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THE TALL EL-HAMMAM EXCAVATION PROJECT SEASON ACTIVITY REPORT SEASON ONE: 2005/2006 PROBE EXCAVATION & SURVEY

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with Gary A. Byers and Michael C. Luddeni

Abstract:

A summary of excavation activities during Season One of the Tall el-Hammam Excavation Project.



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THE TALL EL-HAMMAM EXCAVATION PROJECT

SEASON ACTIVITY REPORT

SEASON ONE: 2005/2006 PROBE EXCAVATION & SURVEY

Steven Collins

with Gary A. Byers and Michael C. Luddeni

Submitted to the
Department of Antiquities
of the
Hashemite Kingdom of Jordan

22 January 2006

The goal of the multi-year Tall el-Hammam Excavation Project (Project) is to study the relationship of this immense and strategically-located site within its ancient period socio-cultural, economic and political contexts, and to ascertain its position, function and influence within those contexts. In addition to this broader focus incorporating historical and archaeological data from neighboring sites in the southern Jordan Valley and beyond, the Project will study the site as a microcosm of life and activity within its own local environment, seeking to determine its phases of settlement, urbanization and the reasons for its decline, destruction and/or abandonment at archaeological period interfaces. Within this micro-context the Project seeks to shed light on how the inhabitants of Tall el-Hammam adapted to the local environment and environmental changes, and utilized available resources, enabling them to attain levels of city planning and building on a resultantly large scale.

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I. INTRODUCTION

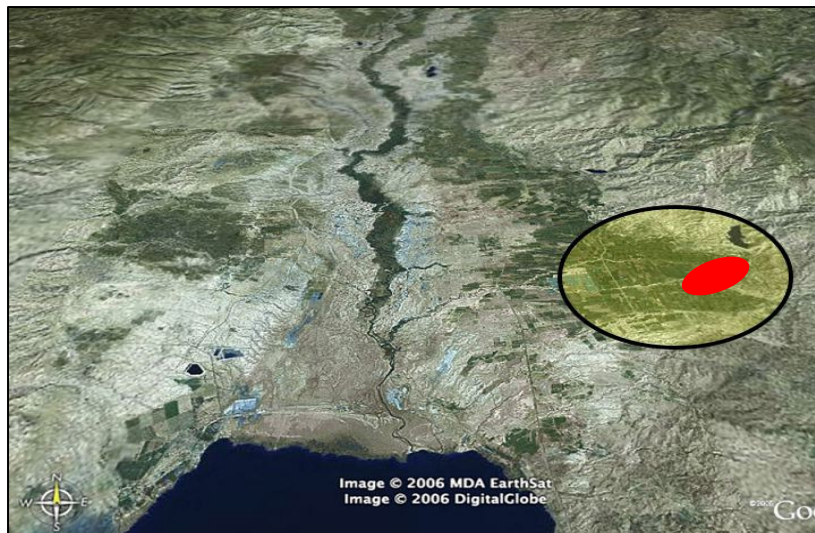
The first season of excavation at Tall el-Hammam was conducted from 27 December 2005 through January 22, 2006, with the authorization and support of Dr. Fawwaz Al-Khraysheh, Director General of the Department of Antiquities of Jordan, and with the assistance of Departmental Representative Mr. Muhammed al-Khatib. The excavation proceeded under the direction of Dr. Steven Collins (Dean, Trinity Southwest University, College of Archaeology), assisted by a team of nineteen scholars, students and volunteers from Jordan, the United States, and Canada. Military Trench (MT) clarifications and excavation squares were supervised by Dr. Collins and Mr. Gary Byers (TSU Doctoral Fellow in archaeology), with photography provided by Mr. Michael Luddeni, and survey work performed by Mr. Tawfiq al-Hunaiti of the Department of Antiquities.



Tall el-Hammam is located approximately 8 km N of the Dead Sea, 12 km E of the Jordan River, 8 km S of the modern village of South Shouna (the location of Tall Nimrim), and 1 km SSW of the Kafrein Dam (see aerial and satellite photographs). This area of the southern Jordan Valley, particularly the eastern half of what many now call “the Jordan Disk” (the circular alluvial area N of the Dead Sea, approximately 25 km in diameter), lies on the crossroads of the region’s ancient N/S and E/W trade routes. Several significant sites, all seemingly occupied during the high points of Levantine Bronze Age civilization, hug the eastern edge of the Jordan Disk just

beyond the spread of the ancient flood plain, bounded on the N by the throat of the Jordan Valley, and on the S by the rocky terrain of the Dead Sea area—Tall Nimrim with Tall Bleibel, Tall Mustah, and several smaller sites in close proximity, and sprawling Tall el-Hammam with comparatively petite Tall Kafrein a short distance to the NE, Tall Iktanu approximately 2 km to the S, and numerous small sites in close array. Also nearby are hundreds of dolmens (see photo) and cemetery sites that, for the most part, remain unexcavated.

Tall el-Hammam is the largest of the Jordan Disk sites. The tall proper spreads just over 800 m from E to W, and from 200 m to 400 m N to S. Thus, the site footprint seems to be over 300 dunams (about 80 acres). These dimensions approximate the areas of the site occupied in more remote antiquity, from at least the Early Bronze Age through the late Iron Age. There is, additionally, ample evidence of a significant



Hellenistic/Early Roman Period occupation off the main tall to the immediate S. Reports about the site from the late 19th century describe an aqueduct that fed the area S of the upper tall. There is also a warm spring at about the E/W center of the site in close proximity to what may have been a Roman bath complex. However, the extent of the Hellenistic/Roman occupation is, at this point in time, an unknown quantity except for the Hellenistic/Roman(?) structure in Field A (see below).



Owing to the fact that the Middle Bronze Age is not well-documented in the area (the excavation at T. Nimrin reveals a significant MBA presence there, but the work was not extensive), Tall el-Hammam Area U (the upper tall) may hold the key to understanding the entire region during that period, a reasonable expectation based on the ceramic profile derived from both surface and *in situ* excavation contexts together with the fact of its strategic, dominant location. The lower, western

extent of the site boasts an Early Bronze Age city of no small proportions (at least 111 dunams inside the city wall). It is possible that a Chalcolithic village lies underneath the EBA remains (based on surface finds), and future excavation in Area L (the lower tall) will attempt to clarify the beginnings of the EBA occupation, and even earlier settlement if it exists. The sheer size of the lower tall, the EBA city, suggests that it must have been a towering regional influence during that period.

Nearby sites such as T. Nimrin, T. Kafrein, and T. Iktanu seem to lack significant, or any, Late Bronze Age occupation.¹ The preliminary surface ceramic indicators suggest that T. el-Hammam follows suit. Is the “LB gap” (as the T. Nimrin excavators call it²) a regional phenomenon, and



can T. el-Hammam shed light on what caused it? There are now excavation data that seem to support such a gap at T. el-Hammam (see below). Whatever caused the absence of occupation at the eastern Jordan Disk sites during the LB timeframe did, in fact, not continue, as most were resettled during the mid-Iron Age. Indeed, the Iron Age II occupation at T. el-Hammam is quite extensive, and surrounded

by a 3+m thick fortification wall (see below). What gave rise to the site’s Iron Age city, and what brought about its demise? These are questions that are only beginning to be probed by the first season of excavation.

Tall el-Hammam may indeed hold key pieces of the archaeological puzzle from which a greater comprehension and appreciation of the regional history can emerge. The focus of the initial probe excavation was to identify and sound sections of the site determined to offer reasonable opportunities to expose stratigraphic sequencing in the upper tall (Area U).

A. Methodology

When considering its constituent components collectively, Tall el-Hammam is enormous. But there are factors that assisted us in narrowing the focus of this first excavation (probe) season.

First, the ease of access to the EBA city led K. Prag, about fifteen years ago, to do a few soundings on the far western extremity of the lower tall (our Area L).³ The EBA occupation spreads over a circular area some 450 m in diameter, much of which is exposed to, or near, the surface. Fortification walls and towers are clearly visible in many places, making the approximate parameters of the EBA city relatively easy to identify. Thus, while certainly in need of excavation, the lower tall is at least a partially-known quantity.

¹ K. Prag, “Preliminary Report on the Excavations at Tell Iktanu and Tell al-Hammam, Jordan, 1990,” *Levant* 23 (1991) 55-66; see also K. Prag, “The Intermediate Early Bronze-Middle Bronze Age: An Interpretation of the Evidence from Transjordan, Syria and Lebanon,” *Levant* 6 (1974) 69-116.

² See J.W. Flanagan and D.W. McCreery, “First Preliminary Report of the 1989 Tell Nimrin Project,” *ADAJ* 34 (1990) 131-152; J.W. Flanagan and D.W. McCreery, “Preliminary Report of the 1990 Excavation at Tell Nimrin,” *ADAJ* 36 (1992) 89-111; J.W. Flanagan, D.W. McCreery, and K.N. Yassine, “Tell Nimrin: Preliminary Report on the 1993 Season,” *ADAJ* 38 (1994) 205-244; J.W. Flanagan, D.W. McCreery, and K.N. Yassine, “Tall Nimrin: Preliminary Report on the 1995 Excavation and Geological Survey,” *ADAJ* 40 (1996) 271-292; and R.H. Dornemann, “Preliminary Comments on the Pottery Traditions at Tell Nimrin, Illustrated from the 1989 Season of Excavations,” *ADAJ* 34 (1990) 153-181.

³ See Prag in note 1.

Second, the ruins of an Iron Age city spread over the top of the upper tall, and much of it, too, is exposed to the surface. Considerable segments of the fortification walls are visible, especially on the northern-most side. The remains of mudbrick walls and stone structures, many of them of monumental scale, are clearly visible in several locations. This initial probe excavation has begun to help in the periodization of the Iron Age occupation (see below), but again, the IA city is a partially-known quantity.

Third, at some point in the recent history of the site, likely from the Ottoman Period through the late 20th century), the upper tall was made into a military outpost of some kind, with gun and tank placements. Most or all of the military hardware comprising the outpost are long gone, but the military use of the site left behind a collection of huge, bulldozed scars across the site. The main scar is an ingress/egress “road” cut in from one to three meters in depth, from five to ten meters wide, and generally running E/W for 300 m. It cuts a deep gouge through the western (acropolis) end of the upper tall to a depth of more than 3 m in places, ejecting large amounts of ancient debris over and down its western slope. Ancient debris is cast up on the sides of these bulldozed trenches along their full extent. Obviously, whatever stratification had existed in these disturbed/removed sections of the tall is gone, and that is unfortunate. However, for all of its destructive results, there are areas of the military trenching (now officially designated as MT) that we have used to our advantage in clarifying some exposed stratigraphy across the upper tall (when you inherit lemons, make lemonade!). The end result is not unlike putting some sections of the site through a giant MRI scanner, and the resultant clarity is certainly better than Ground Penetrating Radar or other currently-available subsurface analysis methodologies.

With these three factors in mind, our methodology for approaching the excavation of Tall el-Hammam in this first season was as follows:

1. We established a surveyed grid for both the lower and upper tall, designating the lower tall as “Area L” and the upper tall as “Area U.”
2. We established fields for the convenient division of both Area L and Area U, designated “Field A,” “Field B,” Field C,” and “Field D.”
3. We set a 6m x 6m grid over the entire site, with separate number/letter coordinates for Area L and Area U: number sequence designating N/S lines on the grid; letter sequence designating E/W lines on the grid. The resultant S/W coordinate (the intersecting lines at the southwest corner of each square) in such a system becomes the designation for a given 6m x 6m square, along with the Area and Field designations. Thus, the “name” of each square follows this pattern: UB-22T = U (Area U) B (Field B) – 22 (N/S grid line) T (E/W grid line).
4. For each 6m x 6m square we established a 1m balk on the north and east sides, leaving a 5m x 5m portion of the square for excavation.
5. We selected segments of the MT (military trenching) in which cast up debris could be cleared away for the purpose of clarifying “sections” cut back to the undisturbed debris. Such areas were determined by visual analysis of exposed disturbed and undisturbed remains. These “cleared and clarified” sections were not signally coordinated with the master grid, but can be identified within those coordinates and/or squares.
6. We chose to concentrate on squares in the upper tall (Area U) that could theoretically provide us with information regarding the nature and extent of the Iron Age city, as well

as what lies beneath it. These decisions were based on clarified segments of the MT as well as walls exposed to the surface. The intentions of our proposal were followed with modifications and adjustments made as a result of on-site analysis.

7. Squares were excavated according to the methodology established by the Madaba Plains Project, with site-specific modifications (these will result in the production of an excavation handbook specifically for the Project, and available for the next season).

B. Generalizations

With known quantities in Area L (dominated by the EBA city) and Area U (the surface-exposed Iron Age occupation) we chose to focus on a series of squares in locations that would yield, in this and coming seasons, the nature of the unknown quantity, i.e., the stratification that lies below the Iron Age. Thus, we chose locations in Area U represented by squares in Field A and Field D that were proximate to the city wall (confirmed to be Iron Age II) that might eventually lead to the detection and assessment of earlier fortification systems that would also exist at the edges of the upper tell. We also selected two squares in Field B, but each for a different reason. The first we chose because it lay over surface-exposed monumental walls, giving us two clearly-defined corners to work with. The second was placed because it represented the lowest spot on the upper tell, with up to two additional meters already removed by MT. Our square selection in Field C was driven by a significant amount of Iron Age II pottery, including both large jars and smaller vessels, exposed in an MT clarifying procedure, giving every indication of a sizeable storage room.

C. Procedure

The team concentrated initially in Field D, immediately north of where the MT had bulldozed through the eastern-most portion of the upper tell. As the cast-up from that MT activity was cleared, it became apparent that a 3m high section through the city fortifications had been created. In that massive section it was easy to ascertain that the foundation trench for the Iron Age city wall (3m thick) was cut into a packed-earth/mudbrick matrix of significant proportions. The Iron Age wall was large enough in and of itself, but it seemed dwarfed by the structure into and over which it was constructed. The glacis associated with the IA wall was clearly visible in the MT section, and it, too, was built over the top of the earlier earthen structure faced with hard, yellowish mudbrick. Two squares were then excavated just NE of this MT section, further exposing the IA city wall and how it was constructed (details below). We followed this general procedure in each area, using MT clarifications and visible surface features in order to determine the placement of squares. This approach yielded significantly more results than could have been achieved had not the MT and fortuitous preservation of the IA surface structures occurred. Both turned out to be highly advantageous to the Project's first season, and will continue to be helpful in future seasons.

II. SURVEY AND GRID

The survey began on 5 January and continued through 21 January. Two primary products have thus been achieved. First, the 6m x 6m grid for the entire site is now established. In addition, survey points have been set that will allow a 3D rendering of the site. Both the 2D and 3D results of the survey will make our future work much easier and well defined.

III. SQUARES EXCAVATED

A. Area L: Lower Tall (no activity)

Even though we did not excavate in Area L (the lower tall), we spent a considerable amount of time with the survey there, and also doing visual examinations and sherding. This information will support future work in EBA city.

B. Area U: Upper Tall

1. Field A

Field A is cut approximately E/W by MT. A 3m deep trench through the highest point of the tall destroyed a 5m wide swath of ancient occupation, including massive stone and mudbrick structures. Our goal in this area was to clarify the “mess” created by the MT, and determine what stratigraphy was still discernable. MT clarification had revealed at least three occupational levels: Hellenistic/Roman, Iron Age and Bronze Age (initially indeterminate as to periodization and/or phasing).

a. clarification of exposure due to military trenching (MT)

This procedure cleared away approximately 1m of MT cast-up, revealing a significant sectioning, albeit “bulldozer fine,” of what turned out to be the western-most section of the IA city wall, with about the same dimensions (3m thick) as had appeared on the opposite side of the tall. The city wall is flanked on both the inside and outside by additional walls from 1m to 1.3m in thickness, seemingly from the Iron Age, but possibly from a different phase, since their close proximity to the IA city wall all but precludes the functionality of the space existing between them. It is possible that the (monumental) building represented by the 1.3m wall existing only 1.3m inside of, and parallel to, the city wall is simply bounded by a narrow street or alleyway between it and the city wall. Such clarification must wait for future excavation. During the MT debris-clearing process, it also became apparent that both the 3m wall and smaller stone foundations in proximity to it were all built into and over pre-existing mudbrick structures of an earlier period. The presence of Hellenistic/Early Roman, IA, MB and EB diagnostic sherds made it fairly clear what the building sequence of the tangle of walls actually was, but exactly which walls belonged to what periods was not entirely discernable, as several of the walls from earlier periods may have been incorporated into later building phases. Work in square UA-15DD is helping to define the complex interfaces.

b. square UA-15DD

This square spanned about 3m of the area destroyed by MT activity, but managed to include a significant portion of the original height of the acropolis. The latest phase was what appears to be some sort of tower structure built of medium to small, undressed field stones, and chink (loci 2 and 4) (see photo). Late Hellenistic/Early Roman pottery associated with this structure seems to



date it to that period. It is built into and over the remains of an earlier 3m thick wall (locus 9) and adjacent smaller stone and mudbrick walls (loci 6 and 7), the construction of which is visibly different in character than the later wall. The walls underneath the LH/ER tower are clearly IA II in date, and are, in turn, built into and over earlier mudbrick structures, at least one of which preserves a corner area with well-preserved plaster over orange-colored brick (bricks average approx. 25x45x14cm) (locus 7) (see photo). The mudbrick of the earlier phase is associated with



both EB and MB pottery, but further clarification is needed to determine the likely date of construction. Much work remains to be done in square UA-15DD, and additional contiguous squares will be needed to sort out the puzzle.

c. preliminary interpretation

It seems that the LH/ER structure represents the final building phase on the upper tall, and it appears from extensive sharding over the entire upper tall that it is the only

structure from that period in either Area U or Area L, i.e, virtually the entire site (except for the area off the main tall to the S in the location of the reported “Roman bath complex”).

2. Field B

a. clarification of exposure due to MT

MT activity in Field B cut through numerous walls, both stone and mudbrick, as well as floors and deposits of debris-strewn ash. The amount of ceramic debris and range of types from represented periods is impressive. Field B encompasses the lowest level in the “saddle” of the upper tall, and is also the most extensively damaged by MT activity. However, Field B also has a significant amount of undisturbed surface with evidence of many structures clearly visible.

b. square UB-20U

Selected for initial excavation because of the surface visibility of a monumental building foundation, square UB-20U (and adjacent squares slated for future excavation) has within its balk boundaries walls of 1m (loci 1 and 6) and 2m (locus 2) thickness, the intersection of which forms two inside corners (loci 3 and 4, and subsequent loci within the wall boundaries) (see photo). The well-leveled tops of wall loci 1 and 2, with reddish decomposed mudbrick tightly



packed between the stones, seems to indicate, at least in this square, that the boulder and chink foundation is preserved in its entirety. The bulk of the pottery associated with the wall foundation is Iron Age II. We have not yet discovered the bottom of the wall or any associated surfaces at well over 1m in depth.

c. square UB-21W

UB-21W represents the lowest level on the upper tall, in the “saddle” between the acropolis and Field C. The selection of this location was on the basis of its level, and not on the basis of any visible indicators of structures. It was thought that this would give us a good opportunity to excavate through the IA material into an earlier stratum, if possible, because the MT at this point had already removed about 2+m of *in situ* occupational debris. A 2x2m sounding was made to a depth of just over 3m, and the results were instructive. An Iron Age structure with a plastered stone wall and contiguously plastered mudbrick wall were encountered just below the surface (loci 3 and 4), giving us the corner of a room (see photo above). The walls ran to a depth of nearly two meters, and ended on a firmly packed layer of mixed debris (locus 6) from 20cm to 30cm thick. Inside the corner of the room to the full depth of the wall were layers of collapsed debris (loci 1, 2 and 5). The sequence revealed the collapse of what was probably a two-story structure: from top to bottom, earth and plaster, the remains of wood beams, and a thick matrix of ash, mudbrick and stone. There was no discernable floor at or near the base of the wall. The pottery was mostly IA II, giving a clear read on the date of the structure. Under the IA walls and locus 6 was a clean, clear interface with hard, yellowish mudbrick. The yellowish mudbrick were tightly laid and very solid (locus 7), with Bronze Age pottery, EBA mixed with MBA.

d. preliminary interpretation

As seems to be the pattern around the site, the IA was built directly over earlier Bronze Age (EB/MB) material, with the conspicuous absence of LBA material.

3. Field C

a. clarification of exposure due to MT

There were numerous structures and layers visible after MT cast-up was cleared away in several locations. One location in particular seemed to constitute a hoard of vessels such as storage jars and smaller juglets from IA II.

b. square UC-28J

This square was placed to include the pottery discovered by MT cleanup. The context clarified rather quickly with the discovery of an *in situ* mudbrick wall (locus 2) laid over the top of the destruction debris (locus 3) containing the pottery hoard. We could not get a good read on the mudbrick wall (further excavation will probably clarify the date), but the pottery in the burn layer underneath was definitely IA II A-B. One distinctive vessel was a Cypro-Phoenician olive oil jug, white-slipped, with reddish-brown painting, found nearly intact



with only the spout broken (see photo). Two small spouted juglets were also found, along with at least ten medium-sized storage jars, and that was only within the confines of a 2x2m probe. There is much more to come in this square, including what appears to be the skeleton of a person who was killed when the room containing the jars burned and collapsed. The skeleton seems not to be in a burial position or context, and was surrounded by broken-but-mendable jars on every side. At least one of the jars seemed to contain carbonized grain or other cultigen (a sample was taken). UC-28J locus 3 remains open and will likely expand to reveal many more finds.

c. preliminary interpretation

Within only a few meters of UC-28J were found surface finds including a gate socket stone and the remains of a cult stand/chalice. Additionally, the MT clarification revealed massive quantities of mudbrick. When you add this to the large volume of storage pottery and painted vessels emerging from locus 3, one cannot help but think that we are excavating within a monumental temple, palace or administrative center, and that we have landed inside a storage facility of considerable capacity, owing to the fact that at least ten broken-but-mendable medium to large jars and variety of painted vessels have already been unearthed—and indications are that this may be only the “tip of the iceberg.” This square may also hold key indicators of the nature and date of destruction of the IA city.

4. Field D

a. clarification of exposure due to MT

The MT makes a 3m deep cut through the eastern boundary of the upper tell, effectively creating a 3m vertical section in which several features are discernable. One of these features is a 3+m wide fortification wall that we suspected was Iron Age in date. But the cut also revealed that the wall was built into and over an earlier packed-earth and mudbrick structure of seemingly huge dimensions. Pottery imbedded in the earthen structure was MBA. The earthen structure (rampart?) seems to carry a facing of hard, yellowish mudbrick on its outer surface. The clearly-defined glacis associated with the 3m-thick wall, as well as the wall itself, rides atop the earlier earthen structure, which was obviously thought by the builders of the later city wall to provide a substantial substrate over which to build their towered fortification perimeter. This deep look at a cross section of at least two fortification systems, one atop the other, provided a key insight into the history of the site. It also gave us a very good reason to place two adjacent squares perpendicular to the city wall line immediately N of the MT cut.

b. square UD-37E

Dubbed “the kitchen” by excavators, UD-37E yielded numerous artifacts of food preparation within a relatively small area of locus 1 (about 2x2m): five grindstones, a mortar and pestle, and a very large IA II cooking pot that could be accurately described as a cauldron. A wall averaging approximately .80m in thickness (locus 4) seemed to define the NE extent of the room. A mudbrick wall (locus 5) seems to bond at a near right angle to the stone wall (locus 4). Under the bottom mudbrick course of locus 5 we encountered the burial of an adult individual within a cyst (locus 6) made of medium-sized, flat stones as a chamber lining. No artifacts were associated with the skeletal remains except for a squared-off stone serving as a headrest. The deceased was oriented NW(head)/SW(feet), laid flat on the back, arms extended at the sides, and the head turned to the right side facing SW. Nearby, but not associated with the burial, we found fragments of a beautiful glass bracelet typical of Byzantine craftsmanship.

c. square UD-38E

The width of the 3+m city wall (locus 2) is contained entirely within square UD-38E, thus both inner and outer faces of the wall were able to be exposed. As the excavation proceeded, our suspicions were confirmed that (a) the wall dated to IA II, and (b) it was indeed built on and over an earlier, massive structure made of very hard, yellowish mudbrick (loci 5, 6, 10 and 12) laid tightly at right angles squaring with the direction of the earthen rampart and IA city wall. But as large as the 3+m IA city wall is, it is dwarfed in UD-38E by the mudbrick structure over which it is built. The extent of the yellowish mudbrick structure runs at least several meters inside the inner face of the IA wall, and extends beyond the outer face as well (see photo). Whatever it is, it is monumental in nature. In order to confirm the date of the 3+m wall, constructed of medium to large field stones (some squared for the corners of tower offsets), we cored through it in two places (locations 7-11 and 25-29/31-35). The pottery dated the wall to Iron Age II A-B. We have yet to determine the date of the mudbrick structure, but at this point we are hesitant to core through it until it is more exposed by opening up adjacent squares.



d. preliminary interpretation

The IA “kitchen” was exposed only in part, and needs to be excavated more extensively next season. We are unsure about the date of the burial, except that it is ancient and not modern, as indicated by the wall structure built over it. The massive mudbrick structure underneath the IA city wall in UD-38E is oriented as if it might possibly be an earthen/mudbrick rampart typical of MBA fortification systems, but for the present that is merely speculation. Only further excavation will reveal its nature and function.

IV. STRATIGRAPHY

A. Applied Chronology

We are applying the following general chronology (sub-period phases eliminated for simplicity):

Late Neolithic	6000-4300 BCE
Chalcolithic	4300-3300 BCE
Early Bronze I	3300-3050 BCE
Early Bronze II	3050-2700 BCE
Early Bronze III	2700-2300 BCE
Intermediate Bronze	2300-2000 BCE (old EB IV-MB I)
Middle Bronze I	2000-1800 BCE (old MB II A)
Middle Bronze II	1800-1550 BCE (old MB II B-C)

Late Bronze I	1550-1400 BCE
Late Bronze II	1400-1200 BCE
Iron I	1200-1000 BCE
Iron II	1000-586 BCE
Iron III	586-332 BCE
Hellenistic	332-63 BCE
Early Roman	63 BCE-135 CE

B. Theoretical Stratigraphy for Tall el-Hammam

The stratigraphic profile of Tall el-Hammam has long been suspected,⁴ but has needed to be confirmed by excavation. The following is a theoretical stratigraphic profile based on observations from extensive sherding, Prag's 1990 probes on the (western) lower tall, clearing and clarification of MT disturbances, and the results of scientific excavation in TeHEP Season One.

1. Late Hellenistic/Early Roman Period

The Late Hellenistic Period and Early Roman Period seem to be represented at the site, but play an extremely minor role. There is evidence of only one significant structure of such date on the entirety of the upper tall. Pottery from either period is relatively scarce.

2. Iron Age

The Iron Age city is quite extensive, but at this point periodization/phasing is not clear. There is very little (late) Iron I pottery, but no associated architecture has been identified. The principal Iron Age city at Tall el-Hammam seems to have been built during Iron Age II, but Iron II C sherds are rare at this point, and no positive identification of Iron III sherds exists presently.

3. Middle Bronze Age

LBA presence at the site is currently undetectable. The MBA is strongly represented in ceramics, and may account for much of the development of the upper tall by way of an earthen rampart system and other monumental features.

4. Intermediate Bronze Age and Early Bronze Age

The EBA city of Tall el-Hammam is unmistakable and massive, but periodization and phasing need to be studied carefully on the basis of future excavation. Surface sherding also reveals significant quantities of IBA pottery.

5. Chalcolithic Period

Surface sherds and artifacts analogous to those of the Chalcolithic center at nearby Tuleilat Ghassul are not infrequent. However, if a Chalcolithic settlement existed at Tall el-Hammam, its ruins are likely buried beneath the IBA and EBA strata.

⁴ See references in footnotes 1 and 2. See also M. Ibrahim, J.A. Sauer, and K.N. Yassine, "The East Jordan Valley Survey, 1976," *AJER*, K.N. Yassine, ed. (1988).

V. CONCLUSIONS AND RECOMMENDATIONS

This initial four-week probe excavation has been successful in laying a firm foundation for the balance of the Tall el-Hammam Excavation Project. We have demonstrated, even with our small team, that the expectations set by our first season proposal were not unreasonable, and were reached, even exceeded. Not only has the excavation proper managed to clarify a great deal on the upper tall, but also, through the survey, the building of relationships with local residents, general familiarization with means and methods in Jordan, and the experience of working with the Department of Antiquities, have all come together to build positive expectations for the future. It was also thought, coming into the excavation, that Tall el-Hammam was a reasonable candidate for biblical Sodom, based on a detailed analysis of the relevant biblical data regarding the date and location of the city.⁵ Nearly five years of preliminary research, and now the completion of the first excavation season, lead us to believe that the theory is, at least, plausible.

We wholeheartedly recommend that the Tall el-Hammam Excavation Project continue into the next full season scheduled for winter 2006-2007.

⁵ S. Collins, "The Geography of the Cities of the Plain," *Biblical Research Bulletin* II.1 (2002); S. Collins, "A Chronology for the Cities of the Plain," *Biblical Research Bulletin* II.8 (2002); S. Collins, "Explorations on the Eastern Jordan Disk," *Biblical Research Bulletin* II.18 (2002); W. M. Thomson, "A Late Nineteenth-Century Missionary-Scholar's Position on the Location of Sodom and Gomorrah: Excerpts from *The Land and the Book*," *Biblical Research Bulletin* V.5 (2005).