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# **Excavations at Tell Timai 2013**

## **University of Hawaii**

### **May 14 to July 12, 2013**



Directors:

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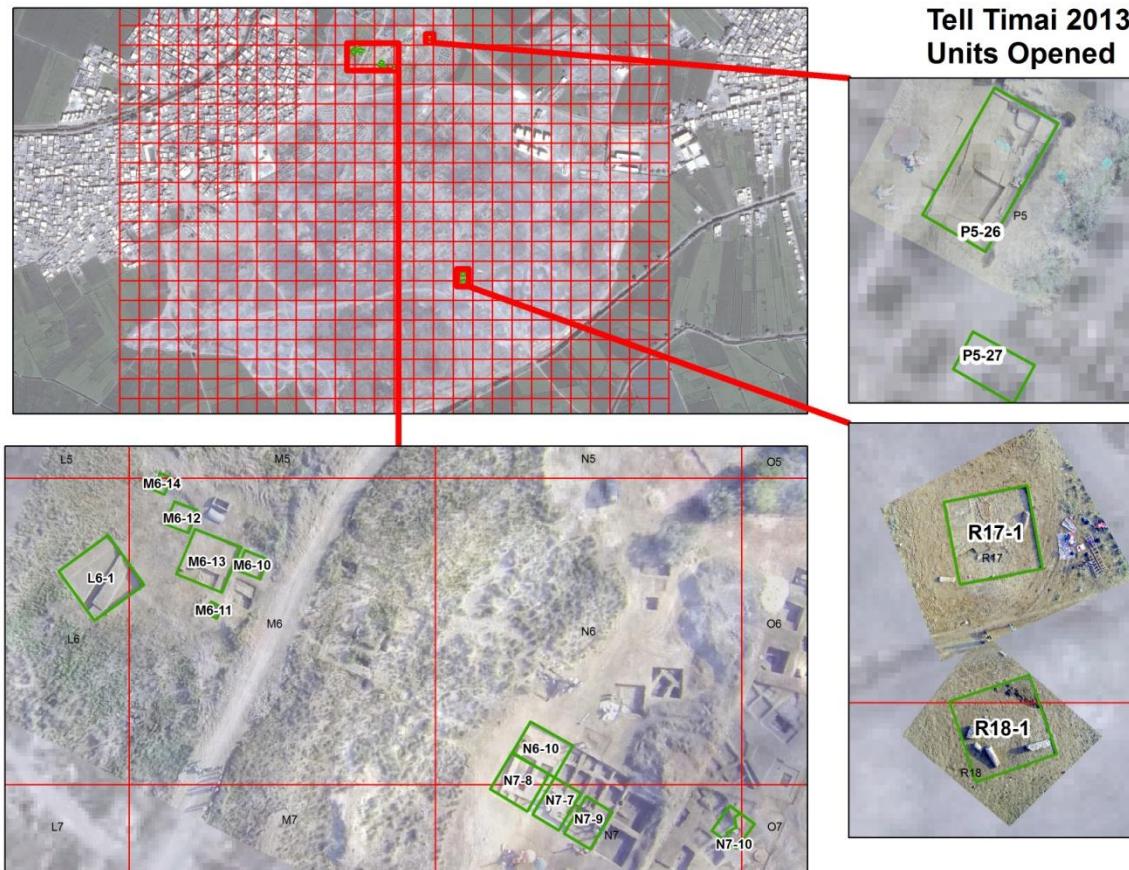
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An archaeological team sponsored by the University of Hawaii led by Professor Robert Littman, Dr. Jay Silverstein, Dr. Mohamed Kenaui conducted excavations from 14 May to 12 July 2013. The archaeological team consisted of 31 archaeologists and conservators from America, Egypt, Canada, France, Poland, Australia, Mexico, England, South Africa, and Italy. The archaeological study focused on excavations in central portions and the north area of Tell Timai and included features ranging from the Late Period to the Late Roman Period. During the 2013 season, approximately 20 Supreme Council of Antiquities inspectors and inspector trainees under the direction of Yasser el Gamal worked side-by-side with excavators under the direction of the University of Hawaii. This collaboration proved very successful and the University of Hawaii hopes to continue this joint-team approach into the future.

In 2007 the Tell Timai Project created a 50 meter grid system used to identify areas on the tell and excavation units are annotated by the 50 meter grid unit in which they are located. The Tell Timai Project worked in Grids P5, N6, N7, R13, R17, R18, and W14. Excavation units are given sequential numbers within the grid and features within the unit are appended (e.g. S13-1-F1308). In addition to excavation a magnetometry survey was conducted and a pilot program of consolidation of endangered mudbrick architecture was initiated. A Geophysical survey was conducted by Krzysztof Kiersnowski.



## **Map of the areas investigated.**

During the Tell Timai 2013 season a Sokkia Set 3110, a Trimble total station and Pentax autolevels 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. Conservators from the Supreme Council of Antiquities assisted with the cleaning and conservation of artifacts.

## **CONSERVATION ISSUES**

Several issues threaten the Tell Timai site and present an imminent and severe threat to the considerable wealth of historical and scientific data and the potential for developing the Tell Timai/Mendes archaeological area for touristic and educational purposes. The threats are:

1. Looting: Although looting damage has been reduced since the December 2012 season, possibly as a result of the recent arrest of looters on the site by local police, a large looter's pit that was approximately 8 meters deep was discovered on the tell. Small vandalism of site and excavations remains a problem.
2. Natural erosion of mudbrick architecture and undermining of walls by dogs.
3. Illegal Encroachment: There appears to be a continued expansion of the garbage dump on the site as well as use of the land for other dumping, agriculture and construction.
4. Stadium Construction Project: Five fedens of land have been undergoing intensive salvage excavation in preparation for construction in the northern portion of the tell. Preliminary results of SCA and University of Hawaii work indicate that this area is extremely rich in Hellenistic occupation including a destruction of this part of the city in approximately 185 BC. The destruction event, like catastrophes at Pompeii and Santorini, offers a unique archaeological event in which artifacts are largely left in place providing important opportunities for careful excavation to uncover:
  - a. Details of daily life,
  - b. *In situ* artifacts including museum quality objects. Recent discoveries of numerous important finds, for aesthetic, historical, and touristic value, including coin hoards, unique figurines, gold and silver objects, and exceptional collections of ceramics indicate the need for careful and much more complete excavation.
  - c. Details of an important historical event that affected the subsequent history of Egypt and the Mediterranean world.

Therefore, we recommend the following actions be considered by the Supreme Council of Antiquities:

1. The construction of the stadium on the northern portion of the tell be halted.
2. The Egyptian Government should propose to UNESCO that the Mendes/Timai archaeological area be recognized as a World Heritage Site.

3. Increased security should be instituted and construction of a protective wall and security watch post be constructed. The University of Hawaii project will work to obtain funding for construction of the wall.

### **BUILDING RESTORATION**

Marta Lorenzon, MA

A condition assessment was conducted during the 2013 season (June-July 2013) to analyze the physical condition of the site. The inspection consisted of an assessment of the condition of architecture including, the structural system, building materials, finishes, environment conditions, spatial relations of architecture, and decay processes. Consequently we developed a conservation plan to preserve the standing architecture that was at risk.

### Tell Timai 2013 - Areas for conservation (before)



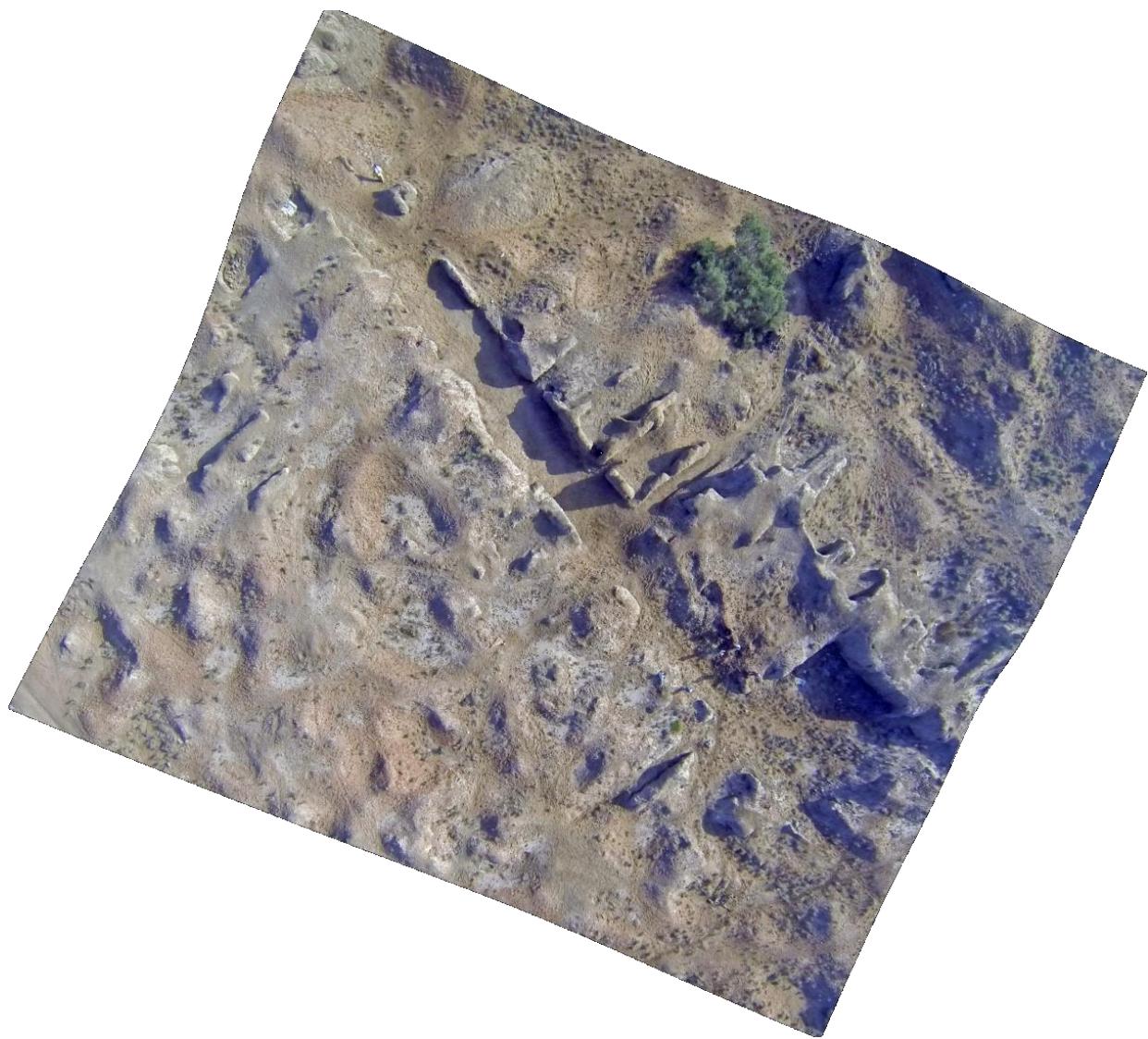
Maps of areas where wall consolidation was completed.

### Unit Q14

This report analyzes the condition of the mudbrick architecture in the units Q13, Q14 and R 14 (the SW corner of the unit is in Q14 so the reference grid unit used is Q14), officially known as Street #1 . The street includes a collection of structures on both sides, probably residential units, whose last phase dates to the Late Roman Period. The site is located in the central part of the tell and is one of the best-preserved areas of Thmuis. The preserved structures were likely built on building foundation dating back to the Hellenistic Period and the area is of particular relevance as a well preserved example of urban architecture in a Greaco-Roman settlement.

Three insulae flanked the street on the south, west and east sides where additional street systems expand east. The buildings have been all compromised by the deterioration and collapse of mudbricks. The condition of the street is quickly deteriorating due to a variety of issues. All the buildings are constructed of mudbricks. In the condition assessment three walls particularly stood out as they were in dire need of consolidation: Structure #1 (S1) Wall 1 (W1) and Wall 2 (W2), Structure #2 (S2) Wall 1 (W1) and structure #7(S7) Wall 1 (W1). These walls have been badly damaged and if not consolidated they would have collapsed in a short period of time.

The lower portions of the structures are constructed of mudbrick measuring 25 x 16 x 13 cm whereas the upper part of the standing structures have been built with bricks measuring 25x 12.5 x10 cm. Mainly the damage consists of erosion of the lower portion of the wall, undermining of walls by dogs, insect damage in the wall fabric and deterioration of mudbrick due to natural causes (wind). One of the standing walls (S1W2) has extensive damage due to wasp nests. This increases exponentially the dangers to the structure as the holes dug into the walls by the wasps have weakened the mudbrick structural integrity and the overall wall fabric. Crumbling mudbricks and mortar loss has affected the integrity of all the structures. This loss of material has led to the failure of larger parts of the walls in upper and lower portions.



**Aerial View of Street # (The orientation of the Street #1 is Northwest-Southeast).**

Additionally the condition of the buildings varies from one orientation to the next. Each orientation is subjected to different conditions of sunlight exposure, prevailing winds, capillary humidity and drainage. As the area is a complex urban structure, interior and exterior walls that face the same direction receive similar exposure to sunlight, winds and precipitation.

#### **Unit L14**

The analysis of the standing mudbrick buildings in unit L14 reveals the presence of a monumental public building, part of a more articulated complex which dates back to the Late Roman Period. The current structure may be built on a foundation dating back to the Hellenistic Period. Officially known as Building #1, it is the only remaining three-storey building present on the tell and has been undergoing a rapid decay due to both natural and animal erosion.

Building #1 is constructed of mudbrick with a wall thickness that can measure up to 5m. Crumbling of the bricks is clearly visible around the building and the mortar has deteriorated throughout the different façades, particularly to Wall #1 and Wall #3. This loss of material has led to the mudbrick failure along the lower portion of the walls and the highest part of the NE wall (Wall #1).

The standing portion of the architecture shows a two and possibly three storey building with multiple openings and a complex staircase system for access to the upper floors . This supposition has been made focusing on the actual preserved high of the building (12m), the mudbrick size on the lower and higher part of the walls, the walls' thickness, the presence of spiral staircases in the Southeast corner (Wall#4) and the beam holes.



**Overhead View of the Building #1 (The orientation of the Building #1 is North-South).**

The condition of the building varies depending on the orientation of individual walls. Given that the building has a complex plan and it is roofless, interior and exterior walls that face the same direction received similar exposure to deterioration agents.

For example, the east exterior wall and west interior wall show similar patterns of vegetation growth and rising damp, as a result of their similar exposure to sunlight, wind and precipitation. At the moment the exposure, vegetation growth and lack of protection are some of the main problems affecting Building #,1 alongside animal damage, which adds to the erosion of the higher parts of the walls.

## **Conservation Intervention**

In both areas the main issue was to preserve the structures for future excavation as well as to stop the rapid decay due to animal interaction and natural erosion of the walls. Four walls in Q14 and three in L14 have been badly damaged and if not consolidated they would have collapsed in a short period of time. To preserve this area we have used the following methods:

1) Reconstructing damaged parts of original mud-brick walls by using new mud-bricks to stop the spalling and to counteract the soil pressures. We made it clear where we had interfered using red oxide into the new mudbrick so their red colour differentiate them from the original archaeological data.

2) Creation of a retaining wall using identifiably new mud-bricks: as a result of the hot sun, wind, rain and animal disturbance some parts of the old walls had fallen down. An emergency plan was necessary to save the rest of them, especially those walls in direct contact with natural effects. New mudbrick walls were erected to preserve the old ones.

3) Consolidation by injection: Cracks and holes inside walls were injected with traditional mortar, either by using syringes or manually.

4) Plastering with traditional mortar: this method is the most used in preserving old mud buildings since ancient times. Plastering parts of original mud walls, especially deteriorated ones, and the new supporting walls, with a mixture of traditional mortar was used to improve and strengthen the original mortar. The shortcomings of this method, erecting supporting walls and using traditional plaster, is that it hides or distorts the original facades and decorative features. All the interventions are reversible and preserve the integrity and the authenticity of the walls.



**Q 14, Street #1 Before Intervention**



**Q 14, Street #1, After Intervention.**



**L14, Building #1, Before Intervention.**



**L14, Building #1, After Intervention.**

## **EXCAVATIONS**

### **EXCAVATIONS L6 AND M6**

James Bennett and Kelsey Kahlbaum

#### **Introduction**

Excavations were undertaken in the northwest of the Tell in grid squares (M-6 and L6) to the west of the area of a limestone platform and the Hellenistic structures of the northern depression and salvage area. A number of excavation units were opened to the west side of the main road through the north of the Tell to assess various anomalies identified in the magnetometry survey, topographical features, and data from two previous excavation units opened in the area. This preliminary report documents the findings and architecture of the structures found in the area.

#### **Reasons for the Excavations**

There were numerous reasons for conducting work in the northwest of the Tell; however, the primary one was to assess the possibility that the limestone platform to the east was a temple structure and that the front of the temple was located to the west. Previous excavations to the east of the platform had failed to find any buildings that could be associated with the limestone foundations and the structures were all of an earlier date than the Late Hellenistic/Early Roman date for the construction of the limestone foundation. However, in 2011 excavation unit M6-9 contained an area of limestone chippings which suggested evidence of a stone building that had been destroyed. Furthermore, an area of mudbrick architecture was found that was orientated to the west, in the direction of the limestone foundation. Surface survey in the northwest showed the area to be covered in a thick layer of mudbrick collapse and debris. A large grandiorite sarcophagus broken into several pieces in the area, reports of a sandstone sphinx that was reputedly found in this area, and a broken statue of Arsinoe II indicate that a substantial and important religious structure may have once stood in the area of the northwest of the Tell.



**Excavation of the limestone Late Hellenistic/ Early Roman foundations in 2009.**

## **Unit M6-10**

Excavations conducted in M6-10 were undertaken in order to assess whether the mudbrick feature in M6-9 continued to the north. This was confirmed and the bricks exposed in this unit maintained an east orientation in line with the limestone temple foundation. The mudbrick architecture filled the feature and excavation stopped to preserve the latest architectural features in the area.

## **Unit M6-11**

This 2x2 m sondage was opened to assess the stratigraphic depth of the deposits in the area. The top strata, like the rest of the area, was covered in a thick overburden of halfa grass, redeem, and modern refuse dumped from the surrounding villages. I was informed that this area was a preferred spot for the dumping of village rubbish and the area where they dump the dead animals from the village, while a number of modern bones were seen on the surface along with extensive medical, commercial and building debris. The level of the sondage was compared to the surrounding associated mudbrick architecture and it was found to be lying at a lower level than the associated structures. This indicated that the sebakheen had removed a large area of mudbrick in the south of the area. Furthermore, the ceramics were rough and worn small pieces that formed a fill context dated to the end of the Ptolemaic Period and the Early Roman Period, which is consistent for the constriction date of the limestone foundations to the east. The pit was also full of mudbrick collapse of both the sandy colour and darker mudbricks. The deposit went down almost 1.5m and was stopped as the 2x2 m trench was not deemed necessary to continue after the objective of identifying the fill chronology was achieved.

## **Unit M6-12**

Excavation at M6-12 was opened to investigate the area around the broken sarcophagus. The sarcophagus indicated that the pieces were arranged in a semi-circular fashion while the lid was a short distance away from the centre of the arrangement up onto a low rise. The tool marks on the exterior of top of the base indicated that it had been pried off with force and was probably not far from its original deposition, probably because the substantial weight of the sarcophagus prevented the pieces from being moved any significant distance. Approximately 4 meters west of the broken fragments, a previously unknown fragment of the base was found, and Unit M6-14 was placed over this 2m long fragment to assess its deposition. This fragment had the same tool marks on as the other base fragments; however, it lay on a deposit of broken mudbrick and modern rubbish. Reports of the sarcophagus do not appear in the academic literature until around 1940 when Alexander Lezine notes and draws the fragments; he does not mention the new fragment found this season. An article by Schott and Langsdorf in MDAIK (1930) who went to Timai and examined the north noticing the limestone foundations do not mention the sarcophagus. This may indicate that between 1930 and 1940 unrecorded digging took place in the northwest in which these monuments were found. In M6-12 a large expanse of mudbrick was found covering the entire unit. The bricks were all orientated to the east and oriented with the limestone foundations. They consisted of rows of sandy and dark mudbricks. They were articulated and digging stopped as to maintain and preserve the latest architectural features in the area. No indications of the original position of the sarcophagus were found in this unit.



**Reconstruction of the sarcophagus**



**Fragment of the sarcophagus**

### **Unit L6-1**

L6-1 was placed following a magnetometry anomaly which indicated the presence of a large architectural feature. Excavations revealed a large area of modern rubbish and mudbrickdebitage (F001) overlying a long wall running north south. However, due to the denuded nature of the mudbrick and the heavy damage from modern activity, part of the east-west continuation was inadvertently removed as part of Feature 001 and was only found in the baulk after the mudbrick had dried, and cracking appeared in the mortar lines, (refer to the SE-NE baulk drawing). The wall (F008) was shown at its minimum width of preservation to be about 2.2m wide. The wall on its western side exhibited crenellation which is typical of religious architecture on temple walls of the period from the New Kingdom onwards. This crenulation defined the western side as outside of the structure. To the west of the wall (F002) there was a large mass of collapsed mudbricks which were almost devoid of any archaeological material, apart from a few worn sherds of pottery. Feature 002 was stopped when pottery quantities increased and it was also noted that F002 had extended down past the wall base by approximately 10 cm. There was no foundation cut found for the wall, and no sand present which is common for foundations of temple walls. It appears at that this structure lacked foundation trenches and instead was founded on a very thick fill layer and build up on top of that. It was deemed necessary to conduct a sondage down against the side of the wall. This sondage (F005) comprised large amounts of pottery, including Late Period (4<sup>th</sup> Century B.C.) pottery which included globular jars and small perfume bottles. This fill probably extended underneath the wall (F008); however, the wall was retained and so this cannot be said for sure until the wall can be removed in a future season. The final deposit in the sondage was defined by a break in the pottery and then a sudden revival in the pottery quantities. This deposit had a Hellenistic character to it suggesting that the fill used for the construction of the wall was brought in from elsewhere and separate dumps of Late Period and Hellenistic ceramics were used to form the thick fill layers for the wall.

On the inside of the wall, F001 came down onto what was a very small piece of mudbrick (F003). It consisted of 3 bricks and may have formed part of the inner floor; however, so little remained that it is impossible to tell. The bricks were a different orientation than the wall and this could indicate that it was a separate architectural element. Underneath F003 was another thick layer of fill material (F004) found underneath the wall. The fill was almost sterile with few ceramic sherds in it. Underneath this fill (F006), there was a slight increase in ceramic quantities. In the NE corner an intact vessel and a coin were found. The coin was too degraded to date; however, the size and weight indicate a Ptolemaic date. No other datable evidence was found in

the fill and there were almost no ceramics suggesting that the context could sterile natural alluvium. No further excavation was conducted in the area due to time constraints.



**View of the crenellated wall looking south**

### **Unit M6-13**

Unit M6-13 was opened to determine if the mudbrick architecture in M6-12, M6-10 and M6-9 continued across the area. This was confirmed with the presence of a large mudbrick surface 8m in length. This unit showed that the whole area was covered with a mudbrick pavement (F008). Underlying the surface (F001) was mudbrick architecture. On the southern portion of the unit there was a void in the mudbrick measuring approximately 7m x 2m. This area was characterised by the presence of limestone chippings. F002 slightly overlapped the mudbrick wall that was bonded into the surface to the west. This chipping area was shallow and underneath was a fill of mudbricks and ceramics that dated to the Later Hellenistic Period, which again fits in with the dating of the sondage (M6-10) and the limestone foundations to the west. F002 came down onto a heavily broken section of wall (F003) that extended into the southern baulk, it was heavily damaged by fallen limestones, many pieces of which had broken the bricks or were embedded into the surface. A small stone with hieroglyphic writing on it was found in one of the bricks. Very little survived but one sign was the horned viper. When this wall was a new fill was uncovered that included a few small vessels; again the ceramics were Ptolemaic in date. This feature (F004) was removed and found to be a fill of broken mudbricks. Below it was a deposit of stone chippings and some larger fragments and a series of thin walls and a heavily damaged hard packed limestone floor. This series of architectural elements have a preliminary phasing attributed to them as the majority of them extend into the southern baulk. The preliminary analysis of the phasing is that the floor was the first phase of construction of probably an earlier building and the stones were the remnants of the building's destruction.

There are chisel marks on most of the stone remnants suggesting that the structure was purposefully town down and removed. All this information suggests that a high status building once stood in this area. Many of the fragments were of grandiorite, limestone, and black granite and some grandiorite pieces indicate smoothing and working that may indicates they are part of a destroyed statue. The destruction is highlighted by the presence of many of the stones found embedded into the hard packed limestone floor including many of the chippings. The floor had a coin in it which is waiting analysis and dating. The floor was then followed by the cutting of the floor by the walls that probably formed part of the mudbrick architecture seen across the area in this seasons's excavations, as some of the walls are built up on the stone destruction and lime floor, while under some of the bricks nothing is found but another fill layer.



**A view of the mudbrick floor and internal structures and foundations.**

## **Conclusion**

The architecture in this area can be seen to be of a monumental standard with the majority of the bricks being 36 -50 cm in length, the thickness of the walls, and the extent of the architecture, the wall crenulations and the presence of limestone and considerable amounts of grandiorite and granite all indicate a substantial structure built in the Late Ptolemaic Period, connected with the large limestone foundation of the same period.

## **UNITS N7-7, N7-8, N7-8, and N6-10: EXPLORATION OF A HELLENISTIC BUILDING**

Hal Bonnette, Colleen Westmor, Liesel Gentelli

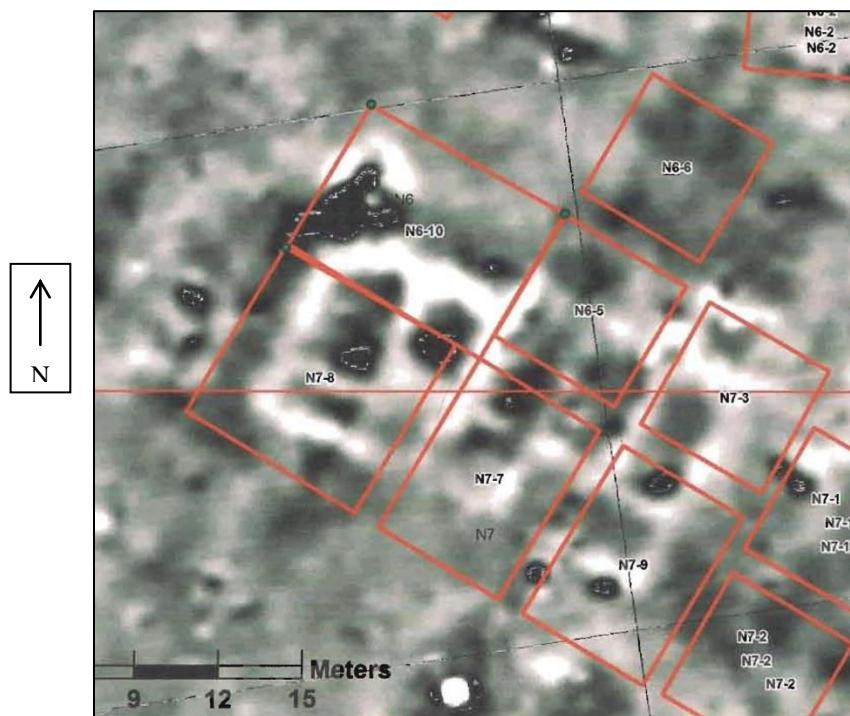
### **Introduction**

In the 1920s, the Sebakheen removed mudbrick from Tell Timai to use as fertilizer in their fields. In the northern part of the Tell, especially, the sebakhs removal left the terrain flat. This situation created a good opportunity to conduct a geophysical survey of the area, which was done in 2010 with a magnetometer. The results of the survey showed that a building probably existed beneath the surface.

In 2010 one 5x5 meter unit (N7-3) was opened at the northeast corner of the building and one of its walls was found. In 2011 another 5x5 meter unit (N6-5) was opened west of N7-3 with a one-meter balk between them. Excavations of this unit found crisscrossing walls that divided the unit into four quadrants. The unit was rich with artifacts, especially, the southeast quadrant where an assemblage of over 20 vessels was found as well as a hoard of 13 coins, all of which, dated to the Hellenistic period.

### **2013 Excavation Season**

With the success of the 2011 season, the decision was made to excavate the remaining portions of the building during the 2013 season with two goals: (1) to determine the purpose and dating of the building and (2) to determine the usage of each room. To accomplish this task, four new units were opened, N7-7, N7-8, N7-9, and N6-10. Unit N7-7 was placed just south of and aligned with N6-5 to continue the rooms found on the south side of that unit and to cover the south central portion of the building. Unit N7-8 was placed west of N7-7 with the purpose of covering the southwest portion of the building. N6-10 was placed north of N7-8 and west of N6-5 to pick up the northwest corner of the building. And, Unit N7-9 was placed east of N7-7 and south of N7-3 to cover the southeast corner of the building.



Magnetometer results and the location of units N7-3, N6-5, N7-7, N7-8, N7-9, and N6-10. After the units were excavated to expose the building's walls, the balks between the units were removed to show the entire building. Afterwards, overhead photographs were taken of the building.



**Overhead view of the N6/N7 area.**

### **UNIT SUMMARIES** **Units N7-8 and N6-10**

Hal Bonnette, Supervisor

Jimoh Ganiyu

Kelsey Baker

Units N7-8 and N6-10 covered the entire west end of the building. Three rooms were excavated and all of them contained mostly fill with no primary deposits. The pottery in the fill was predominantly Hellenistic and dated from the third to second centuries B.C.; however, the purpose of the rooms could not be determined.

The wall forming the east wall of the middle-sized room ran the entire width of the building in a north-south direction. It was the thickest wall in the building and basically divided the building into two general parts. This wall could have been a load-bearing wall for the purpose of supporting the beams necessary for a second story. West of the southern portion of the wall was a large (2.5x2.5m) mudbrick platform or floor. One can only speculate as to its purpose, but, if the building had an interior staircase, this could be its location.

The most startling discovery was not inside the building, but outside its southern wall. In one small room (1.5x0.9m) just outside the building's exterior wall was found an assemblage of 13 ceramic vessels that dated to the Late Period (the mid-fourth century B.C.). The room was bounded by walls and suggests that the Hellenistic building was built on top of and cuts through a Late Period structure. This belief is reinforced by the discovery of other mudbrick walls within two of the three walls excavated in the west end of the Hellenistic building. No attempt was made to further explore this later building because of time constraints; however, this older building would be worthy of excavation in future seasons.



**Assemblage of Late Period pottery.**

Another notable find was a well outside the northeast corner of the Hellenistic building. It was made of fired (red) bricks held together by a mud or clay mortar. Part of the northeast corner wall of the Hellenistic building was removed to build the well as if to use the wall as a support. The contents of the well were removed to a depth of 1.45m before work had to stop because of a high water table. Inside the well was found four muktafs of pottery, one muktaf of stones, mostly limestone, and many animal bones. The pottery is Late Roman (third to fifth centuries A.D.). The dating of the pottery and the fact that the well cut into the walls of the Hellenistic building suggest that it post-dates the building. The mud/clay mortar used to bind the bricks suggests a Hellenistic construction, because Romans probably would have used cement mortar; however, the building is believed to have been destroyed during the second century B.C. and it is unlikely that the well remained in use for another 300-500 years. The actual dating of the well will have to wait for a future season when its exterior and interior are further excavated.



**Well located outside the NE corner of the Hellenistic building.**

So, within a distance of nine meters, and near equivalent elevation there is an assemblage of Late Period pottery (fourth century B.C.), a Hellenistic building (third to second centuries B.C.), and a well filled with Late Roman pottery (third to fifth centuries A.D.)--a period spanning about 700 years.

### **Unit N7-7 and N6-5 Extension**

Colleen Westmor, B.A., Supervisor

Nora Shawki, B.A.

Courtney Bobik, B.A.

Unit N7-7 was opened one meter south of N6-5 to catch the south central edge of the Hellenistic building. It was originally opened as a 5x7m unit, but was expanded to remove the balks surrounding it for aerial photographs.

Excavations uncovered three phases of use in the unit. The latest of these phases were two abutting mud brick platforms that were cut into by Sebakheen activity in the area. These two platforms were resting on two mud brick walls that made up the southern part of a series of four rooms in the larger Hellenistic structure. All four of the rooms and the outside of the structure contained either packed earth or plastered floors. Below the floors inside the structure and the mud brick walls lay a ceramic fill for a foundation. The southwestern room of the unit also contained evidence for an earlier phase of use. Upon removing the Eastern balk, both a pit and an oven were also found cut into the ceramic fill. Also under this room, a mud brick wall with associated collapse was uncovered beneath the ceramic fill.

Two out of the four rooms in the Hellenistic structure contained substantial floor deposits, giving a general interpretation of these rooms and dating for the abandonment of the building. In the northwestern floor deposit, partial skeletal remains were found for both an adult cow and a calf. At least eight complete or nearly complete ceramic incurved rim bowls, a jar, and a cooking pot were found at the floor level with a couple more vessels floating just above these. Due to the number of bones, shell, and the vessel types uncovered, this room has been interpreted as a kitchen. The number of amphorae found in the northern part of this room, excavated in 2011 as part of N6-5, complements the idea of the space's use as a food preparation area. The second floor deposit was found in the northeastern room. Several full vessels were found in this room, including a large incurved rim bowl, a few amphorae, and a large platter for food preparation. As with the ceramic vessels found in the northern part of the room, excavated in Unit N6-5, the ceramics were found up against both the western and eastern walls of the room. This gives the idea that the room was used as a storage space with shelving against the walls.



### **Floor Deposits in NW and NE rooms of N7-7**

In the southern area of N7-7, both outside and beneath the Hellenistic structure, there is evidence of a silt deposit brought in by possible flooding. There were only a handful of small, well-worn ceramics and a couple of shells found in the 30cm that were excavated before the end of the season. Against the southern balk of the unit and approximately 2m from the western edge, a human skull was recovered. The entire skull was found, with the exception of a hole created in its discovery and the mandible that was not found.



### **Human Skull Found Beneath Floor on Outside of Hellenistic Structure in N7-7**

The northern area of the N6-5 extension remains unclear at the end of the 2013 season. A 1m mud brick wall was uncovered just beneath the surface. Its unusual construction and its location, relative to the structure as a whole, have hinted at the possibility for its interpretation as a mud brick staircase. However, without clear associations with both Units N6-5 and N7-3, there is not enough evidence to support this.

### **Unit N7-9**

Liesel Gentelli, BArch (Hons), Supervisor  
Kelsey Baker BArch

Unit N7-9 was a 5x8 meter unit concentrated on the southeast corner of the building. Almost immediately the main walls of the structure were uncovered, 5cm below the surface. At the same level, the top of a relatively large ceramic oven was discovered in the northeast part of the unit. The oven was later discovered to have been built into a mudbrick platform, rather like a work bench.



**N7-9 Oven in situ.**



**Mudbrick structure made for the oven.**

Nine whole vessels were discovered in association with the occupation layer of the oven. These vessels included a large cooking pot, a large platter, and other items related to food preparation and service. The vessels were discovered in an area to the west of the oven and in a doorway with three steps leading down into the room. All of the pottery was Hellenistic.



**Vessels in situ next to the oven**

Also of significance in N7-9 was the discovery of a large amount of ceramic fill in a narrow space between two walls. The majority of the fill is made up of ceramic bread moulds. The purpose of the fill between these walls remains unclear, but has been postulated to be an addition to the first floor of the house to increase loadbearing ability in the wall for the addition of a second floor, the fill below a staircase, or a receptacle for broken and damaged pottery.



**The fill of ceramic sherds before and after excavation**

### **Summary**

The building clearly is Hellenistic and dates to about the third and second centuries B.C. Its purpose seems to be a domestic house; however, even though the rooms are clearly defined, little of the building remains vertically. At its tallest, the walls only extend down 40cm before the bottoms were exposed. Unfortunately, this leaves little evidence for foundations, doors and windows, or the possibility of multiple floors. With no visible foundation walls or cuts and only one visible doorway, it can be interpreted that these are the foundation walls. This could explain the lack of doorways, as often large structures like this one would contain lower sub-basements that were accessed by trap-doors and ladders. This idea can be supported by the fact that the rooms with known functions are areas for food preparation and storage.

The Hellenistic building appears to have been built on top of a Late Period structure. Evidence of the previous structure is seen mostly outside and inside the west end of the Hellenistic building. Because of the high water table in this part of the tell, the finding of a structure that pre-dates the Hellenistic building was a surprise and could prove for valuable exploration during future excavation seasons.

Lastly, the well provided another surprise when its contents were determined to be Late Roman. This does not necessarily indicate that the well itself is Late Roman, but it, combined with the contents of the Hellenistic building and the Late Period pottery assemblage found outside the building's south wall, show the long span of occupation at the tell.

## **UNIT P5-26**

Dr. Jessica Niestche

### **Introduction**

Excavation of P5-26 was intended as part of the general salvage excavation of the northern area of the tell, which is considered to be at high risk due to plans to construct a stadium. The area that was later designated P5-26 specifically attracted our attention because of the looting activity that was observed in December 2012. In a trench previously dug by the SCA (mapped by the University of Hawaii team as P5-21), looters tunneled down below the baulk separating SCA P5-20 and SCA P5-21, revealing three very fine limestone paving stones. Further, a limestone column drum of modest size as well as Greek architectural fragments (entablature, meander in relief) were also found discarded in the fill left by the looters. As the use of such limestone for building is not well known for Timai outside of a monumental context (and nothing thus far has suggested that this area was for monumental building; to the contrary, most evidence has pointed to industrial/workshop activity; further, the column drum is too small for a monumental structure such as the platform in Grid M6, it was deemed desirable to learn what kind of structure these paving stones belonged to and to see if any further architectural fragments emerged. Thus, a 5x10 unit was laid out over this area, numbered P5-26, which includes P5-20 and P5-21 – two ca. 4x4 squares previously excavated by the SCA to a depth of approximately 1 m. below the surface - and some of the surrounding material. As the excavation of this unit was regarded primarily as salvage, excavation proceeded quickly, although most architecture was left in place in case it is decided to return to this area in future seasons.

### **Excavation and Stratigraphic Scheme**

Excavation of the area revealed a complex stratigraphic history, attesting to continual building and rebuilding of the area. After removing the dump and backfill left by previous work and looting activity, excavation began on the high parts of the unit (i.e. the baulks of the previous SCA units). Almost immediately we came on a series of mudbrick walls that clearly post date the paving stones mentioned above. These walls are variable quality and many survive only at the lowest levels of their foundation (the higher levels presumably having been destroyed by the sebakheen. Their size, construction, and arrangement suggest a workshop and/or domestic building, as does the fill under and around them. There were several phases of building activity, with some walls being reused or rebuilt over time, along with new walls. We were able to reach the large fine paving stones, which turned out to be part of a stone/brick surface (see below)

The precise stratigraphic sequence is still under analysis. Preliminarily, four discernible building phases in P5-26 can be tentatively identified. It is anticipate that further excavation in this unit and the area around this unit will result in subdividing these four phases into several more.

Notes:

Aerial photogrammetry  
Scale 1:50  
IHB  
10JUL2013



**Overhead view of the unit with previous excavations outlined in red.**

#### **Walls/Floors**

Phase I: Rectangular Building (domestic) with at least 3 rooms. Represented by walls F007, F008, F013, a possible hearth (F009), and reused walls F006, F060, and F012. 007, 008, 013 are

narrower and of poorer construction (misshapen, inconsistent bricks) than wall 006. As this structure was preserved only at its lowest foundation levels, it is impossible to determine with any certainty its function, but the size and construction of the walls points strongly to domestic/industrial rather than anything monumental. In terms of date, a bowl of a type dating to the late 1<sup>st</sup> c. AD/early 2<sup>nd</sup> c. AD was found underneath a plaster surface/depression which itself was underneath (i.e. earlier, not contemporary with) wall F007. Thus this phase should probably be dated to 2<sup>nd</sup> c. AD or later, i.e. High Imperial.

Phase II: This phase is represented by walls 006 and 060 in the southern part of the unit, which are approximately 1.1 meters of width, built with consistently proportional bricks (in contrast to the later walls of Phase I). At least two surfaces are associated with 060, and were found in the very south of the unit, and continued into the baulk. As the focus of the excavation was on the paving stones mentioned above (in the center of the unit) and these surfaces lie on the other end of the unit, it was decided not to excavate them in order to preserve them for possible future excavations to the south. The fill that contained the bowl mentioned above is perhaps contemporary with or later than these walls, and the fills associated with these walls contained pottery types that range in usage from the 1<sup>st</sup> century BC through the 1<sup>st</sup> century AD. Further, and most notably, a saucer lamp likely to be of early Roman type was found *in situ* stuck into the bottom of the wall, above the mudbrick floor (F063), which, in addition to giving a date for the use of this wall, also gives a sense of how these saucer lamps might have been used. The structure represented by this building appears to date to the early Roman, or possibly late Hellenistic.

Phase III: Phase 3 is represented by the pavement/floor (F050) that includes the 3 fine paving stones that were first observed in the looter hole. Exposure of this surface reveals that the paving stones in question (and the others found) are in reuse: the floor is a haphazard mix of paving stones of various sizes and bricks. The size and quality of the paving stones, and the haphazard nature of their placement, suggests that these paving stones had been robbed out from a finer, more monumental building and reused. F050 has been cut both in antiquity and modern times, so no relationship with walls is preserved in its northern, eastern, or southern limits. F050 continues into the western baulk – extension of the unit in that direction might possibly pick up an associated wall, but this is purely speculative. The date of this floor is indeterminate at this time. As for its purpose, the construction style is appropriate for floors and especially courtyards of domestic structures or workshops.

Phase IV: This phase is represented by the appearance of mudbrick at the bottom of the looter hole and the exposure of a small part of what appears to be a mudbrick wall (F058) in the eastern part of the square. Both of these walls, based on their placement and elevation appear to be earlier than the other standing architecture, so have been tentatively phased earlier.

There are several further walls found in the northern part of the unit that are yet to be defined into this general stratigraphic scheme. Because of the depth of the looting activity in the northern half of the unit, the relationship between the architecture in the northern third of the unit and that in the rest of the unit is difficult to determine. Further analysis of plans and elevations may shed some light on this, but as several of the recorded mudbrick walls are primarily in the baulks of P5-26, further investigation of the area would be necessary to clarify their relationship to the other architectural remains.

### **Fill/Installations/Other**

Two hearths and a possible oven have been found in the fills, but because of their placement cannot be definitely associated with any particular architecture. The oven in particular was found at the end of the season and has only been partially excavated. It is at a similar elevation to the Phase III pavement, and is surrounded by an extremely hardpacked mud surface.

Regarding the fills that surround and lie underneath the walls discussed: The most striking aspect of P5-26 is the multi-colored dump that occupies the southern two-thirds of the unit to a depth of 1.5 meters and probably further. Given its relationship with the walls in the upper part of the unit, the dumping activity seems to have occurred primarily during Phase 2 and Phase 1. This dump includes considerable amounts of degraded fired brick, ceramics, green material that resembles animal dung, many patches of burning, ash, fragments of plaster and considerable plant residue. The existing baulks illustrate quite clearly clearing the different lenses of this material as dumped over time – the tip lines are very clear. Many discarded, heavily worn stone architectural fragments were also found in this dump. Of particular note within the fill was the presence of many half-amphora that had purposefully had their tops broken off to be stuck into the ground. One such amphora had the remains of a fish at the bottom, but the rest had no evidence of what was kept in them. The reuse of broken-off amphora is well known in the Roman world, especially to hold water or refuse. That these amphorae were found at different elevations suggests that the dump was not a single event, but built up over time and was used at various points as a surface (the burning patches uncovered support this).

The pottery from the fills consists predominantly of amphorae (nearly all Egyptian types) – approximately 80% of all the pottery recovered from the unit (which totaled approximately 980kg). There was very little that was specifically datable, as the vast majority of forms found have a very long life and few diagnostic forms were found, but generally the pottery discovered in these fills can be described as falling within the broad range of 1<sup>st</sup> c. BC -1<sup>st</sup> c. AD. Therefore, one of the significant aspects of this unit is that it represents a time period that has been somewhat absent from the University of Hawaii excavations thus far.

The dump, the hearths, predominance of amphora (both in secondary use and dumped) and the general lack of animal bone in the fills leads us to tentatively regard that all of the architecture in the unit was a workshop/commercial/industrial area rather than domestic, but as these categories of building frequently coexist, it is premature to make a determination. As already noted, further excavation in the area would be needed to clarify this.

As for finds, few significant finds were found. These include a bronze fibula and a stone die for gaming, and a few broken figurines.

## **Unit R13-2**

Giorgia Marchiori, Sarah Hitchens, Andreas Frank

### **Introduction**

Unit R13-2 was excavated for the third consecutive year. The unit is located in the central part of the tell where the mission had begun working in 2011. The original objectives for the opening of this trench were attached to the presence of a large pink granite pedestal that was partly protruding from the surface. It was eventually determined that the pedestal was not *in situ* because a square room was found, constituted by four abutting walls visible on each side of the unit. The pedestal was not lying on any kind of planned surface and had probably been moved from a nearby area. It was decided to remove the pedestal from the trench in order to better examine the nature of the room. A series of overlapping floors were detected, together with a large ceramic vessel partially placed beneath one of the walls. The vessel was not excavated in 2011 because of the conclusion of the excavations.

Between 2011 and 2012 the unit underwent looting at least on two occasions: in one the vessel was destroyed and its eventual contents (aside from the soil fill) were removed, the other looting consisted in a small but deep hole just beside the vessel. During the initial examination it was noticed that the looting whole had been dug through a deeper wall on to which a floor had been built. It had no connection to the walls that had been documented in 2011. It was then decided to inquire more in depth the earlier occupations of the unit. Two parallel walls (including the one that had been damaged by the looting) located deep below the original room were excavated beyond their foundation levels and a series of floor deposits were encountered at different levels. The material culture was dated between the late and early Hellenistic Period.

Given the dating of the latest findings, the excavation of R13-2 resumed during the 2013 season. The principal aim was to reach lower features in order to retrieve artefacts of any kind that would help dating the area and that could offer insight on the early occupations of the tell.



**General view of the reopened unit after initial clean up.**

After reaching the level that had been achieved during the 2012 mission in the central part of the unit, careful digging was carried out in order not to damage the wall foundations, as the deepest level was already 4 meters below the surface. A wooden scaffold was implemented inside the unit in order to support the lower walls. As in 2012, a series of alternating soil and floor deposits were recognized. Two mud floors, very similar to the ones found during the previous season, were recognized and documented but no *in situ* objects were recovered. One of the floors (F010) presented attached to its surface a small fragment of hard, flat and very thin material that probably had covered the whole extent of the area. The

material in which the fragment was made appeared to be some sort of mixture between mortar and stone fragments. Two relatively broken vessels were encountered in proximity to floor F010 but it was found out that they lay just below the floor surface level and had no direct connection to it.



**The fragment of floor surface (F010) and close up.**



**The partially complete Late Period vessel.**

Below the floor deposit of F010, a small and rounded burnt area was detected but there was no direct evidence indicating an anthropogenic origin for the burn area. The soil deposit just below the burnt area was completely covered in charcoal mixed with very clayish soil. The latest feature to be uncovered was a soil deposit comprised of a mixture between silt and sand. As very few ceramic sherds were collected, it can be assumed that it could be Nile silt. The depth at this point was of  $-1.45$  meters below sea level and the water table was reached, as the soil was very wet and muddy. It can be concluded that there was no settlement occupation in this area at this level.

The material culture retrieved consisted almost entirely of ceramic sherds, including one almost complete vessel. Most of the pottery was dated to the Late Period. One fragment of a Persian mortarium was discovered, dating between the 5<sup>th</sup> and 4<sup>th</sup> centuries BC. The small area represented by the deep excavation limits the ability to extrapolate to more general statements about the early occupation of the Tell; although the Late Period and Persian ceramics suggest occupation predating the Ptolemaic period.



**The burnt layers F012 and F013.**



**F014, the layer of sand and silt – the deepest feature.**

### **Conclusion**

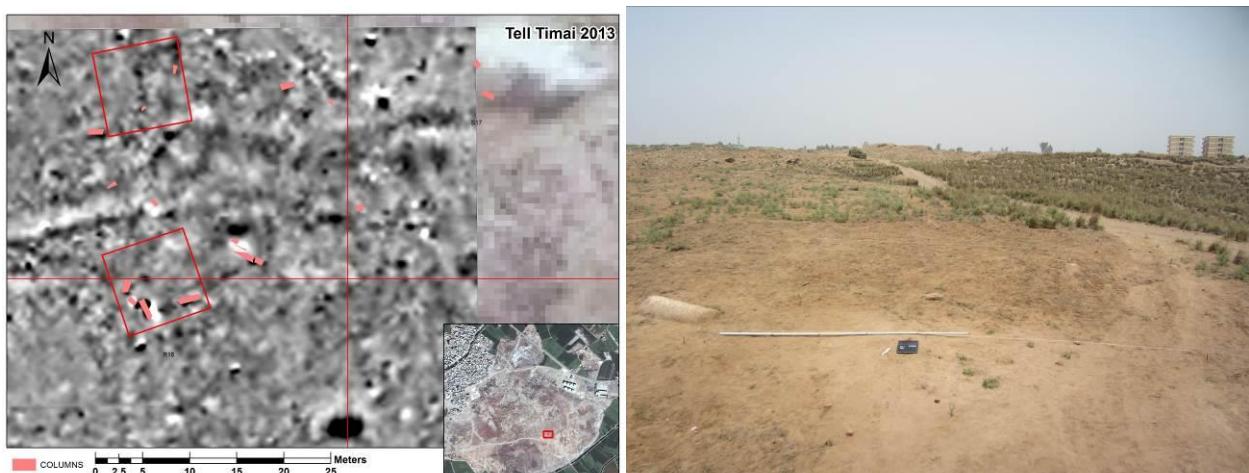
The long history of the site and the elevated water table limit the ability to conduct deep samples of the early occupation of the Tell. Therefore, Unit R13-2, offers an important picture of the early site history and this data should be used in planning future work. An enlargement of the unit would be useful to obtain wider information on the surroundings of the room found in the 2011 season and possibly the lower walls that were uncovered in late 2012.

## **UNIT R17-1**

Giorgia Marchiori, Sarah Hitchens, Andreas Frank

### **Introduction**

The area where unit R17-1 was opened is located in the southern part of the Tell, a zone of lower elevation with respect to the central area of the site. It is crossed by modern roads that are used daily by the local inhabitants of the nearby villages and therefore presents no visible architectural features except for a series of Aswan pink granite columns and blocks that scatter towards the north eastern part of the Tell. The initial interest in this sector had been triggered by the presence of the granite columns. The positioning of R17-1 was influenced by the results obtained through a magnetometry survey carried out at the beginning of the mission. The 10 x 10 meter trench was located in the area where the magnetometer had detected a possible buried architectural corner and it also included within its boundaries two granite columns protruding from the ground surface. The unit's aim was to investigate the nature of the granite columns and their surroundings in comparison to results of the magnetometry survey and achieve a greater understanding of the history of use of this part of the Tell.



**The results of the magnetometry survey and the two units R17-1 (upper) and R18-1 (lower) (Left). View of the unit before excavation (Right).**

The excavations uncovered a concentration of architectural features towards the north eastern corner of the unit. The remaining large area, with the exception of three granite columns, was empty of any kind of structure and it consisted of a series of deposit layers. The area was excavated until two of the granite columns were completely visible above the ground (the third one was embedded in the southern bulk of the unit and hence it was not excavated). Among the finds that were encountered in this area of the trench, the most significant were a gold ring dating to the Hellenistic or Roman Period, an unfinished Ptolemaic royal statue fragment made in diorite and 128 bronze (with a few potin and billon) coins, some of which date from the middle Ptolemaic to the Early and Late Roman Periods. The majority of the coins and all the ceramics retrieved dated to the Late Roman and Byzantine periods.

The north eastern part of the unit comprised of a series of mudbrick walls crossed over by a road or path constructed in mostly fragmented fired bricks and stone slabs. Two walls (F006 and F007) run parallel (in west to east direction) to each other and a third, smaller wall (F023)

appeared to be bonded in both. It was discovered that only F007 and F023 are actually bonded, suggesting the fact that F006 may have been a later addition to the construction. F005 appears to either cut the walls or have been laid over them. As the path was found in poorly preserved conditions and the walls do not continue beyond it through the rest of the trench, it can be surmised that some sort of intentional destruction took place in the area, given that two modern roads run in close proximity to the trench.

The space enclosed between the abovementioned walls was filled with six deposit layers (F001, F002, F008, F017, F019 and F021). The features did not vary much in terms of compaction and appearance. F017 can be distinguished from the others because of the retrieval of early Roman pottery, as well as F019. The latter yielded 15 bronze coins (possibly all early Roman). No signs of flooring were detected. In contrast, it was found out that the walls F006, F007 and F023 lay on top of different walls (F025, F020 and F024) that follow the same coursings and employ bricks of similar sizes. The main difference was the brick compositions, sandier for the bricks of the upper walls, whereas the lower ones had a more clayish composition. In addition, traces of plaster were found on F020 and F025 that were not visible on the upper walls. The wall below F023 was composed of fired bricks rather than mud. Only a small portion was uncovered and its degree of damage did not allow discerning of coursings and rows.



**F005, the fired brick and stone path.**



**The two overlaying walls F006 and F025.**



**The two overlapping walls F007 and F020.**



**The two overlapping walls F023 and F024.**

In the north western corner of the unit it was possible to identify a smaller mudbrick wall (F003) abutting F006. Just in front of it lay three large storage vessel containers (F014, F015 and F016). They are round in shape, one measuring a meter in diameter and the other two around eighty centimetres. They were constructed in clay and were abutted by mud bricks laid as headers. The fills of two of them (F015 and F016) were excavated and sieved but only faience fragments and glass shards were recovered.

Below a layer of collapsed mudbricks runs another wall (F022) perpendicular to F003 and parallel to the clay containers. Despite the proximity, no connection between F003 and F022 was found. The latter appears to continue below the storage vessel containers but it was not possible to ascertain it due to the closing of the unit at the end of the season.



**F014, F015 and F016, the storage vessel containers (surrounded by walls F003 and F022).**

At first glance, it would appear that the north western zone of the unit consists in a series of walls and two rooms, but the differences in size, depth and the fact that they are not all bonded indicates that they represent multiple phases of construction. The area where the clay containers lay probably was a room but it cannot be confidently said if the exposed walls are all actually part of it. Furthermore, the fired brick and stone flooring is more likely to be considered a pathway rather than a floor surface and it stands at a higher level than the storage vessel containers and all of the walls. Therefore, the area was heavily disturbed most possibly both in ancient and modern times.

In view of the recovered finds, the high amount of coins and the existence of the clay containers, it can be suggested that the area had been employed for commercial purposes. The containers may have been part of a store structure. The closest unit to was R18-1, only about 12 meters away from the southwest corner of R17-1. The two units share similar characteristics, such as the presence of hundreds of bronze coins randomly scattered in the superficial deposit layers, mud brick architecture and floorings in fired bricks. Thus, it can be agreed that the zone surrounding the units was most probably utilized for purposes of commercial transactions and business.

As most of the unit was vacant in architecture, in order to attain a better understanding of the results obtained in this season it would be essential to expand the excavation area and follow the course of the main walls with the aim of determining whether they are part of a larger structure and if they are related to the architecture discovered in the neighbouring unit (R18-1).

Notes:

Aerial photogrammetry  
Scale 1:50  
IHB  
10JUL2013



Aerial view of the unit on June the 25<sup>th</sup> 2013.

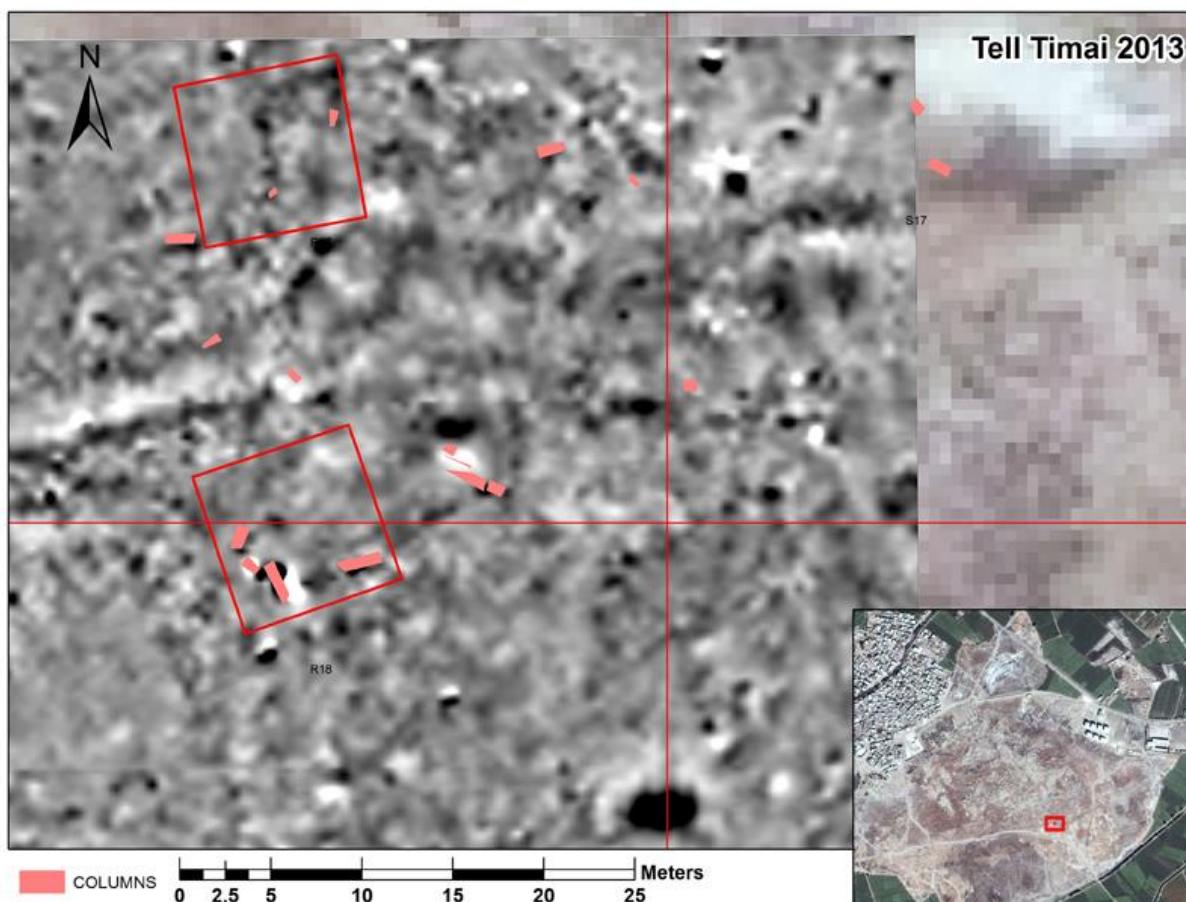
## Unit R18-1

Marcus Müller, Sasha Rohret and Casey Preston

### Introduction

In the area of R17 and R18 (as well as along the western boundary of S17 and S18) an agglomeration of 21 pink granite objects was visible on the surface. They belong to ten columns, seven rectangular blocks and one column base.<sup>1</sup> Since most of them were found in R18, especially in two groups, we opted for opening a trench with four of those stones in R18. Unit R18-1 was excavated by Marcus Müller, Sasha Rohret and Casey Preston. It was opened on June 8th and closed on July 9th, 2013.

Around 15 m to the north of R18-1 lied trench R17-1 whose position was determined by the results of a magnetometry survey undertaken by Krzysztof Kiersnowski on June 8th -9th, 2013. However, the magnetogram did not clearly indicate walls or installations.



R18-1 and R17-1, pink granite illustrated.

<sup>1</sup> One column, around 3 m east of R18-1 is broken in at least two pieces, see P739-741 and P811.

**Tell Timai 2013  
R18-1**



**R18-1 end of excavation blocks over magnetogram.**

### Preliminary Perceptions

Already whilst cutting the surface vegetation a remarkable bronze obol of Antoninus Pius, minted in Alexandria in 145/146 A.D. (regnal year 8; R18-1-F001-B003), some small metal pieces (R18-1-B004), a possible bronze seal (R18-1-F001-B002) and another coin (badly preserved, Late Roman, R17-F001-B001, surface find without excavation) were found.

The extraordinary number of 108 coins in the surface layer 001 and many metal fragments as well as the architectural objects made of pink granite lead to the conjecture that the area was part of a public commercial space with representative architecture. Both the distribution of the pink granite blocks and the magnetogram indicated the possibility of a courtyard with surrounding columns. Small rectangular or square units on the magnetogram pointed to little rooms which could have been aligned around the square.

### Features in their archaeological context

A square of  $9 \times 9$  m was excavated in unit R18-1. The earliest building phase (A) consists of the mudbrick wall F032 which has not been excavated. Only one course of mudbricks along the western bulk is visible, therefore it may be a wall or a mudbrick floor. Some lined mudbricks one and a half metres north of it may belong to the same feature.

Directly above Wall F032, and also located along the western bulk, there are three units of complete and broken fired bricks which define Phase B. They are north-south oriented. Since it is unclear whether the lowest course was reached it cannot be proved that the three parts belong to the same structure. However, this is strongly suggested due to the similar way of construction, levels and orientation. Moreover, there are five pits (F007, F009-F011, F019) whose pit faces show one course of fired bricks respectively.<sup>2</sup> Since the bottom levels are much similar I assume that these courses and F032 belong to the same building phase, perhaps to the same feature. Its shape, dimension, let alone its function remain unclear until further excavation. We may think of a platform, foundation to wall F004 or even one or more walkways. The latter interpretation may be supported by a similar pavement in R17-1 (F005). In any case, this layer of fired bricks F033 and in the pits was built on top of the mudbrick structure F032 and since there is no fill or any other layer of soil (debris, leveling layer, foundation etc.) between them phase B cannot be much younger than phase A. The next layer above (F026) covers both the mudbrick structure F032 and the fired bricks F033, i.e. building phases A and B. This seems to be the building horizon to the next building phase C. F026 is dated to the Late Roman period by pottery and coins. It contained fragments of painted plaster, some of them show round and straight red lines on white ground, others are yellow (B634). They may belong to a floral or geometrical ornament.

Again directly above the older structures a new wall (F004) was built (Fig. 2) which can be attributed to Phase C. It is N-S oriented and covers a good deal of the unit due to its remarkable width of 4.25 m. As realised later during the excavation it merges with the much smaller mudbrick structure that was named F003. Therefore I address the whole big wall as F004 only. At its northern end wall F004 was abutted by the perpendicular wall F005. Walls 004, 005 and 023 were built with the same kind and size of mudbricks as well as a similar construction style. Each course seems to have mostly parallel lines of mudbricks. Thus, both material and construction style support the idea that all three walls were built within a relatively short period of time. However, since walls 005 and 023 are not bonding but abutting wall 004 there should be a division between phases. A detailed discussion has to await further excavation in order to get more information about the stratigraphical context in lower layers, especially to find the lowest course of each wall. Since walls 004 and 023 are noticeably wide they belong to a large building and may form the corner of a courtyard. The pink granite blocks and the column that were found in R18-1 could well belong to this building. Although walls 004, 005 and 023 are so big they do not appear as a remarkable anomaly on the magnetogram.

All walls were built without a foundation trench, i.e. directly on the surface of the previous feature, be it a wall or a fill. This construction seems to be typical for Thmuis because there are no foundation trenches in other Late Roman layers (R17-1, R13-1, R13-2, S13-1).

Then the large building (walls 004, 023 and 005) fell into disuse. Since it was partly covered with fills F021 and F022 it was still standing but in a ruined condition. Both fills belong to phase D. According to their pottery this phase can be dated to the later part of the 5th cent. A.D. These heterogeneous fills contained all sorts of civilization waste, i.e. pottery sherds, pebbles, bone, shell, plaster, and tiny remains of metal (F022-B594). Perhaps both fills were layers to level the ground.

During this time — Phase E — the large building was mostly collapsed, including some of the architectural elements that were built in pink granite. This is indicated by the western block that lied on fill F021 (P621-627) and the north-eastern block that is part of fill 022 (P771-773,

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<sup>2</sup> For the levels of the courses of fired bricks in the pits see drawing R18-1-D003.

775, 777). However, not all of these granite elements were toppled down, some were still standing and formed part of a massive ruin. In Phase E the area seemed to be abandoned and exploited because ten pits (F006-011, 015-017, 019, 020) were dug in the ground, thus destroying more of the mudbrick walls. Their position throughout the unit is irregular, they are not aligned or in any other regular pattern. Nor do they have a common shape or size. In fact, they are very different and therefore do not belong to a common plan or outline. None of them is a foundation of the pink granite column found in the unit.

Apart from soil the pits were filled with pebbles, rarely with few cobbles, fragments of glass, bone, shell, plaster and tiny pieces of bronze (perhaps pieces of wires). Therefore, the pits seem to be used as dump holes. The reason for digging so many pits in settlement layers is the search for moist soil or building material, i.e. clay of old mudbricks. These pits date to the Byzantine Period; some of them were filled in the 5th-6th cent A.D. according to their pottery.

Finally, most of the large building was covered with fills 013 and above that fill 002 (phase F). At that time only the highest preserved course of the large north-south oriented wall was visible (wall 003). The remaining architectural elements made of pink granite tumbled and fell on F002 (P299-313). This dates to the Byzantine period as is indicated by pottery and the extraordinary amount of 191 coins.

The surface soil 001 partly covers the pink granite elements at a time when the walls 003 and 004 were not visible anymore.

## Conclusion

In R18-1 there were five big fragments of pink granite, one of them a column. In the neighbouring unit R17-1 four more fragments were discovered, two of them belong to columns. In total we detected 21 fragments of pink granite in an area of ca.  $50 \times 30$  m including the two units. Twelve fragments belong to ten columns, there are also one column base (attic order) and eight ashlar. About 6-7 m east of R18-1 at least two fragments, possibly three or all four, belong to the same pink granite column - as indicated by their breakline (P739-741). Therefore, this column most likely tumbled out of its original position because its fragments would not be aligned according their breakline if they were brought to a secondary position for reuse. The scattered locations of all 21 fragments supports this idea.

However, these fragments do not lie arbitrarily in the area. Instead, they are spread over a supposable rectangular zone of ca.  $50 \times 30$  m. The high number of pink granite fragments, amongst them ten columns, suggest a large building or building complex, perhaps with a colonnade that supported a roofed walkway of about 1,40 m width (see R17-1-F005) that passes a row of rectangular rooms which may have been shops (see R17-1).

Pink granite was known in the Roman world as lapis Syenites which reflects its origin, the city of Syene (modern Aswan). It was constantly used since the 3rd Dynasty, for instance for architectural elements of royal buildings, stelae and statues. It is characterised by its hardness, weight, stability, resistivity and elegant appearance. Thus, it became very popular in Roman times (see for example Pompey's pillar in Alexandria) so that a much higher quantity was quarried than in Pharaonic and Ptolemaic times.<sup>3</sup> So it is no surprise to find it in Thmuis which is an important city in Roman Egypt. Therefore, it is no surprise that Thmuis is shown on the map of Madaba (AD 542-570). The fact that both columns and other elements were built in pink

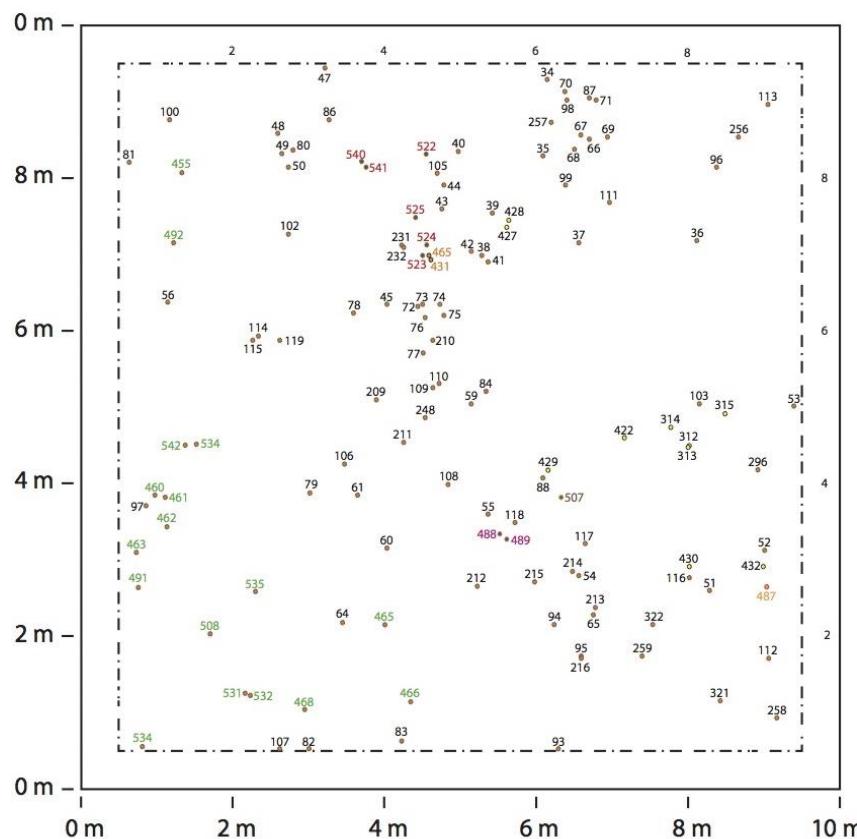
<sup>3</sup> RÖDER J., Zur Steinbruchsgeschichte des Rosengranits von Aswan, in: Archäologischer Anzeiger, 1965, 467-552.

granite indicates the wealth of the city but also its will to demonstrate this wealth in form of representative architecture. Rich interior and representative architecture are supported by a number of fragmented single finds such as a stone with relief and linear ornament (F001-B032), painted plaster (F002-B101, F021-B454, F026-B634), tiles made of marble (F002-B508, F022-B556, F022-B590, F026-B640), quartzite (F002-B121) or other stone (F013-B440, F021-B520, F026-B640) as well as two stone pieces that may belong to a mosaic (F022-B626, F022-B627).

This building may have functioned as a marketplace (agora, forum). The high number of coins, 442 were found in R18-1, could support this idea. Together with similar evidence in the surface soil F001 we may assume that most of these coins belonged to a hoard or cashier that was given up or forgotten for some reason and later scattered with the fill F002. An exceptional coin of Antoninus Pius, regnal year 8, with the image of a sphinx on the reverse was found on the surface (F001-B003; Fig. 4).

In Roman times the agora was often constructed with representative architectural and ornamental elements. Since big cities did not concentrate all economic functions on one single agora but divided them to different places within the city we may have one of those commercial areas around R18-1 and R17-1. Both areas are not located in the inner city centre where we would expect the main agora/forum, thus we would have a peripheral and slightly smaller marketplace in R18-1 and R17-1.

However, since wall 004 has the enormous width of 4.25 m it may be taken into account that this building belonged to a military complex.



Coin distribution from Unit R18-1



Coin, Ant. Pius, minted in Alexandria.

### EXCAVATION AT W14

K. Blouin, Th. Faucher, N. Hudson, M. Kenawi, A. Kirby, R. Mairs, G. Marchiori, M. Van Peene

#### **The ‘Khoronfich’**

K. Blouin, G. Marchiori, Th. Faucher, R. Mairs, A. Kirby, M. Kenawi

The area selected for investigation is located on the northeastern part of Tell Timai, in the area called ‘Khoronfich’ by Daressy<sup>4</sup> and described by both him and Naville<sup>5</sup>. It triggered interest because some clusters of redbrick – including part of an hemicycle – assembled with lime mortar were protruding from the surface of the ground. In order to determine the real nature of these structures and document the occupation sequence of this part of the tell as well as its relationship to the overall urban landscape, we decided to focus our efforts on this area. In total, five units were opened. Apart from Unit 1, which measured at its maximum extent 20 m X 10 m and was fashioned in an L-shaped form, all units consisted of square, 5 m X 5 m trenches.

The very poor amount of material finds and the extent and thickness of the stratigraphic features, which were exclusively made of deposits and modern fills, indicates that the area has already been investigated. No report of such digs has been published, but the description of the Khoronfich provided by Daressy in a 1890-manuscript could allude to the very area we excavated: ‘in some places, (?) digs were made, and one can see that the walls were 3 to 4-meter high<sup>6,3</sup>. Daressy also reports how, between 1887 and 1892, most of the redbrick buildings that

<sup>4</sup> Cf. G. Daressy 1914. ‘À travers les koms du Delta’, ASAE 13, 181-184.

<sup>5</sup> All references by both scholars are reproduced in E. Swan Hall, and B. V. Bothmer (eds.) 1976. *Mendes II*. Warminster, 104-133.

<sup>6</sup> *Ibid.*,107.

still stood in the Khoronfich were subject to looting by local villagers, who reused the bricks in modern construction.

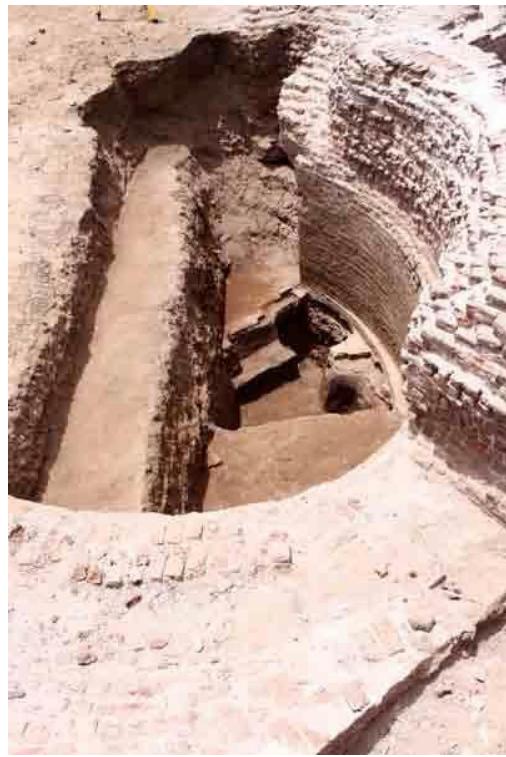
### Unit 1

The L-shape of Unit 1 aimed at including the two neighbouring and most important redbrick clusters in a single unit. It soon appeared that the two protruding clusters formed part of a same northwest/southeast structure. The latter, composed of a c. 15-meter long and more than 3-meter high wall (fig.1), corresponds to a larger apse (fig.2) and to a smaller (fig.3) one, both of which are connected by a straight wall. The excavations reached the floor level, which in both areas was made of a coating of plaster on top of a stratum of red bricks standing on a thick layer of silt. While the floor was intact inside the smaller apse, it was found partially destroyed inside the large one. Furthermore, a rectangular cut measuring no more than 1.5 m in length and less than

1 m in width was detected alongside part of the foundations of the larger apse. Part of the lower silt layers located below the foundation level of the larger apse were also investigated in order to gain an understanding of the previous vocation of the area. Pottery sherds dating to the late Hellenistic period were recovered and a plaster floor was uncovered beneath two different layers of silt. The absence of Roman pottery may be a sign leveling, though further investigation would be needed in order to fully understand the occupational chronology of this zone.



**Fig. 1. Unit 1 (southern view).**



**Fig. 2. Unit 1: Interior of the larger hemicycle (northern view).**



**Fig. 3. Unit 1: Interior of the smaller hemicycle.**

### **Unit 2 (fig.4)**

A second unit (this time of 5 m X 5 m) was opened east of Unit 1, in a zone where another redbrick cluster was visible from the surface. The cluster in question proved to be a T-shaped structure that corresponds to the continuation of the one uncovered in Unit 1. Although the excavation reached a depth of more than 4 meters, the foundation level of the wall could not be reached before the end of the season.



**Fig. 4. Unit 2.**

### **Unit 3 (fig.5)**

Unit 3 is located south of Unit 1. Its delimitation was justified by the presence of another protrusion of redbricks, whose alignment was architecturally coherent with the structure unearthed in Units 1 and 2. Yet although it is indeed a wall, it soon appeared to have no relation to the others: not only is the wall much thinner, but its foundations were reached after less than half a meter. A plaster floor was also found below the wall's foundations, but at a level too high to have any link to the other floors. Furthermore, a glass kiln was individuated and a mudbrick floor consisting of at least 4 visible rows of bricks emerged right below it. These structures, together with the more numerous material findings found in this unit, clearly state that this area was occupied in a later period than the structure unearthed in Units 1 and 2. The end of the excavation season prevented us from gaining a better understanding of this unit.



**Fig. 5. Unit 3.**

#### **Unit 4 (fig.6)**

The opening of Unit 4 aimed at illuminating the overall plan and limits of the building found in Units 1 and 2. Starting from the preliminary plan made by M. Van Peene (fig.8), an area located east of Unit 1 and south of Unit 2 was targeted. After the removal of c.3 m of filling, an architectural element (a wall or platform?) pertaining to the original structure was found and its foundations were reached. Given the depth at which it lied, it seems highly probably that it had been damaged and partially destroyed, possibly for the recollection of bricks.



**Fig.6. Unit 4 (eastern view).**

#### **Unit 5 (fig.7)**

Following a deep surface cleaning that revealed the northeastward continuation of the wall found in Unit 2, the opening of a fifth unit took place. This operation revealed that the wall quickly plunges. Given the severe disturbance the area has encountered, it is possible that, here too, what seems to be the end of the wall actually corresponds to a heavily destroyed part of the main structure. This is all the more probable since, although a depth inferior to that of the foundation levels found in Unit 1 was reached, the foundations of the wall have not yet been reached.

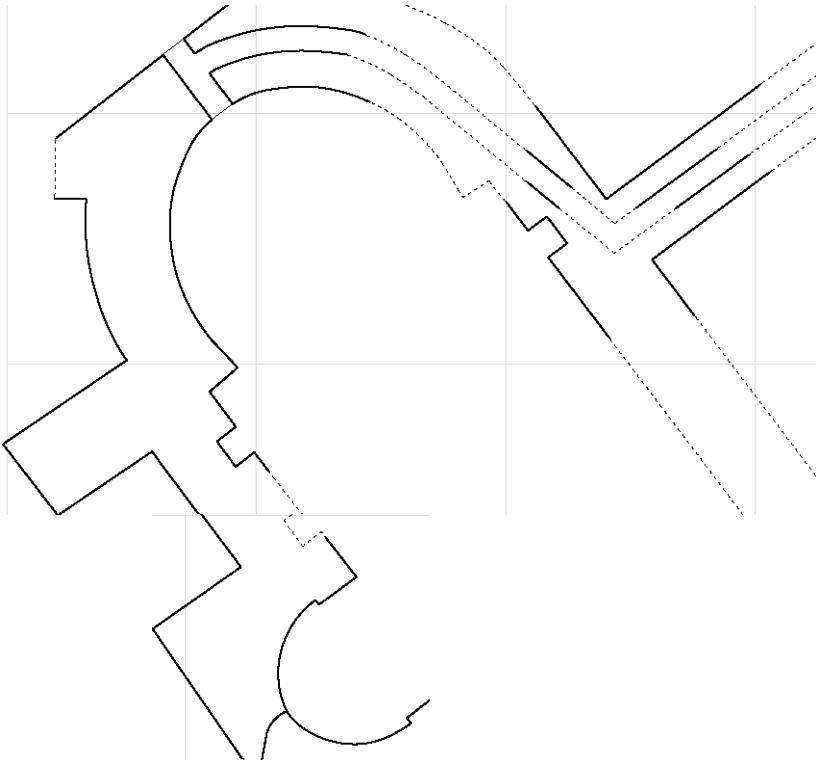


**Fig.7. Unit 5.**

### **Architectural study**

M. Van Peene

The structure forms a rectangular room of c. 15-m long. It is prolonged in the northwest by an apse endowed with a bay in its axis and opens into a small apse in the southwest. The latter was covered with a cul-de-four vault. One also notes the presence of a passage in the masonry, which follows a very light slope from the beginning of the northeast wall to the axial bay. The function of the latter cannot be determined with any certainty. However, the presence of calcareous deposits on the surface suggests that it was submitted to water runoffs over a long period of time. The module (21 cm long, 10 cm wide and 5.5 cm thick) and the technique used to assemble the bricks (i.e. over abundance of lime mortar that forms 3 cm-thick joints on average) indicate a Late Roman dating. The building typology seems to exclude the hypothesis of a basilica or church, and would rather indicate a structure that belonged to a much larger ensemble. This is also suggested by the probable continuation of the north-east wall (Unit 2 and 5).



**Fig.8. Preliminary plan ofthe main structure (credits: M. Van Peene)**

### Ceramological material

M.Kenawi, N. Hudson, A. Simony

According to preliminary analyses, the amphora sherds found in the thick disturbed layers that cover the foundation level of the monumental structure in Units 1, 2, 4, and 5 all date to the 6<sup>th</sup> and 7<sup>th</sup> centuries A.D. Confirmation of this dating through an analysis of the remaining pottery, as well as an examination of findings from Unit 3, will be carried out by A. Simony in Late June 2013.

So far, the most important pottery finds took place in Features 1026-1028. These layers were located in Unit 1, beneath the foundation level of the larger apse, in what appeared to be undisturbed contexts :

- Feature 1026 (Late Hellenistic) : The presence of three rims of AE2 amphorae and various tablewares allowed a Late Hellenistic dating for this feature (M. Kenawi).
- Feature 1027 (first half of the 1<sup>st</sup> century BC) : The latest datable object from Feature 1027 is a base fragment of Eastern Sigillata A (ESA) *Atalante* form 23, generally dated from around 100 to 50 BC (N. Hudson).
- Feature 1028 (Late Hellenistic, likely 1<sup>st</sup> century BC) : Identifiable pottery consists of sixthickened rim saucers, one of which is a heavy grey ware consistently found in Late Hellenistic levels at Tell Timai. An example of a *terra nigra* everted rim bowl was also present and is consistent with the proposed dates (N. Hudson).

These findings are the first ones to document the occupation of this portion of the site during the Late Hellenistic period.

## **Survey**

R. Mairs, A. Kirby

In parallel to the excavations, we carried out an intensive field survey of the adjacent parts of the tell. Using the grid system established for the 2007 University of Hawaii survey, we selected a total of 42 10 m x 10 m squares. These were located in the north-western corners of squares S-Y

13-18. Only 2-3 people were available to carry out the survey, hence the small size of our sample. A Magellan GPS device was used to locate the squares on the ground, and we collected all surface pottery. The presence of architectural features and material such as brick and slag was also noted. Dr. Nicholas Hudson kindly agreed to analyse the pottery for us.

Some squares yielded little or no material. In some places, this was because the surface was covered by modern rubbish (U17, V16, W14, W15, Y13). In others, there were remains of prior excavation, looters' pits and spoil heaps, creating disturbed contexts (S14, S15, S16, T13, T14).

Although the sample was small, several patterns emerged. The north-west (where the remains of mudbrick architecture were visible) yielded the highest density of ceramic finds. These dated mostly to the Hellenistic and Late Roman periods. Towards the south and east, the material was more consistently from Late Antiquity. Slag occurred in large quantities in squares W13, W18, X15, X17, Y16 and Y17, most of which lie in the south-eastern part of the survey area. The remains of fallen pink granite columns were found in U15 and near S18.

## CATALOGUE OF FINDS FOR SCA

<b>SCA#</b>	<b>Material</b>	<b>Provenience</b>	<b>Description</b>	<b>Dimensions</b>	<b>Period</b>	<b>Condition</b>
134	Gold	R17-1-F002-B66	Ring	23x13mm; 12.05g	Roman	Excellent
135	Diorite	R17-1-F002-B108	Unfinished Royal Bust	104.5x103.5x75mm; 0.87 kg	Ptolemaic	Fair
136	Bronze	R15-F999-B057	Amulet: Harpocrates as Roman Soldier	29.87x13.3 mm; 4.03g	Hellenistic	Good
137	Bronze	P5-26-F017-B085	Fibula Brooch	36.2x14.7x.0.9 mm; 3.6 g	Ptolemaic/Roman	Good
138	Schist	R14; F999-B056	Carved Makeup spoon; possibly Tawaret	62.9x43.0x10.4mm; 23.08g	Roman	Fair, handle only
139	Limestone	P5-26-F004-074	Die, 6-sided	37.4x35.8x34.5mm; 90.68 g	Roman	Fair
140	Billon	R18-1-F001-B003	Coin;	19.0x3.3 mm, 4.65 g	Roman/Antoninus Pius	Very Good
141	Potin	Q14-F777-B003	Coin;	26.1x5.5mm, 9.25g	Roman/Antoninus Pius	Fair, broken, 75% left
142	Billon	R17-1-F001-B003	Coin;	23.3x3.7mm, 4.97g	Roman: Nero	Fair, Damaged
143	Bronze	R18-1-F001-B010	Coin	34.0x3.8mm, 21.5g	Roman/Hadrian	Fair
144	Bronze	R17-1-F002-069	Coin	33.1x7.0mm, 25.0g	Roman/Antoninus Pius	Fair
145	Bronze	R17-1-F001-B029	Coin	34.0x5.6mm, 22.4g	Roman/2 <sup>nd</sup> Century A.D.	Fair
146	Bronze	R17-1-F002-B086	Coin	12.5x2.4mm, 1.09g	Roman/1 <sup>st</sup> -2 <sup>nd</sup> century A.D.	Good
147	Bronze	R17-1-F001-025	Coin	23.6x3.1mm, 8.9g	Roman/Antoninus Pius	Fair
148	Bronze	R18-1-F002-B070	Coin	13.3x1.8mm, 1.0g	Late Roman/4 <sup>th</sup> Century A.D.	Good
149	Bronze	R18-1-F001-B011	Coin	22.1x4.0mm, 7.28g	Roman/Claudius Gothicus	Good
150	Bronze	R17-1-F001-015	Coin	21.5x3.6mm, 6.6g	Ptolemaic/Ptolemy VI	Good
151	Bronze	N7-7-F007-085	Coin	17.3x3.1mm, 3.2g	Ptolemaic/Ptolemy IV	Fair
152	Bronze	R17-1-F002-090	Coin	12.5x2.4mm, 9.6g	Roman/Antoninus Pius	Fair
153	Ceramic	N7-7-F001-B014 (045)	Echinus Bowl	124.0x55.8 mm	Ptolemaic	Excellent
154	Ceramic	N7-8-F011-B074	Small Vase	83.8x77.2 mm	Late Period	Good
155	Ceramic	N7-8-F011-B069	Small Jar	99.6x76.5mm	Late Period	Good
156	Ceramic	N7-8-F011-B068	Small Jar	78.8x97.1mm	Late Period	Good
157	Ceramic	N7-8-F011-B067	Perfume Jar	124.9x96.2mm	Late Period	Excellent
158	Ceramic	N7-8-F011-B075	Perfume Jar	76.9x57.0mm	Late Period	Excellent
159	Limestone	MCT 2013-F1002-B01	Shabti	45.8x28.5x66.4mm, 80g	Ptolemaic	Good, Bottom half
160	Limestone	P5-23-F2123-B001	Stamp with cow and bull	45.7 x 48.4 mm 83.4g	Ptolemaic/Roman	Very Good



