

Tell Timai  
Roman Temple Area  
2019 Project Report and Research Strategy (2020-2025)



By Dr James Bennett  
*with Survey Report by Prof Gregory Bondar and Units W16-1, X16-1 and X17-1 by Miss.  
N. Shawqi*

## Acknowledgements

The mission would like to thank our inspectors for summer 2019, Mohamed el-Haddari and Nehal Mahmoud Omar, and the support of the Mansoura Ministry. Conservation of the metal finds, and coins, was conducted by Hamed Mostafa Kamal. Our thanks also go to the Quftis, Ra'is Abdul Aziz ibn Farouk, Yahya Farouk, Mohamed Farouk, and Sayed Fikri. Our Egyptian team, Ahmed Abbas, Sayeeda and Marwa Samir. The mission would also like to thank the people of Kafr el-Amir ibn Salam and Timai el-Amdid for their work on site, and support once again for the mission this season.

## Survey Report

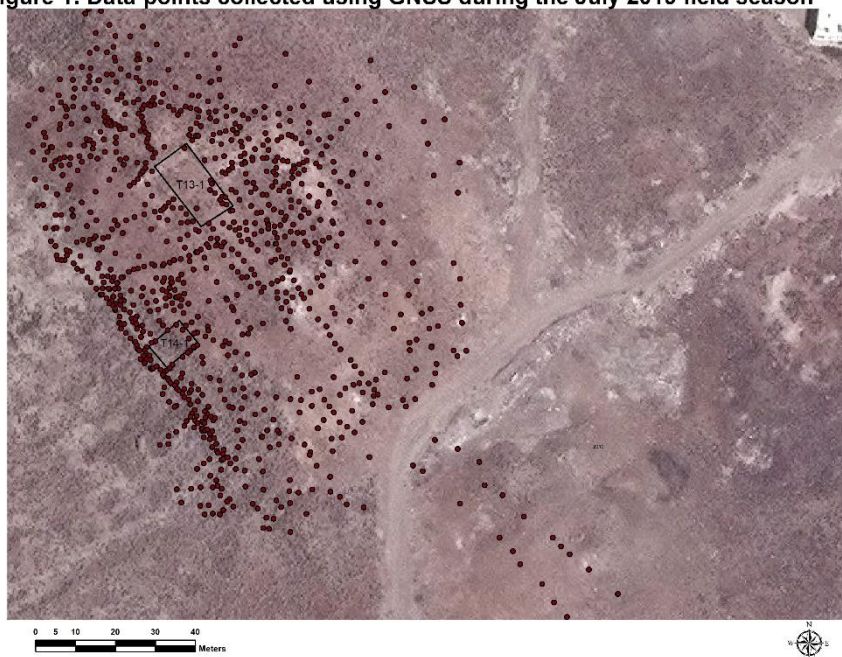
*By Prof Gregory Bondar*

The July 2019 excavation season of the Tell Timai Project featured the use of new surveying technology, Global Navigation Satellite System (GNSS), which was used to create a contour map of the archaeological complex currently being excavated in units T13-1 and T14-1. Previously unavailable due to its expense, recent innovations in this technology have enabled its addition to the tools being used to analyse Tell Timai. Two identical Emlid Reach RS+ units were employed this season, consisting of a stationary Base-station set-up over a survey point with known coordinates established using the project's Sokkia SET3110 total station, and a mobile Rover-unit affixed to a surveying staff. Satellite signals from the Global Positional System (GPS), and other satellite navigation networks, being received by the Base-station, were transmitted to the Rover which, when combined with the satellite signals also being received by the Rover, provided location coordinates accurate to several millimetres. Because each unit determines its location in real time, independent of previous measurements, this system is unaffected by small errors accumulating in survey transects, which can occur when using a total station.

Using the Two GNSS units over five days, almost 1,200 data points, measuring latitude, longitude, and elevation, were collected throughout the area surrounding the high mound being excavated (Figure 1). This area is readily visible on aerial imagery as being surrounded by a reddish halo of soil coloured by fragmented bricks and degraded pottery (Figure 2). Using ESRI ArcMap GIS software, these datapoints served as the basis for contour lines (Figure 3) and a contour map (Figure 4). From these, it is evident that T13-1 and T14-1 both lie on a large, contiguous five-meter high mound, roughly 40 meters wide by 80 meters long, that is distinct from the lower-lying surfaces to the north, south, and east, and discrete from neighbouring complex to the southwest of T14-1. Also, the road or ally visible in unit T14-1 appears to continue for the full length of both structural complexes. Although there is a significant depression in this structure, adjacent to unit T13-1, it occupies less than 25% of the total area of this structure. Thus, there is ample possibility for well-preserved architectural elements.

Our current use of GNSS surveying to generate a contour map of an area surrounding an excavation was a test case to explore the use of this technology on Tell Timai. We are very pleased with the clarity of the results over a moderately-large area achieved in a comparatively short period of time. As a result, we see great promise in this technology, and these techniques, and expect to use them more broadly across Tell Timai during future excavations.

**Figure 1: Data-points collected using GNSS during the July 2019 field season**

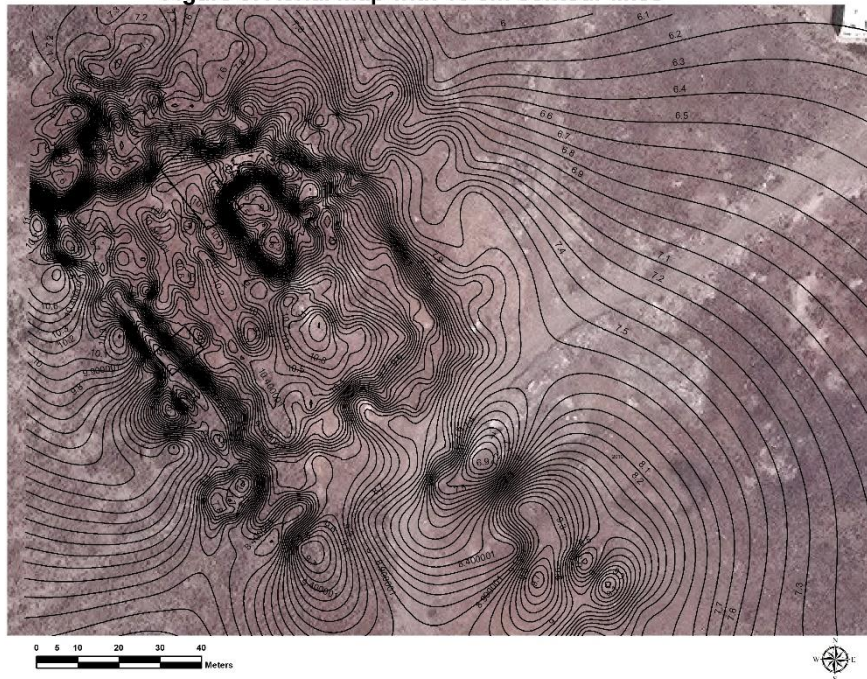


**Figure 2: Aerial map showing reddish soil surrounding T13-1 and T14-1**

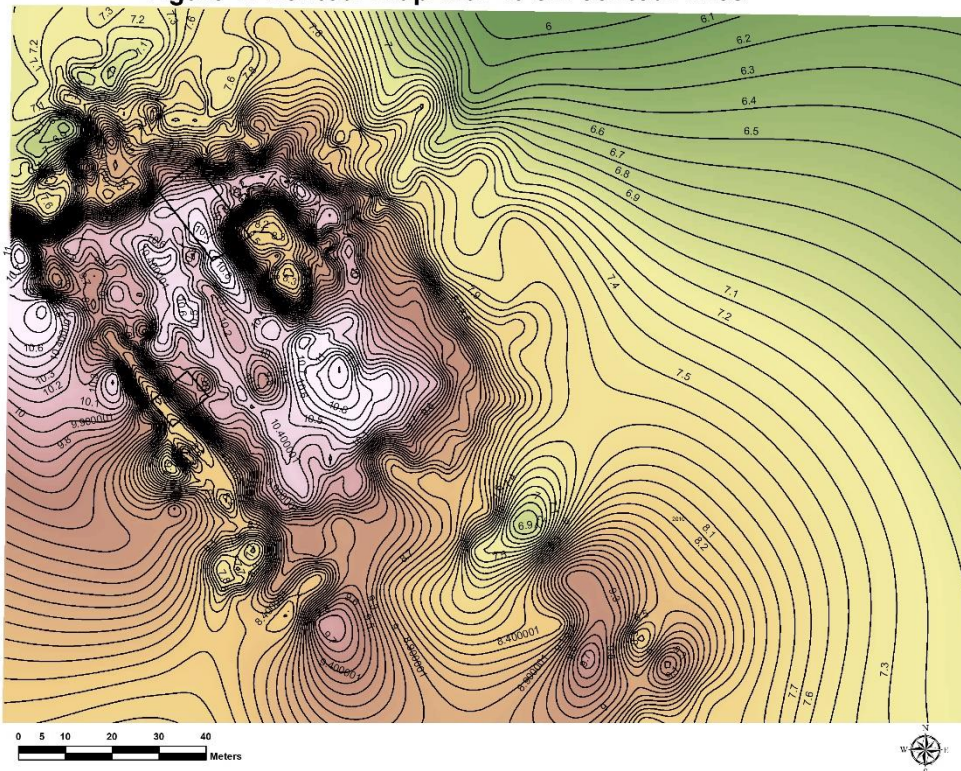




**Figure 3: Aerial map with 10 cm contour lines**



**Figure 4: Contour map with 10 cm contour lines**





## Areas of Excavation July-August 2019

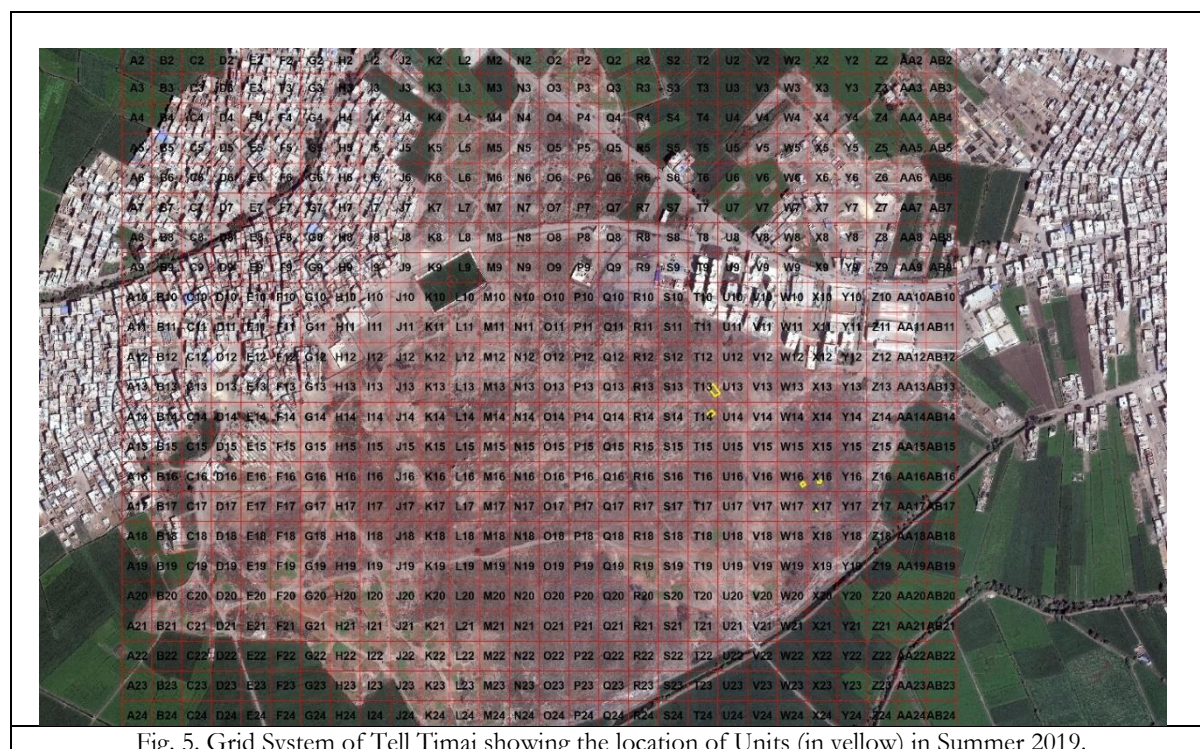


Fig. 5. Grid System of Tell Timai showing the location of Units (in yellow) in Summer 2019.

## Archaeological Report:

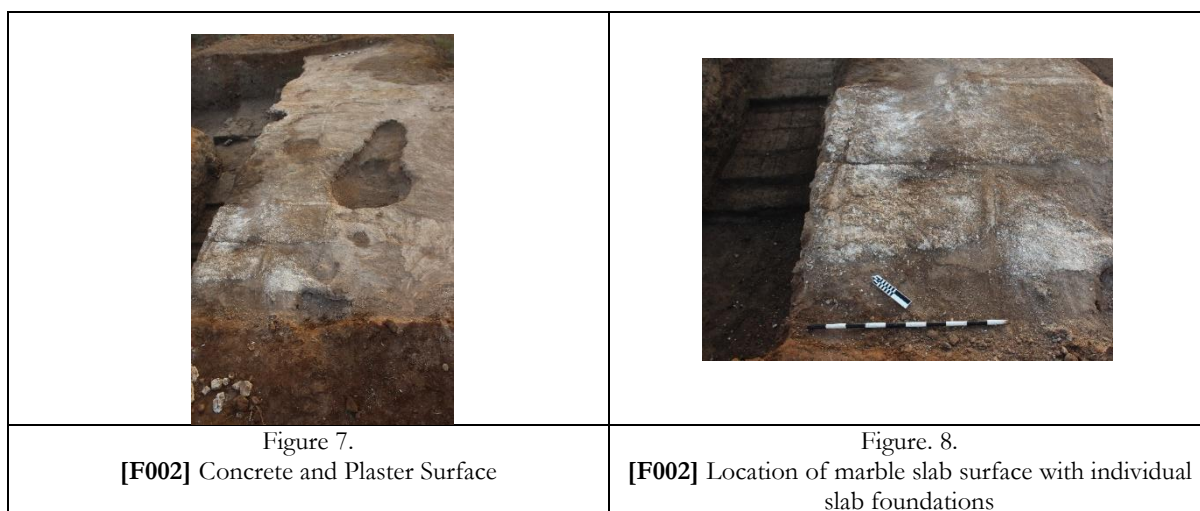
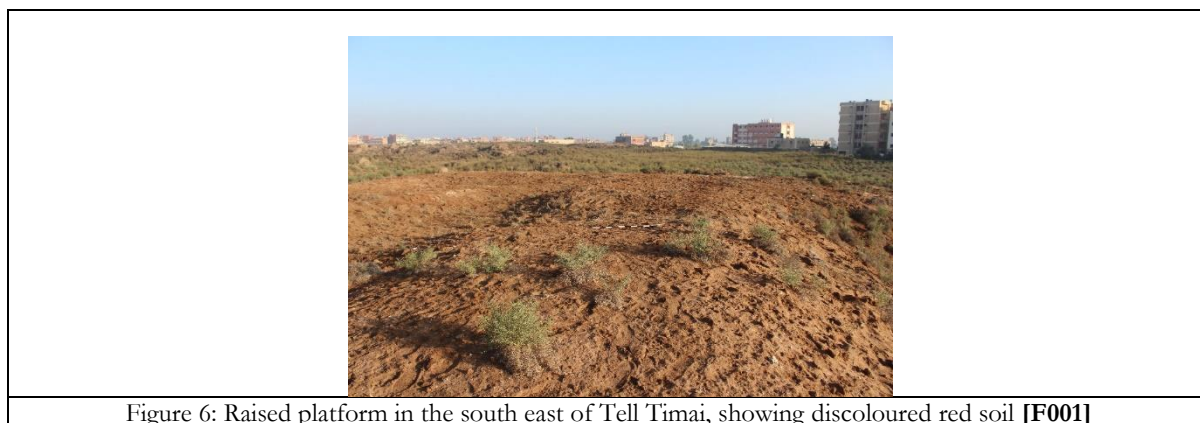
*By Dr James Bennett*

A new area of excavation in grid squares T13 and T14 was begun in July 2019 as part of a new five year excavation project to define the context, function and date of a large structure situated on a high mound in the south east of the site, and to provide the basis for a conservation project in the area to open the area up for tourism. The following is a brief preliminary report on the work conducted in grids squares T13 and T14, ready for future excavations to be conducted in December 2019.

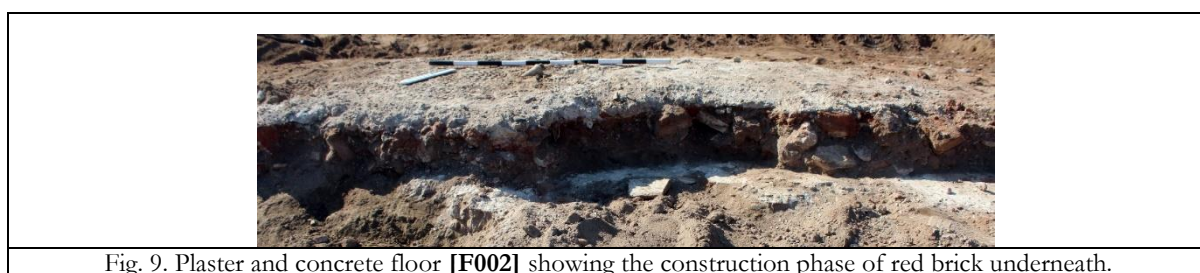
### T13-1

[F001] was a large deposit of reddish-brown soil with many small fragments of red slipped pottery, red brick, marble and hard stone (limestone, granodiorite, and granite), that had been spread across the area of grid squares (T13) and (U13) (*Fig. 6*).<sup>1</sup> This deposit covered a concrete and plaster surface that was less than 5 cm under [F001] in some areas (*Figs 7 and 8*). [F001] had ceramics of the Late Roman Period, mixed with earlier material including Ptolemaic and Early Roman pottery forms. Many small Late Roman bronze coins were also found in [F001]. These coins were sent for conservation at the magazine in Tell el-Rub'a but they were too degraded to be of use.

<sup>1</sup> The presence of discoloured reddish-brown soil is typical of Roman occupied Tell sites in the Nile Delta where the soil has become discoloured by the degraded red brick and red slipped ceramics.



The construction techniques and phases used for the plaster and concrete surface [F002] were identified in several sections across grid square T13. Red bricks were used as a sub-surface foundation on top of fills, and in some areas the concrete surface was supported by large thick sub-surface mud brick foundation walls (some 1.5m thick) and internal fills (*Fig. 9*).



The concrete and plaster surface had been heavily cut in the Late Roman Period to remove the hard stone for secondary usages. The cutting of the marble slab emplacements can be seen clearly in Figure 8. [F001], which consisted of Late Roman ceramics and coins had filled the deep cuts, providing a date the for destruction of the building in this area of the structure to the Late Roman Period, with the latest datable coin so far found in the cuts of the structure, dating to the reign of the Emperor Arcadius in 404-406 CE (*Fig. 10*) (this coin was found in the fill of a cut in the central depression) (see *Fig. 28*).





Fig. 10. Small bronze coin of the Emperor Arcadius (dated 404-406 CE).

The Late Roman cut had caused considerable damage to both the concrete and plaster surface and the sub structure remains. After the removal of the Late Roman Fill in the cut of the concrete floor **[F002]** the area was shown to be divided into two distinct sections, separated by a fragmentary mud brick wall running down the centre of the area **[F023]**, and the walls subsequent collapse **[F024]**. Either side of this fragmentary wall a sand layer was identified **[F006]**. The sand layer was not clean sand as normally found in the sub-surface foundations of Pharaonic and Ptolemaic temple complexes, but mixed heavily with broken red bricks and ceramics, suggesting some considerable disturbance down to the foundations of the structure in this area of the complex, and the sand re-used in later construction phases. The sand was shown to be both on top of, and beneath, some small red brick partition walls that were abutted to the central mud brick wall running down the centre of area, again showing considerable disturbance and possible reuse of sand for foundations (*Figs. 11, 12 and 13*).

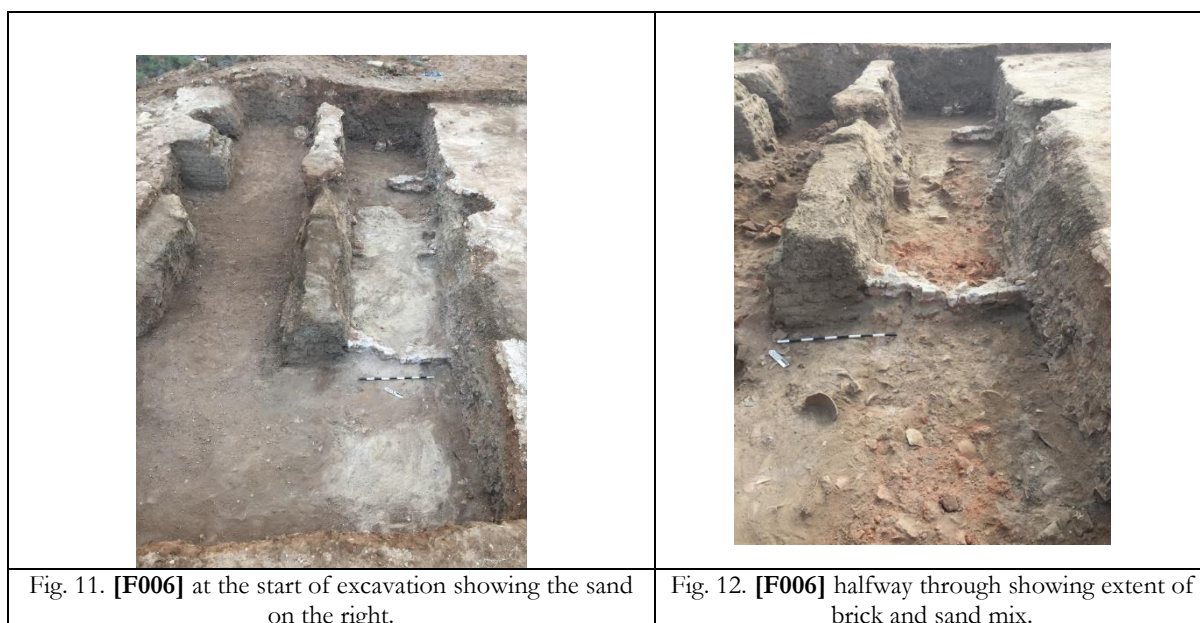


Fig. 11. **[F006]** at the start of excavation showing the sand on the right.

Fig. 12. **[F006]** halfway through showing extent of brick and sand mix.

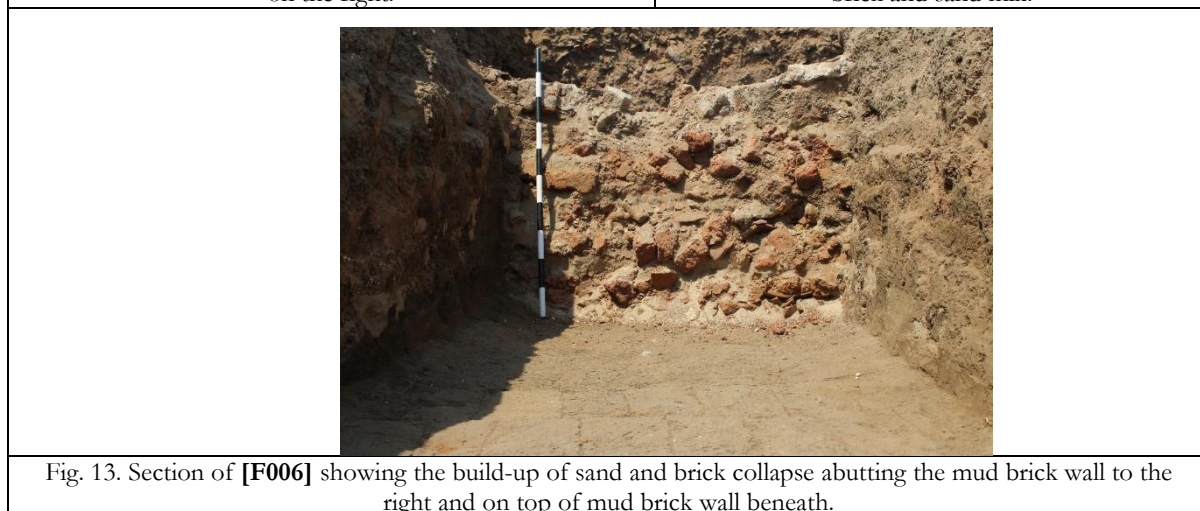


Fig. 13. Section of **[F006]** showing the build-up of sand and brick collapse abutting the mud brick wall to the right and on top of mud brick wall beneath.

On the northern side of the partition mud brick wall [F023] was a deep layer of red brick collapse [F009] deposited back into the Late Roman cut (*Figs 14 and 15*). In this collapse came two fragments of marble with Greek inscriptions on them (*Fig. 16*), and further indicates that this was the destruction debris of either a temple or elite administrative building.



Fig. 14. F009 showing red brick collapse on northern side of wall [F023]



Fig. 15. After the removal of [F009] down onto mudbrick walls and rooms.



Fig. 16. Fragment of Greek inscription on a thin marble slab.

After the removal of the red brick collapse from both sides of the central wall [F023], the sub surface mud brick structures were identified. The area consisted of three separate areas, the western sector, the central long room [F016 and 022], and the eastern long room [F013].

In the eastern section a long room was identified and filled with ceramics [F013] (*Figs 17 and 18*). The depth of the ceramic fill was not reached in summer 2019 and will be re-opened in December 2019 to define the height of the surrounding architecture and depth of the fill. The ceramics from within the room are primarily AE3 Amphora sherds of the early Roman Period, and many early Roman diagnostic forms similar with material from early roman contexts in other sites such as Alexandria. The central long room [F022] between the two large standing walls [F025 and F026] had a pit [F016] cut into it and filled with large AE3 amphora sherds (*Figs 19 and 20*). Several fragments of large Bes pots were also found in the pit (*Figs 21 and 22*).





Fig.17. Eastern Sector. Long room **[F013]** with deep ceramic fill of AE3 Amphora and Early Roman pottery.



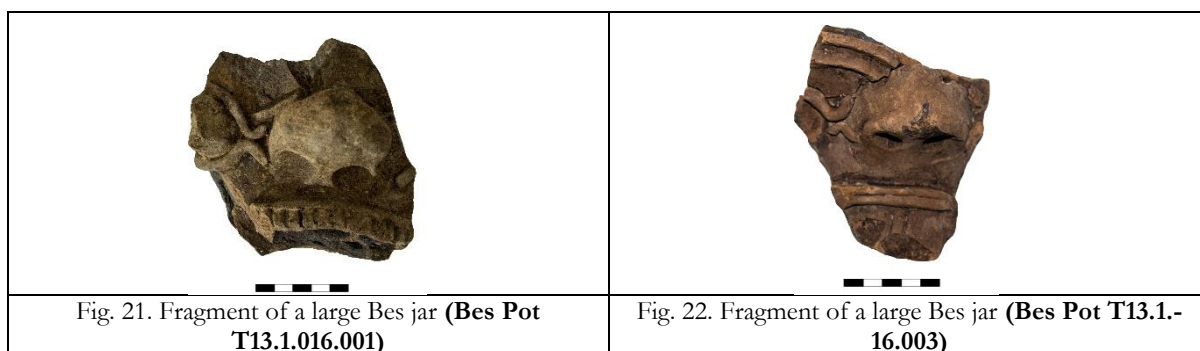
Fig. 18. Section of the eastern room showing how the room had filled with ceramics **[F013]** and the red brick collapse on top **[F006]**.



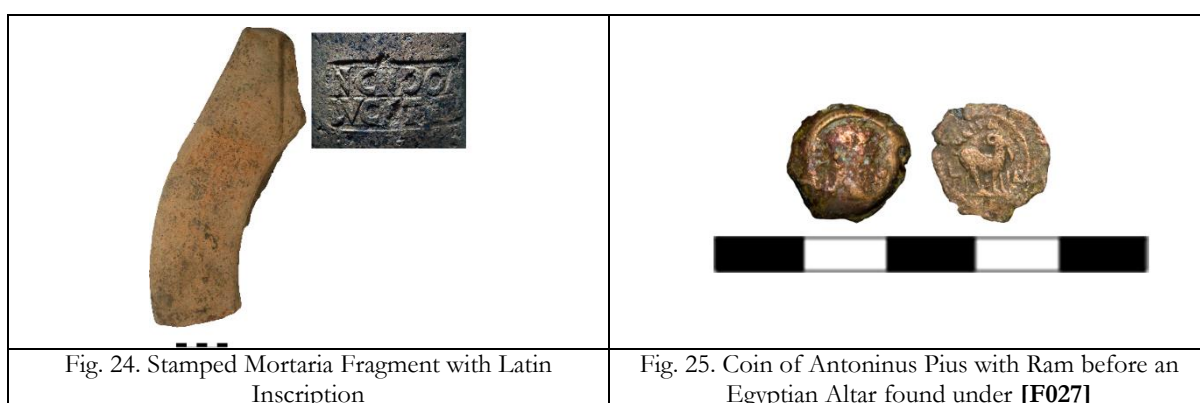
Fig. 19. **[F016]** A pit cut into the fill of the long central space **[F022]** between the standing architecture.



Fig. 20. The pit **[F016]**, facing south with the concrete and plaster floor **[F002]** above.



On the opposite side of the northern wall **[F026]** shown in *Fig. 17*, was a deep room or space (*Fig. 23*). The wall to the east **[F029]** abutted the southern wall and was built upon a deep fill of primarily AE3 Amphora sherds **[F003]**. Within **[F003]** was found a *mortaria* with a stamped rim with a maker's mark in Latin, dated from the 1<sup>st</sup> – 2<sup>nd</sup> Century CE (*Fig. 24*), and a bronze coin of Antoninus Pius with a Ram on the reverse in front of an Egyptian altar (*Fig. 25*).



In the north western section of T13-1 was found another room created by a mud brick wall **[F028]** abutting the central mud brick wall **[F026]** (*Fig. 26*). **[F028]** was built on a fill of mainly AE3 Egyptian amphora sherds the same as **[F029]**. The fill from the upper phase of occupation **[F008]** consisted on many fragments of Eastern Sigillata A and Italian Sigillata forms, which provided a date for the fill to the early Roman Period (ca. 1-100 CE).





Fig. 26. Area after removal of [008] and [011]

### T13-1 Central Depression (Late Roman Cut)

A large central depression characterises the top of the high mound in T13 and U13 (*Figs 27 and 28*). The concrete surface was shown to go all around the top of the high mound and is cut away substantially in the centre of the mound, and at the sides. A large section was created in the south eastern corner of T13-1 to assess the building phases and the stratigraphic layers that make up the high mound (*Fig. 29*). The walls identified within the Late Roman cut of the plaster in northern half of T13-1 were shown to continue under the plaster and form what appears to be either the edge of the central part of the mound, or these mud brick sub surface walls have been cut away to form the deep cut.

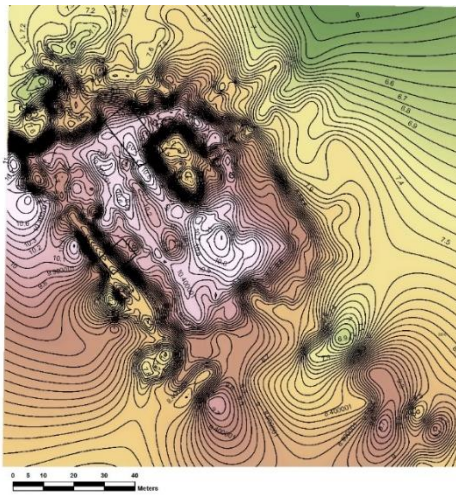


Fig. 27. Contour map showing the large central Late Roman cut in the middle of the structure.



Fig. 28. The large depression in the centre of the structure with the excavation area on the left.



Fig. 29. Large mud brick foundation wall for concrete and plaster surface [F002] which has been heavily cut away by the depression in the centre of the structure.

The material found in the fill of this cut of the central depression was of a mixed Late Roman date with early Roman material including large bronze coins of the Emperors Trajan (Fig. 30) and Hadrian (Fig. 31) which may suggest a date for the construction of the plaster and concrete surface. Future excavations will confirm the construction date for the concrete surface.



Fig. 30. Trajan drachm – Regnal Year 13, 109-110 CE. Triumphal arch of reverse.



Fig. 31. Bronze coin of Hadrian. Year 18, 133-134 CE

Obverse: Bust of Hadrian looking to the right.

Reverse: Bust of Harpocrates with finger to the mouth. He wears the red and white crown of upper and lower Egypt. Cornucopia behind. L -IH in reverse field.



## Archaeological Report: T14-1

By Dr James Bennett

**T14-1** was opened in order to define the context of the large pink granite column that had collapsed in what appeared to be a small street defining the boundary between the urban centre of the city and the large concrete and plaster structure immediately to the east on the 5 metre high mound (T13).



Fig. 32. [F002] shown the column within the collapse.

[F002] was a red/brown soil mixed with large amount of degraded red slipped ceramics, broken red brick, marble floor and wall tiles, and large amount of stucco moulded plaster (*Fig. 32*). The deposit was the same as [T13-1.F001] to the east, but instead of having many hard-stone inclusions, it was primarily red brick and wall (stucco) plaster suggesting a different section of the structure on the large mound to the east had fallen into the street. The large pink granite column was shown to have fallen into the depression, as it was on top of [F002] and it was confirmed that this was not a columned street, but the column, like the others surrounding the high 5 metre mound had fallen in from the structure identified in grid square T13.

[F002] like [T13-1.F001] can be dated also to the Late Roman Period, indicated both by Late Roman Amphora types, Late Roman D Ware forms, and African Red Slip forms. Furthermore, several bronze coins of the Emperors Constantius II (*Fig. 33*) and Constans (*Figs 34 and 35*) also confirm a date for this collapse in the middle of the 4<sup>th</sup> Century CE.

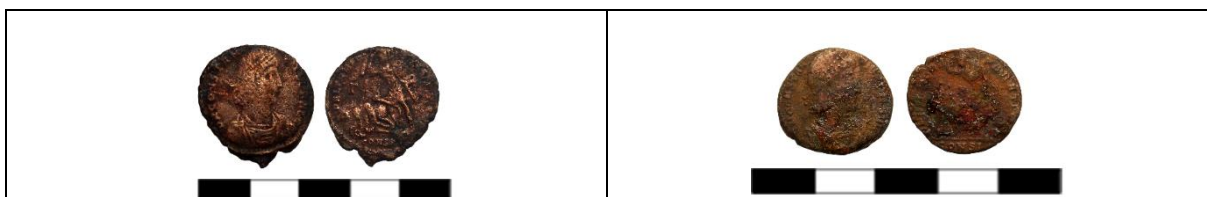


Fig. 33. Coin of Constantius II. Minted in ca. 348-350 CE.

Fig. 34. Coin of Constans. Minted in either 348-350 CE or 353-354 CE



Fig. 35. Coin of Constans, minted in ca. 347-348 CE

Beneath the collapse of [F002] was a domestic occupation that abutted the street. In the middle of the street was a small drain that had been constructed out of large storage jars that had been stacked on top of each other (*Fig. 36*). The ceramics from the surface of the drain indicate a date for its abandonment in the Late Ptolemaic and early Roman Period, while inside the drain there was clean soil fill. No further excavation was conducted in this area in summer 2019.



Fig. 36. Ptolemaic drain in the centre of the street between the Roman high mound and the urban core of the surviving city.

## Preliminary Report on Units W16, X16 and X17

By Miss Nora Shawqi

The aim of this season was to locate the gateway of the proposed Roman military structure. In order to do so, three test units were opened.

### Unit: W16-1

This unit was a 6x6 test unit. It was opened in order to identify the gateway of the structure. The location of the trench was based on satellite imagery and the aim was to identify architectural remains until a full geophysical survey is completed in December.

Feature 001: Consisted of surface cleaning material from highly disturbed context. This mound was initially thought to be collapsed walls of a structure. According to the results, it appears to be backfill from a previous excavation in the area. The terrain was extremely silty/loamy — with large chunks of slag (weighing up to 5 kg). This indicates a long burning process in the area at some point in time. The finds included fragments of pottery, metal, glass, bone, and shell. The limestone found was minimal but burnt all the way through for a prolonged period of time. The red brick included modern ceramic inclusions.

Finds included coins — which were extremely degraded were sent for conservation. Among the finds, was a *strigil*, a curved blade used in Roman baths to collect the natural body oils. This confirms that the backfill in this area was most likely from the previous missions working on the Roman baths as well as for constructing the new buildings in the modern village.

Feature 002:



At a depth of approximately 2 metres, compacted soil was found. The backfill had remnants of modern newspaper, ceramic mixed with Late Roman ceramics and coins. No slag apparent, seems like a sealed context. Mixed contents included glass, stone, ceramic, coins. One of the stone fragments was corner of an ancient planning grid. The newspaper fragment mentions an Egyptian actor 'Khaled El Nabaway' *'in a terrorist role in a movie'*. The film had been released in the year 1991. The backfill up to 2.5 meters down — was still with modern remnants.

#### Unit: X17-1

This unit was a 2x2 test trench. It was opened in order to identify the section of the structure where the *horreum* — granaries should be located. The location of the trench was based on satellite imagery and the aim was to identify architectural remains until a full geophysical survey is completed.

Feature 001: This feature was mainly surface cleaning.

Feature 002: This feature consisted of fragments of plaster, amphora, and possible red brick collapse. There was an assortment of pottery fragments including complete plates and small vessels.

Feature 003: This feature included pottery and building debris which was most probably degraded mortar or brick. This feature was 0.5 meters below ground level.

#### Unit: X16-1

This unit was a 5x5 test trench. It was opened in order to identify the extent of the gateway to the fortress.

Feature 001: This feature was the only feature opened due to time constraints. It went down almost 1 metre below ground level. The finds consisted of a total of seven coins — which were all severely degraded and were sent for conservation. A large ballista ball was discovered in Unit X16-1. Coins of Maximinus II and Probus were found in this deposit (***Figs 37 and 38***).

#### Preliminary conclusion:

The area has been exposed to looting and mud brick removal by sabakheen and also in antiquity. Further excavation is required to define the context of the area. Based on the finds from this test season, there are grounds to continue excavation in the area to locate the corners and extent of the structure. A full geophysical survey is required and planned to be conducted in the winter season of 2019. This survey will enable us to view the extend of the remaining structure.



#### Preliminary Conservation Plan

By Dr James Bennett

Discussions were begun to implement a conservation area around the newly discovered temple area in grid squares T13, T14, U13 and U14. In order to preserve the standing mud brick remains, the walls at the end of the season were covered with a plastic covering with soil placed on top, and a plastic covering was also placed on top of the concrete surface to protect it from the climate.
















In December 2019 the mission will continue to excavate to the base of the walls exposed in summer 2019 and once this has been achieved the mission will begin to conserve the mud brick walls. Plans are also in place to construct a wall around the area and to provide the area with information posters and signs to improve the possibility of tourism to the site and for the local population to learn about the area the mission is working in.
















Future discussions will be made to construct a roof of either metal or fibreglass to cover the most important areas of the temple from both human and natural factors, with access to the area through a single metal door.

***Reconstruction and Interventions:***

In December 2019 the team will make new mud bricks to strengthen weak standing walls, using bricks that are different in size from the ancient bricks to define the conserved areas and the ancient sections. The mission will fill the mortar lines of the existing walls if needed with the same mortar used in ancient times, (Sand and Mud), and understand the ratio of sand to mud. We will make a sacrificing layer of 1cm or less on top of the surface bricks when they are found.



		
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