

**TAYINAT ARCHAEOLOGICAL PROJECT  
2007 SEASONAL REPORT**

[Not for Publication]

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## INTRODUCTION

The Tayinat Archaeological Project (TAP) completed its fourth season of excavations at Tell Ta'yinat in 2007. The 2007 season, the fourth TAP field season since excavations commenced in 2004, was conducted between June 5 and July 15, and continued the field investigations of the preceding years. The expedition senior staff consisted of Dr. Timothy Harrison (Project Director), Dr. Stephen Batiuk (Senior Field Archaeologist), Dr. Heather Snow (Senior Laboratory Supervisor), Dr. Catherine D'Andrea (Paleoethnobotanist, Simon Fraser University), Dr. David Lipovitch (Zooarchaeologist, University of Toronto), Fiona Haughey (Artifact Illustrator), Julie Unruh (Conservator) and Andrew Harrison (object photographer). The senior Field Supervisors included Dr. Jack Dessel (University of Tennessee), Dr. Elif Denel (Başkent University), Brian Janeway (University of Toronto), James Osborne (Harvard University), James Roames (University of Toronto) and Lynn Welton (University of Toronto). The project was also assisted by fourteen archaeology students from Bilkent University, Koç University, Mustafa Kemal University, the University of Toronto, and the University 'Ca' Foscari. Mr. Mehmet Çavuş, of the Adana Archaeological Museum, served as government representative on behalf of the Directorate of Cultural Heritage and Museums.

The primary objectives of the 2007 Tayinat field season were to (1) complete excavation of the Early Iron Age levels in Field 1, and begin uncovering the Early Bronze Age levels, (2) continue excavation of the large Early Iron Age complex in Field 2 first uncovered in 2005, and (3) expand the probe opened on the western slope of the upper mound in Field 4 (**fig. 1**).

### **Field 1 Investigations (L. Welton, Field Supervisor)**

The 2007 excavations in Field 1 (**fig. 2**) continued the investigations begun in 2004, and expanded in 2005 to four 10x10 m squares (G4.55, G4.56, G4.65 and G4.66). In all, the 2004 through 2007 excavations in Field I have identified eight distinct architectural Field Phases (FP), with the primary sequence (FPs 3-6) dating to the Early Iron Age. In 2007, excavations were conducted only in Squares G4.55, G4.65 and G4.66. The primary objective was to complete the excavation of the Early Iron Age levels, and begin work on the Early Bronze Age remains.

### ***Square G4.55 (B. Janeway and D. Lumb, Co-Square Supervisors)***

By the end of the 2006 season, the majority of the Iron I material in G4.55 had been removed, leaving only a small amount for excavation in 2007. Excavations this season commenced by removing what remained of a fill deposit, which was excavated in 1 m strips from east to west (each was assigned a separate locus; G4.55:119-124). During excavation of this fill, a number of pits were identified, including one which was identified immediately underneath a feature mis-identified in 2006 as a Textile Bin (G4.55:109). Many of the pits had cut down into the final phases of the Early Bronze Age (FP 8; specifically Amuq Phase J) (**figs. 3-4**). A number of wall segments were also visible in the sides of the excavated pits, and once the Iron I fill had been completely removed, it was possible to delineate a series of walls associated with the earlier Early Bronze Age phase (FP 8) (**fig. 3**).

*Square G4.65 (L. Di Pieri and O. Ianovskaia, Co-Square Supervisors)*

The excavations in G4.65 (**fig. 5**) began by focusing on a large unexcavated portion in the southwest part of the square. Much of this material proved to be part of an extensive Fill Layer (G4.65:92), which had already been partially excavated in previous seasons. In addition, a small amount of material was removed beneath a Pit (G4.65:93) excavated in 2005. It was not clear whether this material formed part of the pit, or whether it was part of the fill in G4.65:92. Following the removal of G4.65:92, attention turned to the removal of a grey silty fill, identified in previous seasons, which appears to have been used to level the area of the pebbled surface prior to the construction of the wall foundations of the temple, or Building II (G4.65:94). Below G4.65:94, but immediately above the pebbled surface, was a layer of fill with a slightly different composition from the fill in G4.65:94, which was designated G4.65:96. The pebbled surface itself was assigned G4.65:95, and was determined to consist of multiple laminations of surfaces, some of which only extended in patches over the area of the pebbled surface. This surface has now been articulated all the way across G4.65 (G4.65:18, 61, 91 and 95), and continues east into G4.66.

To the south of the pebbled surface, the layer below the surface was excavated as G4.65:99. The excavations in this area revealed clusters of broken pottery vessels (**fig. 6**), and it was clear from the associated pottery that the Iron II surface had cut into Early Bronze Age levels. The western area of these clusters was assigned G4.65:100, and the eastern area G4.65:101. It was clear that these pottery clusters were contemporary with those found to the east, and thus G4.65:97 was equated with G4.65:100 and 101, though the eastern material was situated at a lower elevation, presumably on a slope.

In the northern part of the square, excavations continued below the “terrace” excavated in 2006. This area was designated G4.65:108. However, rather than a “terrace”, the soil layer was determined to be EBA occupational debris, as well as some Iron I material, that had been cut during the construction of the Iron II pebbled surface. The cut associated with this trough was assigned G4.65:109.

During excavation of G4.65:108, a circular feature of burned mudbrick was identified that corresponded to the installation identified in 2006 as a “kiln” (G4.65:90/91?) (**fig. 7**). It became clear that this “kiln” continued below the level excavated last season. The burnt mudbrick material of the installation was also observed peeking through the unexcavated portion of the pebbled surface, and it clearly formed a circular feature below the pebbled surface. Since the northern portion of the pebbled surface was removed in 2006, the northern half of G4.65:90/91 could be excavated. This excavated portion was designated G4.65:104/105. The shape of the installation, and the associated burned mudbrick material, suggested that it was dome-shaped. The composition of the contents changed approximately 30 cm from the top of the installation. In the top portion, the fill consisted of large pieces of charcoal and burnt mudbrick that appeared to have collapsed from the roof of the structure. In the lower portion, the composition changed noticeably, consisting of very soft, ashy, burnt soil. This lower fill also contained several (at least seven were identified) large unbaked perforated objects, very probably loom weights. The installation appeared to have been formed with mudbrick arranged in lines. The southern half of the installation was also excavated, with similar results.

Despite the assumption that the installation was a kiln, its true function remains unclear. Given its depth and size, it seems unlikely that the entire installation could have stood above ground. Instead, it seems likely that the installation consisted of a mudbrick superstructure, possibly dome-like in shape. The soil change, along with a possible internal separation wall, may indicate that this part of the installation was embedded in the ground, and may have formed an underground chamber, perhaps a firebox, given the soft ashy soil that was present. The shape of the structure is consistent with a kiln, but the presence of a series of loom weights below its purported floor, confuses the issue, as does the absence of any other evidence (such as wasters, etc) in the vicinity that would indicate ceramic production. G4.65:110 was opened to begin excavation of the fill layer around the exterior of the installation, but did not progress very far before the end of the season. Excavations around the exterior of the installation will be important for determining its shape and possible function.

### ***Square G4.66 (E. Denel, Square Supervisor)***

The season began with the excavation of the level immediately below topsoil in the SE portion of the square (**fig. 8**), which had remained untouched since the 2005 season. This area was removed as G4.66:76. A number of ephemeral surfaces, first identified in 2006, were excavated with this locus. These surfaces appear to have sealed the Iron II fill associated with the substructure of the south wall of Building II, and thus must be Iron II in date, or later.

Excavations in the central part of the square uncovered remains of an extensive Iron II Fill (G4.66:86). In the area to the south, excavations encountered considerable later disturbance, including classical and modern debris, and thus determining the southern extent of the fill deposit was difficult. Once separation was achieved, the material to the south was assigned to G4.66:91, and the Iron II fill itself was assigned to G4.66:88. As in Square G4.65, the Iron II fill sat on a Pebbled Surface (G4.66:87), and was assigned several locus numbers (G4.66:81, 88, 89 and 101). It extended in a rough E-W line across the entire square.

In the northeast corner of the square, a portion of an E-W running Wall (G4.66:77=G4.66:68) was excavated. The soil beneath Wall G4.66:77 was assigned to G4.66:78. This locus was excavated in a square probe in the northeast corner, extending from the north balk southward to the Iron II fill. During excavation of G4.66:78, a small concentration of burnt material was found against the east balk. Initially, it was thought that this deposit might represent an oven, but further excavation determined it to be a small ash pit, designated G4.66:92/93. A series of possible pits were identified beneath G4.66:78, and thus excavations were extended to the west. This westward expansion was designated G4.66:97 (=G4.66:78).

### **Field 2 Investigations (J. Osborne, Field Supervisor)**

Field 2 is primarily occupied by a large, Early Iron II structure that is probably Building XIV, partially excavated by the Syro-Hittite Expedition in the 1930s. The field is located immediately to the north of Field 1 (**fig. 1**). In 2007, excavations were conducted in four squares: G4.36, G4.37, G4.45, and G4.47 (**fig. 9**). In addition, a sondage was opened to the north, in F4.55. The 2007 season continued the investigations of 2006, and focused on two primary goals. The first was to establish the stratigraphic connection between Fields 1 and 2, and determine the

depth of Building XIV's foundations. The second was to obtain as broad a horizontal exposure of the complex as possible.

The effort to establish a stratigraphic connection between Fields 1 and 2 was begun in 2006, and continued in 2007. The stratigraphic connection was achieved via a deep sounding in the southwest corner of Square G4.45. With the resumption of the operation in 2007, the probe was reduced to a 1x1 m area, which was the approximate extent of the space between the N wall of Building II, G4.45:28, and the south wall of Building XIV, G4.45:8= G4.45:51. Despite the constrained space, the probe reached a depth of over four metres.

Although several loci were assigned in the probe, four features were particularly important. The first consists of two visible cut lines near the top of the probe, G4.45:38 and G4.45:55. The higher feature, G4.45:38, is important because it appears to cut into Building XIV, and also connects to the face of the north wall of Building II, G4.45:28. It appears to have been the foundation trench for the construction of Building II, and therefore provides stratigraphic confirmation that Building XIV precedes Building II. Further support is provided by the fact that the cut of G4.45:38 hits the south face of the probe just under (approximately 3 cm) the bottom of Building II's foundations. However, it is also possible that this cut line represents an excavation trench from the Syro-Expedition's investigations. The primary evidence supporting this possibility was the presence of burnt brick collapse, possibly brick wash from the north wall (G4.45:28) of Building II, in the soil matrix above the G4.45:38 cut line. We were unable to determine whether this material represented modern brick wash, caused since the Syro-Expedition's excavations, or an ancient deposit. It is also possible that G4.45:55, a second cut line about 25 cm below G4.45:38 (and actually joining with it towards the north), represents the foundation trench for Building II. Resting above this cut line were vertically stacked bricks that could have been part of material cut out Wall G4.45:8=51, the south wall of Building XIV.

Below the two cut lines, excavations encountered a deep, but narrow Pit (G4.45:52/53) filled with extremely soft soil and very little material culture; what identifiable pottery did exist was EB in date. However, since this pit cuts Wall G4.45:8=51, it must post-date the construction of Building XIV, yet pre-date the construction of Buildings I and II. Meanwhile, Wall G4.45:8 (=G4.45:51) continued until 1 m from the bottom of the probe. Approximately every four courses, the bricks were separated by a layer of phytolithic material, clearly an intentional construction technique. Interestingly, in the Haines report, phytolith layers were recorded every four courses in the apparently contemporary Building XIII to the north. The Haines report also states that the foundations of Building XIV were reached in two places, and in both cases were found to be resting on a bed of cobble-sized stone. A substantial wall segment (G4.45:61), possibly dating to the EB, was encountered running beneath Wall G4.45:8 (=G4.45:51). It filled most of the probe area, forcing a stop to the sounding.

The second objective In Field 2 was to gain as much horizontal exposure of Building XIV as possible. The strategy was to peel the topsoil off, and then identify the outline of walls by excavating to a depth of approximately 20cm. This strategy enabled excavations to uncover approximately another 10 X 20 m of the building (**figs. 9-10**). Unfortunately, trenching activity from the Syro-Expedition's excavations had obliterated some of the wall lines, rendering the task considerably more difficult, and slowing down progress. In particular, long horizontal trenches were encountered running N-S through Squares G4.36 and G4.46, and G4.37 and G4.47. In the

latter case, the trench had effectively broken the stratigraphic connection between what we believe to be the eastern-most Wall (G4.47:3) of the complex and two well-preserved surfaces; the earlier a densely packed sherd-strewn (predominantly Red Slipped Burnished Ware) Surface (G4.47:30), and sealing it, a Stone Pavement (G4.47:9) (**figs. 9, 11-13**). A fragment of a Luwian hieroglyphic inscription, very probably part of a large basalt stela, was found sitting on this stone pavement (**fig. 14**). The contents of the trench produced a variety of late material, including a toy marble, removing any doubt about its modern creation. It was also unclear whether this stone pavement had been uncovered by the Syro-Hittite Expedition. Although a similar pavement is documented in the Haines report, just to the east of Building I, it does not appear to have been the same pavement.

#### ***Square F4.55 (J.P. Dessel, Square Supervisor)***

In conjunction with the Field 2 excavations, a solitary square, F4.55, was opened 100 m to the north of the other squares in the field (**fig. 1**). According to the Haines report, Building XIV extended north for approximately 100 m. Consequently, F4.55 was opened with the aim of identifying the northern extent of the complex. In the brief two weeks of excavation devoted to this area, our investigations succeeded in uncovering the remains of extensive mudbrick architecture, but it was not possible to determine their function, nor whether they were associated with Building XIV. Nevertheless, the excavations were promising, and it is anticipated that our investigations will continue in this area in future field seasons.

#### **Field 4 Investigations**

##### ***Square G3.34 (J. Roames, Square Supervisor)***

The goals of the 2007 investigations in G3.34, located on the western edge of the upper mound (**fig. 1**), were to expand the excavation area of the previous season to the north, forming a complete 10 x 10 m area, and to locate any remaining evidence of the metalworking areas found during the 2006 season. In addition to uncovering more of the Early Iron Age metal workshop, the 2007 excavations largely confirmed the phasing sequence established in 2006.

The 2007 probe in the northern part of the square (**fig. 15**) succeeded in uncovering more of the large Fortification Wall (G3.34:4) along the western edge of the square, as well as a E-W Wall (G3.34:39) that ran along the northern edge of the square, and a N-S Wall (G3.34:37), just to the west of the East Balk, which abutted Wall G3.34:39. Together, these walls enclosed an area rich in metalworking industrial waste, clearly part of the metal workshop uncovered in the central part of the square in 2006, and assigned to FP 3. The area was bordered on the south by Wall G3.34:7, excavated in 2006, and which formed an E-W line through the center of the square. The debris in the western 'room' was assigned to G3.34:34, while the material from the eastern 'room' was assigned to G3.34:38. A number of ephemeral features, semi-circular in shape, and possibly metalworking installations, were identified in the western room. Three of the installations formed a clear N-S line. The eastern room (G3.34:38) was very small, extending into the east balk. However, excavations in this area uncovered a series of slag cakes, and a number of crucibles deposited upside down on a possible surface. The entire northern area was excavated within a fine-grid (20 x 20 cm), due to the exceptionally rich amount of metallurgical debris, with soil samples collected from each fine grid for further archaeometallurgical and

chemical analyses. The pottery and associated material culture clearly date this complex to the Early Iron I (ca. 12<sup>th</sup> cent. BCE). It is anticipated that this area will be the focus of continued excavations in future field seasons.

### **CONCLUDING OBSERVATIONS**

In summary, the 2007 excavations continued to uncover the remarkably well-preserved remains of the Early Iron Age settlement at Tell Ta'yinat, both the Early Iron I (12<sup>th</sup> Cent. BCE) settlement in Field 1, with its strong Aegean cultural connections, and the monumental structure (Building XIV) in Field 2, that dates to the Late Iron I/Early Iron II (10<sup>th</sup>-9<sup>th</sup> Cent. BCE). Though still tentative, we believe this latter complex, which we estimate measured at least 50 X 100 m in size, may have been the palatial residence of the Luwian kings of Padasatini. The numerous Luwian hieroglyphic inscriptions that have been found at Tell Ta'yinat, now totaling almost 100 in number, when both the Syro-Hittite Expedition and our own excavations are combined, almost certainly should also be assigned to this cultural horizon. The discovery of a metal workshop in Field 4 dating to the Late Bronze II/Early Iron I transition further confirms the importance of the site during this period, and indicates that the Early Iron Age settlement at Tayinat was considerably larger than first thought, possibly encompassing the entire 20 ha upper mound. As a result, the Tayinat Archaeological Project will continue to prioritize its efforts and resources investigating the Bronze and Iron Age levels in these areas of the site.

### **ACKNOWLEDGMENTS**

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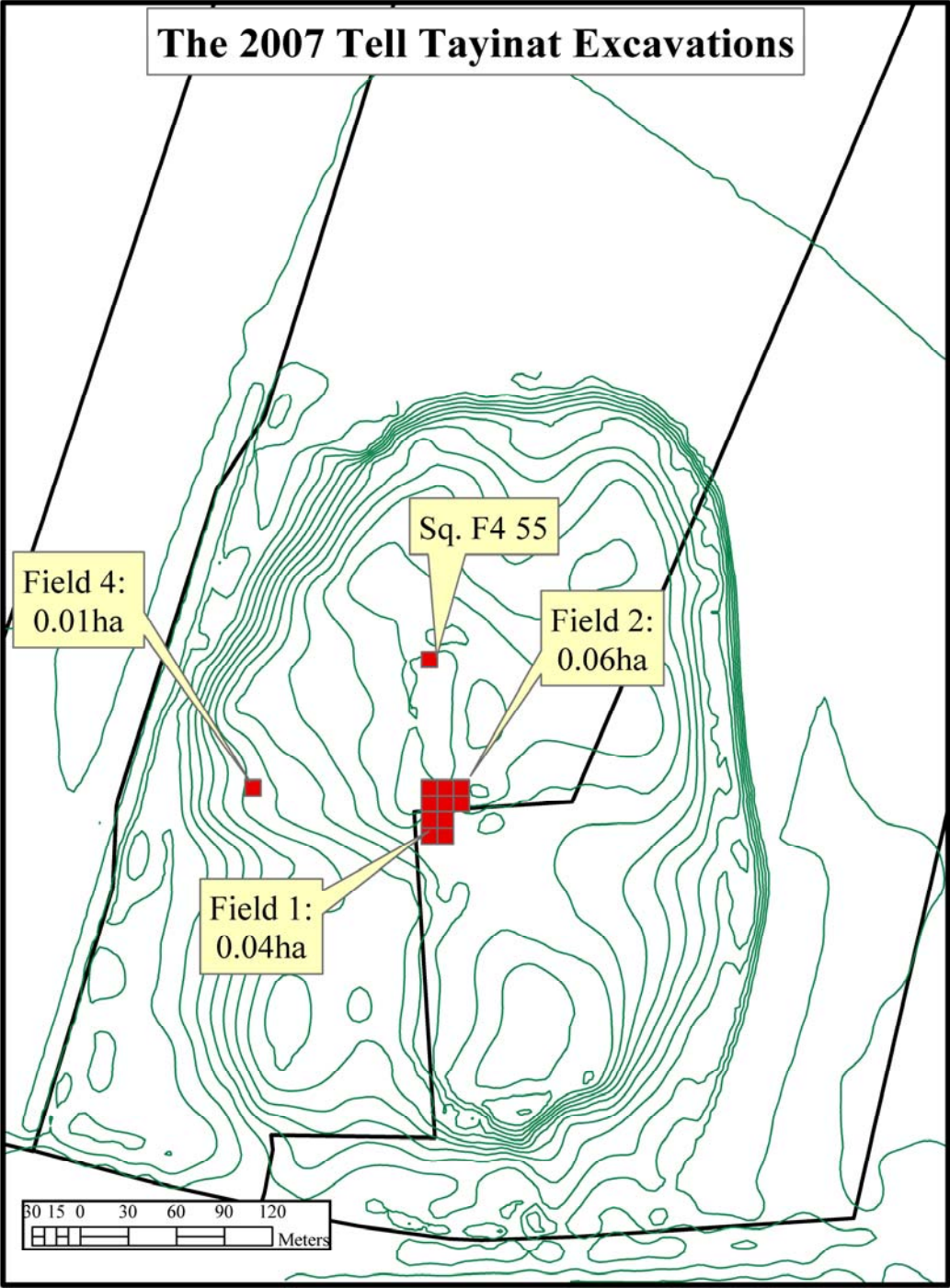


Figure 1

## Tell Ta'yinat 2007: Area G4 Squares 55, 56, 65 & 66

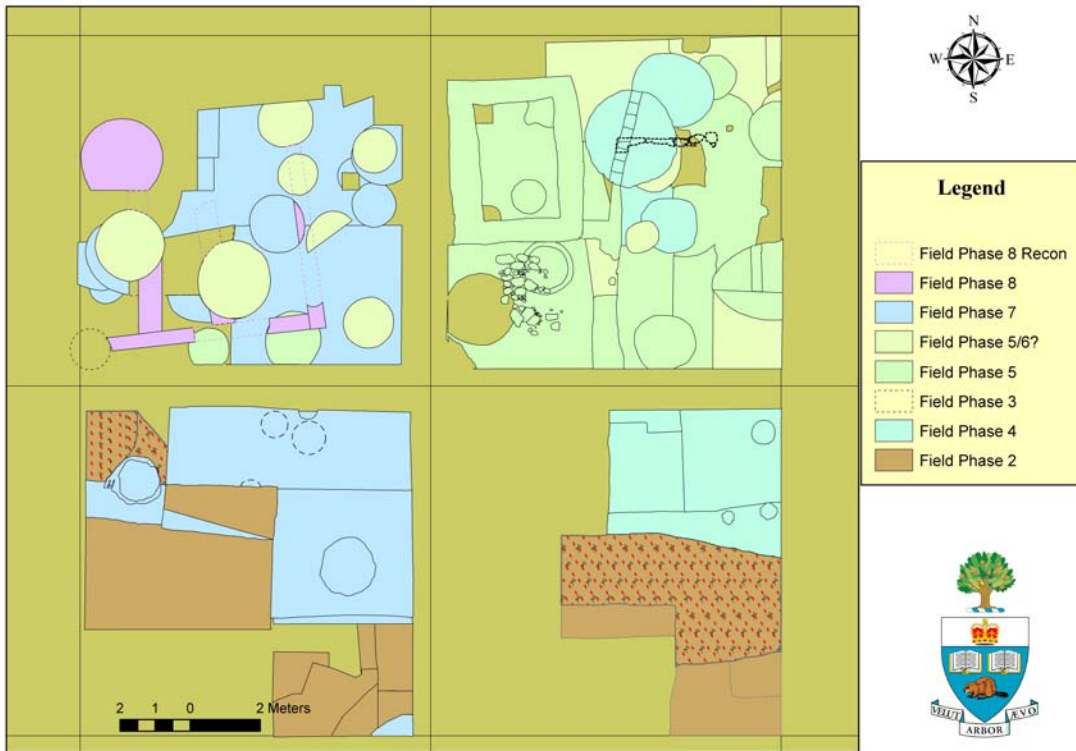


Figure 2

## Tell Ta'yinat 2007: Area G4 Squares 55



Figure 3



Figure 4

# Tell Ta'yinat 2007: Area G4 Square 65

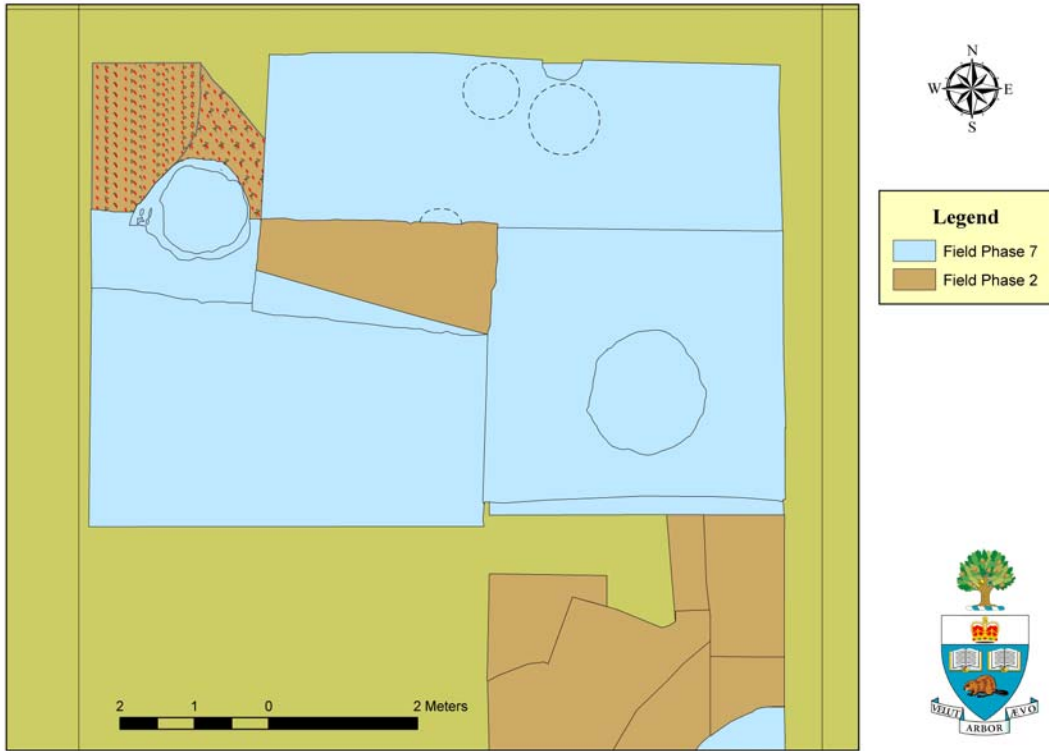


Figure 5



Figure 6



Figure 7

### Tell Ta'yinat 2007: Area G4 Square 66

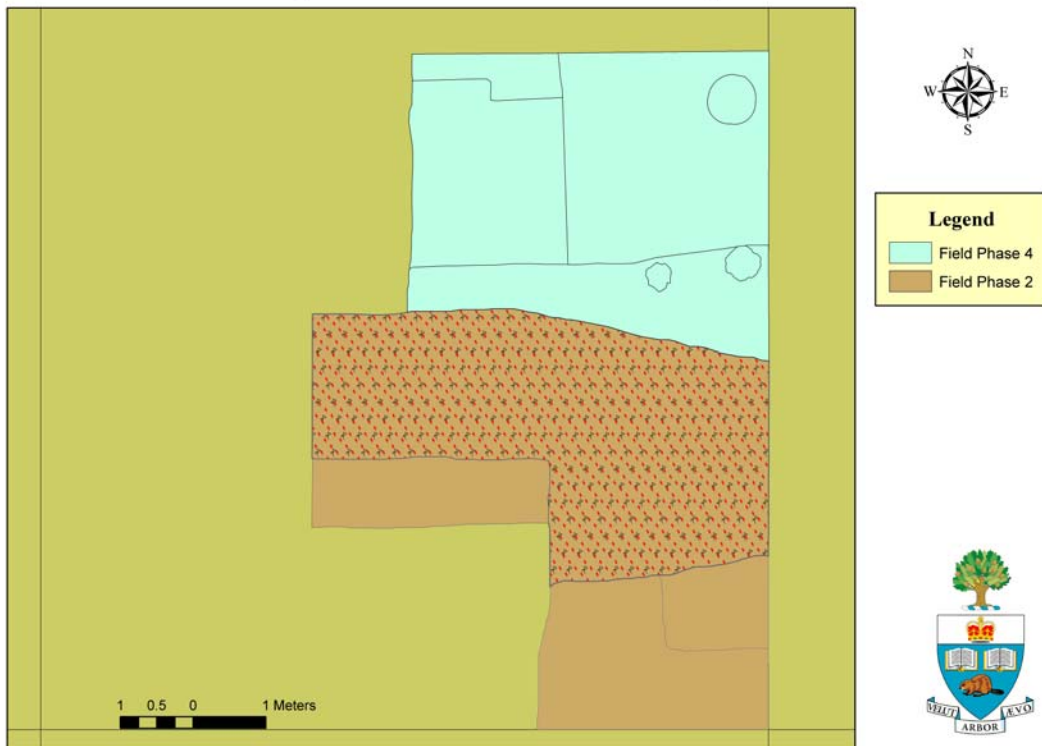


Figure 8

# Tell Tayinat 2007: Field II

## Late Iron I/ Early Iron II (Building XIV)

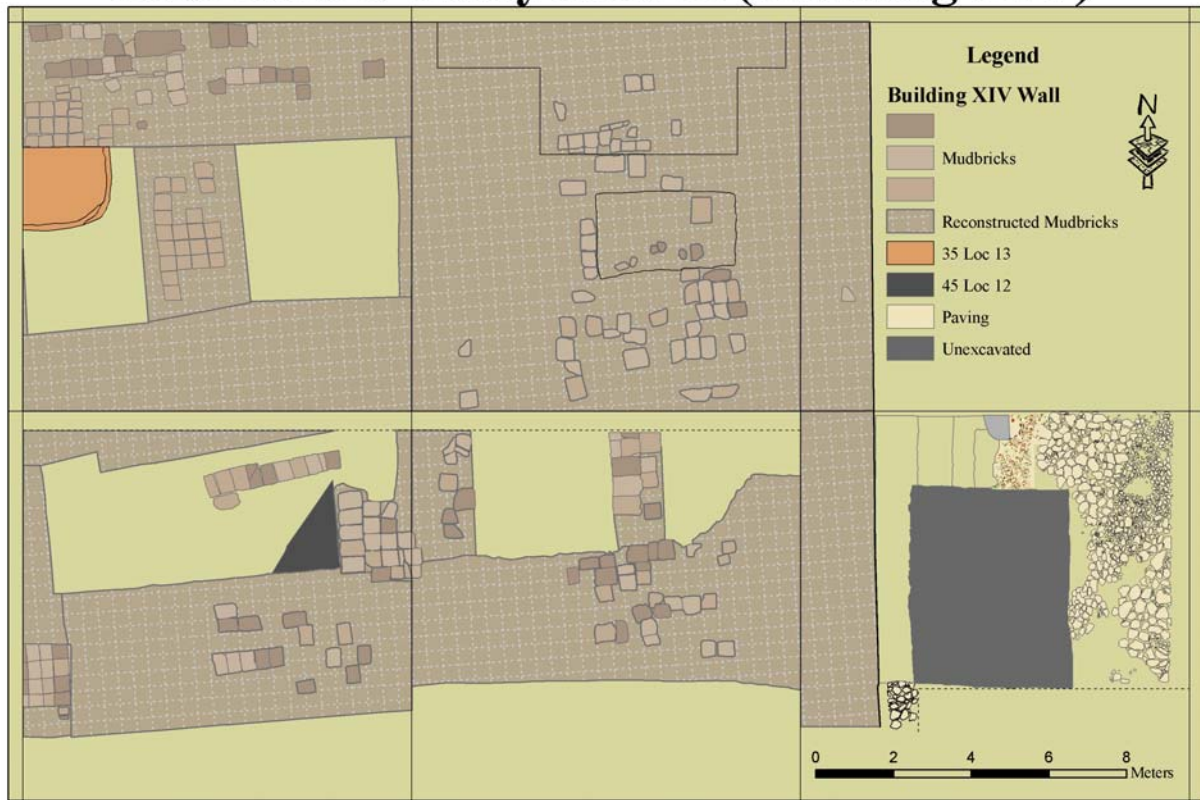


Figure 9



Figure 10



Figure 11



Figure 12



# Tell Tayinat 2007: Field II G4:47 Late Iron I/ Early Iron II (Building XIV)

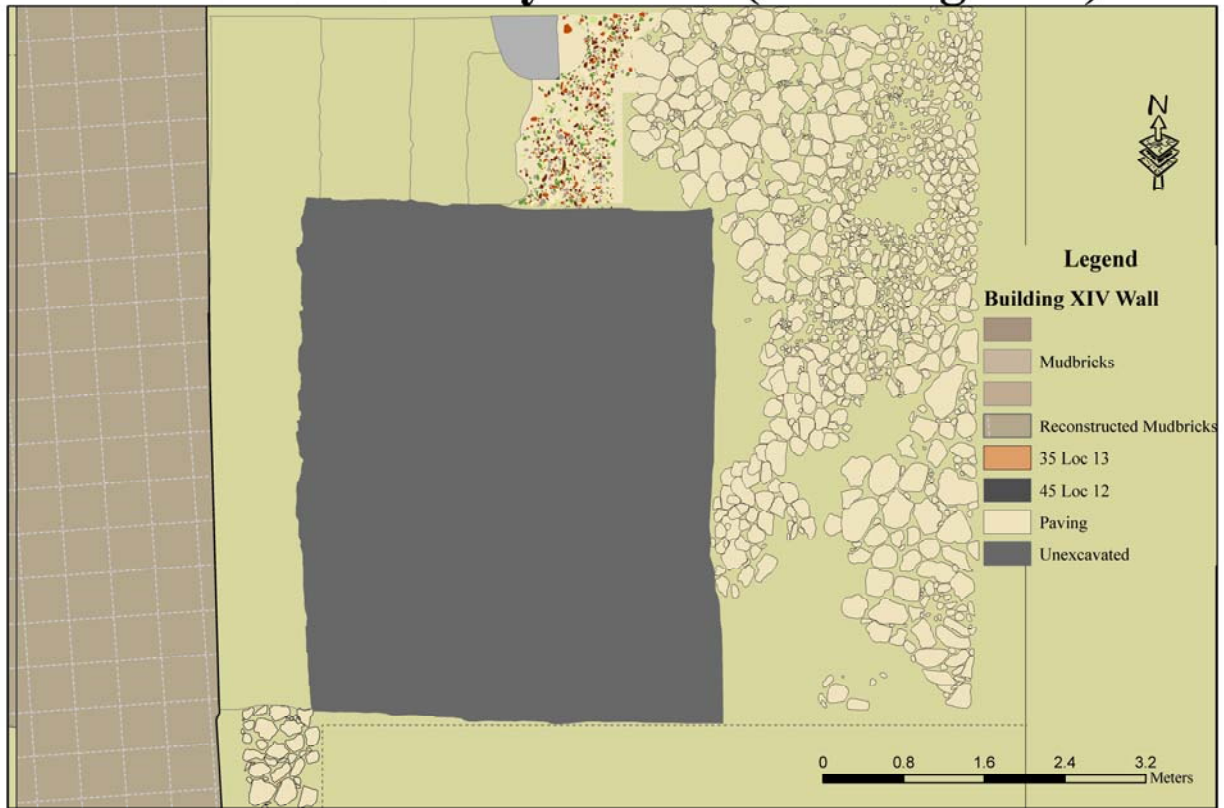


Figure 13



Figure 14

# Tell Ta'yinat 2007: Area G3 Square 34



Figure 15