

ELRAP 2009

Excavations at Area W

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ABSTRACT

The following report centers on the Area W 2009 excavation season at Khirbet en-Nahas. Two complexes consisting of over 18 rooms and courtyards were unearthed over a 8 week period. Three main occupational phases and several hundred artifacts including scarabs, figurines, and objects related to metal production were unearthed. These new discoveries shed light on the current understanding of the local population's use of space and offers and insight into their ideological world.

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Introduction

The following report details the excavations at Area W for the 2009 Edom Lowlands Regional Archeological Project (ELRAP). The excavations occurred at the site of Khirbet en-Nahas in southern Jordan over an eight-week period. The project represents the continuing research into elucidating industrial metal production activities and its role in the evolution of social complexity and its chronological background during the Levantine Iron Age. The goals of this project are aimed at understanding administrative roles and functions in the production of copper at this important Edomite Lowlands site. Archaeologically, the area of investigation is centered on architecture lacking evidence for smelting. The field project was directed by Dr. T.E. Levy from the University of California at San Diego and co-directed Dr. Mohammad Najjar formally of the Department of Antiquities of Jordan. A team of staff, students, and volunteer taking part in the ELRAP Field School were assisted by local Bedouin laborers to carry out the excavations at Area W to meet the goals of the project. The team members were Henry Becker, Kaitlin Black, Karen Brehm, Janell Bryant, Kathleen Beenallick, Connor Buitenhuis, Stephanie Clarno, Karmen Dystra, James Eggert, Alejandra Gonzales, Shannon Groves, Paige Kholeer, Paolo Maranzana, Julia Prince, Ashley Richter, Karina Valenzuela and Aidan Wallace. Dr. Adolfo Muniz supervised the excavations at Area W with assistance from Caity Connolly.

Over an eight-week period, the members of Area W removed vast quantities of stones from wall collapse and large deposits of loess and miscellaneous fills accumulated over several millennia. Three large structures possible spanning from Iron Age to contemporary times were unearthed. The architecture at Area W consists of 18 rooms of varying sizes and two interior courtyards containing various installations. The evidence strongly suggests these areas served as a storage facility, living areas, and perhaps had a cultic function. While significant evidence indicates that copper smelting was the foremost activity present at the site, no evidence for direct

smelting was recovered within the structures. The extensive evidence recovered includes food-processing implements alongside installations containing ceramics, faunal remains, and numerous samples of carbonized wood and seeds. These artifacts and ecofacts coupled with scarabs and other types of ornamentation and cultic artifacts are helpful in addressing the larger questions and issues surrounding the social organization of the population at site of Khirbat en-Nahas during this phase of state formation in this region. The following sections present these new evidences and their contexts compiled from the excavations at Site W. The report is outlined in the following manner. Section I explains the archaeological methods utilized in excavation and recording in the field. Section II provides a general description of Area W including a description of the area, structures, rooms and their associated dimensions. Section III presents the occupation phases identified during the excavation. Section IV covers the architectural features and the stratigraphic layers identified. This section also presents preliminary data surrounding many of the artifacts recovered. Finally, Section V presents the conclusions and observations on the excavation.

I. Archaeological Methods

Methods

The archaeological methods implemented at Site W followed the standard archaeological procedures followed for wide scale excavations and recording as set forth by the ELRAP digital recording system. As previously mentioned, excavations were carried out by students, volunteers, with assistance from the local Bedouin. Stones from wall collapse were move by individuals and by wheelbarrow and deposited close to the area. These stones will serve as wall construction material during the conservation phase. The removal of sediments were carried out with tools including trowels, terrias (large hoes), picks, and handpicks, brushes, goofas (large rubber buckets), dustpans, and ¼ inch sieves. The collected sediments were sieved and deposited at the edge of a wadi located approximately 50 meters from the area. The removal of wall collapse and fill were conducted by following stratigraphic layers within architectural remains. Rooms and the courtyard were excavated to floor level. Where no floor was present, excavations were excavated to floor level in the adjacent structures. Probes were conducted in the courtyard and in selected rooms to identify the strata below. With the exception of topsoil, all sediments removed from within rooms and courtyards were screened. One of every three collected buckets from areas outside the structures was systematically screened.

The control units were the locus, basket, and EDM number as previously set forth by the Jabal Hamrat Archaeological Project and ELRAP. All numbers were sequentially recorded by a Total Station (theodolite leveled on tripod, target (prism), and a Recon data collector operating Solofield software) as either point or polygon data. Each stratigraphic layer in every unit excavated on a given day was assigned a locus, basket, and EDM at the beginning of each day. The locus number defined the stratigraphy, the basket number was designated for the recovery of pottery shards, bone, lithics, copper ore and metal, slag samples, tuyere pipe and furnace

fragments. Artifacts and ecofacts (including soil samples) were collected and transported to the lab for processing. “Special Finds” such as reconstructable pottery and special ceramics (other than the standard Iron Age body or rim shard), hammerstones, mining hammers, grinding stones, installations, semi-complete tuyere and bellow pipes and furnace fragments were assigned individual EDM numbers to record their provenience. The collected data points were digitally converted into two-dimensional scaled top plans on a daily basis.

Excavation Biases

The cautious approaches given to the collection and recording of strata, artifacts, and architecture should keep excavation biases to a minimum. Given all fills and sediment deposits were carefully sieved, all artifacts and most large ecofacts have an equal chance of being recovered and counted. The difficulty in recovering minute plant materials is a well-known fact in archaeology. However, to limit biases in this category, soil and flotation samples have been collected from various stratigraphic layers. The recovery of small seeds and pollen materials found within the site has a fairly significant chance of detection

Area W

Overview

Area W is located in the southern section of the site of Khirbet en-Nahas (Figure 1). The excavated area is part of a larger cluster of structures and courtyards that are situated south of Area R and SW of Area M, the well-known and defined slag mound excavated during previous seasons. The most obvious characteristic of Area W is the lack of the large traces of slag heaps evident in other structures found at KEN. In this section of the site, the slag heaps are mostly



Figure 1: Aerial view of Khirbet en-Nahas. The site of Area W can be seen on the left side of the photo.

confined to the structures situated immediately to the south of the site. The eastern section of the site is located atop a small mound. A probe initiated within one of the structure indicates this mound is constructed of crushed slag overlaying a mixture of finely sorted fills. This matrix was not present in the western section of the site. Soundings in this section of the site revealed deeply homogenous sediments resting atop a compact mud floor. Time constraints did not allow further probing in the western section of the site.

The large amounts of large, medium and small stones once belonging to a series of structures marked the boundaries of the site (Figure 2 and 3). The remains of few walls were detectable amidst the collapse. These walls belonged to a series of 3 structures separated by a north-south alley. To the northern and western section of the site, several archaeological features were also observed indicating that Area W is in fact part of a larger complex structure that might be representative of a ‘neighborhood’.

Taphonomically, natural processes including flora, fauna, and erosion have affected the formation processes at this site. Different varieties of brushes, shrubs, and trees can be found on and around the site (Figure 3). Roots were frequently encountered in the upper levels of the site including the courtyards. Similarly, burrowing animals have made their home on and around the site. Their burrows and tracks were frequently encountered. Other than flora and fauna, erosion has significantly affected the site and the adjacent landscape. To the southwestern area of the site, reoccurring flooding has carved a trench through a section of one of the adjacent complexes.



Figure 2: The stone collapse and walls of the site of Area W previous to the 2009 excavations. Note the two main structures separated by a north-south alley.



Figure 3: Profile of Area W wall collapse prior to the 2009 excavations.

Layout

Removal of the vast amount of rock collapse and different stratigraphic layers (Appendix A) revealed that the structures and courtyard (Figure 4) located at Area W are not similar in design and function to any other structures currently found at the other excavations at Khirbet en-Nahas. Large two coarse wide walls form an eastern compound of storage rooms. These rooms buttress a single coarse wall that serves as the eastern wall of a large structure composed of an interior courtyard surrounded by smaller structures. This second structure appears to have gone through several occupation phases, including a construction phase. Across a small alleyway on the western section, a third structure with large raised rooms and a sunken courtyard was identified. These rooms represent the remains of a small community where the local population lived and practiced their craft.



Figure 4: Aerial view of the walls, rooms, and floors of the structures unearthed at Area W. Note the alley separating the two structures.

The heights of the walls vary across the site but are the lowest in the northwestern corner of structure 2. The walls in the interior rooms share similar construction attributes, although the height preservation of the walls vary across the structure, they are poorly constructed in the rooms of structure 3. Wall and room measurements are listed in Appendix B. Entrances were located in structures 1 and 3. However, the entrance to structure 2 was sealed in antiquity, probably when the structure went out of use. An important attribute shared in many of the rooms consisted of the addition of thresholds or other similar installations following a later phase. Similarly floors were in a continuous state of repair. Fill and crushed slag appear to have been used to level floors throughout the structures. In two rooms, stairs leading to a roof or upper level were constructed. These architectural features others found in the various occupation phases reflect a sense of communal agential action in the maintaining of living and working space. A discussion of each room and the associated features is presented in Section IV following a brief discussion on the occupational phases at the structure.

Occupation Phases

Strata were assigned on the basis of architectural phases, sediments, and floors. Three main occupational phases have been identified at Area W and have been further subdivided into related phases. Any fills and sediments removed from a corresponding architectural feature have been assigned to its related strata.

Table 1: Area W identified strata .

Stratum	Description
W1A	Topsoil and Wall Collapse
W1B	Post Abandonment
W2AI	Architectural Expansion Phase
W2AII	Floor 1
W2BI	Original Architectural Phase
W2BII	Floor 1 and Floor 2
W3	Occupation Phase Below Structures

Overall, 299 loci (Appendix A) were assigned to seven identified strata- W1A, W1B, W2AI, W2II, W2B, W2BII and W3 (Table 1). The Harris Matrix for Area W depicting the main strata and their affiliated loci are listed in Appendix C. The corresponding loci for each room are also included in the next section. Briefly, loci in Stratum W1a represent the mound of wall collapse. Any loci assigned to Stratum W1B are related to the fill and wall collapse associated with the late post-abandonment phase (i.e. Nabatean, Roman, Byzantine, Islamic, etc.). This stratum includes sediments removed from the interior and exterior of the main structures to the first evident architectural shift. Loci associated the second main occupation and architectural

expansion phase has been assigned to Stratum W2AI. This includes any fills and sediments ash layers associated with walls and installations. Activity areas such as floors affiliated with this occupation phase are assigned to Stratum W2AII. The main occupation and building phase at Area W is Stratum W2B is subdivided into W2BI, which includes all main architecture, and W2BII, which includes any affiliated floors. Any traces of occupation below the floors have been assigned to Stratum W3. The individual strata are further discussed below and are then associated as they were excavated in each room (Section IV).

Stratum IA

Loci identified as part of Stratum W1A include the wall collapse from the structure. The collapse consisted of a large mound of stones surrounding an area of fill and wall collapse (Figure 5). The wind-blown sands had accumulated over time and formed a semi-compact layer of sediment underneath the stones. The layer of wall collapse extended from the mound that made up the main structure and continued past the alley way west to a series of large structures. The wall collapse consisted of large stones-many of them contained traces of chipping from shaping the wall stones.



Figure 5: An aerial view of Strata IA at Area W. The stratum is composed of various size of wall collapse.

Stratum IB



Figure 6: Aerial view of Area W highlighting Strata W2A and W2B.

Fill and wall collapse removal associated with the interior and exterior of the main structure have been assigned to Stratum W1B. Once the W1A upper layer stones were removed, loose accumulated wind-blown sands mixed with stone debris and structural collapse from the main structure construction phases were found underneath (Figure 6). The walls assigned to this locus are poorly preserved and are quite distinct from the previous construction phase. These are best seen in Wall 25 of Structure 1. This style of construction was restricted to Structure 1 and Room 4 and 5 of Structure 2 as well as in the unexcavated area situated east of the excavation area. No floors were detected corresponding to these later phases of occupation.

Stratum W2I

The construction and occupation phase relating to Stratum W2AI represents a secondary occupation and expansion phase of the structures found at Area W. These consist of a small double coarse wall similar to the one found in Rooms 2 and 5. These types of add-ons serve in the further division of space within these structures. Other installations range from thresholds to

poor constructed wall used in the division of space in courtyards, as can be seen Figure 7 and Figure 8.



Figure 7 and Figure 8: Examples of W2I Installations found in Room 2, Structure 1 (Left) and Room 5, Structure 2.

Stratum W2II (Floor)

Stratum W2II sediments and surfaces include the ash layers mixed with patches of compact mud located inside Structures 1 and 2. However, the main evidence for a surface from this occupational phase is most evident in the courtyard. A layer of compact mud was laid over layers of paving stones, fill, and crushed slag. Similarly, the compact mud mixed with ash was found throughout the various rooms from the same structures. Courtyard 1 situated centrally in structure, 2 is the only room where extensive W2AII surface was located. The surface in this room was a reddish colored compact mud plaster mixed with patches of dark-grey fill. The

surface was particularly prevalent at the base of standing stones and pillar installations. The bases of both eastern and western installations appear to have stabilized during this subsequent phase of construction. The stone installations are encompassed inside a ring of very large flat stones that has been filled with compact mud and stones. Beneath the platform are layers of compact mud and fill that reaches the first main occupation phase.



Figure 9: Examples of Stratum W2AI and W2AII installations found in the Courtyard 1 of Structure 2.

Stratum W2BI

The majority of architecture found this site and at Khirbet en-Nahas in general is from Stratum II (Figure 10). The evidence is derived from the foundation of the structure; the layer of crushed slag found beneath all the walls. The walls for W2BI are of two main construction types. The most evident are those found in Structure 1, Rooms 1, 2, and 3. These are large two-coarse wall constructed with large flat shale and limestone rocks and filled in the center with large amounts chipped stone and fill. These walls are very robust and their construction support higher walls and even possible second levels.

A second type of wall is found in structures 2 and 3 of Area W. These walls were constructed with large single-course stones constructed against large robust pillars that form the entrances to the structures. These type of pillars are constructed with large square flat stones and contain small pieces of chipped stone in between the layers. Another feature associated with the W2BI construction phase are the sets of steps located in Structure 2, Room 4 and Structure 3, Room 14. While the foundations of the steps are associated with the main occupation floors, the stone foundations that are encased in compact mud have been assigned to construction phase.

Stratum WBII

Respectively, two W2BII floors have been identified at Area W (Figure 10). These are most evident in Courtyard 1, but remnants can be detected throughout the other structures. The first floor encountered was a mixture of compact mud and plaster. The pise floor was constructed over a dark grey fill mixed with crushed slag. This type of pise was found in small quantities in Rooms 6, 7, 9, and Courtyard 1. Beneath these compact layers the main occupation floor was found. Respectively labeled as W2BII Floor 2, this layer was found throughout the excavated areas of Structures 1, 2, and 3. This level consists mainly of a hard compacted crushed slag layer leveled with fills and a hard compact mud. In several instances, installations were built directly into the floor as seen in Room 6, Courtyard 1 and 2. Finally, loci associated with sediments excavated beneath the crushed slag layer- the foundation of the main structure- have been assigned to Stratum W3.



Figure 10: Aerial view of Stratum 2 walls and floors found throughout the site.

Stratum W3

The crushed slag layer found beneath the first occupation surface defines the boundary of Stratum 3. The associated stratigraphy below the slag layer was excavated without reaching bedrock. A dark-brown sediment with layers of crushed slag mixed with sand was encountered. This stratum has been found in the previous excavated areas at Khirbet en-Nahas and represents the earliest levels of industrialized smelting. The degree of construction beneath the structures at Area W is not known. Small installations (Figure 11) associated with an earlier phase of construction were identified below the floor level in Room 2. A small probe carried out in this room failed to reveal the basal layers of this matrix and is a project that might be well worth considering in the future.



Figure 11: Stratum 3 installations located in Room 2, Structure 1.

Architecture

Overview

The excavators at Area W unearthed 3 structures quite different in design (Figure 12). The archaeological evidence suggests the function of these structures to be domestic. People lived and organized their lives while practicing their craft within these structures. Structure 1 (Figure 13) and 2 share a main wall (Wall 25). The relationship between these two structures was baffling. However, wall cleanup on Wall 25 in Structure 2 revealed a large blocked area that encompassed the entire area of Room 2 in the courtyard. The logical interpretation is that Room 2 in Structure 1 once represented the only entrance into Structure 2. This building was in use for an extended time until it was abandoned. The main entrance was blocked off and the Courtyard area sealed afterwards. Following the blockage of the entrance, Structure 1 appears to have been used as a storage area. Evidence ranging from large fragments of ceramics including large pithoi and other utilitarian vessels indicates this area was possibly used for storage. The various amounts of rodent bones recovered from the fills and wall collapse lend support to this conclusion.

Although the evidence in Structure 1 directly indicates this area was once used as storage, the evidence, both the architecture and the recovered finds tell a different story. Seven rooms (Figure 12 and Figure 22: Rooms 4-10) surrounding a center courtyard were identified. A total of three occupation floors were identified- one Stratum 2II Floor and two Stratum 2BII floors. Of interest in this structure is the design and use of the large pillars. It is quite possible this structure was once a building with two levels. During one of the occupation phases, the structure appears to have been destroyed by fire as evidenced by the large traces of ash and fire affected compact mud recorded. In regards to function, it is possible the courtyard was used for cultic activities during one of the occupation phases. A large standing stone has been erected in the

middle of two large pillars (See section on Room 7 and Courtyard below). The latter feature coupled with a pataikos figurine could lend support to this notion. Regardless of the function of the courtyard, the rooms surrounding the courtyard appear to be either storage or domestic in nature. These will be discussed in the following section.



Figure 12: Aerial view of the architecture of Area W. A total of 18 rooms and 2 courtyards have been identified.

The excavations in the area west of Structure 2 (Figure 12: Rooms 11-18) unearthed the domestic structures belonging to the inhabitants of the site. Evidence recovered from the fills of this structure revolved around food processing and other domestic activities. The architecture contains various installations extending to this function. It is quite possible these types of activities were occurring on the rooftop of the structure as evidence from the large amounts of collapse defined in the central courtyard. This being the case, access to the roof would have been through the step located in Room 14. In the remainder of this section, closer attention is given to the individual rooms.

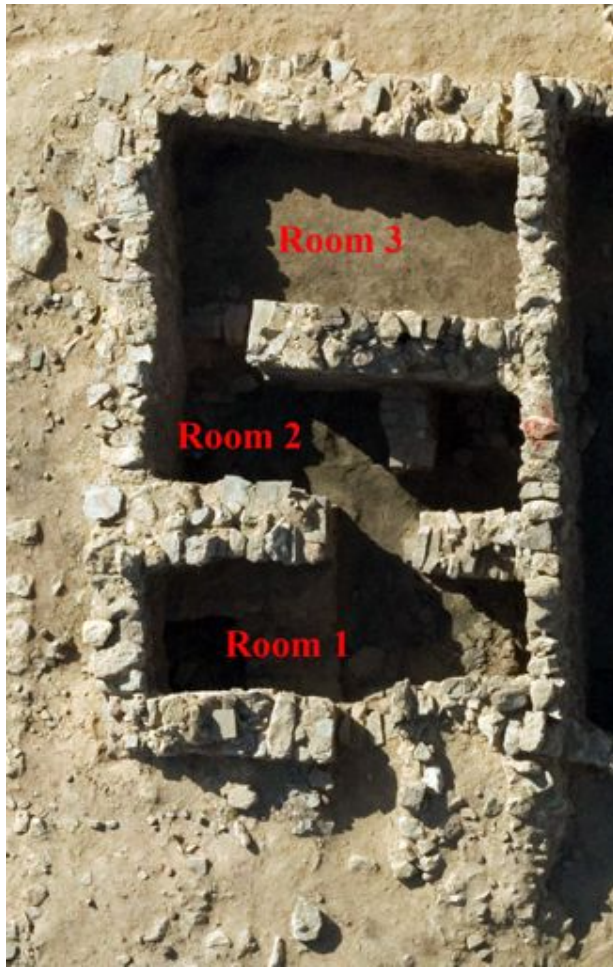


Figure 13: Structure 1 contains 3 three rooms and one entrance.

Structure I (Rooms 1, 2, and 3)

Rooms 1, 2, and 3 make up Structure 1. The three rooms share several common attributes, starting with the large two coarse walls in the northern, eastern, and southern sections of the structure. The question as to why such a large wall was necessary for this structure remains a mystery. All three rooms also share the western wall (Wall 25), which was constructed as a one-coarse wall and separates the spaces between these rooms and those in Structure 2. Similarly, all there rooms share entrances in the northern walls although a threshold/steps separates the floors between Room 2 and 3 (Figure 16b). The main entrance to

the structure is located in the northern section of the structure. The deposits found at the base of the entrance indicate use throughout the entire occupation period. Layers of paving stones were laid (Figure 14a) and can be seen in the deeper deposits below. Unfortunately, no floors were found to be intact for the first phase-Stratum 1B.



Figure 14 a, (top) b, (lower left) and c (lower right): Close up views of Room 1. All three strata were identified in this room.

The breakdown of the archaeological strata of the three rooms is listed in Figure 15.

Structure 1 is one of the two structures that contain Stratum 1B architecture (Figure 16a).

The architecture consists of a single-coarse wall built on top of the Stratum 2BI wall (Wall 25). While the date for its construction is not currently known, the pottery recovered in association with this level might be Nabatean and Islamic. One artifact-the glass neck of a small juglet or vase (Figure 19) was recovered from the fills outside the eastern wall in the

vicinity of Room 3. While the analysis is still pending, the glass object may be of Roman origin.

The removal of W2I sediments in all the rooms of the structure was uneventful. Of particular interest were two deep deposits of chipped shale mixed with reddish sediments located in the eastern section of Room 1 and in the doorway belonging to Room 2 and 3. These deposits were first believed to be blockages. However, further excavations proved otherwise. The most plausible answer is that these were deposits caused by the broken shale that once formed part of the wall in these sections. Besides the threshold installation in the Room 3 doorway, only one other significant installation belonging to the W2I expansion phase was identified. The feature was a small two-coarse wall built on the southern wall (Figure 16a). The installation sectioned Room 2 into two areas. It is argued that the installation was constructed during the occupation phase when the doorway leading to Structure 2 was in use. It might have served as a divider that allowed individuals to enter into the courtyard or into Room 3.

The same installation in Room 2 correlates the first true evidence for surfaces in this structure. The base of the feature can be found just below the W2II Floor level but above the main W2BII Floor 2. This surface is also found in Room 1-eastern section (Figure 2b) and along the wall in the western section of Room 2 (Figure 2c). The remains of the surface are composed of a fill containing compact mud laid in-between paving stones. These deposits are more prevalent against the wall in Room 2 but are absent in the center of the room. Below these deposits, the hard compact crushed slag layer that once was the installation was kept in tact when the doorway to the right was sealed.

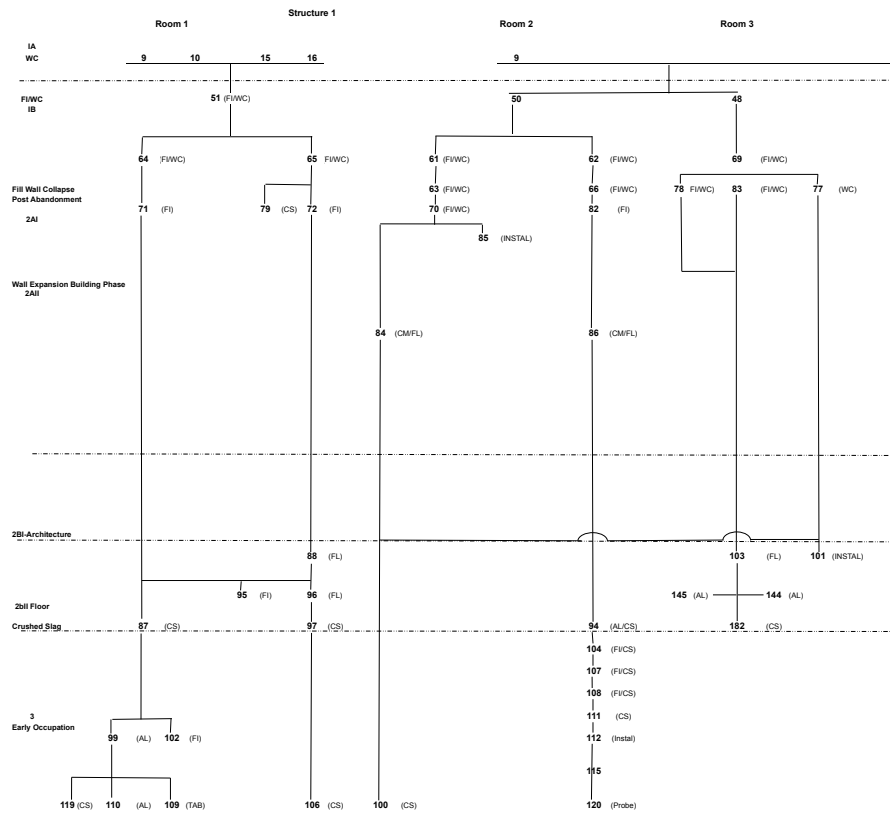


Figure 15: Harris matrix for Structure 1, Rooms 1, 2, and 3.

At the base of the W2I installation, the foundation for the main occupation is found. Due to the uneven floors caused by the slope of the natural (or constructed) mound that the building was built upon, crushed slag was laid to form the main occupation surface. The layer was then covered with a hard mud surface that contained traces of plaster. This type of floor was found in all three rooms (Figure 14a, Figure 16a, and Figure 17). Small paving installations covered with ash were found immediately on the surface in Room 3 against the northern wall. Whether these installations represent part of a cooking installation is not known.

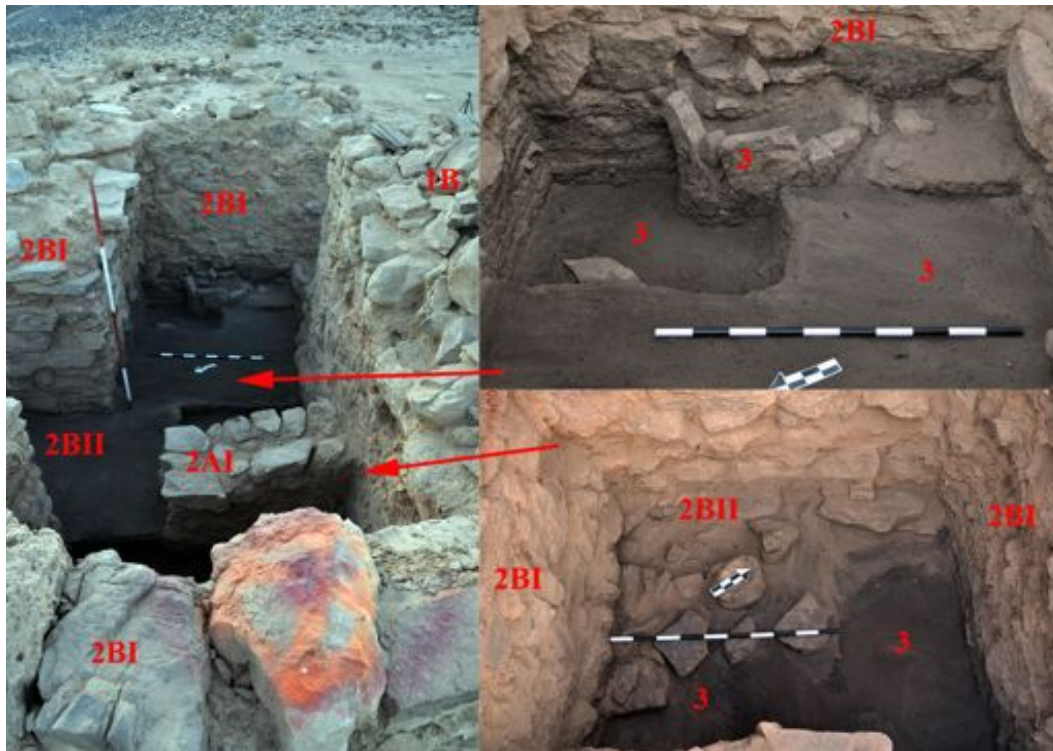


Figure 16 a (left), b (upper right), and c (lower right): Close-up views of the installations and floors of Room 2.

Stratigraphically, Structure 1 represents the only area where Stratum 3 deposits were encountered. The eastern and western sections of Room 2 were probed to determine whether there were any deposits below the W2BII floor. In both cases, layers of crushed slag mixed with fill and ash were encountered. As well installations were uncovered in both areas. In the eastern probe, (Figure 16b) a small circular installation, possibly the remains of a fire ring, was unearthed beneath the main eastern wall. Flotation and soil samples were collected. The architecture and sediments are reminiscent to those found below floor levels in Area T, S, R and M. The probe in this section was carried out to the base of the installation with no further finds. In the western probe (Figure 16c), small rock paving installations mixed with the crush slag and fill was also encountered. The function of this installation is not known.



Figure 17: Close up view of Room 3. This room was excavated to floor level.



Figure 18: Bone artifact recovered from Room 3.

The archaeological material recovered from Structure 1 indicates the areas were mostly used as domestic or storage areas. Preliminary ceramic analysis indicates the majority of vessels recovered from the fills associated with floor levels are large hand-made wares. A breakdown of these wares is presented in Table 2. Other artifacts included pieces of copper metal, bone-regular and worked (Figure 18), and fragments of tuyere pipes.

Table 2: A sample of the ceramics recovered from Structure 1.

Locus	Area	Structure	Definition	RC	Description
w09l095	W	Room 1	fill/ floor	x	Cooking vessel- CP11 (10th Century)/ Bowl 14 and Bowl 15/Juglet 10/bowl 21 (restorable vessel)- domestic serving ware
w09l096	W	Room 1	Surface	x	Hand made diagnostic
w09l099	W	Room 1	ash layer	x	Jar and jug
w09l066	W	Room 2	FI/WC	x	10th-9th Century Vessel
w09l082	W	Room 2	FI/WC	x	Hand made (10 or 9th)
w09l084	W	Room 2	base of inst. (west)	x	Jar- juglet (10th/9th)
w09l086	W	Room 2	base of inst. (east)	x	Bowl, jar, beveled rim similar to what is found on the plateau (10th and 9th)
w09l094	W	Room 2	Ash layer/ CS	x	Cooking vessel-domestic occupation (earlier 10th century)
w09l083	W	Room 3	WC	x	Hand made
w09l103	W	Room 3	Surface	x	hand made Jar 6 (Common form-10th Century); Pthos 10B;



Figure 19: The neck of a glass vessel found in the exterior of Room 3.

Structure 2 (Rooms 4, 5, 6, 7, 8, 9, 10, and Courtyard 1)



Figure 20: An aerial photograph of the rooms and courtyard that make up Structure 2.

Structure 2 is situated west of Structure 1 (Figure 20). Several tons of wall collapse and sediment revealed a well-designed structure containing a large interior courtyard surrounded by seven smaller rooms. Wall 25, which separates Structure 1 from 2 runs from Room 7 in the

north to Room 4 in the south. The large central courtyard contains W2BI architecture. An expansion phase where installations and walls were added to the existing structures occurred during the last occupation phase. The rooms of the structure are defined in the interior by large pillars constructed from large flat shale with smaller chipped stone laid in between. The outer walls of the structure are all single-coarse walls were constructed during the original W2B occupation phase. No exterior doors leading into the structure are evident. The only possible entrance to the structure would have been through Wall 25-an entrance that was sealed during the W2AI occupation phase. While three main floors have been detected in the courtyard, not all of the W2AII and the upper W2BII floors were detected. However, the main W2BII floor was reached in all the rooms.

As previously stated, the design of Structure 2 is not similar to any other building excavated at Khirbet en-Nahas. This fact in itself makes this structure quite special. The majority of room functions still remain a mystery, although guesses can be made. Some clues to the function of this structure can be found in the literature from Iron Age structures in Israel. Many contain very similar room layouts and are believed to be domestic areas with 2 levels of habitation. The structure is indeed quite similar in design-particularly the location of the rooms and the main entrance. However some differences are immediately evident, thus making Structure 1 special in its own right.

Two of these main differences are the construction of Room 4 (Figure 21) and 5 (Figure 22) located in the southern section of the structure adjacent to the main wall. Room 4 and 5 were created during the W2BI second occupation phase (Figure 23). The floor plan during the earlier phases most likely consisted of two larger rooms on the southern side of the structure. During the second main occupation phase, the structure was redesigned, most likely following a fire that collapsed the roof. This is most evident by the large amount of ash and fire affected sediments

that were found beneath the W2BII Floor 1. The shared wall between Room 4 and 5 is of W2BI construction phase but there are some variation seen in the interior of Room 5 (Figure 22b). The interior wall is less stable and does not buttress the outside wall as tight as the wall to the east. Therefore, the wall must have been erected following the main construction phase. Similarly, Wall 25 in this southern section of Room 4 exhibits a different approach to its construction. The base of the wall here is constructed with much thicker and larger stones similar to those used in the construction of the outer walls, but are then replaces with the smaller limestone and shale construction material seen throughout the site. It is proposed that prior to the construction of Room 4, the courtyard section of Room 5 mirrored, on a smaller scale, the design of Room 7 in the northern section of the structure: two pillars with an installation at the base used to support the roof. The remains are not the lintel of a door or window, but are the remains of one small roof support installation.

The contents of Room 4, the crushed slag and the steps were deposited and constructed after the original occupation phase when an extensive second level was erected. Access to the roof would have been from this room most likely via a wooden ladder on an elevated platform.

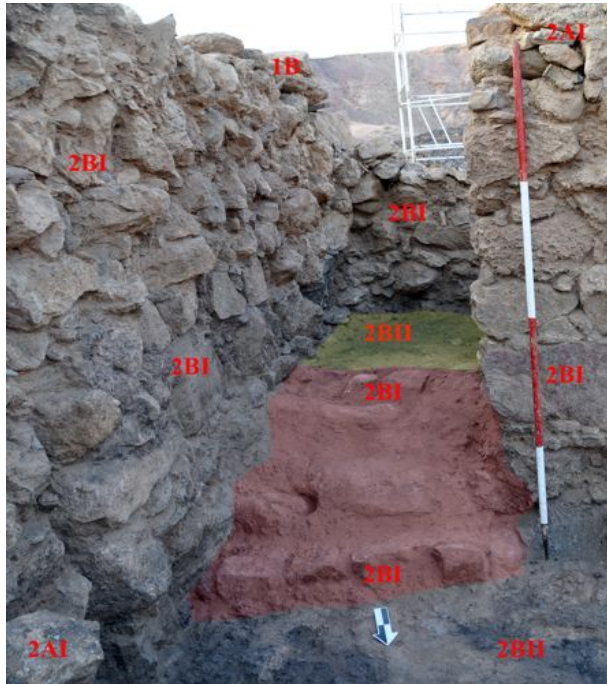


Figure 21: The view from the courtyard into Room 4. The steps and the crushed slag are noted.



Figure 22a and b: The view from the interior courtyard can be seen on the left and from the exterior on the right.

A second access was probably available to the inhabitants from Room 7, where a smaller platform of crushed slag was laid on top of the main occupation floor, probably via a ladder.

This scenario prompts the question of function and use during the original W3bI construction phase. Removing the platforms from the scenario removes the requirements to access a second level. Yet the installations found on the main occupation floor (Figure 22a)

indicate some forms of cultic practices. Installations resembling offering platforms were discovered in areas adjacent to the pillars and a very large monolith or standing stone. Similarly, installations sunken into the main occupation floor were found in Room 6 and Room 7 as well as in the center of the courtyard (see below).

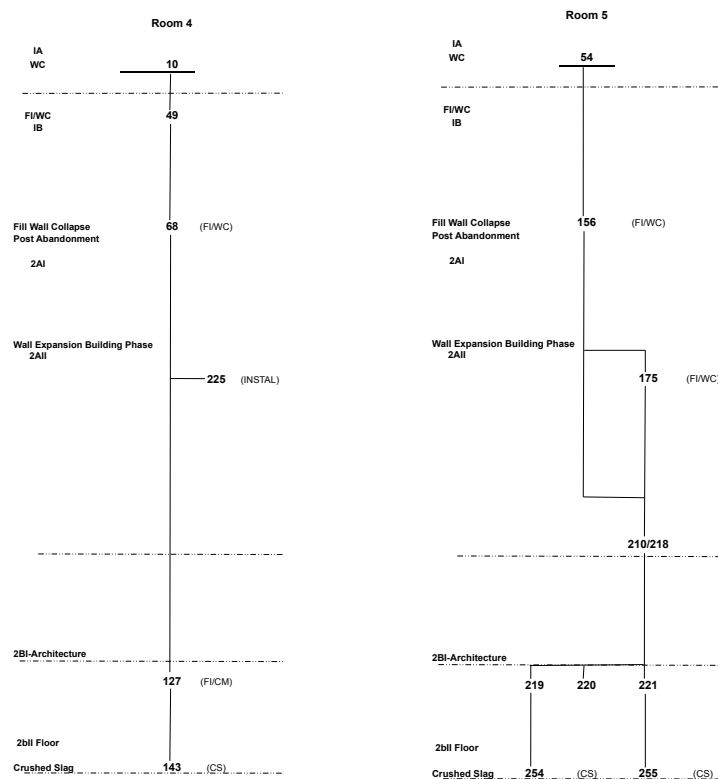


Figure 23 a and b: Harris matrices for Rooms 4 and 5.

The remaining rooms found on the southern sector of the structure are Rooms 6. The room has been excavated to W2BII floor level (Figure 24 and 25). The exterior walls of the structure are poorly preserved and consist mostly of limestone and shale building material. Of these, the construction of Room 6 is the most interesting and supports the claim of possible cultic activity at this structure. First and foremost, the interior walls facing the courtyard have been given special care in their construction and are much more aesthetic than the walls in interior of

the room. It is proposed that these walls were constructed with aesthetics in mind. The mason wanted to preserve the clean and even construction in the courtyard.



Figure 24: Photograph of the walls and floor of Room 6.

This is also true with other walls and pillars found in the courtyard (See the section on the courtyard below). While the style of utilizing a large flat shale stone at the entrance is not restricted to this structure as it is also found in Structure 3, those walls lack the aesthetics given to these. Another important characteristic is that no installations are associated with walls in Structure 3 displaying this type of masonry. In Room 6 installations in the floor as well as along the door have been constructed. Structure 3 installations are strictly utilitarian and domestic in function as is evidence by the threshold and the door socket (Figure).

Preliminary analysis of the ceramics recovered from the surface of this room include 1Bowl 26 (possible import) that has incised decoration; red burnished (possibly dating to the 10th B.C.), a juglet which has a local fabric, and a Krater 8 bowl also containing white fabric.

Room 7 (Figure 26) is situated on the northern section of Structure. Similar to Room 4, Wall 25 serves as the eastern wall. The exterior walls are low and poorly preserved and are constructed as single-coarse walls. Perhaps the most interesting feature of this room is a very large standing stone flanked by two large pillars that have walls built to the north. The standing stone is a large monolith of monzogranite. Time and the elements have taken their toll on this

feature. All sides of the stone have been eroded. Together, these 3 features along with their

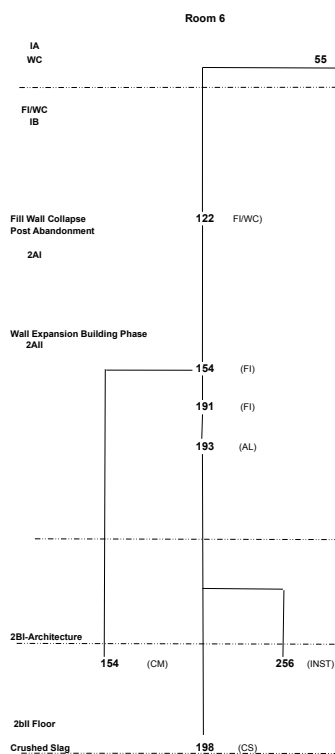


Figure 25: Harris matrix for Room 6.

Installations at the base form the Room 7 southern wall that faces into the courtyard. The interior of the room has been excavated to surface level with two different results. A platform consisting of crushed slag has been laid to elevate the surface of the room in the eastern sector. As stated previously, the platform could have been erected to access the roof or second level of the structure. The western sector of the room has been excavated to a W2BII Floor level where traces of a mud-plaster floor were found.

Removal of the sediments (Figure 26b) associated with W2AI levels revealed a very large cache of dimple hammerstones. In total, the excavators collected about 45 of these items that had been discarded here. Few ceramics were also recovered from similar fill. These included jugs; Bowl 13, other misc decorated sherds and a pixies small jar.

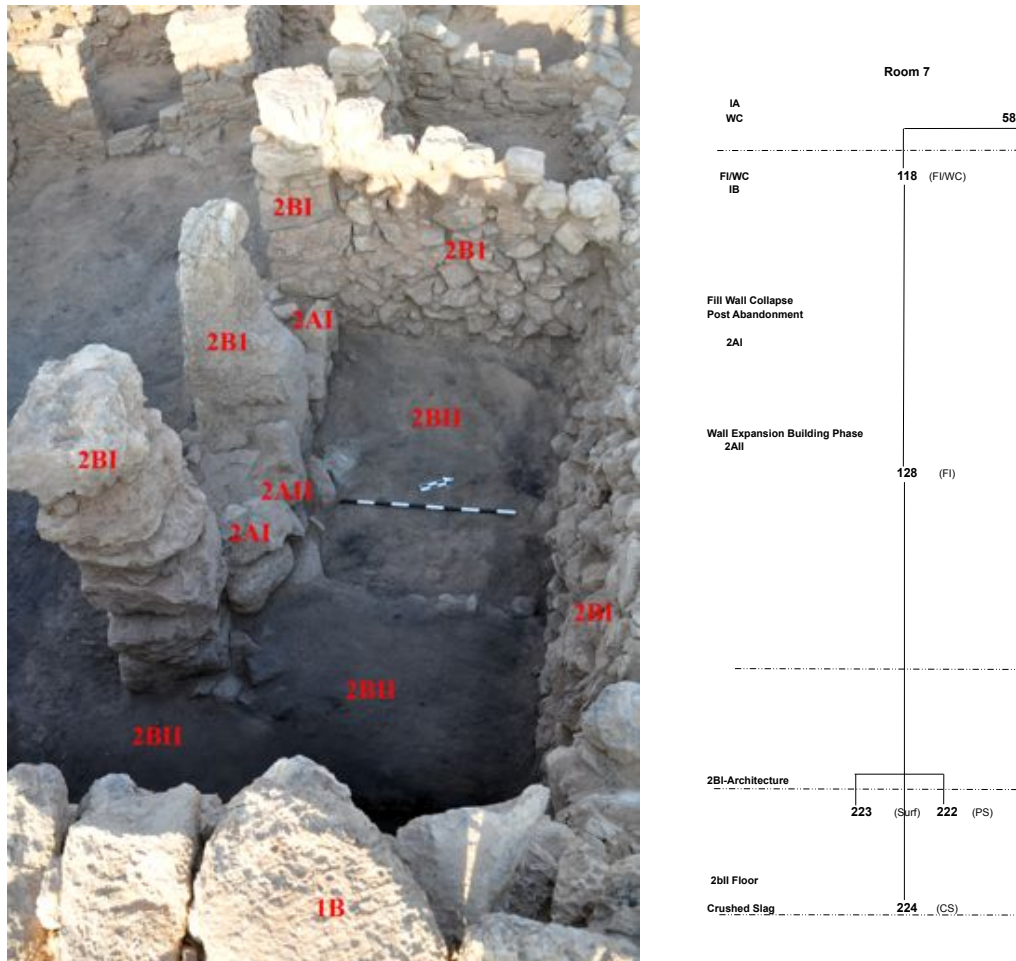


Figure 26 a and b: Overview of Room 7 and the associated Harris matrix.

One of the most significant finds came from the upper levels of Room 8 (Figure 26). Situated in the center of the northern section of Structure 2, this room provides of the best clues to outside contact. A Pataikos figure (Figure 27) was found in the W2AI fills near the entrance of the room. In Egyptian myth Pataikos refers to a protective god in the form of a dwarf. These figurines are known to occur in the archaeological record from the New Kingdom on. Apart from this find, other forms of ornamentation including beads and a Pithos 5 storage jar ceramics were recovered here.



Figure 26: Overview of Room 8 looking towards the interior courtyard.

Room 8



Figurine
EDM: w09f1370
Basket: w09b1045
Locus: w091124

Figure 27: Pataikos figurine recovered from the upper sediments of Room 8.

Room 9 and 10 (Figure 28 a and b) are found in the western section of Structure 2. These rooms are larger in size than the other rooms found on the exterior of the courtyard. The fills in Room 9 were extremely homogenous. This part of the structure represents the lowest point of the natural mound. Thus, it contained the least preserved exterior walls. While the

room was excavated to floor level, the sediments were homogenous (Figure 29a) . One sherd of mediant pottery with a bird motif was recovered from the lower levels of the structure.

In comparison, the sediments removed from Room 10 (Figure 20b) were similar to the fills from the other excavated rooms. The removal of sediments in this room revealed very large slabs of shale and wall collapse. Artifacts were similar to other areas, ceramics, copper debris, bones, and hammerstones. Recovered from this room was a reconstructable vessel.

The most significant feature of Rooms 9 and 10 are the 3 large pillars and their affiliated installations (Figure 30) that make up the inner walls of the courtyard. Similar to the other



Figure 28 a and b: Overview of Room 9 (left) and Room 10 (right)

walls that face the courtyard, these features have their own distinct style and have been aesthetically constructed. As with the other entrances to the courtyard, paving stone installations can be found adjacent to or in the doorways buttressing the pillars.

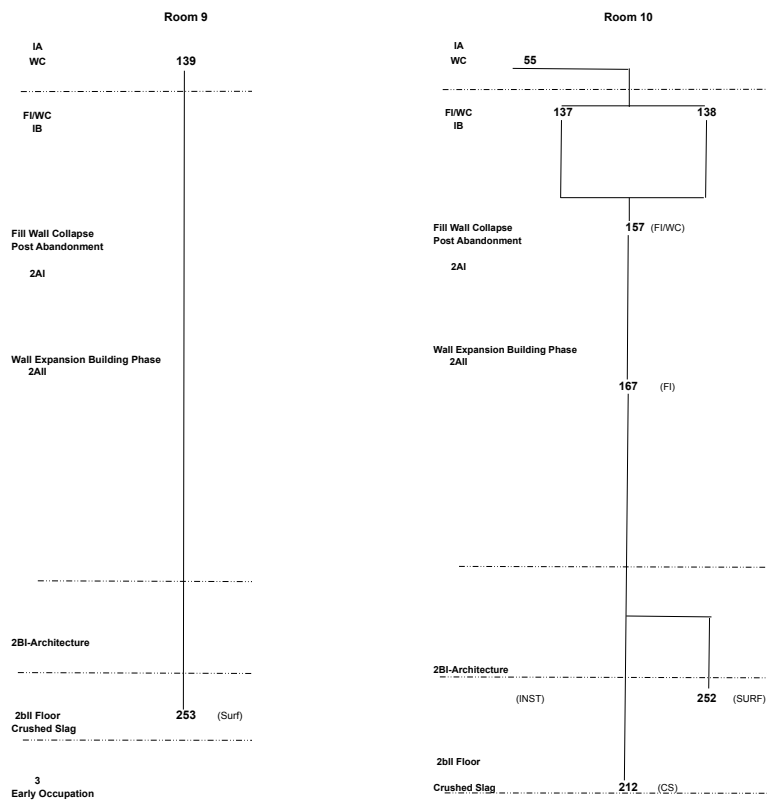


Figure 29 a and b: Harris matrix for Rooms 9 and 10.



Figure 30: The entrances to Rooms 10 (left) and Room 9 (right)

Courtyard 1

Many observations have already been presented in regards to the courtyard. This area in Structure 2 is most significant for its floors that were identified here. Similarly, the numerous installations that are prominent in this area are bold and were probably once used by the inhabitants of this structure to make a statement about their position or role in life. Whether it was cultic or domestic, this was an area of importance. All an individual had to do was to step inside the structure. They would be greeting with grand pillars, installations and a large standing stone (Figure 35) that most likely commemorated an important figure associated with this structure.

The archaeological evidence reflects that the courtyard was used continuously over long periods of time. The three floors identified here are separated with large quantities of paving stones, compact mud, and ash layers and crushed slag mixed with fill. Yet, pise mud-plaster floors have been identified here indicating the importance of this structure. The installations and finds (Figure 35 and Table 3) including scarabs, many different types of ceramics, ornamentation, and finely crafted stone ware found on the floors attest to this claim.

Table 3: Sample of special ceramics and finds recovered from the Courtyard.

Locus	Area	Room	Layer Notes	RC	Pottery
w09l098	W	CTY 1	Fill (scarab locus)	x	Bowl 35 Pithos 2B 10th Century?
w09l153	W	CTY 1	ash layer	x	Jug 31;
w09l170	W	CTY 1	fill (entire east CTY 1)	x	Krater 31; Bowl 13;
					Cooking Pots (Ridge Rim); incised decorated
w09l177	W	CTY 1	fill (central CTY 1)	x	sherd
			fill (above steps to rm		
w09l178	W	CTY 1	4), half scarab	x	Jug 3 (Ridge Rim); Cooking Pot and bowls
					Diagnostic sherds- Jar 6; cypro-phoenician
w09l195	W	CTY 1	fill/ash/ CS	x	Juglet 22;
w09l197	W	CTY 1	fill/ Paving layer	x	Jug 3 (Ridge juglet)



Figure 31: Overview of the courtyard and the affiliated features.

Eventually, the courtyard went out of favor. The reason is not known, but the large amounts of collapse found in the interior of the courtyard may provide a clue. The collapse was surrounded in the northern and southern areas along the western walls by a deep layer of ash. When the collapse occurred is not known, but it is proposed the building had been abandoned. The entrance from Structure 1 into the courtyard was sealed (Figure 34).

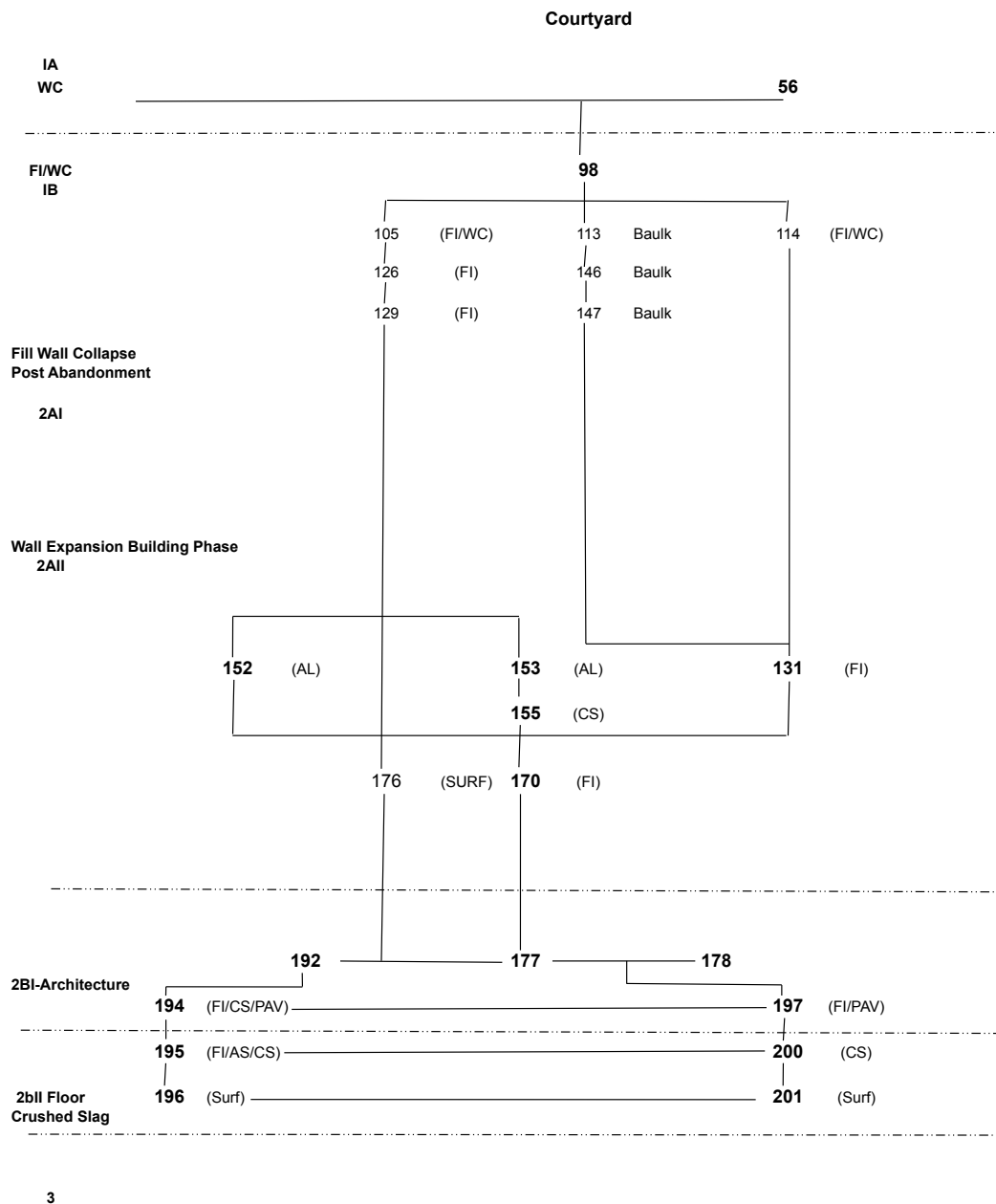


Figure 32: Harris matrix for Courtyard 1.

Courtyard 1



Stone Bowl
EDM: w09f1378
Basket: w09b1053
Locus: w09i129



Scarab
EDM: w09f1837
Basket: w09b1472
Locus: w09i178



Ornamentation- worked bone
EDM: w09f1663
Basket: w09b1308
Locus: w09i155

Figure 33: Sample of the special finds recovered from the courtyard.

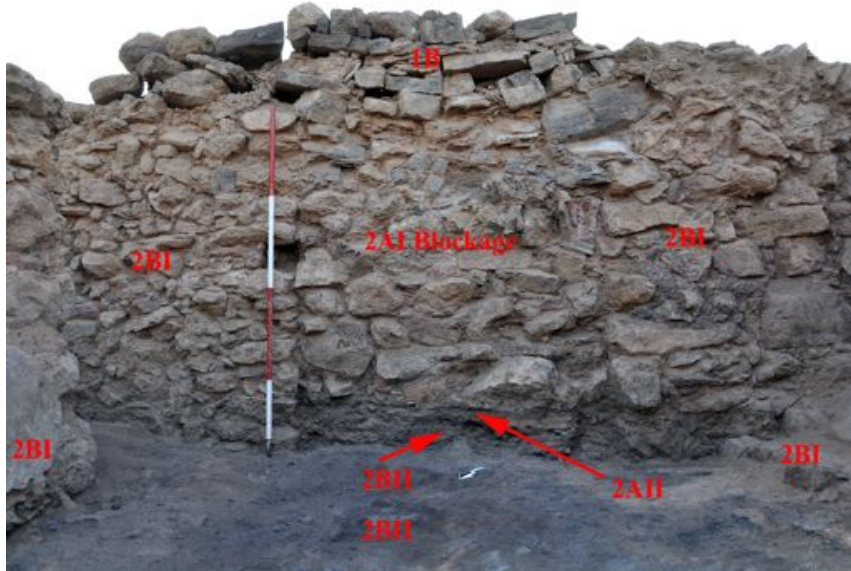


Figure 34: The blockage in Wall 25.



Figure 35: The main installations of Room 7 and the Courtyard.

Walkway (Probe)

A small probe was carried out in the area between Structures 2 and 3 in an attempt to identify any installations or architectures and further clarify the relationship between the structures. Excavations here reached the compact mud and crushed slag layers affiliated with W2BII. The probe did not reveal any new features but it did shed light on the uses of the area

between the structures. Very large volumes of slag (almost ½ ton) were removed from the small probe. The slag had been discarded (Figure 36) along the walls of Structure 3 forming a large built up against the main wall. Much slag had also been deposited inside the adjacent room of Structure 3. This debris is not found on the eastern section of the probe-wall for Structure 2.



Figure 36: The probe carried out between Structures 1 and 2.

In the southern section of the probe two layers of compact mud were identified. It was first believed these layers represented the W2AII floors. However, upon further inspection, these deposits were restricted to the southern section. The northern section of the profile indicated homogenous sediment. Thus, the layers of mud brick were most likely a result of drainage.

Structure 3 (Rooms 11, 12, 13, 14, 15, 16, 17, 18, and Courtyard 2)

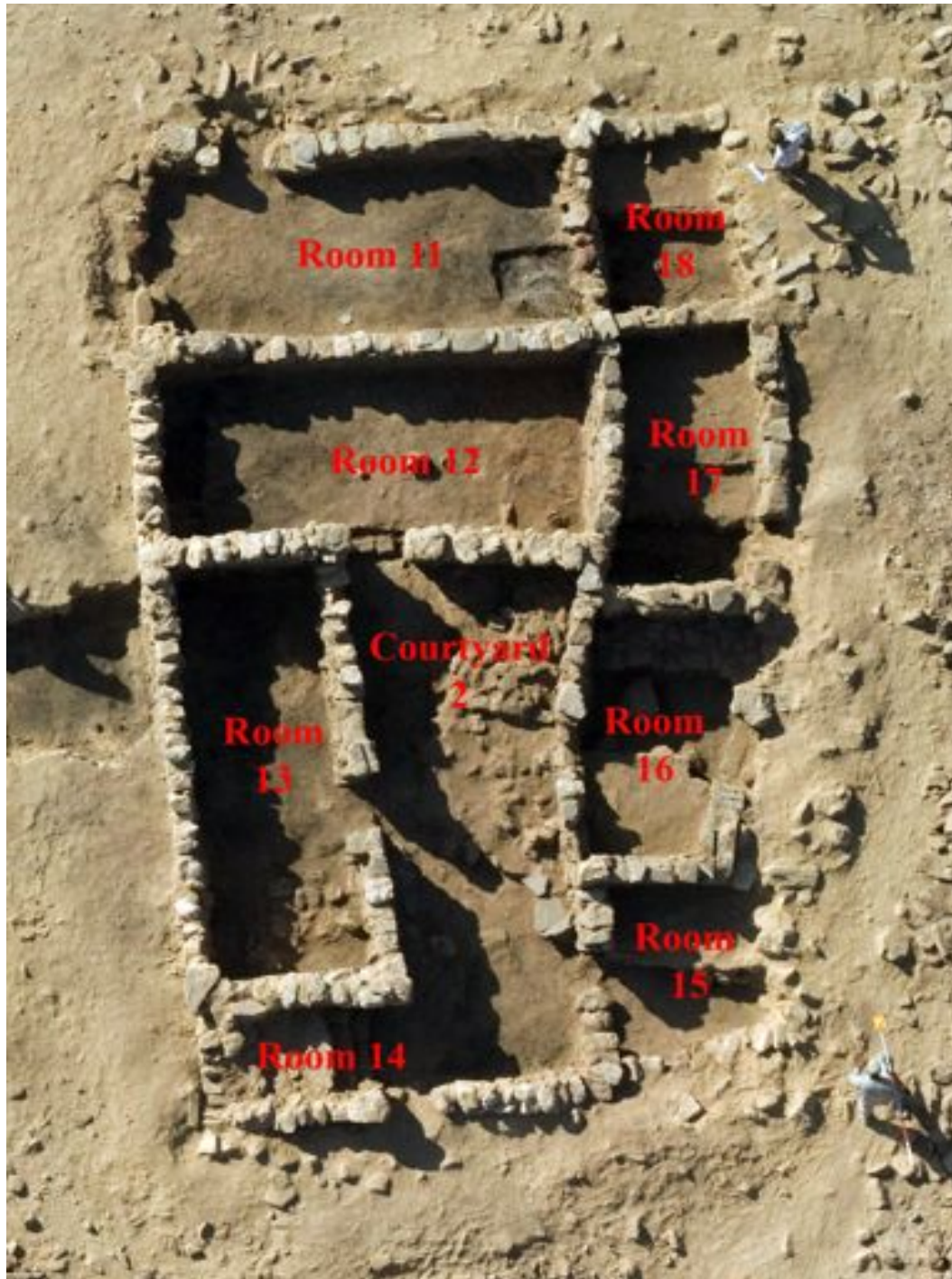


Figure 37: An overview of Structure 3 and the different rooms identified.

Overview

If Structure 2 represents the home of a high ranked official and his kin, then Structure 3 would represent the homes of the regular people. Excavations into the various rooms identified indicate the function of all excavated rooms are domestic in function. In this structure, floors have been elevated above floor level while the courtyard has been sunken. Similar to Structure 2, a series of steps was laid next to the entrance of the structure. Where these steps lead is a mystery, but a clue is provided in the sunken courtyard and the vast amounts of mud brick collapse that came from either the roof or a higher level. Unfortunately, a lack of time resulted in limited excavations along the western section of the structure. Probes were carried out and sediments were excavated to floor level. Several installations were found in these rooms but the information provided on the residences provides a launching off point to future projects.

Room 11 is the southernmost feature of Structure 3. A single-coarse wall forms the southern wall. No wall was detected in the eastern section of the room suggesting that it could have been a courtyard. The western wall was poorly constructed, but nevertheless, it is a wall. The room was excavated to floor level (Figure 38 and 39). The floor here is composed of sediment mixed with compact mud over crushed slag that has been laid to elevate the floor. This is true with the adjacent room (Room 12) too. A small probe in the area continued to yield more crushed slag.

There is excellent evidence that this area was used for processing foods. The remains of large pithoi were common (Table 4). As well, a large tabun was recovered from the floor level.



Figure 38: Overview of Room 11. Note the large tabun in the upper left.

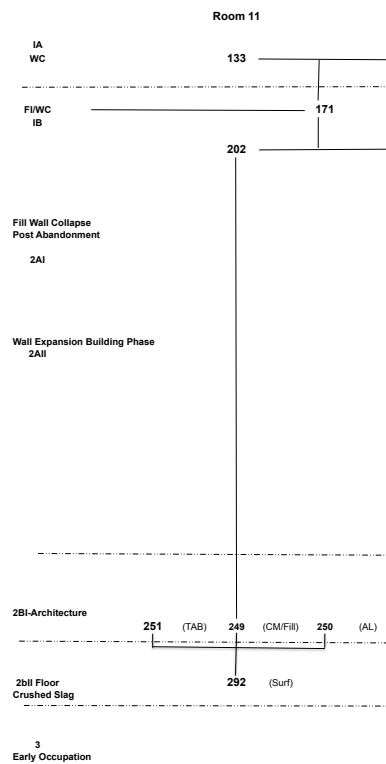


Figure 39: Harris matrix for Room 11.

Table 4: Sample of ceramics recovered from the fills of Room 11.

Locus	Area	Room	Layer Notes	RC	Pottery
w09l249	W	Room 11	fill	x	Medianite 2692; 2 collar rim pithoi;
w09l250	W	Room 11	ash layer	x	1 painted sherd

Similar to Room 11, Room 12 (Figure 40) was elevated from the rest of the rooms. The excavated fills were also pretty homogeneous (Figure 41) from the upper layers to the floor level. The floor was different than the adjacent room. Fine crushed slag was laid and a reddish compact was laid over the top. A small probe into the floor revealed the crushed slag continued. A threshold and a door socket mark the entrance to this room from the north. Door blockage was also detected on the interior of the southern wall leading to Room 11. The reason for this blockage probably had something to do with the use of the adjacent room.

Finds recovered in this room included a complete oil lamp and fragments of ornamentation (Figure 42). Other ceramics included jugs, pithoi fragments, and bowls indicating the room had a domestic function.



Figure 40: Overview of Room 12 and the affiliated strata.

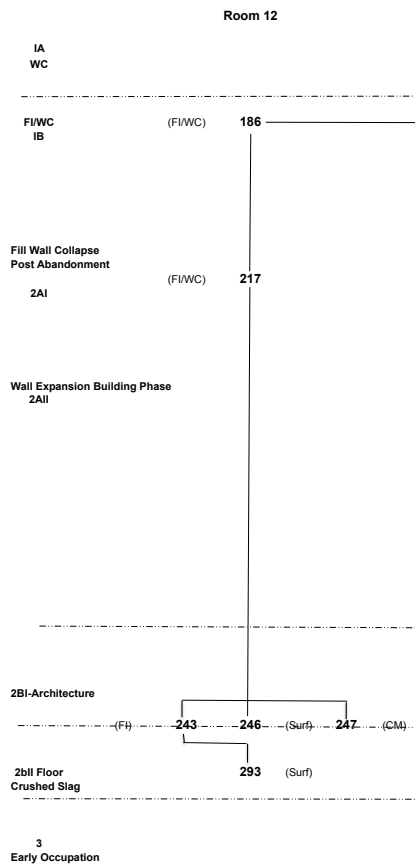


Figure 41: Harris matrix for Room 12.



Figure 42: Artifacts recovered from Room 12

Room 13 is located along the north-south wall on the eastern section of Structure 3 (Figure 43). Removal of sediments in this room exposed large amounts of tapped slag similar to the ones removed for the probe in the alley on the exterior side of the wall. Other interesting finds revealed the inhabitants of the site were creating objects and construction materials by incorporating mud with finely crushed slag. In Room 13 a large object resembling a basin made from this material was found. Similarly in the adjacent courtyard, large deposits of collapses mud bricks made from this material were identified.



Figure 43: Overview of Room 13.

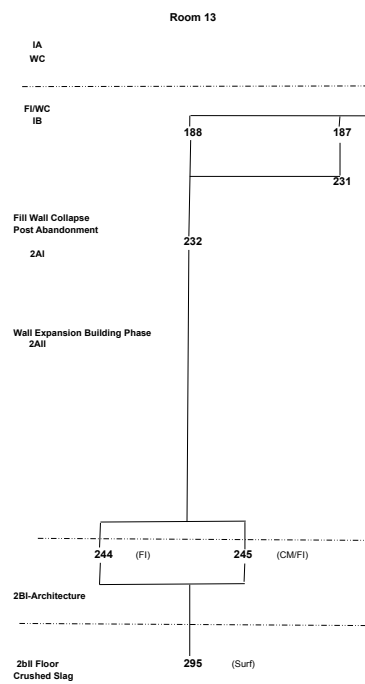


Figure 44: Harris matrix for Room 13.

Figure 45: Scarab recovered from the fill of Room 13.

The sediments encountered in this room were very similar to other fills around the site. A scarab (Figure 45) was recovered from the W2AI deposits in the southern-central section of

the room. Other finds included ceramics (medianite ware; Bowl 8; Jug 4; Krater Bowl), and items affiliated with the production of copper.

Below these deposits two different floors were found. These were similar in construction to the courtyard in Structure 2. A layer of compact mud was laid over a layer of paving stones, crushed slag and fill. Beneath these layers, a compact floor composed of hard compact mud brick was laid over a layer of crushed slag.

Room 14 proved to be an interesting feature of Structure 3. Removal of sediments (Figure 47) here gave way to an interesting structure. Three large steps laid between two walls were unearthed. The series of stone steps is located between two walls leading up to a flat area or platform, similar to Room 4. Unlike Room 4, there was no crashed slag layer used to elevate the platform. An entry into the structure and the courtyard is found immediately to the north of the steps. The question is where do these steps lead?



Figure 46: Steps and the entrance to Room 14.

A clue to answering this question may lie in the collapse mud brick found in the courtyard. This very large pile of debris could at one time belonged to either the roof of the structure or a second level. Similar to Room 4, the platform could have served as the entryway to the higher level via a ladder.

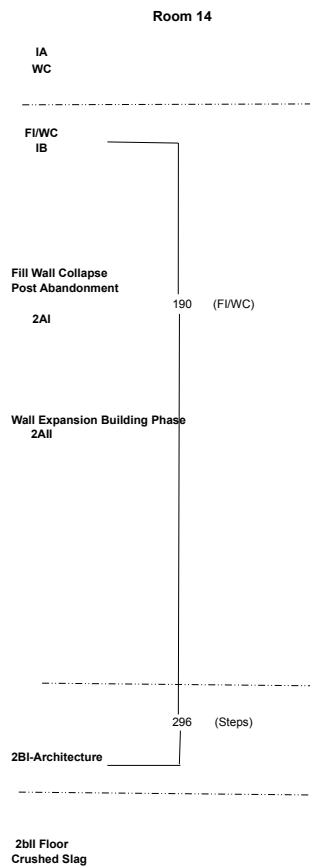


Figure 47: Harris matrix for Room 14.

Probes (Rooms 15, 16, 17, and 18)

Four rooms along the western section of the structure were opened for excavation. Unfortunately, due to time constraints the rooms were not completed. However, probes were initiated in all the room. Floor levels were reached in all the probes. The majority of the probes

were uneventful although a couple of new installations were found. First was the installation in Room 15. A large platform constructed of fill and paving stone was unearthed against the southern wall. The function is not evident, but it appears a similar platform may have been constructed against the northern wall. Two small pillars mark the entrance to this room reminiscent of the ones in the courtyard.

Two smaller installations were detected in Room 17. Small windows were discovered during wall cleaning. The first one is located in the eastern wall and the second one in the lower section of the northern wall. Whether these installations were constructed for light or communicating between rooms is not known.



Figure 48: Overview of the western probes in Structure 3.

Lastly, the excavations from Rooms 15 and 18 reveal that there are no walls to the west indicating the structure is much larger than previously believed.

Courtyard 2



Figure 49: Overview of the courtyard and the significant installations.

The final area excavated in Structure 3 is the courtyard (Figure 49) situated in the center of the structure. While very unlike Courtyard 2, this structure brings the different rooms together. This area represents the main public space where the various rooms in the south, east and north can be accessed. Numerous numbers of grinding implements have been recovered

from this and adjacent areas. As well, large grinding mortars have been found in situ along the base of walls and other installations including benches and possibly food preparation areas. Aside from these implements, ornamentation (Figure 50) and ceramics were also recovered from the fills. A list of the most important ones is found in Table 5.

Table 5: Ceramics recovered from the courtyard.

Locus	Area	Room	Layer Notes	RC	Pottery
w09l227	W	CTY 2	fill	x	Cooking Pots; Oil lamps; medianite ware; jugs; bowls; Jug 3
w09l248	W	CTY 2	fill	x	Cooking Pot; Ridge Rim Jug -3; Fine ware bowl



Figure 50: Complete bracelet recovered next to the collapse mud brick.

Conclusion

The goals of the 2009 ELRAP at Area W centered on identifying the administrative area at Khirbet en-Nahas. A team of students and volunteers contributed greatly in attempting to find answers that would help us attain this goal. As is usually the case, many more questions and issues were brought to forefront- particularly on the topic of social organization.

The 3 structures excavated during the field season are very unique in design and use. First, Structure 1 with its massive walls and installations appears to have been used as storage facilities. The large courtyard and its adjacent rooms appear to have served as a home for an individual with elite status. The construction techniques utilized in this structure rely heavily on aesthetics and public display. Individuals lived and worshiped in this structure as is evident from the personal accoutrements that were recovered in the sediments and floor. At some point, the structure fell out of use and it was abandoned. Whether it was destroyed or abandoned is anyone's guess. What is known is that whatever the reason, the main entrance to the structure was sealed. Structure 3 in the western section of the site represents the domestic households of the population. All artifacts and features indicate individuals lived and worked here. The remains of processing implements coupled with processing installations are widely distributed throughout the site.

Unfortunately, due to time constraints, the western area of Structure 3 could not be completed. The probes do however represent a small sample of some of the issues that can be addressed in any future project at KEN.

Appendices

Appendix A: Locus List

Locus	1st Basket	1st EDM	Square	Description	Stratum	Opened	Closed
w09l001	w09b0001	w09p0005	H5	Topsoil	W1a	10/3/09	10/26/09
w09l002	w09b0002	w09p0010	H6	Wall Collapse	W1a	10/3/09	10/13/09
w09l003	w09b0003	w09p0015	H7	Wall Collapse	W1a	10/3/09	10/13/09
w09l004	w09b0004	w09p0020	H8	Wall Collapse	W1a	10/3/09	10/13/09
w09l005	w09b0005	w09p0025	H9	Wall Collapse	W1a	10/3/09	10/26/09
w09l006	w09b0006	w09p0030	H10	Wall Collapse	W1a	10/3/09	10/26/09
w09l007	w09b0007	w09p0054	G5	Wall Collapse	W1a	10/3/09	10/26/09
w09l008	w09b0008	w09p0088	G6	Wall Collapse	W1a	10/4/09	10/26/09
w09l009	w09b0009	w09p0093	G7	Wall Collapse	W1a	10/4/09	10/5/09
w09l010	w09b0010	w09p0098	G8	Wall Collapse	W1a	10/4/09	10/5/09
w09l011	w09b0011	w09p0103	G9	Wall Collapse	W1a	10/4/09	10/5/09
w09l012	w09b0012	w09p0108	G10	Wall Collapse	W1a	10/4/09	10/26/09
w09l013	w09b0013	w09p0118	F5	Wall Collapse	W1a	10/4/09	10/26/09
w09l014	w09b0014	w09p0123	F6	Wall Collapse	W1a	10/4/09	10/26/09
w09l015	w09b0015	w09p0127	F7	Wall Collapse	W1a	10/4/09	10/5/09
w09l016	w09b0016	w09p0145	F8	Wall Collapse	W1a	10/4/09	10/5/09
w09l017	w09b0017	w09p0150	F9	Wall Collapse	W1a	10/4/09	10/5/09
w09l018	w09b0018	w09p0155	F10	Wall Collapse	W1a	10/4/09	10/26/09
w09l019	w09b0019	w09p0160	E5	Topsoil	W1a	10/4/09	10/26/09
w09l020	w09b0020	w09p0165	E6	Wall Collapse	W1a	10/4/09	10/26/09
w09l021	w09b0021	w09p0170	E7	Wall Collapse	W1a	10/4/09	10/26/09
w09l022	w09b0022	w09p0177	E8	Wall Collapse	W1a	10/4/09	10/26/09
w09l023	w09b0023	w09p0182	E9	Wall Collapse	W1a	10/4/09	10/26/09
w09l024	w09b0024	w09p0186	E10	Wall Collapse	W1a	10/4/09	10/26/09
w09l025	w09b0029	w09p0195	G8/F8	Wall	W2b-I	10/5/09	10/26/09
w09l026	w09b0030	w09p0207	G8	Wall	W2b-I	10/5/09	11/29/09
w09l027	w09b0031	w09p0212	G8	Wall	W2b-I	10/5/09	10/26/09
w09l028	w09b0035	w09p0230	G8/G7	Wall	W2b-I	10/5/09	11/29/09
w09l029	w09b0036	w09p0235	G8/F8/ G7/F7	Fill/Wall Collapse	W1a	10/5/09	10/6/09
w09l030	void	void	void	void	NA		

w09l031	void	void	void	void	NA		
w09l032	void	void	void	void	NA		
w09l033	void	void	void	void	NA		
w09l034	void	void	void	void	NA		
w09l035	void	void	void	void	NA		
w09l036	void	void	void	void	NA		
w09l037	void	void	void	void	NA		
w09l038	void	void	void	void	NA		
w09l039	void	void	void	void	NA		
w09l040	void	void	void	void	NA		
w09l041	void	void	void	void	NA		
w09l042	void	void	void	void	NA		
w09l043	void	void	void	void	NA		
w09l044	void	void	void	void	NA		
w09l045	void	void	void	void	NA		
w09l046	void	void	void	void	NA		
w09l047	void	void	void	void	NA		
w09l048	w09b0109	w09f0409	G7/G8	Fill/Wall Collapse	W1b	10/6/09	10/11/09
w09l049	w09b0110	w09f0410	G8	Fill/Wall Collapse	W1b	10/6/09	10/11/09
w09l050	w09b0118	w09f0420	G7/G8	Fill/Wall Collapse	W1b	10/6/09	10/10/09
w09l051	w09b0119	w09f0421	F7/F8	Fill/Wall Collapse	W1b	10/6/09	10/10/09
w09l052	w09b0120	w09f0422	G7/G8	Wall	W2b-I	10/6/09	10/17/09
w09l053	w09b0122	w09f0424	G8	Wall	W2b-I	10/6/09	11/29/09
w09l054	w09b0123	w09f0425	G8	Fill/Wall Collapse	W1a	10/6/09	11/1/09
w09l055	w09b0124	w09f0426	G9	Fill/Wall Collapse	W1a	10/6/09	10/30/09
w09l056	w09b0128	w09f0430	G8/G9/ F8/F9	Fill/Wall Collapse	W1a	10/6/09	10/19/09
w09l057	w09b0135	w09f0434	F7/F8	Fill/Wall Collapse	W1a	10/7/09	11/2/09
w09l058	w09b0136	w09f0435	F8/F9	Fill/Wall Collapse	W1a	10/7/09	10/24/09
w09l059	w09b0137	w09f0436	G7/F7	Wall	W2b-I	10/7/09	10/26/09
w09l060	w09b0139	w09f0438	F8	Wall	W2b-I	10/7/09	10/26/09
w09l061	w09b0146	w09f0446	G7/G8	Wall Collapse	W2a-I	10/9/09	10/10/09
w09l062	w09b0147	w09f0447	G7	Fill/Wall Collapse	W2a-I	10/9/09	10/10/09
w09l063	w09b0150	w09f0453	G8	Fill/Wall Collapse	W2a-I	10/10/09	10/11/09
w09l064	w09b0153	w09f0456	F8/G8	Fill/Wall Collapse	W2a-I	10/10/09	10/11/09
w09l065	w09b0154	w09f0457	F7/G7	Fill/Wall Collapse	W2a-I	10/10/09	10/11/09

w09l066	w09b0167	w09f0470	G7	Fill/Wall Collapse	W2a-I	10/11/09	10/13/09
w09l067	w09b0168	w09f0471	H6/G6/ F6/G7/F 7	Wall Collapse	W1a	10/11/09	10/16/09
w09l068	w09b0170	w09f0474	G8	Fill/Wall Collapse	W2a-I	10/11/09	10/25/09
w09l069	w09b0171	w09f0476	G7/G8	Fill/Wall Collapse	W2a-I	10/11/09	10/13/09
w09l070	w09b0172	w09f0480	G8/G7	Fill/Wall Collapse	W2a-I	10/11/09	10/16/09
w09l071	w09b0173	w09f0481	F8/F7	Fill/Wall Collapse	W2a-I	10/11/09	10/16/09
w09l072	w09b0174	w09f0482	F7	Fill/Wall Collapse	W2a-I	10/11/09	10/16/09
w09l073	w09b0177	w09f0484	F7/G7/ H7	Wall	W2b-I	10/11/09	10/26/09
w09l074	w09b0180	w09f0487	G7/G8	Wall	W2b-I	10/11/09	10/17/09
w09l075	w09b0181	w09f0488	G9/G10	Wall	W2b-I	10/11/09	11/3/09
w09l076	w09b0182	w09f0489	G9	Wall	W2b-I	10/11/09	11/3/09
w09l077	w09b0221	w09f0528	G7	Wall Collapse	W2a-I	10/12/09	10/18/09
w09l078	w09b0222	w09f0529	G7	Fill/Wall Collapse	W2a-I	10/12/09	10/17/09
w09l079	w09b0233	w09f0540	F7	Chipped Stone Layer	W2a-I	10/13/09	10/17/09
w09l080	w09b0250	w09f0557	G8	Wall	W2b-I	10/13/09	11/29/09
w09l081	w09b0252	w09f0561	H7/H8	Fill/Wall Collapse	W1a	10/13/09	11/26/09
w09l082	w09b0253	w09f0563	G7	Fill	W2a-I	10/13/09	10/16/09
w09l083	w09b0262	w09f0573	G7/G8	Fill/Wall Collapse	W2a-I	10/13/09	10/21/09
w09l084	w09b0298	w09f0612	G8	Compact Mud/ Floor	W2a	10/16/09	10/20/09
					FLOOR		
w09l085	w09b0299	w09f0613	G8	Installation (Paving)	W2a-II	10/16/09	10/26/09
w09l086	w09b0300	w09f0614	G7	Compact Mud/ Floor	W2a	10/16/09	10/17/09
					FLOOR		
w09l087	w09b0301	w09f0617	F8	Crushed Slag	W2b-II	10/16/09	10/20/09
					FLOOR		
					2		
w09l088	w09b0302	w09f0618	F7	Floor	W2b-II	10/16/09	10/18/09
					FLOOR		
					1		
w09l089	w09b0313	w09f0630	F6/G6/ H6	Fill/Wall Collapse	W1a	10/16/09	11/26/09
w09l090	w09b0408	w09f0666	G7/G8	Wall	W2b-I	10/17/09	11/29/09
w09l091	w09b0409	w09f0669	G7	Wall	W2b-I	10/17/09	10/26/09

w09l092	w09b0410	w09f0670	G8	Wall	W2b-I	10/17/09	10/26/09
w09l093	w09b0424	w09f0686	F7/G7	Ash Layer	W2a-I	10/17/09	11/26/09
w09l094	w09b0429	w09f0692	G7	Ash/Slag Layer	W2b-II	10/17/09	10/21/09
					FLOOR		
					2		
w09l095	w09b0434	w09f0698	F7/G7	Fill	W2b-II	10/17/09	11/29/09
w09l096	w09b0470	w09f0735	F7/G7	Floor (Paving Stones and Compact Mud)	W2b-II	10/18/09	11/29/09
					FLOOR		
					2		
w09l097	w09b0536	w09f0777	F7/G7	Ash/Slag Layer	W2b-II	10/19/09	10/21/09
					FLOOR		
					2		
w09l098	w09b0537	w09f0808	F9/F10	Fill/Wall Collapse	W1b	10/19/09	10/23/09
w09l099	w09b0554	w09f0826	F8	Ash Layer	W3	10/20/09	10/24/09
w09l100	w09b0573	w09f0846	G7/G8	Ash/Slag Layer	W3	10/20/09	11/29/09
w09l101	w09b0575	w09f0848	G7	Installation (Threshold)	W2a-II	10/20/09	11/29/09
w09l102	w09b0579	w09f0852	F7	Fill	W3	10/20/09	10/24/09
w09l103	w09b603	w09f0877	G7/G8	Fill/Wall Collapse (Compact Mud)	W2b-II	10/21/09	11/9/09
					FLOOR		
					1		
w09l104	w09b607	w09f0882	G7	Fill /Crushed Slag	W3	10/21/09	10/21/09
w09l105	w09b615	w09f0393	G9	Fill/Wall Collapse (Trench)	W1b	10/21/09	10/25/09
w09l106	w09b617	w09f0888	F7	Fill/Crushed Slag	W3	10/21/09	11/29/09
w09l107	w09b622	w09f0894	G7	Fill/Crushed Slag	W3	10/21/09	10/21/09
w09l108	w09b635	w09f0908	G7	Fill/Crushed Slag	W3	10/21/09	10/24/09
w09l109	w09b642	w09f0915	F8	Installation (Tabun)	W3	10/21/09	11/29/09
w09l110	w09b643	w09f0916	F8	Ash Layer	W3	10/21/09	10/24/09
w09l111	w09b660	w09f0933	G7	Crushed Slag	W3	10/23/09	10/24/09
w09l112	w09b661	w09f0934	G7	Installation (Stone Ring)	W3	10/23/09	10/23/09
w09l113	w09b684	w09f0961	G9/F9	Courtyard (Baulk) Fill/Wall Collapse	W1b	10/23/09	10/31/09
w09l114	w09b685	w09f0962	G8/F8	Fill/Wall Collapse	W1b	10/23/09	11/29/09
w09l115	w09b694	w09f0974	G7	Fill/Crushed Slag	W3	10/23/09	10/24/09
w09l116	w09b696	w09f0976	F8/F9	Wall (North of Courtyard)	W2b-I	10/23/09	10/31/09
w09l117	w09b712	w09f0992	F9/E9	Fill/Wall Collapse	W1a	10/24/09	10/24/09
w09l118	w09b713	w09f0993	F8/E8	Fill/Wall Collapse	W1b	10/24/09	10/30/09

w09l119	w09b723	w09f1006	F8	Crushed Slag	W3	10/24/09	11/29/09
w09l120	w09b726	w09f1012	G7	Fill/Crushed Slag (Probe)	W3	10/24/09	11/29/09
w09l121	w09b751	w09f1038	G9	Wall	W2b-I	10/24/09	11/29/09
w09l122	w09b752	w09f1039	G9	Fill/Wall Collapse	W2a-I	10/24/09	11/1/09
w09l123	w09b753	w09f1040	G9/F9/F	Fill/Wall Collapse	W1a	10/24/09	10/30/09
			10/G10				
w09l124	w09b754	w09f1042	F9/E9	Fill/Wall Collapse	W1b	10/24/09	11/9/09
w09l125	w09b788	w09f1076	F9	Fill	W1b	10/25/09	11/3/09
w09l126	w09b800	w09f1090	G9/F9	Fill	W2a-I	10/25/09	10/27/09
w09l127	w09b804	w09f1095	G8	Fill (Dark Brown/Compact Mud)	W2a	10/25/09	10/30/09
					FLOOR		
w09l128	w09b838	w09f1150	F8/E8	Fill (Reddish/Gray)	W2a-I	10/26/09	11/18/09
wo9l129	w09b0901	w09f1218	G9	Reddish fill w/ ash intrusions/ wall collapse	W2a-I	10/27/09	11/10/09
wo9l130	w09b0935	w09f1252		Topsoil/Fill/Wall Collapse	W1a	10/28/09	11/26/09
wo9l131	w09b0947	w09f1265		Fill (Reddish/Gray)	W2a-I	10/28/09	11/7/09
wo9l132	w09b0988	w09f1310		Baulk (West)	W1a	10/30/09	11/16/09
wo9l133	w09b0989	w09f1311		Wall Collapse	W1a	10/30/09	11/7/09
wo9l134	w09b0990	w09f1312		Wall Collapse	W1a	10/30/09	11/2/09
wo9l135	w09b0991	w09f1313		Wall Collapse	W1a	10/30/09	11/7/09
wo9l136	w09b0992	w09f1314		Wall Collapse	W1a	10/30/09	11/7/09
wo9l137	w09b1009	w09f1333		Fill (Light Red)	W1b	10/30/09	11/2/09
wo9l138	w09b1010	w09f1334		Fill (Light Red)	W1b	10/30/09	11/2/09
wo9l139	w09b1011	w09f1335		Fill/Wall Collapse	W1a/W2	10/30/09	11/26/09
					a-I		
wo9l140	w09b1012	w09f1336		Fill/Wall Collapse	W1a	10/30/09	11/26/09
wo9l141	w09b1013	w09f1337		Fill/Wall Collapse	W1a	10/30/09	11/26/09
wo9l142	w09b1014	w09f1338		Fill/Wall Collapse	W1a	10/30/09	11/16/09
wo9l143	w09b1018	w09f1344		Crushed Slag	W2b-II	10/30/09	11/29/09
					FLOOR		
					2		
wo9l144	w09b1020	w09f1346		Ash Layer	W2b-II	10/30/09	11/9/09
					FLOOR		
					2		
wo9l145	w09b1027	w09f1352		Ash Layer	W2b-II	10/30/09	11/9/09
					FLOOR		

				2		
wo9l146	w09b1091	w09f1417	Baulk (Fill-Reddish)	W2a-I	10/31/09	10/31/09
wo9l147	w09b1096	w09f1423	Baulk (Fill-Light Brown)	W2a-I	10/31/09	11/3/09
wo9l148	w09b1100	w09f1429	Eastern Pillar Adjacent Room	W2b-I	10/31/09	11/29/09
				7		
wo9l149	w09b1101	w09f1430	Pillar- Monolith	W2b-I	10/31/09	11/29/09
wo9l150	w09b1102	w09f1431	Western Pillar Adjacent	W2b-I	10/31/09	11/29/09
				Room 7		
wo9l151	w09b1103	w09f1432	Northern Courtyard Wall	W2b-I	10/31/09	11/29/09
wo9l152	w09b1124	w09f1454	Ash Layer	W2a-I	11/1/09	11/3/09
wo9l153	w09b1125	w09f1455	Ash Layer	W2a-I	11/1/09	11/1/09
wo9l154	w09b1132	w09f1464	Fill- Dark Brown	W2b-II	11/1/09	11/15/09
				FLOOR		
				2		
wo9l155	w09b1144	w09f1477	Ash/Crushed Slag	W2a-I	11/1/09	11/10/09
wo9l156	w09b1161	w09f1495	Fill (Reddish)	W2a-I	11/2/09	11/13/09
wo9l157	w09b1162	w09f1498	Fill/Wall Collapse	W2a-I	11/2/09	11/2/09
wo9l158	w09b1163	w09f1500	Fill/Wall Collapse	W1a	11/2/09	11/7/09
wo9l159	w09b1165	w09f1502	Wall	W2b-I	11/2/09	11/29/09
wo9l160	w09b1166	w09f1503	Wall	W2b-I	11/2/09	11/29/09
wo9l161	w09b1167	w09f1504	Wall	W2b-I	11/2/09	11/29/09
wo9l162	w09b1168	w09f1505	Wall	W2b-I	11/2/09	11/29/09
wo9l163	w09b1169	w09f1506	Pillar	W2b-I	11/2/09	11/29/09
wo9l164	w09b1172	w09f1510	Ash Layer	W2a-I	11/2/09	11/2/09
wo9l165	w09b1173	w09f1511	Fill/Wall Collapse	W1b	11/2/09	11/26/09
wo9l166	w09b1179	w09f1519	Ash/Crushed Slag	W1b	11/2/09	11/26/09
wo9l167	w09b1180	w09f1546	Fill (Dark Brown)	W2a-I	11/2/09	11/13/09
wo9l168	w09b1202	w09f1522	Wall-Room 8	W2b-I	11/3/09	11/29/09
wo9l169	w09b1203	w09f1549	Wall- Room 6	W2b-I	11/3/09	11/29/09
wo9l170	w09b1211	w09f1558	Fill (Dark with Ash)	W2a	11/3/09	11/10/09
				FLOOR		
wo9l171	w09b1299	w09f1653	Fill/Wall Collapse	W1b	11/7/09	11/13/09
wo9l172	w09b1300	w09f1654	Fill/Wall Collapse	W1b	11/7/09	11/23/09
wo9l173	w09b1301	w09f1655	Wall	W2b-I	11/7/09	11/29/09
wo9l174	w09b1302	w09f1656	Wall	W2b-I	11/7/09	11/29/09
wo9l175	w09b1342	w09f1698	Fill/Wall Collapse (Probe)	W2a-I	11/7/09	11/13/09

wo9l176	w09b1366	w09f1723	Fill (Ash, Charcoal, and Compact Mud)	W2a FLOOR	11/8/09	11/10/09
wo9l177	w09b1367	w09f1724	Fill with Ash and Charcoal	W2a-I	11/8/09	11/13/09
wo9l178	w09b1368	w09f1725	Fill with Ash and Charcoal	W2a-I	11/8/09	11/13/09
wo9l179	w09b1417	w09f1777	Wall	W2b-I	11/9/09	11/9/09
wo9l180	w09b1418	w09f1778	Wall	W2b-I	11/9/09	11/29/09
wo9l181	w09b1419	w09f1779	Wall	W2b-I	11/9/09	11/29/09
wo9l182	w09b1428	w09f1791	Crushed Slag	W2b-II FLOOR 2	11/9/09	11/29/09
wo9l183	w09b1429	w09f1792	Installation Room 4	W2b-I	11/9/09	11/29/09
wo9l184	w09b1444	w09f1802	Fill (Dark Red with Ash)	W2a-I	11/9/09	11/29/09
wo9l185	w09b1454	w09f1818	Wall	W2b-I	11/9/09	11/29/09
wo9l186	w09b1455	w09f1820	Fill/Wall Collapse	W1b	11/9/09	11/19/09
wo9l187	w09b1457	w09f1822	Fill- Reddish	W2a-I	11/9/09	11/20/09
wo9l188	w09b1458	w09f1823	Fill-Reddish	W2a-I	11/9/09	11/20/09
wo9l189	w09b1459	w09f1824	Wall	W2b-I	11/9/09	11/29/09
wo9l190	w09b1460	w09f1825	Fill/Wall Collapse	W2a-I	11/9/09	11/29/09
wo9l191	w09b1488	w09f1853	Fill	W2a-I	11/10/09	11/10/09
wo9l192	w09b1489	w09f1858	Fill with Ash and Charcoal	W2a-I	11/10/09	11/13/09
wo9l193	w09b1512	w09f1884	Ash Layer	W2a-I	11/10/09	11/10/09
wo9l194	w09b1514	w09f1887	Fill, Crushed Slag, paving stones	W2b-II FLOOR 1	11/10/09	11/18/09
wo9l195	w09b1515	w09f1888	Fill: Dark gray-brown with ash/crushed slag	W2b-II FLOOR 1	11/10/09	11/26/09
wo9l196	w09b1516	w09f1889	Surface: Compact floor, crushed slag	W2b-II FLOOR 2	11/10/09	11/29/09
wo9l197	w09b1529	w09f1901	Fill/ Paving Layer (probe)	W2b-II FLOOR 1	11/10/09	11/12/09
wo9l198	w09b1535	w09f1908	Surface	W2b-II FLOOR 2	11/10/09	11/12/09

wo9l199	w09b1538	w09f1911	Fill/Wall Collapse	W1b	11/11/09	11/13/09
wo9l200	w09b1609	w09f1984	Crushed Slag Layer	W2b-II	11/12/09	11/29/09
				FLOOR		
				1		
wo9l201	w09b1672	w09f2042	Surface (Probe)	W2b-II	11/12/09	11/26/09
				FLOOR		
				2		
wo9l202	w09b1709	w09f2089	Fill/Wall Collapse (Light Tan)	W1b	11/13/09	11/25/09
wo9l203	w09b1710	w09f2090	Fill/Wall Collapse (Light Tan)	W1b	11/13/09	11/27/09
wo9l204	w09b1711	w09f2091	Fill/Wall Collapse (Light Tan)	W1a	11/13/09	11/29/09
wo9l205	w09b1712	w09f2092	Fill/Wall Collapse (Light Tan)	W1b	11/13/09	11/29/09
wo9l206	w09b1713	w09f2093	Fill/Wall Collapse (Light Tan)	W1b	11/13/09	11/15/09
wo9l207	w09b1714	w09f2094	Fill/Wall Collapse (Light Tan)	W1b	11/13/09	11/27/09
wo9l208	w09b1715	w09f2095	Fill/Wall Collapse (Light Tan)	W1b	11/13/09	11/22/09
wo9l209	w09b1716	w09f2096	Fill/Wall Collapse (Light Tan)	W1b	11/13/09	11/22/09
wo9l210	w09b1717	w09f2099	Fill/Wall Collapse (Reddish/Gray)	W2a-I	11/13/09	11/17/09
wo9l211	w09b1734	w09f2116	Ash Layer	W2b-II	11/13/09	11/15/09
				FLOOR		
				2		
wo9l212	w09b1747	w09f2132	Ash Layer	W2b-II	11/13/09	11/26/09
				FLOOR		
				2		
wo9l213	w09b1757	w09f2144	Installtion	W2b-II	11/15/09	11/29/09
				FLOOR		
				2		
wo9l214	w09b1790	w09f2178	Lintel Installation	W2a-II	11/15/09	11/29/09
wo9l215	w09b1806	w09f2195	Fill/Wall Collapse (Light Tan)	W2a-I	11/15/09	11/27/09

			Red)			
wo9l216	w09b1838	w09f2229	Trench between Structures 2 and 3	W1a	11/16/09	11/19/09
wo9l217	w09b1841	w09f2232	Fill/Wall Collapse (Dark Red Sediment)	W2a-I	11/16/09	11/24/09
wo9l218	w09b1853	w09f2247	Fill- Reddish Grey with Ash	W2a-I	11/17/09	11/17/09
wo9l219	w09b1866	w09f2261	Surface	W2b-II	11/17/09	11/26/09
				FLOOR		
				2		
wo9l220	w09b1867	w09f2262	Installation	W2b-II	11/17/09	11/29/09
				FLOOR		
				2		
wo9l221	w09b1868	w09f2263	Surface	W2b-II	11/17/09	11/26/09
				FLOOR		
				2		
wo9l222	w09b1883	w09f2278	Plaster Surface	W2b-II	11/18/09	11/29/09
				FLOOR		
				2		
wo9l223	w09b1884	w09f2279	Surface	W2b-II	11/18/09	11/29/09
				FLOOR		
				2		
wo9l224	w09b1885	w09f2280	Crushed Slag Layer	W2b-II	11/18/09	11/29/09
				FLOOR		
				1		
wo9l225	w09b1900	w09f2296	Steps (Room 4)	W2b-I	11/18/09	11/29/09
wo9l226	w09b1914	w09f2310	Furnace Fragment/Copper Metal	W2b-II	11/18/09	11/18/09
				FLOOR		
				2		
wo9l227	w09b1935	w09f2334	Reddish Fill	W2a-I	11/19/09	11/29/09
wo9l228	w09b1936	w09f2336	Reddish Fill	W2a-I	11/19/09	11/20/09
wo9l229	w09b2022	w09f2425	Slag Layer (probe)	W2b-II	11/20/09	11/29/09
				FLOOR		
				2		
wo9l230	w09b2023	w09f2426	Fill with Ash and Charcoal	W2a-I	11/20/09	11/26/09
wo9l231	w09b2035	w09f2440	Fill (Reddish)	W2a-I	11/20/09	11/23/09
wo9l232	w09b2036	w09f2441	Fill (Reddish)	W2a-I	11/20/09	11/24/09

wo9l233	w09b2059	w09f2464	Fill/Wall Collapse	W1b	11/22/09	11/26/09
wo9l234	w09b2076	w09f2483	Fill/Wall Collapse	W2a-I	11/22/09	11/27/09
wo9l235	w09b2077	w09f2484	Collapsed Compact mud	W2a-I	11/22/09	11/29/09
wo9l236	w09b2078	w09f2485	Wall	W2b-I	11/22/09	11/29/09
wo9l237	w09b2136	w09f2546	Wall	W2b-I	11/23/09	11/29/09
wo9l238	w09b2137	w09f2547	Wall	W2b-I	11/23/09	11/29/09
wo9l239	w09b2138	w09f2548	Wall	W2b-I	11/23/09	11/29/09
wo9l240	w09b2139	w09f2549	Wall	W2b-I	11/23/09	11/29/09
wo9l241	w09b2140	w09f2550	Wall	W2b-I	11/23/09	11/29/09
wo9l242	w09b2158	w09f2601	Wall	W2b-I	11/23/09	11/29/09
wo9l243	w09b2165	w09f2613	Fill (Reddish with Ash)	W2b-II	11/24/09	11/29/09
			FLOOR			
			2			
wo9l244	w09b2166	w09f2614	Fill (Reddish)	W2b-II	11/24/09	11/29/09
			FLOOR			
			1			
wo9l245	w09b2182	w09f2631	Compact Mud and Fill	W2b-II	11/24/09	11/29/09
			FLOOR			
			1			
wo9l246	w09b2193	w09f2642	Surface- Crushed Slag and	W2b-II	11/24/09	11/29/09
			Compact mud	FLOOR		
			2			
wo9l247	w09b2194	w09f2643	Compact Mud and Fill	W2b-II	11/24/09	11/25/09
			FLOOR			
			2			
wo9l248	w09b2207	w09f2656	Fill with Ash ,Charcoal, and	W2a-I	11/24/09	11/29/09
			Compact Mud			
wo9l249	w09b2228	w09f2678	Fill (Reddish mixed with ash	W2b-II	11/25/09	11/29/09
			and compact mud	FLOOR		
			2			
wo9l250	w09b2234	w09f2695	Ash Layer	W2b-II	11/25/09	11/26/09
			FLOOR			
			2			
wo9l251	w09b2247	w09f2698	Tabun	W2b-II	11/25/09	11/29/09
			FLOOR			
			2			

wo9l252	w09b2267	w09f2741	Surface	W2b-II FLOOR 2	11/26/09	11/29/09
wo9l253	w09b2268	w09f2743	Surface	W2b-II FLOOR 2	11/26/09	11/29/09
wo9l254	w09b2277	w09f2755	Crushed Slag	W2b-II FLOOR 2	11/26/09	11/29/09
wo9l255	w09b2278	w09f2756	Crushed Slag	W2b-II FLOOR 2	11/26/09	11/29/09
wo9l256	w09b2279	w09f2757	Installation	W2b-II FLOOR 2	11/26/09	11/29/09
wo9l257	w09b2282	w09f2768	Crushed Slag	W2b-II FLOOR 2	11/26/09	11/26/09
wo9l258	w09b2295	w09f2781	Installation	W2b-I	11/26/09	11/29/09
wo9l259	w09b2296	w09f2782	Installation	W2b-I	11/26/09	11/29/09
wo9l260	w09b2297	w09f2783	Installation	W2b-I	11/26/09	11/29/09
wo9l261	w09b2298	w09f2784	Installation	W2b-I	11/26/09	11/29/09
wo9l262	w09b2299	w09f2785	Installation	W2b-I	11/26/09	11/29/09
wo9l263	w09b2300	w09f2786	Installation	W2b-I	11/26/09	11/29/09
wo9l264	w09b2301	w09f2787	Installation	W2b-I	11/26/09	11/29/09
wo9l265	w09b2302	w09f2788	Installation	W2b-I	11/26/09	11/29/09
wo9l266	w09b2303	w09f2789	Installation	W2b-I	11/26/09	11/29/09
wo9l267	w09b2304	w09f2790	Installation	W2b-I	11/26/09	11/29/09
wo9l268	w09b2316	w09f2803	Mudbrick	W2b-II FLOOR 2	11/26/09	11/29/09
wo9l269	w09b2328	w09f2816	Reddish Fill	W2a-I	11/27/09	11/29/09
wo9l270	w09b2353	w09f2842	Reddish Fill	W2a-I	11/27/09	11/29/09
wo9l271	w09b2354	w09f2844	Reddish Fill	W2a-I	11/27/09	11/29/09
wo9l272	w09b2355	w09f2846	Reddish Fill	W2a-I	11/27/09	11/29/09
wo9l273	w09b2360	w09f2851	Probe- Dark Brown Compact	W2a-I	11/27/09	11/29/09

			Mud			
wo9l274	w09b2361	w09f2852	Probe- Dark Brown Fill	W2a-I	11/27/09	11/29/09
wo9l275	w09b2362	w09f2853	Probe- Reddish Fill	W2a-I	11/27/09	11/28/09
wo9l276	w09b2363	w09f2854	Probe-Reddish Fill	W2a-I	11/27/09	11/28/09
wo9l277	w09b2366	w09f2857	Probe-Reddish Fill	W2a-I	11/27/09	11/28/09
wo9l278	w09b2367	w09f2858	Probe-Reddish Fill	W2a-I	11/27/09	11/29/09
wo9l279	w09b2387	w09f2881	Ash Layer	W2a-I	11/28/09	11/28/09
wo9l280	w09b2397	w09f2892	Surface	W2b-II	11/28/09	11/29/09
				FLOOR		
				2		
wo9l281	w09b2410	w09f2906	Void	NA	11/28/09	11/29/09
wo9l282	w09b2414	w09f2911	Surface	W2b-II	11/28/09	11/29/09
				FLOOR		
				2		
wo9l283	w09b2422	w09f2991	Wall	W2b-I	11/29/09	11/29/09
wo9l284	w09b2423	w09f2992	Wall	W2b-I	11/29/09	11/29/09
wo9l285	w09b2424	w09f2993	Wall	W2b-I	11/29/09	11/29/09
wo9l286	w09b2425	w09f2994	Wall	W2b-I	11/29/09	11/29/09
wo9l287	w09b2426	w09f2995	Wall	W2b-I	11/29/09	11/29/09
wo9l288	w09b2427	w09f2996	Wall	W2b-I	11/29/09	11/29/09
wo9l289	w09b2428	w09f2997	Wall	W2b-I	11/29/09	11/29/09
wo9l290	w09b2429	w09f2998	Wall	W2b-I	11/29/09	11/29/09
wo9l291	w09b2430	w09f2999	Surface	W2b-II	11/29/09	11/29/09
				FLOOR		
				2		
wo9l292	w09b2431	w09f3001	Surface	W2b-II	11/29/09	11/29/09
				FLOOR		
				2		
wo9l293	w09b2432	w09f3003	Surface	W2b-II	11/29/09	11/29/09
				FLOOR		
				2		
wo9l294	w09b2433	w09f3005	Surface	W2b-II	11/29/09	11/29/09
				FLOOR		
				2		
wo9l295	w09b2434	w09f3007	Surface	W2b-II	11/29/09	11/29/09
				FLOOR		

			2		
wo9l296	Steps	W2b-I	11/29/09	11/29/09	
wo9l297	Surface	W2b-II	11/29/09	11/29/09	
		FLOOR			
		2			
wo9l298	Surface	W2b-II	11/29/09	11/29/09	
		FLOOR			
		2			
wo9l299	Wall Blockage (W. 25)	W2a-II	11/29/09	11/29/09	

Appendix B. Area W Wall and Room Measurements.

Room 1	Dimensions Length: 4.95 Width: 0.70 0.81	North: wall Length: 4.95 Width: 0.94 Height: 1.92 Courses: 2x11	East: wall Length: 2.59 Width: 0.80 Height: 1.65 Courses: 2x10	South: wall Length: 6.18 Width: 1.12 Height: 1.72 Courses: 3x14	West: wall Length: 2.77 Width: 0.56 Height: 2.13 Courses: 1x15
Room 2	Dimensions Length: 4.94 Width: 1.60 1.15	North: wall Length: 4.94 Width: 1.12 Height: 1.73 Courses: 3x13	East: wall Length: 3.00 Width: 0.85 Height: 1.64 Courses: 2x11	South: wall Length: 6.10 Width: 0.81 Height: 2.20 Courses: 2x13	West: wall Length: 2.57 Width: 0.54 Height: 2.15 Courses: 1x12
Room 3	Dimensions Length: 4.75 Width: 2.75 1.19	North: wall Length: 4.75 Width: 0.81 Height: 2.22 Courses: 2x15	East: wall Length: 3.70 Width: 0.83 Height: 0.63 Courses: 2x11	South: wall Length: 4.80 Width: 0.94 Height: 1.85 Courses: 2x9	West: wall Length: 3.35 Width: 0.46 Height: 1.78 Courses: 1x9
Room 4	Dimensions Length: 2.85 Width: 1.13 1.13	North: n/a Length: Width: ~1.16 Height: Courses:	East: wall Length: 2.85 Width: 0.46 Height: 2.41 Courses: 1x12	South: wall Length: 1.43 Width: 0.49 Height: 1.33 Courses: 1x7	West: wall Length: 2.57 Width: 0.40 Height: 2.09 Courses: 1x10
Room 5	Dimensions Length: 2.29 Width: 1.02	North: wall Length: 0.53 Width: 0.35 Height: 1.95 Courses: 1x4(+1)	East: wall Length: 2.57 Width: 0.40 Height: 2.12 Courses: 1x12	South: wall Length: 1.01 Width: 0.35 Height: 1.01 Courses: 1x5	West: wall Length: 2.60 Width: 0.42 Height: 1.57 Courses: 1x9

Room 6	Dimensions Length: 3.85 Width: 1.93 0.81	North: wall Length: 3.85 Width: 0.42 Height: 1.62 Courses: 1x8	East: wall Length: 2.60 Width: 0.42 Height: 1.62 Courses: 1x8	South: wall Length: 3.32 Width: 0.50 Height: 0.90 Courses: 1x5	West: wall Length: 1.95 Width: 0.38 Height: 1.09 Courses: 1x10
Room 7	Dimensions Length: 3.60 Width: 1.64 0.95	North: wall Length: 3.84 Width: 0.40 Height: 1.63 Courses: 1x10	East: wall Length: 1.85 Width: 0.56 Height: 2.21 Courses: 1x18	South: wall Length: 3.60 Width: 0.41 Height: 1.80 Courses: 1x11	West: wall Length: 2.49 Width: 0.46 Height: 1.78 Courses: 1x12
Room 8	Dimensions Length: 3.26 Width: 1.69 0.91	North: wall Length: 3.46 Width: 0.52 Height: 1.20 Courses: 1x7	East: wall Length: 2.49 Width: 0.67 Height: 1.77 Courses: 1x11	South: wall Length: 3.02 Width: 0.39 Height: 1.75 Courses: 1x11	West: wall Length: 1.88 Width: 0.46 Height: 0.97 Courses: 1x7
Room 9	Dimensions Length: 3.61 Width: 2.28 0.94	North: wall Length: 2.35 Width: 0.39 Height: 0.48 Courses: 1x4	East: wall Length: 1.88 Width: 0.46 Height: 1.12 Courses: 1x8	South: wall Length: 2.21 Width: 0.47 Height: 0.95 Courses: 1x10	West: wall Length: 3.68 Width: 0.47 Height: 0.81 Courses: 1x7
Room 10	Dimensions Length: 4.20 Width: 2.27 0.93	North: wall Length: 2.21 Width: 0.47 Height: 1.15 Courses: 1x9	East: wall Length: 4.31 Width: 0.45 Height: 1.37 Courses: 1x10	South: wall Length: 2.24 Width: 0.46 Height: 1.41 Courses: 1x9	West: wall Length: 4.20 Width: 0.42 Height: 0.96 Courses: 1x8
Room 11	Dimensions Length: 5.35 Width: 2.41	North: wall Length: 6.00 Width: 0.33 Height: 1.15 Courses: 1x8	East: wall Length: 0.60 Width: 0.42 Height: 0.57 Courses: 2x2	South: wall Length: 5.40 Width: 0.48 Height: 0.92 Courses: 1x7	West: wall Length: 2.62 Width: 0.49 Height: 0.69 Courses: 1x5

Room 12	Dimensions Length: 5.80 Width: 2.32	North: wall Length: 6.32 Width: 0.45 Height: 1.50 Courses: 1x10	East: wall Length: 2.35 Width: 0.49 Height: 1.24 Courses: 1x7	South: wall Length: 6.60 Width: 0.37 Height: 1.15 Courses: 1x8	West: wall Length: 2.56 Width: 0.39 Height: 1.26 Courses: 1x9
Room 13	Dimensions Length: 5.49 Width: 1.92	North: wall Length: 3.03 Width: 0.46 Height: 1.80 Courses: 1x12	East: wall Length: 5.49 Width: 0.36 Height: 1.23 Courses: 1x10	South: wall Length: 2.86 Width: 0.43 Height: 1.52 Courses: 1x8	West: wall Length: 5.45 Width: 0.43 Height: 1.43 Courses: 1x10
Room 14	Dimensions Length: n/a Width: 1.20	North: wall Length: 2.57 Width: 0.40 Height: 1.10 Courses: 1x6	East: wall Length: 1.55 Width: 0.65 Height: 0.38 Courses: 2x1	South: wall Length: 2.44 Width: 0.46 Height: 1.58 Courses: 1x10	West: wall Length: Width: n/a Height: Courses:
Room 15	Dimensions Length: 1.88 Width: 2.25	North: wall Length: n/a Width: Height: Courses:	East: wall Length: 2.75 Width: 0.45 Height: 1.27 Courses: 1x8	South: wall Length: 3.05 Width: 0.34 Height: 1.21 Courses: 1x8	West: wall Length: n/a Width: Height: Courses:
Room 16	Dimensions Length: 1.95 Width: 3.20	North: wall Length: 1.80 Width: 0.39 Height: 1.07 Courses: 1x8	East: wall Length: 3.59 Width: 0.35 Height: 1.49 Courses: 1x10	South: wall Length: 2.32 Width: 0.35 Height: 1.11 Courses: 1x11	West: wall Length: 3.88 Width: 0.47 Height: 0.91 Courses: 1x7
Room 17	Dimensions Length: 1.93 Width: 3.43	North: wall Length: 2.11 Width: 0.35 Height: 1.66 Courses: 1x15	East: wall Length: 3.60 Width: 0.35 Height: 1.78 Courses: 1x14	South: wall Length: 1.80 Width: 0.30 Height: 0.90 Courses: 1x7	West: wall Length: 3.94 Width: 0.40 Height: 1.00 Courses: 1x8

Room 18	Dimensions Length: 1.84 Width: 2.26	North: wall Length: 2.15 Width: 0.32 Height: 1.43 Courses: 1x9	East: wall Length: 2.85 Width: 0.38 Height: 1.25 Courses: 1x9	South: wall Length: 1.65 Width: 0.33 Height: 0.42 *not part of probe Courses: 1x3	West: wall Length: n/a Width: Height: Courses:
Court-yard	Dimensions Length: 6.71 Width: 3.58	North: wall Length: 1.99 Width: 0.44 Height: 1.64 Courses: 1x13 Pillar: w Length: 0.65 Width: 0.52 Height: 0.80 Courses: 1x10	East: wall Length: 3.58 Width: 0.54 Height: 2.44 Courses: 2x18 Pillar: middle Length: 0.43 Width: 0.54 Height: 1.84 Courses: 1x1	South: wall Length: 5.52 Width: 0.38 Height: 1.72 Courses: 1x13 Entryway: 0.91 Standing Stone: Length: 0.81 Width: 0.22 Height: 0.48 Courses: 1x1	West: wall Length: 2.75 Width: 0.82 Height: 1.40 Courses: 1x10 Entryway: 0.95 Pillar: e Length: 0.63 Width: 0.46 Height: 1.83 Courses: 1x7
Court-yard 2	Dimensions Length: 1.36 Width: 6.94	North: wall Length: 1.99 Width: 0.50 Height: 1.09 Courses: 1x8	East: wall Length: 7.13 Width: 0.43 Height: 1.52 Courses: 1x14 Entryway: 0.74	South: wall Length: 3.07 Width: 0.45 Height: 1.50 Courses: 1x9 Entryway: 0.72	West: wall Length: 7.20 Width: 0.35 Height: 1.58 Courses: 1x5

Appendix C: Harris Matrix