

Tell Timai Archaeological Survey

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Introduction

The ruins of the Greco-Roman Egyptian city of Thmuis are found at Tell Timai in the Delta region of Egypt near the city of El-Mansoura. Thmuis is about a half kilometer south of Tell el Rub'a, the site of the ancient city of Mendes. Mendes was a dominant city in the Delta during most of Egypt's history, from the end of the fourth millennium until the fourth century BC,¹ in part because of it was an important port. Apparently, the course of the Nile shifted in the fifth and fourth centuries, and Mendes, having lost its economic base as a port, was gradually abandoned for Thmuis, where the course of the river had moved, and where a port had developed. The name Thmuis is Egyptian

f » Oj] tamAwy "new land," which is a fitting name for a new site so close to Mendes. The first reference to Thmuis in the ancient sources is in the *Histories of Herodotus* (2.166). Having visited Egypt in the middle of the 5th century BC, he enumerated the nomes (districts) from which the military class, called Calasirians, came. Both Mendes and Thmuis are mentioned, which indicates that both cities flourished independently at this time. Archaeological excavations at Mendes suggest that by the fourth and third centuries BC, the population had diminished considerably. This was paralleled by a rise in the importance of Thmuis, which flourished during Ptolemaic times (4th to 1st century BC) and became the capital of the Mendesian nome. The first mention of the city itself is during the period of the Jewish Wars (66-70 AD). Josephus *Jewish Wars* (4.656) relates that the future emperor Titus sailed with his army from near Alexandria via the Nile along the Mendesian nome, and disembarked his army at Thmuis for an overland march to Jerusalem. This indicates a major port at Thmuis. In the 2nd century AD we find Thmuis as the capital of the Mendesian nomes,² at a time when Mendesian perfume was the rage in the ancient world, according to Pliny (*Natural History* 13.2.4).³ By the fourth century it had become one of the most important cities of Egypt (Ammianus Marcellinus *Roman History* 22.16). During Roman times (3rd to 4th century AD) it became an episcopal see and was the home of Saint Serapion (4th century AD). In the sixth century it was a city in the Eparchy of Prima Augusta,⁴ and in the 7th century is included among the dioceses of the Eparchy of Augustamnica Prima.⁵ Because of its importance as a center of Christianity, many of its bishops are known, including Phileas, martyred in Alexandria in 305 AD,⁶ and Anba Mennas in 744 AD. The city was still prominent when the Arabs invaded Egypt in 641 AD. It probably was abandoned by the 10th century AD, after a local tax revolt.

Little excavation has been done in Tell Timai, but material of significance has been discovered that indicates the potential of the site. It is one of two places, besides Tanis, in the Delta region where papyri have been found. At the end of the 19th century Edouard Naville discovered what he labeled as a library in a Roman house. Unfortunately, he did not indicate where on the Tell this was located. The papyri were

burned, worse than those from Pompeii, according to Naville. He attempted unsuccessfully to preserve and transport the papyri. However, a few documents have survived, which are administrative records.⁷ A number of marble statues and small bronzes, and magnificent Hellenistic and Roman mosaic floors, now in the Egyptian Museum in Cairo, and the Graeco-Roman Museum in Alexandria, attest to the wealth and importance of the city.⁸

In 1965 and 1966 New York University conducted a survey, a few exploratory trenches and one area of excavation on the western side of the central part of the mound. They produced an excellent survey and maps (Map 1). In addition, they discovered and excavated a series of eight intact rooms, dating from the second and first centuries BC. Among the items they excavated was a rare form of a vessel known as a plemochoe, which was used in the Eleusinian Mysteries.¹⁰

There has been no excavation since then, except some recent unpublished work by members of the Supreme Council of Antiquities, particularly in areas of the Tell where there is encroachment from adjoining modern towns.

The Site

Tell Timai consists of a mound with a perimeter of approximately 5.7 kilometers, covering 91 hectares. There are remains of Hellenistic/Ptolemaic mud brick buildings and well-defined streets. Stone architectural fragments and traces of wall paintings and mosaic floors are visible. About 500 meters to north is Tell el Rub'a. The center of the mound is approximately 18.50 meters above sea level, and at the outer edges about seven meters above sea level. To the northwest the modern village of Kafr el Amir Abdallah Ibn al Salam has encroached onto the mound. To the northeast, stands the village of Timai el Amdid, which is even more rapidly encroaching onto the site. Three large new apartment buildings and a school are now visible in the northeastern area. A propane gas distribution building has been erected on the mound itself, and next to this building is the foundation of another building under construction. Local villagers have reported that this building will be a slaughterhouse. Both villages in the past decades have used this portion of the Tell as a garbage dump, which is rapidly growing in size. The Tell is used as a dumping ground for dead donkeys, and packs of dogs are ever present on the site.

The Tell has been despoiled, at least since the 19th century, as reported by George Darresay in 1890 by *sabbakheen* who used the mud brick for fertilizer, as well as townspeople who took the mud brick and stone for use in building their homes. During this survey, we observed fluted marble columns at the edge of the Tell near Kafr el Amir Abdallah, which had been dragged there by townspeople, probably with a view to use the materials (Map 2).

On the eastern side of the Tell is a modern Islamic cemetery. It was reported to us by an antiquities inspector that near the Islamic cemetery within the past several decades, there had been some minor excavations by members of the SCA of Greco-Roman graves.

On the north and northwest side and edge of the Tell there is evidence of widespread excavation by members of the SCA. The excavation pits go to a depth of about 1.5 meters, where water is evident in the pits. Roman and Hellenistic pottery remains are clearly visible in the pits, as well as in situ storage jars.

Objectives:

The 2007 field season at Tell Timai had the general objectives of assessing the risk posed to the site by encroachment and natural forces and establishing a baseline of the specific urban geography of the Tell to support the development of a plan of archaeological investigation and preservation. The data used to address these issues were collected using remote sensing analysis and surface survey. The following specific objectives were accomplished during the 2007 field season:

- a. Creation of a Euclidean correlation between the excavation control grids established in 1967 by the New York University (NYU) Mendes Project and the current geographical standard Universal Transverse Mercator coordinates (UTM) using the World Geodetic System 1984 datum (WGS-84). This goal was accomplished by identifying and correlating visible landmarks on the NYU map with landmarks visible on high resolution satellite imagery and ground-proofing the location of the landmarks by surveying with a Laser Total Station (Map 1).
- b. A general evaluation of damage done to the Tell by modern development and encroachment as well as the historical looting of mud brick (Map 2).
- c. An extensive surface survey and sample that can be used to evaluate the areal-temporal distribution of surface artifacts across the Tell (Maps 3 and 4).
- d. The making of a test map of a street block that serves as a pilot study for the creation of an extensive map that would record the surviving urban architecture (Map 5).

Methods:

Three primary methods were employed to collect the requisite data for analysis: (1) the use Geographic Information System (GIS) software to manipulate Satellite imagery, (2) the collection of geographical data using Global Positioning System (GPS) and a total station, and (3) the use of a pedestrian survey to evaluate the condition of specific portions of the Tell and to collect a sample of artifacts from the evaluated areas. These methods were interdependent in that the mapping and ground-proofing objectives provided the means of maintaining spatial control of the samples collected, as well as the correlation of already published data with that gathered during the new investigation. The specific tools and methodological approach used in each of these methods are as follows:

- I. The use of GIS and Satellite Imagery:
 - a. Equipment:
 - i. Satellite imagery: a 13 February 2004 4-Band Pan Sharpened, orthorectified satellite image with 0.60 m resolution,
 - ii. ArcMap 9.2 GIS software with the Spatial Analysis and 3D Analyst extensions,
 - iii. Method: Maps published by NYU (R. Holz *et al.*, *Mendes I*, Cairo: 1980: Plates 23-26) were scanned and overlain over digital satellite imagery using the GIS software. Key landmarks including building and field boundaries were identified and used to georectify the NYU map to the satellite imagery. From this

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- composite map, UTM coordinates could be translated from the NYU survey grid system (Map1).
 - II. Collecting geographical data points on the Tell:
 - a. Equipment:
 - i. A Garmin GPS60map GPS unit with an average estimated error of ± 4 m when used at Tell Timai using World Map post-processing software,

- ii. A Leica TCRpower laser total station with a TDS Ranger data collector running Survey Pro software,
 - iii. TDS Foresight software used for the post-processing of data.
 - b. Method: The GPS unit was used to establish an arbitrary horizontal datum at UTM 36R 0358406 3423887, which was then tied to the NYU recorded elevation by survey with the total station. The new datum was then used to map the location of salient landmarks that could be used to refine the site map.
- III. The pedestrian survey:
 - a. Equipment:
 - i. The Garmin GPS,
 - ii. GIS and the satellite imagery
 - b. Methods:
 - i. Using the U.S. National Park System Grid Tool for ArcMap, a 50-x-50 meter grid of survey sectors was established over the entire Tell in concordance with the 2007 datum. Each of the grid sectors was then labeled according to an alpha designator (A-Z on the east-west axis) and numeric designator (1-24 on the north-south axis). A total of 33 grid sectors were selected for intensive survey based on reported or observed features that might be elucidated by surface inspection or in area in which there was no extant data as to the presence archaeological remains (Map 3).
 - ii. The grid chosen for sampling were investigated with a pedestrian survey. The survey consisted of 5 individuals spaced at 8-12 m intervals in a picket line formation walking across the grid collecting diagnostic artifacts from the surface. In addition, notes were taken on the topographical and archaeological character of each survey grid. Artifacts collected during the survey were washed, analyzed, and recorded with digital photography.

Artifacts:

Large quantities of surface pottery and other surface finds were recovered. The pottery and small finds date from the late 4th century BC to the 8th century AD. The two earliest finds were a head of Harpocrates, dating to the 30th dynasty or early Ptolemaic, and an imported 'echinus' cup, belonging to the late fourth or early 3rd century BC. The latest piece was an Arab period sherd, dating to the 8th century AD or later (Table 1).

The heaviest concentration of material was in Ptolemaic, 3rd to 1st century BC, and late Roman, 4th to 8th century AD (see Table 1 and Map 4). The Ptolemaic material was more heavily concentrated in the western half of the Tell and the Roman in the

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eastern half (Map 4). This suggests that the settlement patterns expanded eastward during the late Roman period, and possibly moved further east off the Tell after the 8th century. In fact, the modern town of Timai El Amdid lies on the eastern side of the Tell, and probably ought to be considered the successor of ancient Timai. Timai El Amdid today is expanding westward back onto the Tell.

Among the Ptolemaic material were many bowls and cups of the so-called 'echinus' shape, with incurved rims. This long-lived shape and other bowl forms, based on Greek black-glazed vessels) are often coated with a red or black non-vitreous glaze (a slip). We call them Egyptian Red Glaze Ware (ERGW) and Egyptian Black Glaze Ware (EBGW).

A number of Egyptian wine amphorae were found, particularly the two main forms, Amphores Égyptiennes 3 (AE3) and Late Roman Amphora (LRA7). These run consecutively for very long periods. Most cannot be dated more closely than the 1st to 5th century AD (AE3) or 5th to 8th (or later) century LRA7. ¹¹

Imported wares were found from southern Israel, Tripolitania, Tunisia and Cyprus. A number of Gaza jars (Late Roman Amphora 4), dating to the 4th-5th centuries AD were

imported from southern Israel (Table 1). Egyptian local copies of this ware were also found. There were several fragments of Red Slip Ware Form 84 and African Red Slip ware from Tunisia, dating from the 5th century AD. Amphorae fragments from Tripolitania, dating to the 2nd to 3rd centuries AD, were also found, as well as a lone Cypriot Late Roman Amphora 1 oil-jar from the 5th-8th century AD.

The small finds include a Commodus Billion tetradrachm of Alexandria (177-192 AD), earrings from the 2nd century AD, a plaster late Roman jar-sealing bearing a Coptic cross, several bricks with dog footprints, 24 unidentified bronze coins, and innumerable fragments of Roman glass, probably dating from the 1st century AD onwards. The area in and around survey grid X16 in the eastern part of the Tell had large deposits of vitrified slag and ceramic sherds. Chemical analysis of the slag shows that it is largely made of soda-lime-silica glasses (Na₂O-CaO-SiO₂), a possible by-product of glass manufacturing. This is consistent with the fact that during the Ptolemaic period, and particularly the Roman period from the 2nd century AD, Thmuis was a center for the production and export of Mendesian perfume, which required a large quantity of perfume jars, both of glass and ceramic.

Conclusions:

During the 2007 field season a total of 82,500 m² were investigated by intensive surface survey. The preliminary results of the intensive survey and the satellite image interpretation indicate that the southern and northern-most portions of the Tell have been severely damaged by the activities of *sabbakheen* and pre-industrial agriculture (Map 2). This damage has eliminated most surface architecture, but it has most likely left the lower strata and foundations of ancient architecture intact. The northeastern portion of the site is rapidly being destroyed by modern development which, because of the deep foundations of modern structures, completely destroys all useful archaeological information from these portions of the Tell. Contemporary urban encroachment is also occurring in the west, but it appears to be moving at a slower pace.

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Archaeological evidence collected during this survey, as well as that indicated by the NYU and SCA investigations supports the following hypotheses about the urban geography of Graeco-Roman Thmuis (Map 5):

- 1) The northern sector contains the remains of a harbor, dock, and warehouse district,
- 2) There are two loci consisting of forums/agoras and public architecture located in the central portion of the site, one in the east and one in the west,
- 3) Based on the presence of large mounds of slag, the eastern portion of the site appears to have been involved in large scale manufacturing, possibly of glass, and /or bronze,,
- 4) Much of the urban architecture in the central portion of the Tell is in a state of preservation that would allow an accurate reconstruction of numerous square blocks of Graeco-Roman residential, public, and commercial structures. The condition of the standing architecture is rapidly deteriorating because of human and natural disturbances including looting, dumping, weathering, and animal and plant activity.

Previous excavation of the site recovered material dating from the late 4th century BC to the 8th century AD. The results of the surface survey conducted this season have shown objects dating from the 4th century BC to the Islamic period, consonant with the New York University survey. It is possible that settlement of Thmuis dates back, perhaps as early as the New Kingdom, which further excavation may reveal. The continuous occupation of the site from at least the Hellenistic to the Coptic periods suggests that Thmuis has a tremendous potential contribution to the growing body of data related to the chronology of the Nile Delta. The site is endangered by the encroachment of adjacent modern towns. If destructive development can be halted and the site preserved,

excavation of the site holds enormous promise, not only in artifacts and architecture, but in knowledge about commerce, manufacturing, and life during the Greco-Roman and Coptic epochs of Egyptian history.

ENDNOTES

- ¹ Donald B. Redford, *Excavations at Mendes*, Brill: Leiden, 2004..
- ² Claudius Ptolemy. See J. Ball, *Egypt in the Classical Geographers* Cairo 1942, p. 109.
- ³ Alicia D. de Rodrigo, "An Ancient Mendesian Industry, Bulletin of the Egyptological Seminar 14 (2000) 33-39.
- ⁴ Hierocles in Ball p. 165
- ⁵ George of Cyprus in Ball p. 175.
- ⁶ W. Munier, *Recueil des listes épiscopales de l'église copte* (Cairo 1943); W. Ensclin, s.v. Phileos, *RE* 192 co. 2132-33.
- ⁷ Edouard Naville, Egypt Exploration Fund *Archaeological Reports*, 1892-1893, 1-5. Catalogue of the Greek Papyri in the John Rylands Library, Manchester II. Nos 213-22, 426-433; V. Martin, "Un document administratif du nome de Mendès," in *Studien zur Palaeographie und Papyrskunde* XVII (Leipzig 1967) 9-48. S. Kambitsis, "Sur la toponymie du nome mendésien," *BIFAO* 76, 1976, 225-230; ----, "Un nouveau texte sur le dé peuplement du nome mendésien. P. Thmouis 1, coll. 104-105", *CdE* LI, no. 101, 1976, 130-140; ----, *Le papyrus Thmouis I*, Paris, 1985, especially 68- 160.
- ⁸ C. Edgard, *Cairo Musée des antiquités égyptiennes Le Musée égyptien: recueil de monuments et de notices sur les fouilles d' Egypte* III (Cairo 1890-1915) pp. 1-13.
- ⁹ E.L. Ochsenschlager, "Excavation of the Graeco-Roman City Thmuis in the Nile Delta," *Annales archéologiques arabes syriennes*, 21 (1971) 185-191. Donald P. Hansen, Christine Soghor and Edward

- Ochsenschlager, "Mendes 1965 and 1966," *ARCE* (1967) 5-51. Robert K. Holz, David Stieglitz, Donald P. Hansen and Edward Ochsenschlager, *Mendes I* American Research Center in Egypt: Cairo, 1980.
- ¹⁰ E. L. Ochsenschlager, "The *Plemochoe* A Vessel from Thmuis," *JARCE* 7 (1968) 185-191.
 - ¹¹ See in general Sylvie Marchand (ed.) *Amphores d'égypte de la Basse Époque à l'époque arabe Cahiers de la céramique égyptiennes* vol. 8. Institut Français archéologue orientale: Paris, 2007.

TABLE 1
TELL TIMAI CERAMIC ANALYSIS 2007

| Ceramics | I15 | J15 | K12 | L17 | L16 | M16 | N12 | O12 | O21 | P6 | P7 | P8 | P11 | P12 | P13 | P14 | Q12 | Q17 | R12 | R16 | R17 | S14 | T14 | U14 | W14 | X16 | X17 | | | | | | |
|--|-----|-----|-----|-----|-----|-----|-----|-------|-----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|---|---|----|----|----|---|
| LATE ROMAN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LRA7 Spike/Roman 5th-8th AD | 6 | | | | | | | 12 | 1 | | | | | | | | | 11 | | | 14 | 9 | 6 | | 3 | 2 | 9 | 9 | | 11 | 4 | 6 | 1 |
| LRA7 Mouth/Handle/Neck/Roman 5th-8th AD | 1 | | | | | | | 2 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| LRA1, Neck, Cypress/5th-8th AD | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| LRA8, Imported Spathion/5th-6th AD | | | | | | | | | | | | | | | | | | | | | | | | | | | 1? | | | | | | |
| Egyptian Red Slip A Ware/Roman 5th-6th AD | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Egyptian Red Slip B Ware/Roman, 5th-6th AD | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | 2 | | |
| African Red Slip Ware/Tunisia 5th AD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gaza Jar/LRA4, 4th-5th AD | | | | | | | | 2 | 1? | | 1 | | 1 | | | | | | | | | | | | | | | | | | 1? | | |
| Gaza Jar/Possible Egyptian Copy, 4th-5th AD | | | | | | | | 1 | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| ROMAN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tripolitanian Amphora/ 2nd-3rd AD | | | | | | | | 1? | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 2 | | |
| AE3 Jar/1st-5th AD | | | | | | | | 1 | 1 | | | | 1 | | | | | | 1 | | 1 | 1 | | | | | 1 | | | | 1 | | |
| Coan-type Amphorae Handle/Roman 1st-2nd AD | | | | | | | | | 1 | | | | | | | | | 2 | | | | 1 | | | | | 1? | | | | | | |
| Eastern Sigillata A Ware, Levantine Import, | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | | | |
| Egyptian Casserale/Probably Roman | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Bowl/Late Ptolemaic-Early Roman | | | | | | | | 72, 1 | | | | | 1 | 1 | 3 | | | | | | | | | | | | 2 | | | | | | |
| PTOLEMAIC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spindle Bottle/Ptolemaic, 2nd-1st BC | | | | | | 2 | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Lamp/Ptolemaic, 2nd-1st BC | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Echinus' Cup/Ptolemaic, 3rd-1st BC | | | | | | | | 1 | 1 | | | | | | | | | 1 | 2 | | | | | | | | 1 | | | | | 1? | |
| Echinus' Cup ERGW/Ptolemaic, 3rd-1st BC | | | | | | | | | | | | | | | | | | | | | | | | | | | 1, 1? | | | | | | |
| Egyptian Lipped Dish/Ptolemaic, 3rd-1st BC | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| EBGW/Ptolemaic, 3rd-1st BC | 2 | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 1 | 1 | 7 | 3 | | 1 | 1 |
| Ptolemaic Wine Amphora/3rd-1st BC? | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Cooking-Pot, Ptolemaic, 3rd-1st BC | | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Pot-stand, Ptolemaic, 3rd-1st BC | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | | | 1 | | | |
| Egyptian Wares/Ptolemaic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bowls/Ptolemaic, 3rd-1st BC | | | | | | | | 3 | 3 | 1 | | | | | | | | | 4 | | | | | | | | 1 | 1 | | | | | |
| Painted Sherd/Probably Ptolemaic | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ERGW Flask/Probably Ptolemaic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Bowl, Coarse Ptolemaic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1? | |
| Sakiya Pot/Ptolemaic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Echinus' Cup Import Black Glaze/4th-3rd BC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Other Artifacts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Plaster Jar Sealing, Late Roman | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bronze Earring/Roman, 2nd Ad | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Head of Harpokrates | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Arab Period Sherd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Tile with Dog's Footprint | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Murex Shells | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | |
| Roman Coin, Commodus Billon Tetradrachm of | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alexandria. 177-192 AD, Koln 2240; Dattari | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3878; Curtis 837; Emmett 2553, Milne 2681, Nilus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (or Silenus) seated holding reed and cornucopia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Map 1. An overlay of the NYU map over a 2004 digital image.

Map 2. An estimation of the various types of damage done to Tell Timai based on observations made during the 2007 survey.

Map 3. The 50 m survey grid and areas surveyed during the 2007 investigation.

Map 4. The temporal distribution of diagnostic ceramics collected in surveyed grids.

Map 5. Urban geography of Tell Timai inferred from observations made during the 2007 survey.