the form found in the inscription on the statue of Rabb'el from Petra (c. 66 BC) (Gruendler 1993: 8, 65 (N5)), the temple inscription of al-Shugāfiya, near the Wādī Tumīlat (ca. 77-48 BC) (Gruendler 1993: 8, 65 (N4)), and differs only slightly from the form found in the Nabataean dedicatory inscription at Aṣlaḥ (ca. 90 BC) (Gruendler 1993: 8, 65 (N3); Naveh 1987: 156). The second letter of line two reads as a Nabataean *Ḥā'/Khā'*, whose classic *Ḥ* form is also found in the Nabataean inscriptions from Petra (Cantineau 1930: 29-30; Gruendler 1993: 8, 49 (N5)), Ḥorvat Raqīq (Gruendler 1993: 7, 49 (N2)), Aṣlahā (Gruendler 1993: 7-8, 49 (N3)), and the grave of Kamkam in al-Hijr (Gruendler 1993: 8, 49 (N6)). The final letter of the second line is the Nabataean *Jīm* whose form is similar to the *Jim* found in the Nabataean inscriptions from Hauran (Cantineau: pp. 29-30) and Teima (Cantineau 1932: 40). Naveh recognizes this form as early Nabataean (J.

10. In the north of the room, Bliss 1895, 228.
11. Several caves used as seasonal dwellings in the Ottoman period were identified through the Madaba Plains project. One of these had a similar arch as the main room of the tomb in Dhiban; see Herr *et.al.* 1997, 292.

Naveh 1987: 137).

The remaining two letters of the inscription were not identified as Nabataean, but rather as letters from the Arabic script and are probably visible remnants of graffiti. The first letter is the Arabic *Sīn* and is inscribed as one would write it today in modern Arabic; however, one would expect this form to carry a connecting letter. This holds true for the final letter of the inscription which is an Arabic *Tā'/Thā'*, but again there is no connecting letter here. It is possible that the first of these letters is the Nabataean *'Ain* (Gruendler 1993: 76-77) and that the second letter is the Nabataean *Jīm* (Gruendler 1993: 10, 45 (N13)), but this is difficult to determine based on other attestations.

The stone is likely a remnant of a lintel for a Nabataean tomb. Although it is difficult to date this badly damaged inscription on the basis of paleography, it is believed that the forms identified reflect an early Nabataean script in light of their attestations cited above. Because the stone's findspot is currently located on the property of the site guard and is not within the domain of the excavation, the stone was returned to the house following documentation.

Conservation / Development

Because a primary component of research at Dhībān is site development, plans were made to rehabilitate architectural units beginning in subsequent field seasons. Two areas selected for rehabilitation were exposed in previous excavations: 1) the Iron Age monumental building exposed by William Morton in Field L and 2) the Field H Early Bronze and Iron Age gateway and fortifications. Because the exposed balks were heavily eroded and in danger of collapse, stone walls were constructed against them to prevent further damage. Features from earlier excavations were enclosed with loose rocks to protect them from damage. These walls are temporary and will be removed when a permanent solution is found.

Additionally, a collapsed Late Mamluk or early Ottoman barrel vaulted building, located east of Field L, has been targeted for reconstruction (**Fig. 12**). This building will be excavated during the next season and subsequently preserved. These projects, in addition to those undertaken by the Department of Antiquities' Madaba Office, will eventually restore several architectural features key to Dhībān 's development as a tourist destination.

Conclusion

The 2004 pilot season at Tall Dhībān determined that a long-term excavation and development project is feasible and worthwhile. Our immediate goals include completing the total station survey of the tall including a high-resolution topographic map and all architectural units visible on the surface; excavate and restore the Roman tomb on the tall's east side; excavate and restore the Mamluk/Ottoman building east of Field L; and initiate a 5km radius off-site survey. Over the long term, we hope our efforts will translate into a viable destination for domestic and international tourists.

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