

TELL EDFU

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Introduction

The ongoing excavations at Tell Edfu have provided important new data for the study of early urban centers within Egypt. The discovery of the administrative quarters of this ancient town during the past four years has yielded several successive installations, which are characterized by a large granary court dating to the Second Intermediate Period (Dynasty Seventeen) and an earlier columned hall, which had been part of a substantial administrative complex dating to the late Middle Kingdom (Dynasties Twelve to Thirteen).

The fieldwork season at the settlement site of Tell Edfu took place from October 4 to November 12, 2009. The main objectives were finishing the full excavation of the eight silos, which had been discovered during the previous seasons, and exploring further elements of the columned hall underneath the silos as well as preparing a new excavation area farther to the northeast of the silo area that lies close to the Ptolemaic temple enclosure wall where Old Kingdom settlement remains have been located. Furthermore, the development of new digital image-capturing techniques reached its last stage of research. The new technique was carried out in collaboration with Lec Maj, former assistant director for research computing, University of Chicago, and has been funded by the Women's Board, of the University of Chicago, and the National Endowment for the Humanities in the form of a digital startup grant.

Excavation in the Silo Area

Last season, we received eagerly awaited official permission from the Supreme Council of Antiquities (SCA) to fully excavate and remove the walls that were built into the thick ash layer covering our excavation area (fig. 1). These walls lay above the granaries and were excavated in 1923. A photograph taken in 1928 from the top of the temple pylon clearly shows the ash layer and the small square silos that were built into it. A comparison with photos taken from the



Figure 1. Tell Edfu excavation area in 2009

pylon in 2008 shows that most of the walls that are lying above our excavation area were already excavated more than eighty years ago. Over the past three seasons at Tell Edfu, we recorded these walls in all their detail with drawings, descriptions, and photographs as well as an analysis of the few stratigraphic connections still preserved. Thus, we have now obtained the necessary information for the forthcoming publication in the first volume of the Edfu Reports series.

During the excavation of these wall remains, we have been able for the first time to provide a precise date for them. The few remains of in situ layers connected to these walls (since most of them were removed during the previous excavations) contained pottery that dates to the Late Period (Dynasties Twenty-five to Twenty-six). The walls belonged to larger domestic buildings, which seem to have been characterized by relatively thin walls of about 58 to 60 cm in width. They could have only been used for single-story houses since these walls are not strong enough to support additional floors above. Further elements of these houses were large open courtyards and numerous square magazines or cellars that had been built deeply into the ground and were used as storage space. These square magazines were about 1.2 m long and wide and about 2.5 m deep. Their walls were only one brick thick, about 14 cm, and bricks lined the pits that had been dug directly into the ground. Their floors were also paved with mudbricks. We have not been able to discover any original fill inside these magazines, which might have provided evidence for what exactly had been stored in them. The previous French excavations had already emptied them in the 1920s and refilled them with their own excavation rubbish, which contained modern straw and pieces of newspapers. In the western part of our excavation area, we excavated one of those square magazines, which had the western wall still preserved to its original height at 2.5 m above the floor level. Three small pieces of wooden beam fragments found on top of the wall indicated that these magazines were covered with mudbricks and wood. There must have been a trap door from above to access them, but no traces of the latter have been preserved. The general character of these Late Period houses seems to have been private, and no find has led us to believe otherwise.

New Kingdom Refuse Layers

The Late Period walls were built over very thick refuse layers, which have been dated to the first half of the New Kingdom. A clear hiatus in occupation can be seen between the abandonment of the Second Intermediate Period silos and the Late Period occupation. So far we have not discovered any evidence for Ramesside or Third Intermediate Period activities in this zone. A major change in the function of this town quarter from being an administrative, official area to being used as a refuse dump during the Eighteenth Dynasty until the installation of Late Period domestic buildings seems to have occurred. Apart from dumping large amounts of white ash (US 2013 in fig. 2) and discarded pottery mixed with occupation debris (US 2458 in fig. 2), there are few activities that can be observed here that date to the New Kingdom. The white ash might have been deposited from a nearby bakery since we did not find any traces of industrial activity such as unfired/vitrified pieces of pottery that would indicate pottery production or any metal slag that would be a sign for metal working. A large-scale baking facility somewhere nearby seems to be the most plausible explanation for the origins of the ash. The underlying sequence of a multitude of refuse layers (US 2458) containing a lot of pottery seems also to stem from some large-scale production activity nearby. Curious fragments of dried mud were found in large quantities in these layers; their function and origin are so far unknown. Among them were a large number of hieratic ostraca, which contain administrative lists. According to the context and paleography, they date from the late Second Intermediate Period to the early New Kingdom. Ostraca from



Figure 2. Refuse layers of the New Kingdom

reliable archaeological contexts are extremely rare, especially for the period in question.

A large quantity of animal bones was also excavated this year. Of particular note are the bones of several hippopotami. An entire upper skull (fig. 3) has been discovered in the area immediately east of Silos 405 and 303. Additionally, multiple pieces of jawbones, tusks, vertebrae, and leg bones have been found in different contexts in the silo area, some in the debris layers of the New Kingdom, others in earlier fill layers near the silos. The exact reason for them being deposited here and the puzzling fact that there is more than one occasion of dumping hippo bones are questions that we need to answer in the future.



Figure 3. Hippopotamus upper skull and vertebra discovered near the silos

The Silos of the Second Intermediate Period

The excavation of the Late Period walls and the refuse/ash layers underneath them allowed us for the first time to excavate the complete silos of which we had dug small parts in previous seasons (fig. 4). In the southern part, we completed the excavation of Silos 393 and 405 down to their original floor level. In the interior of Silo 393, we dug various fill layers and walking levels, which had accumulated above its original floor. Several small fireplaces visible on the surface of these walking levels indicate some sort of use after the actual function of the silo as granary had ceased. Two of those fill layers lying above the silo floor contained further hieratic ostraca that also date from the end of the Second Intermediate Period to the early New Kingdom (fig. 5). They must have been discarded after the silo had fallen out of use. They are very similar

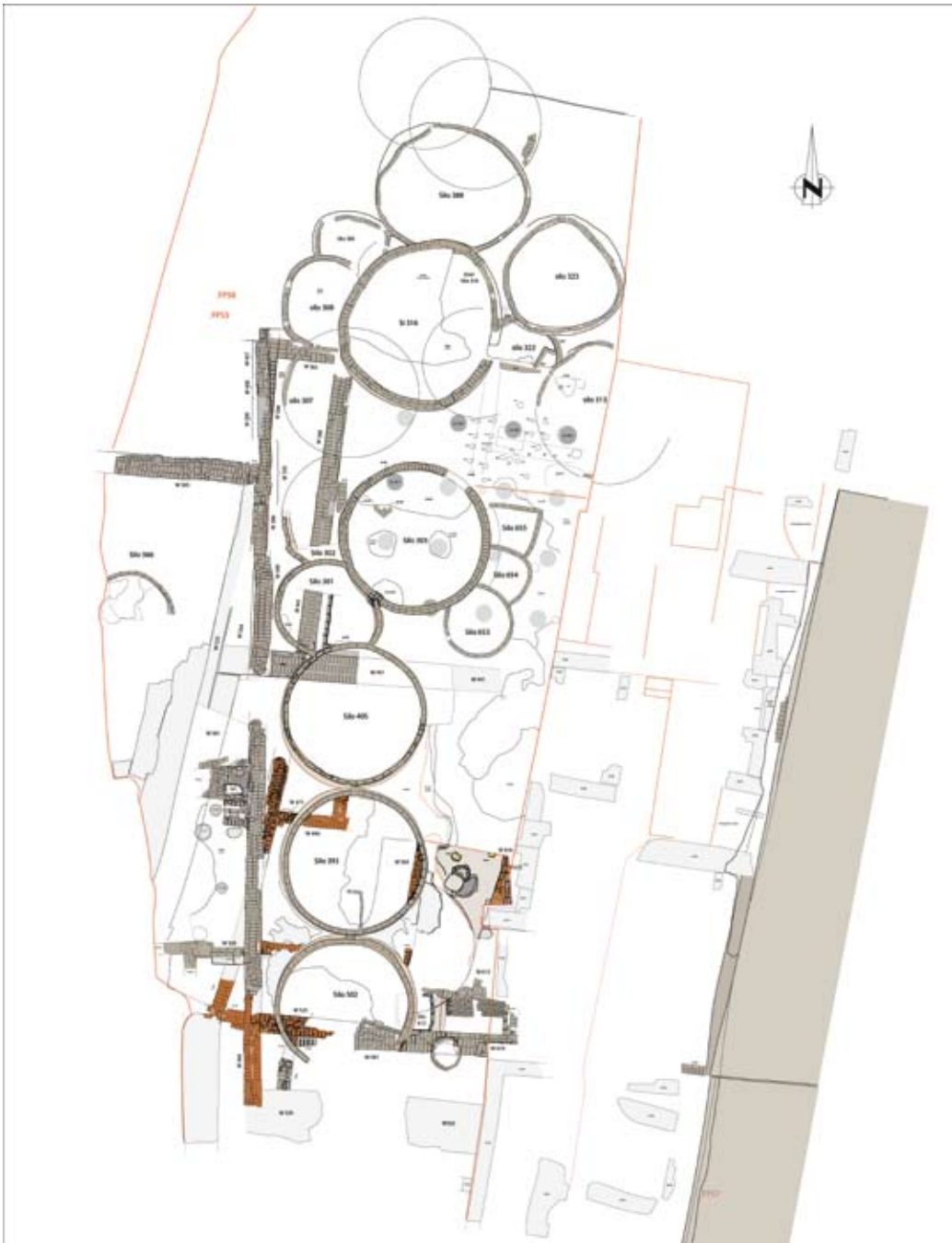


Figure 4. Plan of the silo area (2009)



Figure 5. Layer with hieratic ostraca inside silo Si 393

to those found in the northern part of the site (layer US 2458) according to their paleography, suggesting that these pieces come from the same source and period, probably belonging to an archive that was discarded when the administrative buildings in this area were abandoned. Among the ostraca three shallow red bowls were found, broken into multiple pieces, which have been inscribed on the inside and outside in hieratic. These texts will be part of a detailed study by Kathryn Bandy (graduate student in the Department of Near Eastern Languages and Civilizations at the University of Chicago).

The large Silo 303 was also fully excavated (fig. 6). It has a diameter of 6 m, and its walls are preserved up to a height of 1.5 m. According to the stratigraphic evidence, this silo belongs to the first phase of silos built in the area and functioned at the same time as Silo 316. Inside Silo 303 we excavated all the layers down to the floor level of the older columned hall of the late Middle Kingdom, which lies underneath the silos. Against its eastern side we discovered three new silos (Silos 655, 654, and 653), which are abutting Silo 303 (fig. 7). They are much smaller in size and seem to have functioned as additional storage space. In the central one of the three, Silo 654, an intact female clay figurine was found (fig. 8). It was lying in the demolition layer of the silo, which also contained many mudbrick fragments. The figurine shows a woman carrying a baby on her back. A very similar figure has been discovered at Gebel Zeit in the sanctuary for Hathor. These figurines are typical for the Second Intermediate Period and have been interpreted as fertility figurines. In 2006 we found several such figurines in the demolition fill of Silo 316, though none of them with a baby.

It is now clear that Silo 316, together with Silo 303, form the first phase of grain silos in this area. They are characterized by large diameters (6.0–6.5 m), and their walls have a width of two bricks (30.6 cm). Other silos have been built against and around them. This year we uncovered Silo 388, which leans against Silo 316 on its northern side (fig. 9). The northwestern side of Silo



Figure 6. Excavation in progress inside Silo 303



Figure 7. Silos 653, 654, and 655 built against the exterior of Silo 303



Figure 8. Clay fertility figurine found inside the silo demolition layer

388 is still preserved to a height of more than 3 m above floor level, and the curvature of the dome is easily visible, yet very fragile. This silo seems to have also been previously excavated, probably by the French in the 1920s or 1930s because it was filled with excavation debris.

Silo 388 could well be contemporary with the construction of the eastern Silo 323 and/or Silo 313. We cannot establish a precise relative chronology just yet since we are still missing some stratigraphic links in this area, which will be brought to light in excavation next season. Thus the floor of Silo 388 had not been reached by the end of this season, and it is one of the aims for 2010. This silo had been built at a time when the grain storage area was restructured. The main visible transformation was a considerable reduction of the size of the grain silos. In fact, in the north a 2.2 m high wall running east–west was constructed, reducing the extension of the silo court toward the north. A part of another silo wall can be seen that was integrated into this wall. This shows us not only that in its original layout the granary courtyard stretched farther in that direction but also that the latter silo could well have been contemporary to Silo 316 and Silo 303 since it shares identical architectural features.



Figure 9. Silos in the northern part of the excavation area

Columned Hall of the Middle Kingdom

Remains of a large columned hall were discovered underneath the silos, and this hall has been another focus of our excavations since its first discovery in 2005. We can reconstruct sixteen columns in total so far, but the eastern part of the building is still covered by later settlement layers, and thus the exact limits to the east are unknown. Last season we found new data in connection with the use of this late Middle Kingdom administrative building. Inside Silo 303 we excavated below the silo floors down to the thick mud floor of the columned hall. We found one more sandstone column base, which makes a total of six column bases in situ, while two other column bases were ripped out shortly after the building had fallen out of use and before the silos were built, leaving two large holes in the ground. The holes are clearly visible (fig. 10). On the mud floor we discovered a layer of abandonment, which corresponds to the exact moment when the columned hall was no longer used; only discarded pottery and various objects mixed with animal bones were left lying on the floor. Apart from many pieces of pottery, there were two interesting discoveries that merit mention here. We found numerous fired pottery weights, each of which has two holes and a deep groove running along the upper part that would have held a rope. Maybe they were used as net sinkers for weighing down fishing nets. Further analysis is planned in order to determine their precise function. Among the abundant pottery, a small group of sherds can be identified as Levantine Painted Ware. The sherds belong to at least one bichrome long-necked jug, the decoration of which includes a black crisscross zone with a red band above and below as well as an additional black band below (fig. 11). Fragments of the body are preserved, but the shoulder, neck, and handle are missing. Close parallels to these imports have also been found at Tell el-Dab'a during the late Middle Kingdom. This type of pottery has been found in the Levant and in Egypt and can be dated to the beginning of the Middle Bronze Age.

On and above the floor of the columned hall we also found numerous seal impressions indicating the opening and sealing of various commodities (boxes, baskets, letters) in this area.



Figure 10. Abandonment layer of the columned hall

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Figure 11. Pieces of Levantine Painted Ware jug found in the columned hall abandonment layer



Figure 12. Negative imprint of an octagonal column visible on a column base

The majority are scarab seals showing the typical decorative spiral motifs of the late Middle Kingdom; however, a few have personal names and titles. In 2007 we discovered several seal impressions showing the figure of a king wearing the crown of Upper and Lower Egypt with a tiny cartouche in front of his face that can be read as “Nimaatre,” which is the throne name of Amenemhat III (see *News & Notes* 198).

Another new discovery in relation to the columned hall was made this season. On the surface of the newly excavated column base we were able for the first time to clearly see the negative imprint left by the removal of the actual column that had originally stood there. When removed, its negative imprint remained visible (fig. 12). We now have clear evidence that the columns were octagonal and most likely made of wood.

Preparation of New Excavation Layer with Old Kingdom Remains

In the north of the silo area, just behind the new mudbrick wall that was built by the SCA in 2002, we cleared several meters of sebbakh debris in order to access the underlying Old Kingdom layers (fig. 13). The cuts along the sides contained pottery dating to the Fourth and Sixth Dynasties, which would provide for the first time new information about the origins of the ancient town at Edfu. So far we know almost nothing about the provinces during the Fourth Dynasty since all the activity seems to have been concentrated in the Memphite region, Giza-Saqqara. We stopped the excavation here as soon as we reached in situ layers, which we will start to carefully excavate next season. This season’s work was aimed at preparing the ground for the 2010 season. It seems that the sebbakhin had cut several large holes into the ground here, but there is enough material still in its original place that is worth excavating and studying. This would also be an ideal area to present our finished work to the tourists and visitors, since it can be seen from current ground level, and no access or climbing on the tell is required.

Digital Documentation of Archaeological Remains

A side project of the Tell Edfu Project focuses on the development of new digital image-capturing techniques for which research has been carried out in collaboration with Lec Maj. Work on site concentrated this year on the 3-D modeling aspect of this project using PhotoModeler Scanner software. As a study sample, we chose the digital recording of the lower part of a Ptolemaic house



Figure 13. Work in progress during preparation of new excavation area

that was excavated by the Franco-Polish mission in the 1930s and is still preserved in excellent condition (fig. 14). One of the challenges was to find the best possible reference markers, which are used for the automatic alignment of photographs to create a 3-D photo skeleton for extracting point-cloud data. In the field the local conditions such as strong sunlight created inevitable shadows, and the winds and the occasional roaming of wild dogs provided quite a few challenges. Another study sample was the female fertility figurine with the baby on her back. The processing of this data and the final generation of the 3-D models are currently in progress. Two other



Figure 14. Lower part of a Ptolemaic house showing reference markers used for 3-D modeling

aspects of the project have been successfully completed. One is an adaptation of panoramic photography using a stationary tripod with a panoramic tripod head in order to capture general views of the excavations area. The other makes use of a photographic stitching program called Microsoft Photosynth, which is available online. The latter permits very detailed views of the archaeological remains that can be zoomed into, which are generated by numerous photos taken from many different angles with

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different, overlapping reference points. First results can be seen on the Tell Edfu Project Web site at www.telledfu.org.

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Credit

All photos and drawings by the Tell Edfu Project 2009.

Web site: www.telledfu.org
