

**Report for Season 2018
Excavations at Tell Timai
University of Hawaii
November 27, 2018 to January 1, 2019**



Directors:
Professor Robert Littman, University of Hawaii, littman@hawaii.edu
Professor Jay Silverstein, University of Tyumen j.silverstein@utmn.ru

Excavations at Tell Timai 2018

Introduction

An archaeological team sponsored by the University of Hawaii and led by Professor Robert Littman and Dr. Jay Silverstein conducted excavations from 2 June to 2 July 2015. The archaeological team consisted of 15 archaeologists from America, Egypt, Australia, and England. The archaeological study focused on three areas of interest: 1) the rescue archaeological zone in the north portion of the tell, 2) the temple complex and cemetery in the northwestern portion of the tell, and 3) the investigative work at Tell el Rub'a in preparation for construction of a magazine dedicated to Tell Timai artifacts.

The project is grateful to the Ministry of Antiquities (MOA) Inspectors led by Zeinab Mahmoud Soliman, Wessameldin Ramadan Ibrahim Ibrahim Ali, Marive Emad Wahba Zakhary, Asmaa Lattif Hussein and Director of Dakhaliya Sayed Eltahawy for their support and guidance throughout the work of the season. Conservators from the MOA Mohamed Mostafa and Mostafa Zahran assisted with the cleaning and conservation of artifacts.

Investigations

The Winter 2018 season focused on four areas of archaeological investigation at Tell Timai expanding on work from previous seasons in the north portion of the tell and the continuation of the area identified for construction of a Tell Timai magazine at Tell el Rub'a. The areas in the north consisted of:

1. Exploration of the large well feature previously opened during rescue archaeological work at Unit O6-31,
2. Expansion of the casemate towerhouse foundation in unit N7-13,
3. Expansion of the excavation of the Hellenistic house into Units N6-12 and N6-13,
4. Expansion of the exploration of the cemetery area at Units K7-
5. Continuation of the excavation at the Tell el Rub'a magazine at Units ME-1 through ME-

Spatial Controls

Unit Grids are based on the 2007 University of Hawaii 50m-grid system which uses alphabet characters west to east and numbered grids north to south. During the Tell Timai 2018 Winter Season, a Sokkia Set 3110, a Trimble total station and Pentax autolevels, and Emlid GPS were used to control unit elevations and conduct surface and unit feature mapping following the base datums established in previous seasons of work. Excavations were conducted by context—individual features were documented and sampled to establish form, function, history, and date



Map of the areas investigated (North Tell Timai right, El Rub'a left).

1) Well Excavation at Tell Timai Grid O6-31

Excavation Unit O6-31

Area Supervisor: Dr. Jay Silverstein, University of Tyumen

Archaeologists: Eileen Kerouant; Stacey Bagdi; Pierre Guirguis; Tony Schultz

The large well consists of a redbrick structure with two large limestone blocks protruding over the opening from the north face. The west side of the well has two columns of alternating toeholds that are formed as half-brick indentations with a limestone block set at the bottom of the indentation extending into the well. This appears to have served as the ancient maintenance ladder and as a means for measuring the water levels. The distance between the footholds in each column ranges from 86 to 98 cm, offset with the parallel column creating markers approximating one Hellenistic cubit of 46cm.



Because of long exposure and accumulation of debris and the inability to control vertical depth with any precisions since the feature quickly became saturated mud with top cover of water, the top layers were excavated with coarse control. Ceramics were collected to sample the typology of all features although the volume of ceramic sherds precluded complete analysis during the Winter 2018 season. After the fill layers, Arbitrary Levels were identified as features by the day of excavation with the average depth of a day's excavation being approximately 40cm. The well bottom was bisected with the east half left intact while the west-half was excavated. After approximately 4-meters of depth from the top of the well to the floor of the west portion of the well, half-meter sections were taken off of the east-half in an attempt to minimize the chance of wall collapse. At feature 6, the east wall sloughed off during the night creating a mixed fill. This mixed fill was treated as Feature 6 and removed until back to the original level of Feature 7.

The problem of refill through infiltration was minimal and each morning usually required the removal of less than 30 cm of water. This small amount of infiltration appears to be because of the solid brick lining of the well which allows only water to enter the well form the bottom. If the hydraulic function of the well was similar during it's use, it suggests that to maintain a flow of water it would require some mechanism to bring water in from below—most likely a channel leading to the Nile River.



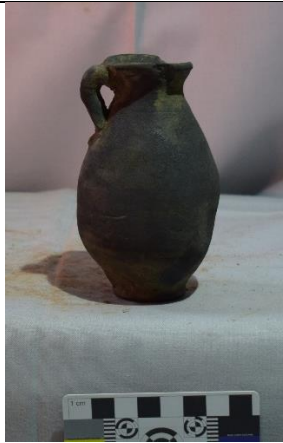
Beginning with Feature 10, at a depth of 6.17 m below the rim there was, an increasing number of whole vessels, the vast majority of them being utilitarian wares associated with water storage and serving. The exceptional preservation suggests they were the product of being dropped into the well while it was full of water minimizing the impact and breakage.

Feature 11, at approximately 6.6 m below the rim, marked a sharp increase in ritual vessels mostly consisting of miniature pitchers and perfume bottles, and conical cups believed to be used for libation offerings as well as a figurine.

 <p>Feature 11, Bag 271 miniature pitcher. Register Item 319.</p>	 <p>Feature 10, Bag 273, Register Item 355</p>	 <p>Feature 11, Bags 342, 317, 318. Register item 326.</p>
--	---	---

Excavation halted due to the end of the season at Feature 13, 6.8-7.3 m below the rim. At this point the step/measures in the east wall of the well ended suggesting that the feature is near the bottom. The proportion of ritual items continued increase and preliminary assessment suggests the number of imported vessels also increased. Architectural fragments and painted plaster on cement from a temple or tomb frieze were found in Feature 13. A rough probe suggests that the bottom of the well is approximately 8 m below the rim. The well was sealed at the end of the season to minimize the risk of injury or looting.

The ceramics appear to span the Ptolemaic era from the 3rd to 1st century BC., The temple fragments are consistent with other pieces of limestone frieze reused in other structures at Tell Timai that is tentatively dated to Ptolemy II.

 <p>Feature 11, B355, Bes Figurine. Register Object 362.</p>	 <p>Feature 13, Bag 419. Miniature bird effigy pitcher. Register Object 349.</p>	 <p>Feature 13, Bag 423. Miniature imported pitcher, Register Object 365.</p>
---	---	--



Feature 13, Bag 431, Star frieze fragment.
Register Object 408.



Excavation Unit N7-13 (5x10m)

Area Supervisor: Sarah Chandlee (Australia)

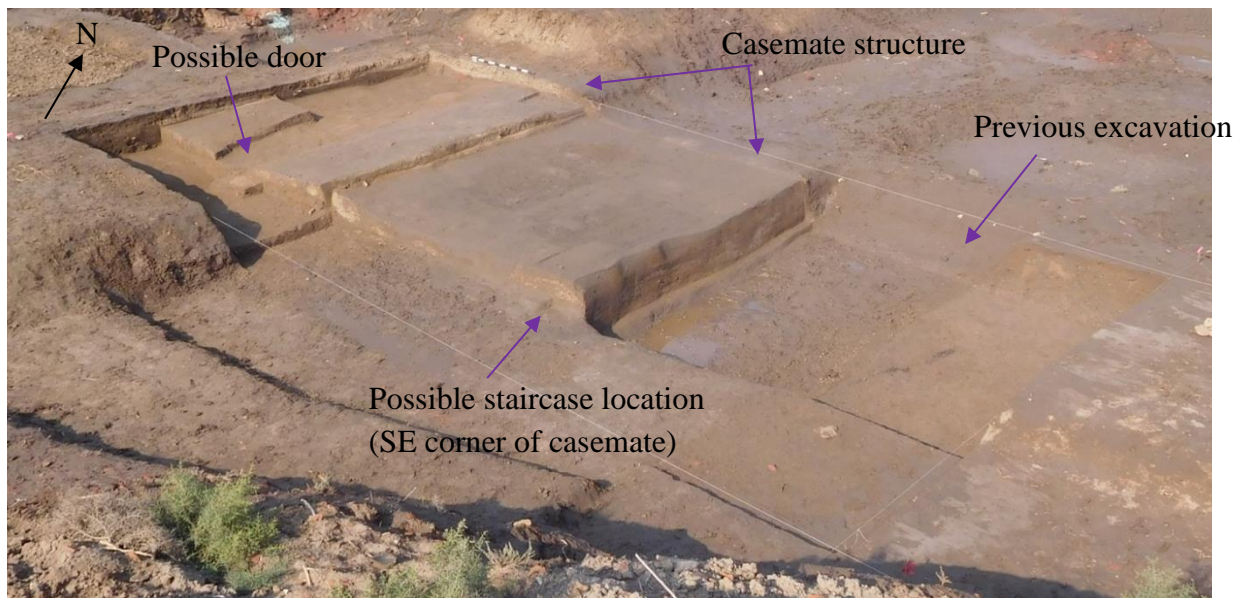
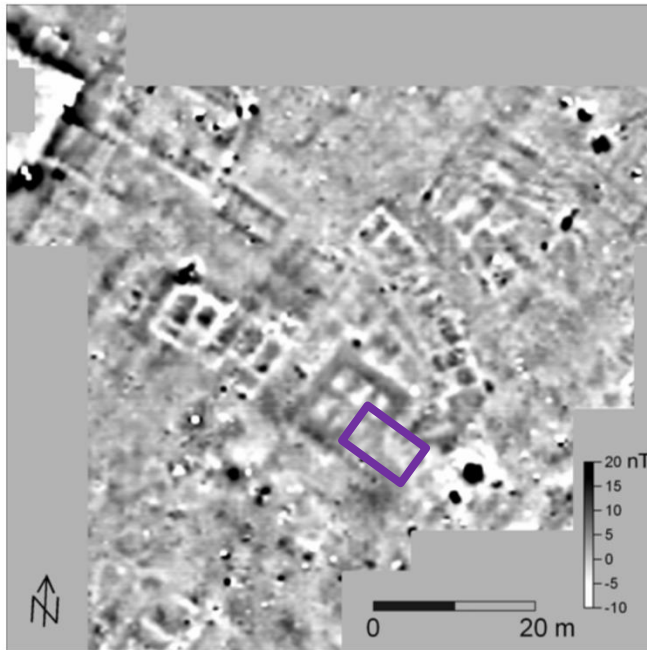
Archaeologists: Graham Rogers (USA) and Pierre Guirguis (Egypt)

This unit was opened to further investigate the casemate structure in the northern section of the Tell, a small part of which had been excavated in previous seasons (2010 and 2014). This building is clearly defined in the magnetometer data, with thick exterior walls and casemate fills (the location of N7-13 is outlined in purple in the magnetometer photo below). Buildings with casemate foundations have been constructed in Egypt since at least the 2nd Intermediate Period for large structures such as temples and guard posts, and starting in the Late Period, this construction style was commonly used for domestic architecture. Based on the ceramics analyzed from previous excavations of this structure (high concentration of Ptolemaic domestic wares), it is very likely that the magnetometer readings show the foundations of a tower house which commonly had casemate foundations and would be anywhere from 4 to 7 stories in height. Based on this, the specific aims of the 2018 season were to investigate the SE area of the casemate to see if there was any evidence or remains of the staircase for the building.¹

Features within the unit were defined by different levels, as a section of this unit had been previously excavated by the SCA. The northern part of the unit revealed the casemate building, showing several different levels of its construction: including a plaster floor laid on top of a mudbrick casing that covered the casemate fill and interior foundation walls. This has provided significant architectural details to illustrate the construction of this casemate structure. The casemate building measures approximately 11x11m, with exterior foundation walls were ~1.10m thick, and interior foundation walls were ~2.0m thick. Multiple measurements of mudbrick provided an average size of 32x18x11cm and bricks were laid in a header/stretcher pattern. A possible door location was found in the center of the structure on the south exterior wall. In the area marked in the photo below, no mudbricks were located in an area measuring ~0.8m and a fired brick was located alongside the mudbrick and could be the door lintel. Outside the south exterior wall of the casemate building, the excavation of several features revealed more mudbrick nicely laid extending outward from the structure. This could be a paved courtyard for the structure, either at the front or rear of the structure;

¹ Previous research of tower houses has shown that the staircase was almost always constructed in the SE or SW corner, the previous excavation units from 2010 and 2014 had already excavated the SW corner and found no evidence of a staircase or change in the casemate foundation.

ceramic analysis from this area of the unit showed high concentration of Ptolemaic domestic ware dating approximately to the 2nd century B.C.E. along with charcoal, burned cooking pottery, and animal bones.



During the excavation of the SE corner of the building, no remains of a staircase were found though this was expected at the beginning of the season knowing that beginning feature levels were starting at foundation levels for the structure. It did, however, reveal a different pattern of mudbrick coursing and casemate fill type of construction where the casemate fill is mixed with mudbrick. Structurally, the staircase is a concentrated load weight on the foundation of the structure and could, at times, have increased impact on the foundation with movement of individuals and other materials (e.g., building construction, furniture, household objects). The blend of casemate fill with mudbrick would not only provide a stable platform for a staircase, but also one that could handle increased

weight and movement when it occurred. Based on this, it is very likely that the interior staircase of the casemate building was located in the SE corner of the structure.



Additional excavations outside of the area with the casemate building revealed large amounts of charcoal, broken and burnt pottery, and charred bone. It is possible that this is additional evidence of the destruction levels at Thmouis. These levels could be excavated further as they are not yet at the water table. Also, in this area (E of the casemate), two stamped amphorae handles were found during excavation. Both are Rhodian, one with a rectangular stamp and the Greek letters: ΠΙΧΤΟΥ - and the second with a round stamp that included a partial lotus flower/rose and the Greek letters: ...ΧΟΛΓΑ. Further research of the second stamped handle has informed that the letters are stamped in retrograde (backwards) and is first five letters of the name: Aglochartos who's amphora stamps have been dated to 85-40 BCE.



2) Hellenistic buildings in the northwest portion of the Tell

Excavation Units N6-11 and N6-12
Area Supervisor: Mr. Hal Bonnette (USA)
Archaeologists: Ms. Rachel Lane (Australia)

Excavations in Units N6-11 and N6-12 were based on the results of a magnetometer survey in 2010 of the northwestern portion of Tell Timai. The survey showed a building that was excavated during the 2010, 2011, and 2013 seasons and proved to be Hellenistic (see Figure 1). The survey showed to this building's east a casemate building that was excavated during the 2010, 2014, and 2018 seasons and also proved to be Hellenistic, but later in the period. Following the survey further, another building appeared to be located west of the Hellenistic building. The purpose of excavating Units N6-11 and N6-12 was to investigate this building.

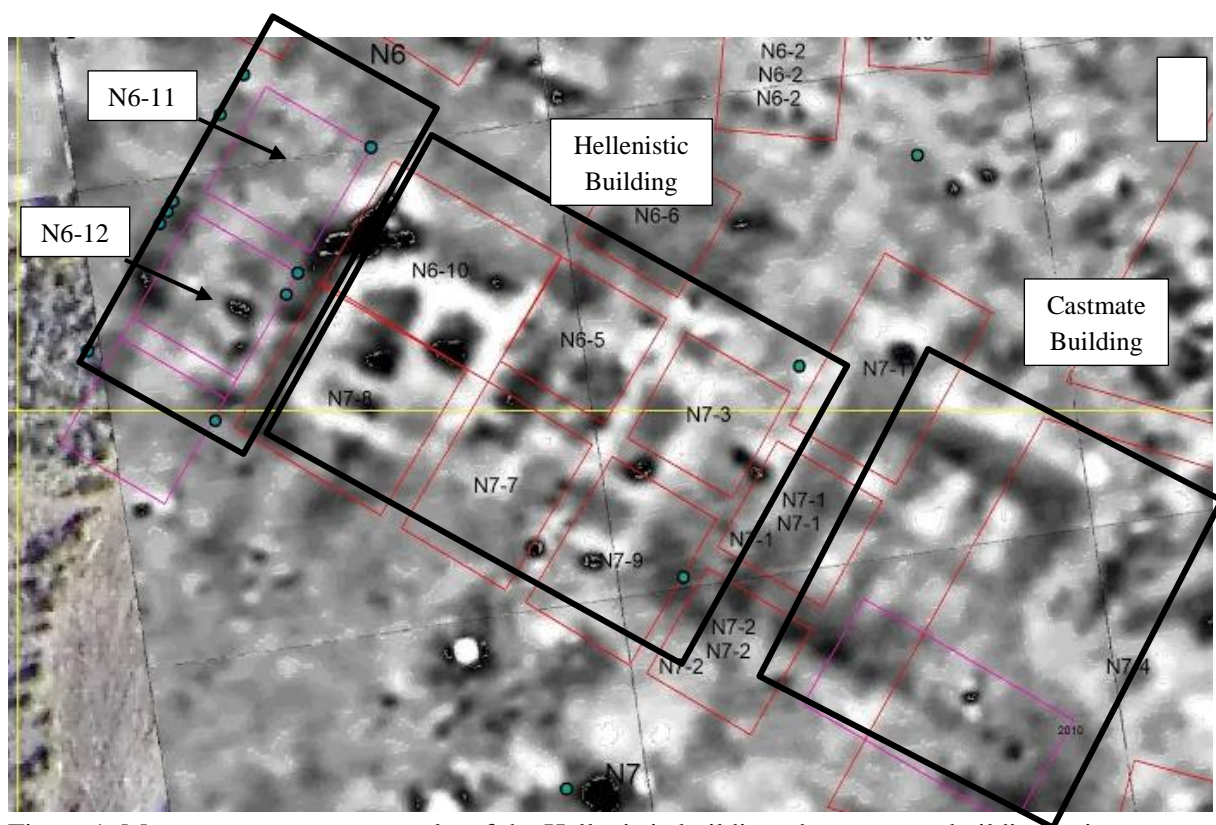


Figure 1. Magnetometer survey results of the Hellenistic building, the casemate building to its east, and the building that is subject of this report to its west.

Units N6-11 and N6-12 Combined

Units N6-11 and N6-12 (both 5x5 meters separated by a one-meter balk) contain portions of three buildings above each other.

Walls:

The highest (youngest) building portion is only a wall that runs through both units along their west balks and is shown in blue in Figure 2, below. The largest building is partially under the first building in unit N6-11 and consumes much of N6-12. This building is shown in orange in Figure 1. The two walls of the lowest building, and, presumably the first one built, are entirely in unit N6-11 and are shown in green. Feature 19 (F019) between the blue and orange buildings in N6-12 seems to be a passageway (e.g., a street) associated with the orange building.

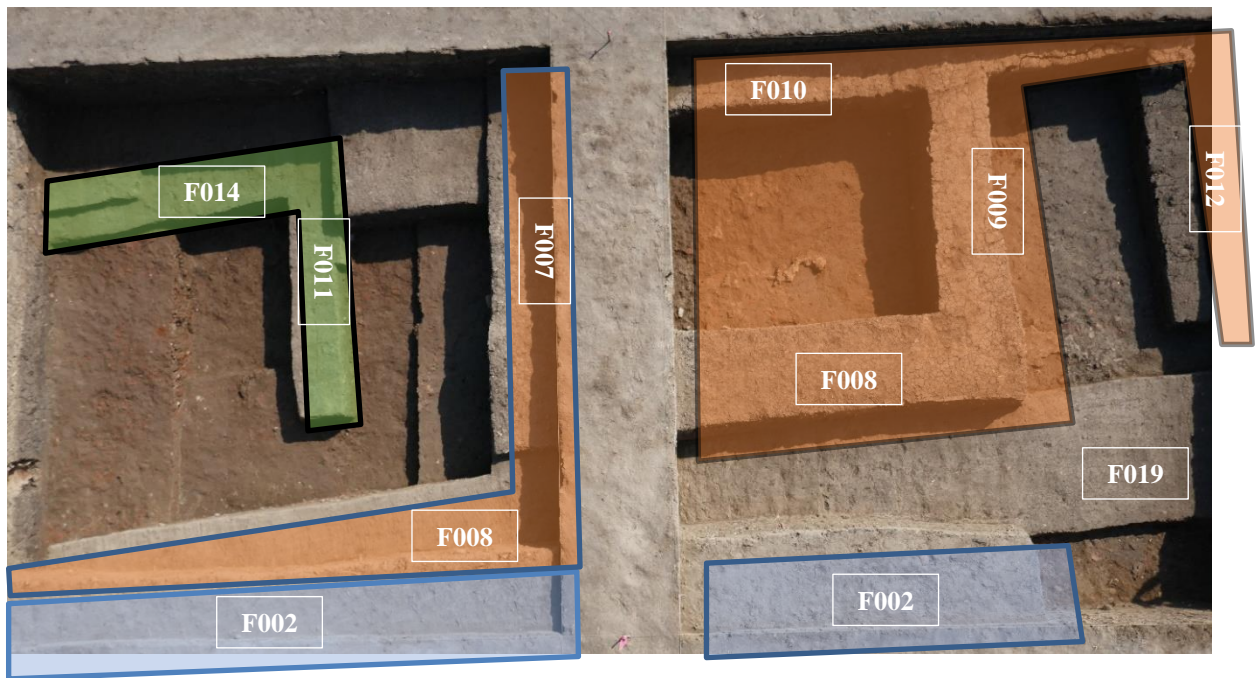


Figure 2. The three buildings color coded. Green is the lowest building with orange being the next highest and blue the highest. Unit N6-11 is on the left and N6-12 is on the right. The photograph faces east.

Floors:

Thick floors were uncovered that were associated with the orange and green buildings. Features 6 (F006) and 9 (F009) in unit N6-11 were floors north of the building, features 18 (F018) and 20 (F020) in unit N6-12 were a floor in the only room found in either unit, and feature 17 (F017) in unit N6-12 was a floor between the south wall of the room (F009) and the unconnected wall (F012). These floors were formed with a thick layer of pottery sherds covered with lime plaster (see Figure 3).



Figure 3. Floors in N6-12 associated with the orange building. Photograph faces east.

Features 12 (F012) and 13 (F013) are associated with the green building in unit N6-11. Feature 12, which is on the south side of the unit is composed similarly to the other floors in N6-12 with a thick layer of pottery sherds covered by lime plaster. However, the floor on the north side of the unit is composed of a thicker layer of pottery sherds with no plaster cover. The difference between the two could be explained if feature 12 is interior to the building and feature 13 is exterior.



Figure 4. Floors in N6-11 associated with the green building. Photograph faces south.

Dating:

An insufficient amount of pottery and figurines have been analyzed by season's end to date each building; however, the pottery analyzed to date indicates that the orange building, at least, dates to the Ptolemaic period. The clearest artifact for dating is a coin containing the profile of either Ptolemy V or VI; however, it was found in a fill layer (F005) in N6-11, which is above the orange building.

The Cemetery Complex in the Northern portion of the tell

Preliminary Report for Season 2018. Excavations in the Late Roman Cemetery. University of Hawaii
December 15th – December 25th

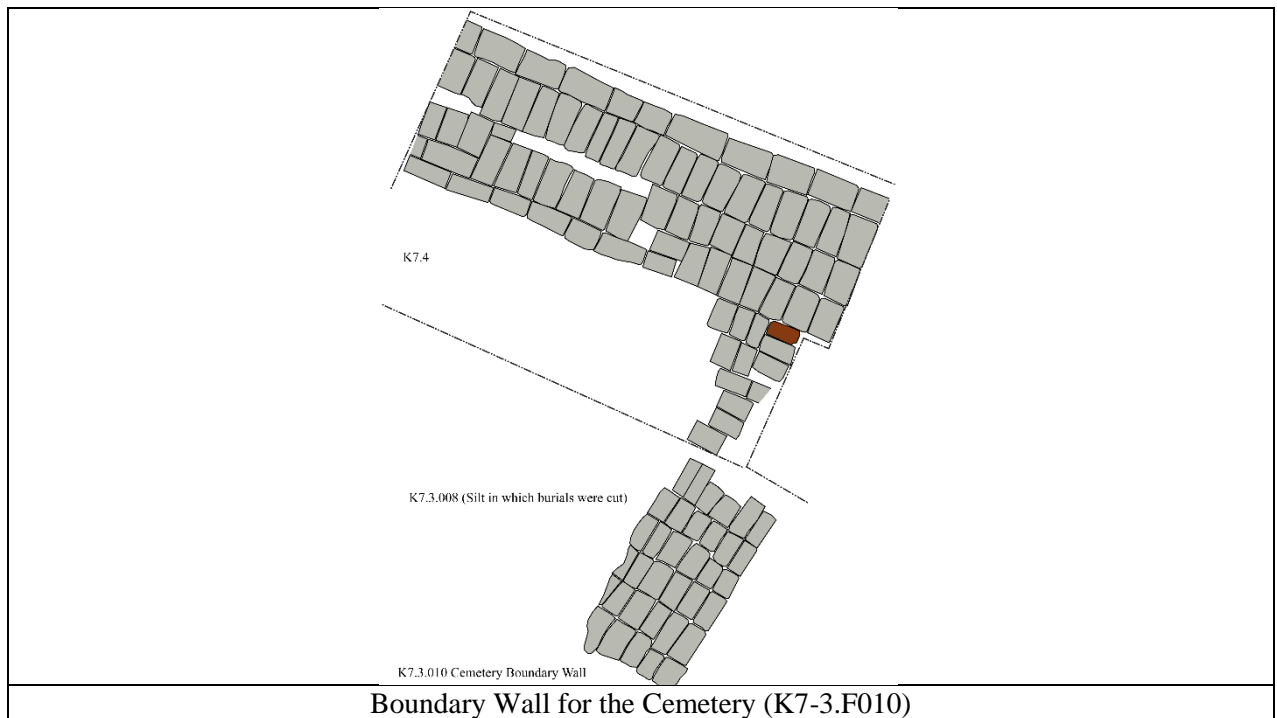
Area Supervisor: Dr. James Bennett

Osteoarchaeologist: Skylar Joseph

The surface features in both K7.03 and K7.04 consisted of a mixture of modern refuse and ceramics of a consistent date of the 5th – 6th Century CE. Directly beneath the surface feature was a mud brick wall (K7.3. F010).

Standing Architecture: Cemetery Enclosure Wall (K7.3.F010)

A mudbrick wall [K7.3.F010) enclosed the cemetery area on the eastern and northern sides and suggests that it formed an enclosure to the cemetery area.



The Burials

Three graves were cut directly into a clay/silt layer K7.3. F008 that built up against the boundary wall of the cemetery (K7.3.010). The graves had no evidence of a lining or any surface superstructure. There were no items directly associated with the burials, however ceramics distributed above the burials in K7.3.001 and K7.4.001 may have once been part of the original grave goods and consisted of Egyptian Amphora 3 Late Forms and Late Roman Amphora 4 Types and is consistent with a dating for the burials in the 5th Century CE. One of the burials was wrapped in a linen shroud, while the others showed small areas of organic remains which may have been the remains of shrouds. An earlier phase of cemetery usage (a single fragmentary body K7.3.F009) was identified directly beneath the three upper burials and suggests a continued usage of this area of the site for burials during the 4th and 5th Century CE.



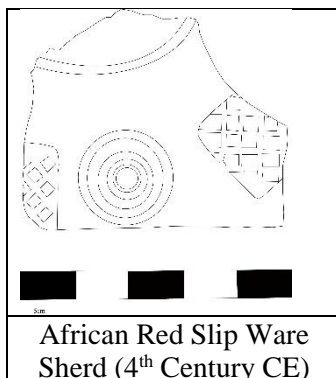
Burial with the body wrapped in a white linen shroud.

Ceramic Analysis and Stratigraphic Dating of Phases.

Ceramics were found primarily in the surface feature (K7.3. F001 and K7.4 F001). Within the diagnostic assemblages a consistent date of the 5th – 6th Century CE was identified, indicated by

several Egyptian Amphora 3 (Late Form) (5th – 7th Century CE), and Late Egyptian Amphora 4 (5th Century CE).

K7.3.008 had very few diagnostic sherds. A single fragment of stamped design African red slip ware dated F008 to the 4th Century CE and slightly later. This confirmed that the lower bodies were ca. a generation earlier than those buried in the upper burials.



Numismatic Analysis (Coin dating 613-618 CE).

Alongside several small Late Roman bronze coins, a Heraclius, 610-641 A.D. AE 12 Nummi (K7.3. F001. B.007), Alexandria Mint. No legend, Facing busts of Heraclius with short beard, on left and Heraclius Constantine, beardless, on right, each wearing chlamys and crown surmounted by a cross; long cross potent on 2 or 3 steps between them / small cross potent on globe above a solid pyramid shape, I to left, B to right; mintmark AΛEX. SB 857, DOC 193. (Heraclius, Dodecanummius, Alexandria, 613-18 CE, 7.15g, Sear-853, Berk-584, Hahn-200a, F+/VF). The coin had a mint date of 613-618 CE and therefore corresponds with the ceramic dating for the burials in the late 5th to 6th Century CE. .

Osteoarchaeological Analysis: Preliminary Conclusions
By A. Skylar Joseph.

Excavations in units K7-3 and K7-4 were conducted between Dec. 15th and 25th 2018, from which, a total of six distinct human skeletons in varying levels of preservation and completeness were recovered. All remains have been damaged through a combination of acidic soil erosion, plant growth through the bones, and termite infestation. The remains from K7-3 feature 003 consisted of a fragmented, yet articulated, partially complete skeleton in poor condition. The remains were determined to be female, between 27 to 49 years in age.

The remains from K7-3 feature 007 consisted of a fragmented, yet articulated, mostly complete skeleton in poor condition. The remains were fully covered in a burial shroud which was highly degraded due to the conditions of the soil. The remains were determined to be male, at least 30 years in age. Several posterior rib fragments and corresponding transverse processes of thoracic vertebrae showed signs of dislocation which improperly healed. Additionally, two rib body fragments showed signs of a fully healed fracture. The cervical and thoracic vertebral fragments also showed significant deformation due to osteophytic growth and compression due to micro-fractures likely associated with osteoporosis. The remains from K7-4 feature 003 consisted of a fragmented, yet articulated, mostly complete skeleton in poor condition. The remains were determined to be male, between 45 to 70 years in age. The remains from K7-4 feature 004 consisted of a fragmented, yet articulated, mostly complete skeleton in poor condition. The remains were determined to be male, between 36 to 59 years in age. A significant amount of osteoarthritic change is notable on the vertebral fragments. One of the lumbar vertebral fragments shows signs of a herniated disk. Another lumbar vertebral fragment is significantly deformed, possibly caused by the disk herniation event, or in response to other factors resulting in significant unilateral compression and osteophytic growth of the vertebral body. At least two rib fragments show signs of healed antemortem fractures. The left lower first molar displays three carious lesions, one of which appears to have become serious and likely became infected during the

individual's lifetime. The remains from K7-3 feature 009 consisted of a fragmented partial skeleton in poor condition. The remains were determined to be male, at least 16 years in age. The superior end of the right fibula shows signs of periostitis, which indicates an infection to that area of the leg. The remains from K7-3 feature 001 consist of a single juvenile scapular fragment. Measurements of the glenoid fossa indicate an age of 3.4 to 5.1 years



Preliminary Conclusions

The north west of the tell was reutilised in the Late Roman period as a burial ground, utilizing the previous monumental mudbrick architecture to create a discrete area of burials. The burials were cut directly into the silty clay, and evidence shows the area was utilised as a burial ground earlier. The burials are dated based on ceramic, numismatic data to the 5th and early 6th Century CE.

3) Investigative work at Tell el Rub'a in preparation for the construction of a magazine dedicated to Tell Timai: Continued from 2015

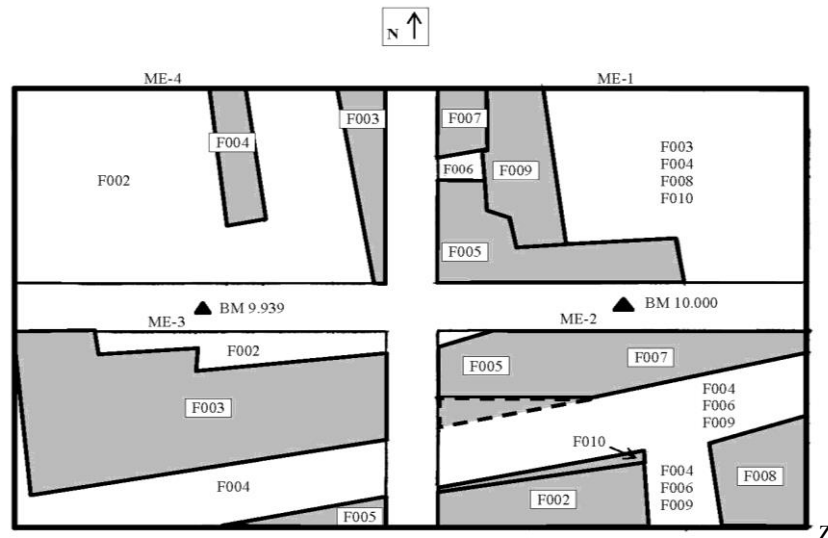
Area Supervisor: Colleen Westmor

Archaeologists: Tony Schultz

Chad Mohammed Booth

Graham Rogers

A 9 x 15 m area, previously excavated in 2015, was reopened this season to continue exploring the area set by the ministry for construction of the Tell Timai Project's new magazine. Due to the amount of time that had passed between the two seasons, several days were spent removing the large amounts of vegetation and backfill from the original four 4 x 7 m units. Our goals were to remove the one meter baulks from between the four units in order to investigate how the mudbrick features related to each other, to take advantage of the lower water table and continue to dig down further in ME-1 and ME-2, and to better understand the structure that began to emerge at the end of the season in ME-4.



End of 2015 season/start of 2018 season

After cleaning the four units, we began to remove the baulks. The baulks were added into the units, the East baulk to ME-1, the South baulk to ME-4, and both the West and North baulks considered part of ME-4. When possible, the baulks were removed feature by feature to help control both the context of the finds and the interpretation of the features that were extended into the baulks. During this process it was determined how the features between units related to each other and which mudbrick features were standing walls versus collapse.

We continued excavating the fill deposit of ME-1 as F013 which was fill with limited artifacts. The materials found here were mostly small pottery fragments and one broken faience amulet. The shell and ceramic from this fill date to the Late Period and Ptolemaic Period. This feature was closed when a plastic whiskey bottle cap was uncovered indicating it had been previously excavated sometime in the last century. Excavation in this unit stopped upon this discovery so more focus could be placed on the passageway of ME-2 and ME-3 and on the structure emerging in ME-4.

Due to time constraints, excavations in the passageway of ME-2 and ME-3 were focused primarily in ME-2, continuing the work done in 2015. Though this area contained more cultural inclusions than ME-1, this soil deposit seems to be a secondary fill dating to the Ptolemaic Period, possibly a natural rubbish deposit built up over time or a leveling layer. This area was outside of the two identified structures and contained worn fragments of ceramic vessels, shells, bones, stone, faience, and mudbrick tumble.

The Northwest portion of area revealed the corner of a mudbrick, Late Period structure primarily in ME-4, this structure does extend into the other three units and most-likely extends to the North and West of the excavated area. The exposed area contains a series of mudbrick walls, a mudbrick staircase on the East, and four internal rooms. Based on the surviving number of steps in the staircase, its associated support, and the structures pattern of collapse, only the lower level of the structure survives. The rest of the building appears to have been truncated, levelled out and removed from the area. An earlier phase wall does also exist on the eastern edge of the structure was built on top of during construction of this Late Period building.

Three of the four rooms belonging to this Late Period building were partially excavated. Due to time constraints, only the layers of burn collapse were removed. The burn collapse in these rooms did end

on a level mud surface, except for room 2, had a section of plaster floor in the northeastern corner. As the bottoms of the walls have not yet been reached, it is unknown if this is the floor of a lower-level empty room, or a transition into a lower level of collapse without evidence of burning. All three excavated rooms contained a high number of complete and impressive finds including alabastrons on containing a gold seal and apparent cindered papyrus, clay seals used for documents, an alabaster lion, faience amulets, a faience necklace, bronze rings, scarabs, and an assemblage believed to be associated with metal work production including chains and rings consistent with boat fittings, a possible hub for a chariot wheel, iron knives and arrowheads, and anvil stones and a crucible. The collapse in these rooms were all undisturbed, except room 3. Room 3 was found to be cut into by modern construction. Much of the room was removed to install a brick and cement water line running northeast to southwest in the very corner of the unit.



Fused iron and bronze including a chariot hub, a large knife, and arrowheads.



Alabaster lion.



Faience necklace.



Clay Seal.



Faience pilgrim's flask, 26th Dynasty.



Clay Seal.

Work to be completed prior to beginning construction of the new Tell Timai magazine includes the excavation of the fourth room in ME4.