

Excavations at Tell Timai 2010
University of Hawaii
Season 2 May 20 to 14 July 2010

Directors Professor Robert Littman, littman@hawaii.edu
Dr. Jay Silverstein, drjsilverstein@gmail.com
Dr. Nicholas Hudson
Dr. Joshua Trampier

Summary

An archaeological team sponsored by the University of Hawaii led by Professor Robert Littman and Dr. Jay Silverstein conducted, geophysical survey, auger coring, excavations and mapping between May 20 to 14 July 2010. The geophysical survey focused on identifying areas associated with monumental ruins found in the canal on the south edge of the tell in 2009, investigating a possible cemetery area to the southwest, and locating the ancient harbor of Thmuis. A program of auger coring was conducted in the surrounding area of the tell to search for paleochannels of the Mendesian Branch of the Nile. Excavations and mapping focused on phasing the limestone temple in the north, investigating the architectural features revealed by magnetometer survey in the north, to the east of the temple, continuing the cleaning and mapping of the north kiln area excavations, and mapping exposed architecture east of the kiln area and in the area south of the modern cemetery on the west edge of the tell. Some mapping and cleaning was also conducted south of the modern cemetery on the west side of the tell.

Results from the 2010 season include indications of two paleochannels of the Mendesian Branch of the Nile, possible evidence of a harbor inlet on the north portion of the tell, phasing and dating of the kiln complex, north temple platform, and the structures located just south of the possible harbor, and structural and topographic mapping across the northern portion of the tell.

Excavation units are denoted by their position on the 50 m alpha-numeric grid zone that was established in the 2007 survey and by the unit number within that grid (in the case where a unit falls between two or more grids, the grid identification for the unit is based on the 50m grid unit in which the southwest corner of the unit falls). Figure 1 illustrates the site grid system and the magnetometry data results in the north section of the tell and the associated excavations. Specific results of the 2010 season follow.

Geophysical Survey and Auger Sampling

Beginning in May 2010, Dr. Tomasz Herbich conducted a geophysical magnetometer survey of several section of the tell including the southern Grid U22, the southeastern Grid A20, and the suspected harbor area, N6-N7. Only the harbor area survey proved fruitful, revealing extensive buried mudbrick architecture and a possible harbor entrance over an area of approximately 5000 sq.m (Figure 2). Based on the results of the geophysical survey, excavations were conducted to explore and date the hidden architecture.

The harbor study was complemented by the search for the paleochannels of the Mendesian branch of the Nile with a total of 21 auger core samples used to search for geomorphological signatures of ancient waterways. The presence of soils and sands consistent with relict channels suggests two areas for further study (Figure 3). Drill coring operations were overseen by Veronica Morriss and Mohammed Abdulaziz Gabr. The aims of this research effort involve articulating the ancient channels of the Mendesian branch of the Nile in relation to Tell Timai's cultural history, and to evaluate how environmental shifts may relate to the settlement shift from Tell el-Rub'a to Tell Timai. Drill core locations around Tell Timai (Figure 3) were captured with the aid of a Garmin V handheld GPS unit capable of measuring

one's position on the Earth to an accuracy of ± 2 m. Core elevations were measured more precisely using a combination of the Leica laser total station and a Pentax dumpy level that captured this information to an accuracy of ± 2 cm. Working with a colleague from the Geology Department of Mansoura University, Dr. Adam Shehat, this project will integrate sedimentological and remote sensing information to investigate the paleo-environment of the region. Future transects will explore the presence or absence of natural or artificial channels to the south of Tell Timai and between Tell Timai and Tell el-Rub'a.

Site Survey Mapping

The goals of the survey were: (1) plotting the excavation units; (2) cleaning and mapping standing architecture in exposed areas planned for construction in Units P6 and P7; (3) mapping the locations and elevations in the auger drill cores; and (4) topographic survey to the west and northwest of the M6 temple platform area. Spatial information for excavation areas and mapping data were collected with Leica laser total station. Locations of excavation units were plotted, and in-situ objects and features that were particularly important to site phasing and interpretation were point-provenienced and mapped. In the P6 and P7 area multiple phases of architecture, including a large complex with a lime plaster floor bordered by mudbrick walls topped with red brick, a series of limestone and red brick platforms, and a cellular structure that appeared to be a grainery were mapped with the assistance of inspectorate of the Daqaliyeh taftish (Figure 4). In addition, a topographic survey was begun in the northern spur of Tell Timai around the periphery of the M6 to O6 depression, with points taken in roughly 5m intervals. In future seasons we hope to expand the topographic survey to cover the entire tell.

Mapping at Kiln Complex in O6 and O7

During the 2010 season, 8 open units in a kiln workshop area were cleaned and plan-mapped. The assigned unit numbers for this area are: O6-17, O6-18, O6-19, O6-20, O7-09, O7-10, O7-11 (Figure 5), and O7-12. A series of mudbrick walls and a high density of kilns were mapped and sampled. The kilns show differing construction styles and sizes perhaps indicating the changes in type or manufacturing over time. Data collected allow dating of the kiln complex and sequencing the phases of construction, leveling, and re-use of the manufacturing center. Intrusive mudbrick walls appear in many of the sections at the later phases.

M6 Temple Area

Work in area M6 continued investigations begun in 2009. The purpose of excavation in the 2010 season was to focus on the function of the limestone temple structure, to phase the construction, and develop an understanding of the relationship of the building with the surrounding architecture. Three units were opened in the area around the temple foundation. Excavation exposed a large platform that runs south and west beyond the limit of the unit from the southern edge of the temple. The hypothesis being considered was that the platform encircled the temple to the south, west and north. The architectural evidence indicates a construction sequence in which a leveled area and platform represent an earlier phase followed by the foundation cut and temple construction. Preliminary ceramic evidence from the leveled area and platform date construction to the Hellenistic period (323 BC-31 AD). Early indications are that the foundation cut was made and filled in 1st century AD suggesting a date for the construction of the temple in the Late Ptolemaic period. On the north side of the temple excavations revealed the construction cut for the temple that truncated an earlier mudbrick wall that runs north-south and appears to be an external wall, 3 courses in depth. It is abutted by a narrower (2 course) mudbrick wall running east-west. The function of this space was not established but likely was a room. Excavation demonstrated that the area was in use prior to the construction of the temple.

N6, Possible Harbor Area

Two 5x5 meter (N6-1 and N6-2) (Figure 6) and two 2x2 m soundings (N6-3 and N6-4) were excavated in Grid N6. The purpose of N6-1 was to find how the buildings located during the magnetometry survey articulated with the possible harbor to the north. Two rooms were found, one in the SE corner and the other extending out from the SW corner, running parallel on an east to west line. Behind the rooms on the north wall was a hallway running along the backside of the rooms. Further excavation in the SE corner showed earlier phases of mudbrick walls. A shell deposit was found in the hallway portion at an elevation of -0.51 m and a pottery fill in the NW corner at an elevation of -0.87m. N6-2 was opened adjacent to the western side of N6-1. The aim of opening this unit was to get a better look at the area immediately surrounding the harbor. The soil consisted of cemented clay with occasional inclusions of bone, shell, and ceramics. The western half of the unit consisted of sandy, clayey silt with moderate to frequent inclusions of ceramics, bone, and shell. A pottery fill covered the western half of the unit at an elevation of -0.92 m. After the removal of this pottery fill, the soil changed to a silty clay. N6-3 and N6-4 were opened to search for clues of a paleo waterline that might be associated with a harbor. As predicted by the magnetometry study, no architectural features were found and the artifact assemblage appears consistent with a shoreline midden deposit.

N7 Excavation Area

N7 consisted of three 5x5 m units focused on phasing the architecture revealed during the magnetometry survey. N7-1, N7-2, and N7-3 exposed three phases of construction, with preliminary results putting all phases in the Ptolemaic period. Within a few centimeters of the surface a redbrick well was found. East of the well was a large mudbrick wall that appears to be part of a large casemate foundation. After excavating further down a deposit with several artifacts such as the alabaster Taweret figurine (SCA#25) were found. The second phase of construction was earlier than the casemate structure and consisted of a large wall. The third phase of construction is earlier than both of the others. The phasing of N6-2 is less clear, though features included the corner of the casemate foundation, mixed cultural debris including Bes representation ceramics and faience figurines including a Hathor Sistrum and Harpocrates. In the SW corner a large collapse of mud brick indicates a substantial leveling of the area followed by successive rebuilds of the walls. In this mudbrick collapse there were large inclusions of burnt limestone including two inscribed blocks (SCA#31), one with a king and god and the other with a structure with a possible *nfr* sign. The earliest phase is represented by an oval structure that is defined by an area of burning and an increased amount of pottery in the deposit. In N6-3, on the west side of the well, mudbrick walls as seen in the magnetometry were revealed. The fill from this section included numerous Ptolemaic vessels and fragments of Bes plaques (SCA#33). Most objects here and in the well showed evidence of burning and the phase appears to be terminated with a leveling and fill following the burning. A ballistae stone was also found in the burn layer.

Ceramic Analysis

During the 2010 field season at Tell Timai a total of 1,963kg of pottery were processed from 18 trenches. The result of processing the pottery (i.e., sorting, identifying and registering), 335.5kg were saved as diagnostic pieces consisting of rim sherds, bases, handles, and diagnostically significant body sherds. In total, the diagnostic sherds comprise about 17% of all ceramic materials processed during the 2010 season. Of the saved pottery, 254 individual vessels (represented by a range of intact vessels, multiple sherds of a single vessels, or individual sherds) were inventoried for more detailed analysis. The selection of vessels for inventory was made based on one of several possible factors: 1) the vessel was an example of a particular type that would be desirable to demonstrate that it is found at Tell Timai; 2) the vessel was preserved to

such an extent (intact or near intact) and so provides a useful study example of the type; or 3) the vessel belonged to an important stratigraphic context. The last feature was by far the most common reason for selecting inventoried items.

RESULTS:

Area O (the kilns)

The earliest stratigraphic features exposed in Area O during the 2010 excavations may be associated with the initial construction and use of the kilns that define the area. Several features produced pottery that is distinctly different from all other excavated features that clearly date to the Hellenistic period. This pottery most likely belongs to the later phases of the Late Period, though detailed analysis will not occur until the 2011 excavation season. While the bulk of the early pottery is of local production, one piece of Attic Red Figure (TM10.0243, O-11-503) provides possible evidence of the earliest occupation/use of Area O. The Attic sherd, probably from a krater, is decorated in a style of Red Figure that dates to the mid-fourth century BC. The sherd preserves a portion of a wing belonging to a Nike, below which is the brow and wispy hair of a male figure with a diadem accented with a series of white dots.¹ The Attic import provides evidence suggesting that the kilns in Area O are pre-Ptolemaic.

Area N (destruction deposit)

Excavations in Grid N produced a well-defined deposit of pottery that included intact, whole, and near complete vessels. The deposit was found in Unit N7-3 and identified as Feature 257. Of the sixty-four vessels or sherds inventoried from feature 257, many were burnt to a degree that suggested the burning event resulted in their deposition in the archaeological record. For this reason, the deposit has been interpreted as a destruction deposit associated with a fire. Further excavation in Area N revealed an extension of the destruction deposit located within the brick-lined well located in the southeast section of N7-1. The uppermost fill of the well (Feature 519) yielded a high density of pottery within the fill matrix that included whole and well-preserved vessels. Like the vessels from Feature 257, the vessels from the well were all burnt, suggesting they were part of the same destruction event.

Two possibilities exist for the deposition of the vessels in the well: 1) the pots were dumped in the well after the destruction event in an effort to fill the well and put it out of commission; 2) the bowls, jars, and cooking vessels fell into the well during the destruction event. The possibility of the second scenario is strengthened by the recovery of whole vessels, broken into two or three large sherds, found together but with burning inside the breaks. This may indicate a continuation of the fire after the bowls reached their final resting place and broke. However, the deposit was recovered from the upper levels of the well, meaning the well was already filled with debris by the time the vessels entered their final context, presenting an argument for the first scenario.

The character of the destruction deposit recovered from Unit N7-3 and the well in N7-1 is domestic, consisting of table vessels, cooking vessels, household utility vessels, and storage vessels. While the general typological characteristics of the deposit fit well within the expected parameters of domestic Hellenistic period ceramic assemblages, the richness and diversity of the single destruction deposit provides new and detailed evidence for the Hellenistic ceramic history of the eastern Nile delta specifically and the Lower Egypt in general. With the exceptions of numbers 1-4, all table vessels are of local production, made

¹ Dating based on similar treatment of wings, decorated diadems, and wispy hair. See Moore 1997, nos. 524, 533, and 1666.

of local Nile Silt. It is probable that these vessels were produced at Tell Timai. The kilns excavated in Area O by the SCA and mapped by the University of Hawaii mission, may well have produced the bulk of the Tell Timai table vessels, but the absence of a ceramic waster dump makes positive identification so far impossible.

Dating evidence for the deposit points to the first half of the second century BC. This date is derived by comparative typological analysis with ceramic remains from other sites in the Delta region and the eastern Mediterranean in general. The types of vessels that provide dating evidence include table, cooking, and utility vessels.

Areas N and O

One of the most significant contributions of the ceramic field analysis of summer 2010 was linking the last domestic phase of Grid N with the cessation of industrial activities in Grid O. A single large rim fragment from a large storage jar found in O6-18, Feature 344 joins several large fragments of the same storage jar found in N7-1, Feature 238. Upon further examination of the two contexts it was determined that the two were very similar in composition, consisting of high quantities of locally produced Hellenistic table vessels (incurved rim bowls and thickened rim saucers) and Hellenistic cooking vessels (cook pots, stew pots, and casseroles). Though another join between the two features could not be identified, it was evident that there were non-joining fragments of the same vessels shared between the two. Examination of the stratigraphy in O6-18 revealed that feature 344 was a small section of a remaining lens left unexcavated from previous SCA excavations. The stratigraphy indicates that this lens should be associated with the fill that covered the kilns located in Area O. That the larger fragments of the storage jar that joins Areas N and O was found in Area N suggests that its primary context was in N7-1. Thus, it appears that material from Area N was used to cover the kilns, putting them out of use. Our working hypothesis is that the destruction event that produced the destruction deposit in Area N7-3 and 1 led to a leveling of the damaged/destroyed domestic structures in the Area N. The structures, along with their contents were leveled off and much of the debris was used to cover the kilns located in Area O, ending the industrial use of the area. This clearance may well be connected to the construction of the mudbrick platform in Area M, the predecessor to the limestone platform built at the end of the Ptolemaic period. If this is the case, it is possible that the destruction event heralds a transformation of this portion of Hellenistic Tell Timai from an industrial (Area O) and domestic zone (area N) to a larger public space that leveled over the houses and covered up the industrial kilns, marked by the construction of a monumental mudbrick platform.

Area M (the limestone platform)

The 2010 excavations in Area M produced dating evidence for the construction of the limestone platform exposed in 2009. While no ceramic remains from sealed contexts associated with the construction of the platform provide clear, absolute dating evidence, much of what was recovered has characteristics that can be qualified as Late Hellenistic/Early Roman. Feature M6-6-282, a foundation trench for the platform, produced a plainware bowl (fig.8.1), an Aswan ware jug base (fig.8.2), and a white-slipped jar (fig.8.3). The plainware bowl (fig.8.1) does not follow typical Hellenistic forms, but is reminiscent of standard Late Hellenistic/Early Roman productions, especially in the eastern sigillata tradition. The rounded, thickened rim is similar to Eastern Sigillata A (ESA) *Atlante* form 12 (ca. 40 BC-AD 10) and to Cypriot Sigillata *Atlante* form 10 (generally 1st century AD).²

² ESA *Atlante* form 12 (Hayes 1985: 20, Tav.II.10); Cypriot Sigillata *Atlante* form 10 (Hayes 1985: 82, Tav.19.1).

Excavations from the 2009 season that exposed the limestone platform yielded sealed contexts from the packing material within the casemates of the structure. While little ceramic material was recovered, two pieces are identified as probable late 1st century BC types. A small rim sherd of a semi-fine ware small bowl (fig.8.4) is reminiscent of Early Roman ceramic forms from the Italian sigillata tradition.³ The fabric of the sherd from the casemate packing is not obviously Italian or of the general western sigillata tradition, but its production is not local, being of finer quality than the usual Nile silt productions in the Tell Timai region. However, its material characteristics are such that it may be a finer Egyptian imitation of the western form.

The other Late Hellenistic/Early Roman diagnostic sherd from the 2009 excavations of the limestone structure is an Amphore Égyptienne Bitronconique 3 – also referred to as Amphore Égyptienne 3, or AE 3 (fig.8.5) – which is generally dated no earlier than the late 1st century BC (the end of the Ptolemaic/beginning of the Roman periods).⁴ The presence of AE 3 within the casemate packing of the limestone platform in Area M provides dating evidence for the construction of the casemates of no earlier than the very end of the Ptolemaic period, or perhaps the beginning of the Roman period.

Preliminary phasing sequence for the University of Hawaii excavations 2009-2010

The dated contexts presented in this report provide the framework for a preliminary phasing sequence of activities in the areas excavated at Tell Timai by the University of Hawaii from 2009-2010. The sequence begins with the earliest recorded activities in the industrial zone in Area O, followed by the domestic occupation in Area N, then the clearance and covering up of both the industrial and domestic zones to make room for an open public space, and ending with the construction of a large limestone platform at the end of the Ptolemaic/beginning of the Roman period.

Phase	Date	Area	Narrative
Phase I	4 th -3 rd c. BC	Area O	Industrial installations built. <i>Terminus post quem</i> = mid-4 th c BC (Attic RF sherd)
Phase II	3 rd -mid-2 nd c. BC	Area N	Domestic occupation. Earliest materials associated with domestic spaces include Gnathian Kantharoi of the mid-3 rd century BC.
Phase III	mid-2 nd c. BC	Area N	Destruction of domestic area and covering up of industrial zone. Destruction deposit provides dating evidence and material evidence for activities at the end of Phase II.
Phase IV	Late 1 st c BC	Area M	Construction of the limestone platform.

³ The form is similar to Haltern 7 (ca. 20 BC-AD15/20).
⁴ This type of amphora is also called an Amphore Égyptienne 3 (AE3). See Empereur and Picon 1998, 77.

ITEMS CATALOGED AT TAFTISH

SCA#	Material	Provenience	Description	Dimensions	Period	Condition
25	Alabaster	N7-1-236	Taweret figurine	H=82.5mm W=30.9mm Base=17.3mm	Ptolemaic	Excellent
26	Ceramic	N7-1-238	Echinus Cup	H=51.9mm D=107.4mm	Ptolemaic	Very Good
27	Ceramic	W17 Surface	Plainware Bowl, Fired Grey	H=54.4mm D=131.0mm	Ptolemaic -Early Roman	Very Good
28	Terra Cotta	N7-2-268	Tanagra Figure of a Woman	H=77.6mm W=45.2mm	Ptolemaic	Upper half
29	Terra Cotta	N6-3-229	Tanagra Figure of a Woman	H=83.5mm W=36.6mm	Ptolemaic	Split
30	Terra Cotta	N7-3-246	Tanagra Figure of a Woman	H=61.3mm W=59.0mm	Ptolemaic	Face only
31	Limestone	N7-2-254	Carved limestone with ankh, from structure, 2 pieces	Ca. 120mm	Ptolemaic	2 fragments from unknown structure
32	Ceramic	N6-4-442	Figurine base with white slip	H=21.2mm W=57.2mm	Ptolemaic	Base only
33	Ceramic	N7-3-257	Bes figure plaque	H=126.4mm W=66.4mm	Ptolemaic	Upper body only
34	Ceramic	N6-3-229	Moulded flask with 2 faces	H=46.7mm W=68.9mm	Ptolemaic	Upper portion only
35	Terra Cotta	N6-4-446	Tanagra figure, woman	H=53.6mm W=37.1mm	Ptolemaic	Head only, worn
36	Faience	N7-2-268	Figurine, possible hathor	H=59.4mm W=28.7mm	Ptolemaic	Fair
37	Faience	N7-2-237	Figurine, Harpocrates, hand of Isis on head	H=14.0mm D=11.3mm	Ptolemaic	Head only, excellent
38	Faience	N6-1-201	Figurine, possible Bes	H=57.8mm W=34.1mm	Ptolemaic	Fair
39	Bone	N7-3-253	Spatula or awl	L=83.5mm W=9.9mm	Ptolemaic	Good
40	Ceramic	N6-1-218	Bead	D=23.0mm W=15.6mm	Ptolemaic	Good
41	Ceramic	O7-10-329	Bead	W=16.9mm D=18.9mm	Ptolemaic	Good
42	Ivory	C19-Surface	Flat bead	D=21.4mm W=4.3mm	Ptolemaic	Excellent

25



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31a



31b



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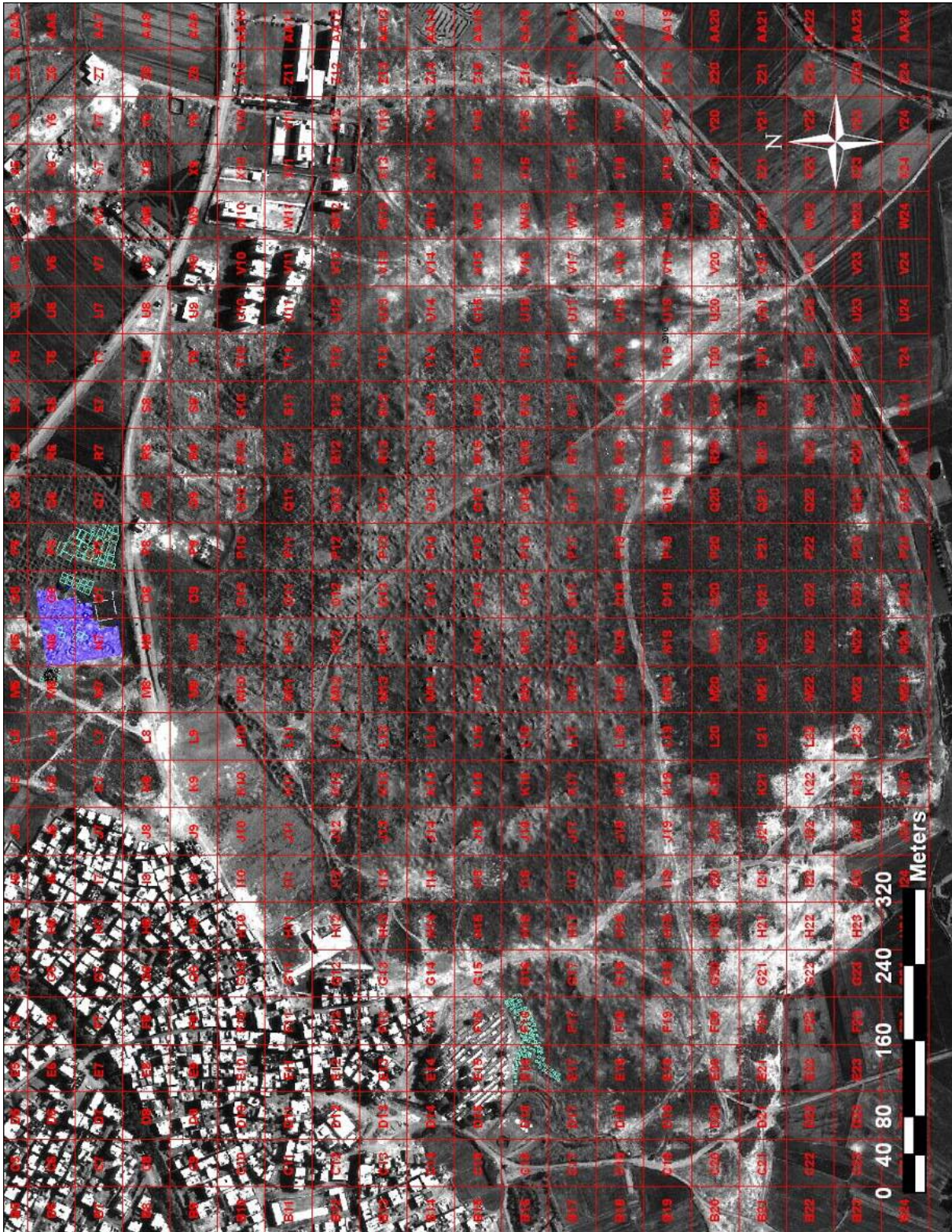


Figure 1. Map of Tell Timai showing 50 m grid primary area of work in 2010. Figure 2: Map of north area showing magnetometry data and units mapped and worked in 2010. Figure 3. Units N7-1, N7-2,N7-3 showing a well and mudbrick structures.

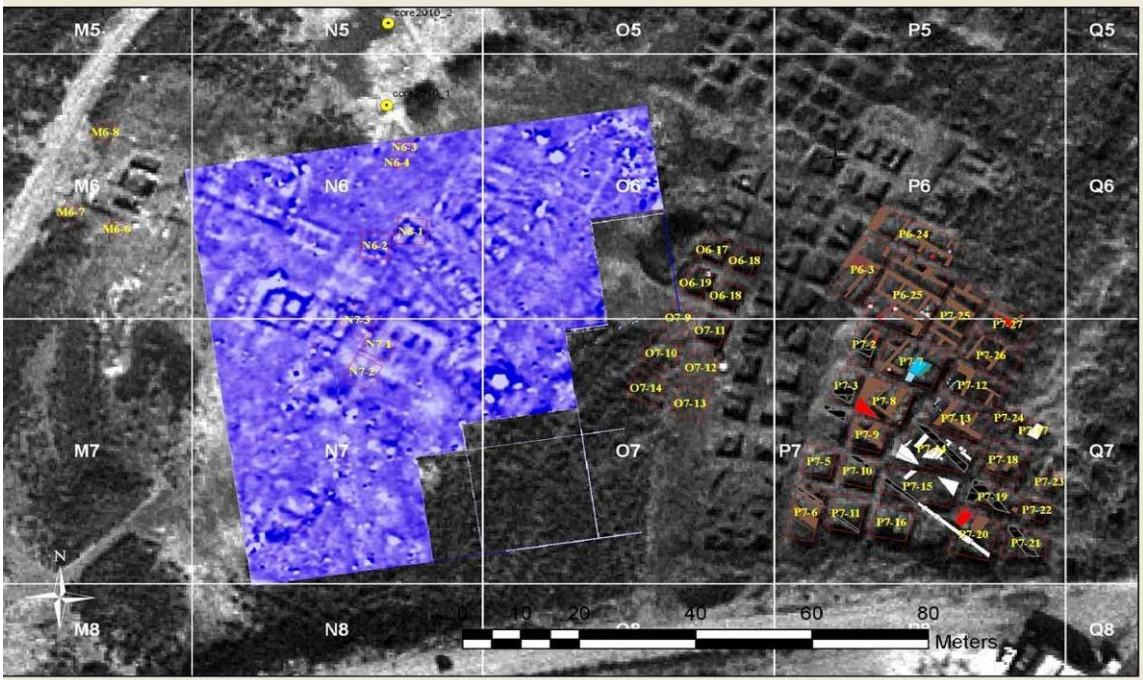


Figure 2. Map of north area of tell showing results of magnetometry geophysical survey.

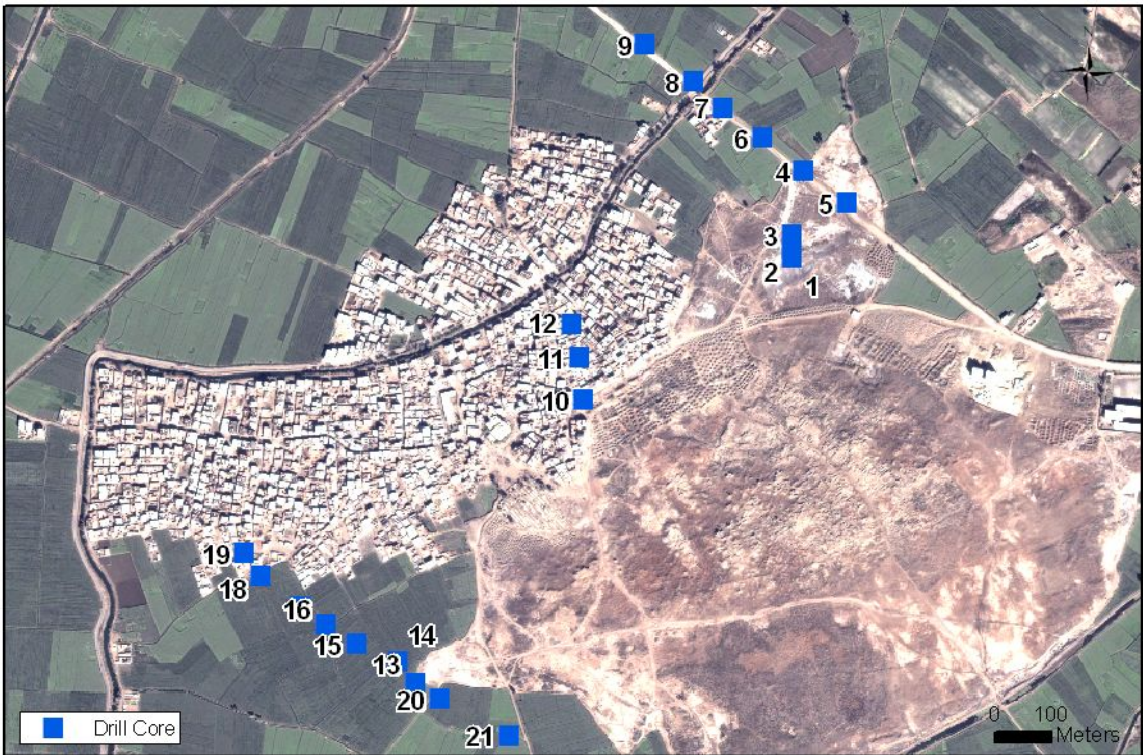


Figure 3. Locations of cores drilled in the 2010 season (map: J. Trampier)

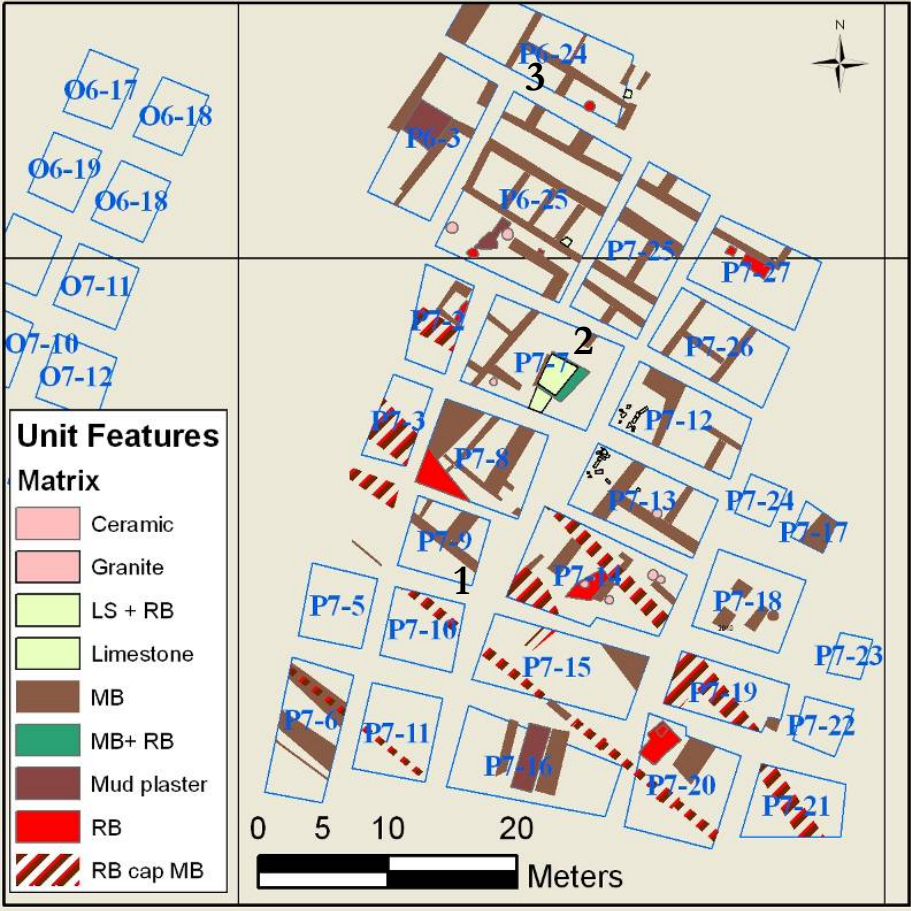


Figure 4. Features mapped in the P6 and P7 grid square areas.



Figure 5. Kilns in Unit O7-11.