

# FINAL REPORT

May 2007 – June 2010

ARCE Groundwater Lowering Response Project, Luxor

“Mut Temple Foundations”

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## **PHASE ONE OF MUT TEMPLE FOUNDATIONS PROJECT**

### **Introduction**

This is the Final Report for the Mut Temple Foundations sub-project, funded under the Egyptian Antiquities Conservation (EAC) Project of the American Research Center in Egypt (ARCE). The sub-project activity is a continuation of work conducted at the Mut Temple Second Court between 2005 and 2007 under an earlier sub-award by ARCE under the Egyptian Antiquities Project, also funded by USAID. The Conservation of the Mut Temple Foundations project focused on the three supporting walls of the temple (north, west and southwest) and the walls of the temple's interior substructure. The earth and stone foundations of the Mut Temple had subsided, in part due to the rise and fall of groundwater. In particular, a group of sandstone foundation blocks of the west wall have slipped out of place, thus endangering the entire west exterior and causing the crumbling of the adjacent north (front) wall of the temple. The temple's mud-brick enclosure wall was conserved. The west wall is an important historical monument as it bears a lengthy inscription that needed to be documented and preserved. This project consolidated two exterior and several interior foundation walls and paved the interior space to replicate the original surface level and enable visitor access. Decorated fragments from a building of Hatshepsut that were reused in the foundations, were retrieved, conserved and displayed on site. In addition, a series of Sakhmet statues were excavated and reinstalled properly on impermeable bases so that they once more formed part of a line facing the west wall of the temple. In combination with the Preservation of the Sacred Lakes project, the result of EAC's intervention at the Mut Temple will not only be a preserved monument, but also an archaeological park that enhances the visitor experience of the Luxor antiquities.

### **The Scope of work as stated in May 2007 was the following:**

The protection of the temple and particularly its foundations that contain the remains of the historically earliest form of the goddess Mut's sanctuary is the motivation behind the work described here. The specific work directive is to correct architectural problems with the Mut Temple that result from its proximity to the sacred lake and its intermittently high and low water levels.

## **The Work Plan for Year 1: May 2007-April 2008**

The work plan as proposed for the first of a two year program is given below with the original numbering. A description of the actual work progress on each element is then provided. The plan for May 2008-June 2009 then follows, again using the original numbering from the 2007 Work Plan.

1. The west side of the east-west running front wall of the temple proper (not the porch but behind the porch) has been undermined by foundation slippage towards the lake. This wall will be dismantled from its west end to the center aisle of the temple. The blocks will be evaluated and, if entirely eroded, they will be replaced with newly quarried sandstone. If reused and decorated and blocks are found, these will be conserved and consolidated, photographed and drawn.

Dismantling the front east-west wall and the north half of the west wall of the Mut Temple took place in May and June. (Figs. 3-7) This work was carried out by Mr. Franck Burgos, formerly stone mason at the CFEETK. First the walls were drawn to scale and photographed, the blocks were numbered and then removed in levels. The blocks were put atop the enclosure wall to the west. Then the paving was removed from beneath the level of the two walls in order to expose the slipped foundation blocks. These will be reset by Mr. Burgos in January, and then the walls will be rebuilt. The west wall which had been in disarray for many years had a large inscription on its exterior, and the rebuilding will allow that text to be visible and intact again. Further the possibility to waterproof the foundations on the west side has been made all the more necessary by the prevent intermittent rising and lowering of the water table. The soil has been very wet in the temple this summer, and the lake level was as high as before pumping began. Thus, any efforts that we take to protect the monument when water levels surge is worthwhile. During this work and during the cleaning of the sub-pavements nearby two fragments of statues were found. The lower half of a granodiorite face, some 11 cm in height, dating certainly to the reign of Amenhotep III was found in a crevice between foundation blocks. (Fig. 6) In addition, a fragmentary limestone element containing the nomen (son of Re)

cartouche of what must be a king named Senwosret (Sesostris) was found at a low level during cleaning of the foundation subpavement interstices. (Fig. 7) The lower horizontal line contains the two signs JS, suggesting, due to the somewhat unusual combination of those signs in all words, the name of Isheru. This would be the earliest attestation of the name of Mut's lake and precinct, moving the cult and temple existence back to the 12<sup>th</sup> Dynasty.

The west wall of the temple proper, where it joins the front wall of the temple proper has been affected by wet foundations. The foundation stones have slipped out from under the wall along an area of some five meters. This section will be entirely dismantled in May-June 2007 and after consolidation and conservation of the decorated blocks (a major inscription exists on this wall section), the wall will be rebuilt with new masonry base and impermeable layers.

Dismantling of the two walls (1. And 2.) of the temple on the west side due to their poor condition and displaced western foundations took place in June and July 2007. Rebuilding, although scheduled between January and March, 2008 has been postponed until January 2009 when an additional stone mason will be available to assist. The result of the dismantling work has demonstrated even more than anticipated, that the intermittent rise and fall of the lake over many centuries had caused subsidence on the west side of the temple, creating a more than 7 centimeter slippage in the north-south running wall, on the north half of the temple and more than 10 cm in the south area to be completed in early 2009. Stabilization of the foundations following this subsidence appears to have taken place, but to assure that the newly rebuilt walls will be entirely at harmony with the remainder of the temple and the site – particularly given the fault line through Egypt – an iron and concrete belt will be attached to the rebuilt walls where the greater subsidence has taken place. For this purpose a second stone mason will come from France to assist Franck Burgos in January and February of 2009.

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2. In January-March 2008, the remainder of the west wall will be dismantled and rebuilt as in No. 2 above. See the comment to number 2 above.

The work at the front wall of the temple porch, carried out with the EAP grant from 2005 to 2007 showed the severe degree of wetness that undermines this wall. Thus between January and April 2008, the remaining east end of that north perimeter wall of the temple porch will be dismantled, the reused and decorated blocks removed and transferred to mastabas for conservation, and the wall rebuilt as described above.

When decision was made to wait until January 2009 to complete the rebuilding of the west walls, Mr. Burgos worked at the east end of the north porch wall. Like the west side of that wall, it was built with many blocks from the original New Kingdom stone temple of Hatshepsut and Thutmose III. Some twenty-five decorated blocks or fragments thereof were removed from the wall in February 2008 and were both treated in situ and also on the mastabas after movement. Conservators Hiroko Kariya and Kent Severson carried out the first phases of conservation on these blocks, and following their efforts to stabilize the blocks, Lotfi Hassan's team did chemical and other manual cleaning of the blocks to preserve the colors and also carried out further consolidation treatments. He then moved some twenty further blocks to the display area created at the southeast of the temple at the end of the EAP grant. New mastabas were built to house the blocks, but also space along the rear ambulatory wall of the temple is being used temporarily while decisions making is carried out about longer term display.

3. The south wall, west side, of the temple will be surveyed for strength and foundational dampness.

Franck Burgos met with his colleagues to discuss plans to strengthen the south end of the west wall and the south wall of the temple. They determined a plan as noted in the comment to No. 2 above and it will be carried out in January and February of 2009.

The pavement behind the west and east-west walls being dismantled in May-June, 2007 shows many gaps, and brief sondages here have shown that foundation materials beneath are saturated with wetness. Following the dismantling of the two walls, the decorated architectural fragments of Hatshepsut's porch buried as a foundation

beneath this pavement will be removed for conservation treatment. The columns and other elements will be transferred to mastabas in the Second Court.

Column drum elements of a porch of Hatshepsut and Thutmose III (Figs. 8-9) from their coregency were first found in 2004. More were found in 2006, and at the end of that season were seen to extend beneath the stone temple in a foundation built from them. That foundation extends the Thutmoside platform to the west and runs from the north end of the 18<sup>th</sup> Dynasty porch southward at least as far as the walls of the limestone chamber still in the temple. Due to a small test trench inside the temple proper carried out in March 2006, we were aware that the column foundation extended this far, and we therefore anticipated the work this season beneath the dismantled walls. The columns in the porch area, removed in 2004 and 2006 had been mortared into position with mud pisé strengthened by limestone and sandstone chip. Pottery was rare, but when it was found it was invariably of early 18<sup>th</sup> Dynasty type. This year the foundation was found within the temple proper to consist of a deep bed of pure sand, and the sand was also the primary filler between the column drums. Although there was some mud mortar used, it was less evident, and this made the later removal of the drums easier. The column foundation deposit was bordered on the west side, at the same elevation, by a combination of paving stones and mud bricks that appear to have been deliberately laid to enclose the drums. All of this material was placed in the foundation DURING THE REIGN OF THUTMOSE III and not later. The name of Hatshepsut is intact everywhere, are is the names of Mut and Amun. Thus destruction by both the proscriptions of the queen by Thutmose III and that of Amun and Mut by Akhenaten are not in evidence, allowing us to date the column deposit early. Indeed, this was a means of enlarging the temple's platform width soon after its original building and should be accounted for by our architectural description of the early stone temple.

It is interesting to note that the small trench made by the pavement removal west of the column deposit revealed a lower half of a granodiorite statue inscribed on its rear, down the kilt of the statue, and around the seat. (Figs. 10-11) The statue was almost certainly by

its find place part of the “cache” that Benson and Gourlay discovered in their Trenches A-C in 1896 and 1897. Although they dug trenches across the entirety of the south foundation of the temple and along the southeast foundation as well, they did not do so along the west. However, R. Fazzini did that in 1983, but he did not find a series of statues at that time. Yet the statue found was just at the level of the lower foundation stones and lying on its side. It was nearly touching the stone block but a gap of some 2 cm was maintained at the time the cache was installed. The statue was placed on its proper right side with the rear to the temple. It was laid down on well articulated mud brick. It remains to be seen next year whether this brick was prepared in order to receive the statues from the cache, but that is a possibility. Due to the unstable nature of the fill atop the statue, its left side has suffered degradation. No surface remains on the left of the throne, and the feet of the statue are also eroded. Only the right side that lay against the mudbrick without the intermittent invasion of water and air and other interference from the surface, is in excellent condition. What follows is a handcopy of the statue’s inscription from the right side of the seat and by the right leg, followed by what can be made out from the rear of the seat. The owner of the statue, who lived, without doubt, in the time of Hatshepsut, was the Royal Scribe and Scribe of Recruits Mena.

The statue’s inscription is difficult, because the rear of the statue is badly degraded. The proper right seat is well preserved, however, and parts of the back can be read. A translation of what can be read – a preliminary one – follows.

## **Statue of the royal scribe Mena**

### **Back of the seat**

The royal scribe, scribe of recruits Mena. O (about 4 or 5 groups missing from a Call to the Living) [all those living upon earth, scribes, hem-priests], wab priests, lector priests, and entertainers of this temple [of Isheru ? perhaps changed in post-Amarna restoration] of Mut lady of the sky: May you hand over to your [children] (several groups are missing) [according as you say] ‘a gift which the king gives, a thousand of every good and put thing (not readable through remainder of line and part of the next)//////////////// on which [the gods live] every day/// a good old age upon earth///

### **Right side of the seat**

A gift which the king gives to Mut the lady of Isheru, the lady of the sky, the mistress of the godes who protects her city, the lady ////2) the Powerful one of drunkenness, Sakhmet, Bastet, Wadjyt, the first (lady) of Atum, who strews the two lands with the electrum of her [face]. Everything which goes forth upon their offering tables every day, when they receive bread from her temple and from the offerings of her Majesty, consisting of things, and smells of the brazier which go forth in front from the arms of the *wab* priests and the *hem* priests for the ka of the sole one, true of heart who has no fault, who does not do any bad thing to any one, one good of character, whom the people love, the royal scribe, the scribe of recruits, Mena, vindicated.

### **Down the kilt and Right of the legs in front**

Everything which goes forth upon the offering table of [Mut mistress of Isheru]//////// and what the sky gives, what the land creates, what Hapy brings from his cavern.

This text is a rather standard set of formulae that are found in the 18<sup>th</sup> Dynasty and can be well compared with several inscriptions from statues found by Benson and Gourlay at the Mut Temple itself, including a longer one of Senenmut. The man himself is as present unknown to me, but we will do further research. A man with the same title and a similar name is known from a statue at the Mut Temple and is dated to the reign of Amenhotep III by cartouche. He is also known

from a graffito at Aswan. However, at present the date of this statue to the reign of Hatshepsut seems probable due to the presence of the words “her Majesty” in the inscription – unless, however, that could refer to the goddess Mut. This requires more research.

4. The series of Sakhmet statues on the west side, set up against the mud brick wall, will be excavated.

This work is also postponed until early 2009, since the area is now filled with the blocks from the west wall.

### **The Work Plan for Year 2: May 2008-June 2009**

1. If survey carried out in winter 2008 so indicates, the south wall will be dismantled and treated as in nos. 1-4.

As noted above, this will be done in February 2009. A brick ramp will be built to meet the south wall of the temple and the extremely large blocks at the southwest corner will pivot on to this ramp rather than be entirely removed. The lower part of the wall can then be readjusted and further support with the steel belting.

2. The small chapel in the second court that once held a staircase to a pylon shrine collapsed due to the north wall’s disintegration. Now that the north wall has been rebuilt (under EAP grant above), the staircase will be restored.

This work has been completed.

3. The mud brick enclosure wall of the temple that exists on the west and east has deteriorated badly from the subsidence next to the lake. The wall will be cleaned and strengthened, perhaps revetting its base if needed.

This proposal needs further consideration. The wall is being protected by the debris over the mud brick, and we wish to speak with the SCA about plans for it.

4. The series of Sakhmet statues on the west side, excavated in 2007-08, will be conserved. They will then be set on mastabas and replaced as in niches of the mud brick wall.

We intend to carry out this work with the assistance of Lotfi Hassan.

Continuing conservation of all architectural and archaeological elements deriving from the areas described above will be carried out. Reused decorated blocks that are not replaced into their find places will be moved to an open air display environment.

5. The Hatshepsut blocks and columns retrieved from the foundations will be rebuilt to create a standing gateway and porch in the Second Court of the Mut Temple.

Franck Burgos will carry out this work to be completed in May 2009.

### **Additional Work and Benefits resulting from the EAC grant work**

Mud brick walls in the north porch of the Temple. Continued investigation of the mud brick walls underlying the stone foundations of the porch and its Late Period extension have revealed a mud brick gate of the Second Intermediate Period or earlier (2006) and large mud brick walls of the Middle Kingdom and Second Intermediate Period beneath the northeast part of the porch (2006-2008). A small wall that runs east and west from the west borders the subpavement that underlay the foundations containing Hatshepsut's column drums. This wall was also found to extend westward outside the limits of the present temple porch. The subpavement does as well, and this finding will necessitate further sounding in that west corridor beside the porch during the next season. The date of this wall and the subpavement must belong to the time of Hatshepsut and Thutmose III, and everywhere that it is found it is overlying the Second Intermediate Period remains. Inside the temple porch further to the east, however, this small wall is not found, but a larger mud brick feature, at least a meter in thickness (that is all that can be seen because of the stone platform) remains along the north of the porch. This feature appears to be overlain at the east by another mud brick wall, perhaps built atop it to add to or repair it. The lowest levels are clearly associated with Second Intermediate Period pottery. This brick, along

with the remains of a mud brick gate underlying the large column bases on the porch, may derive from the mud brick pylon of the Second Intermediate period (or earlier).

4. Dr. Violaine Chauvet has been planning the interior of the temple since 2004 when new survey of the entire site began. As work is conducted all plans drawn are added to the existing temple plan that was drawn by Dr. William Peck of the Brooklyn Museum expedition. Dr. Peck's temple plan has been added to the Johns Hopkins survey data from 2004 and has been modified and added to in order to reflect new information gained through excavation in the temple. (Fig. 2)

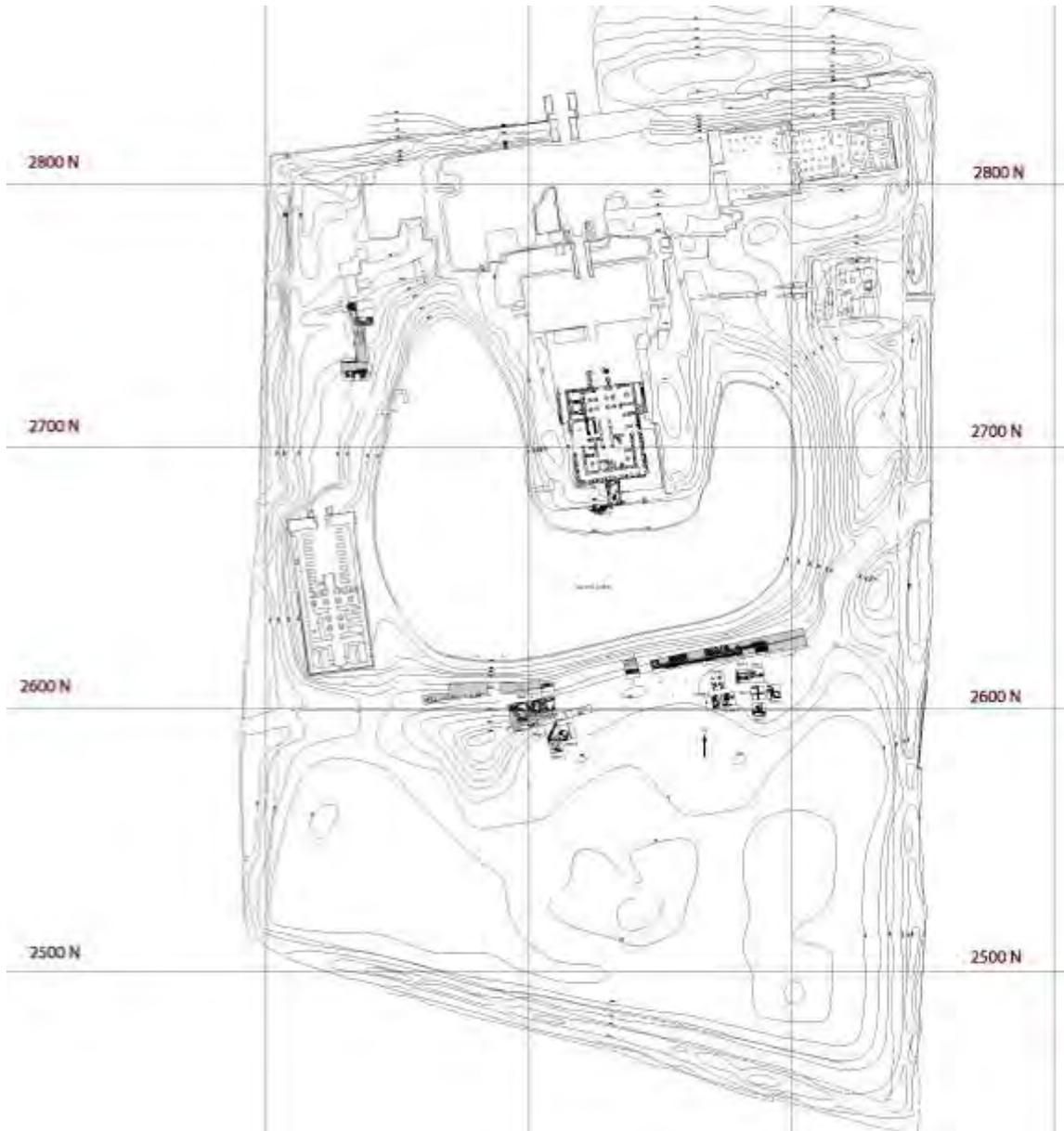


Fig. 1 Mut Precinct showing Sacred Lake wrapping around temple

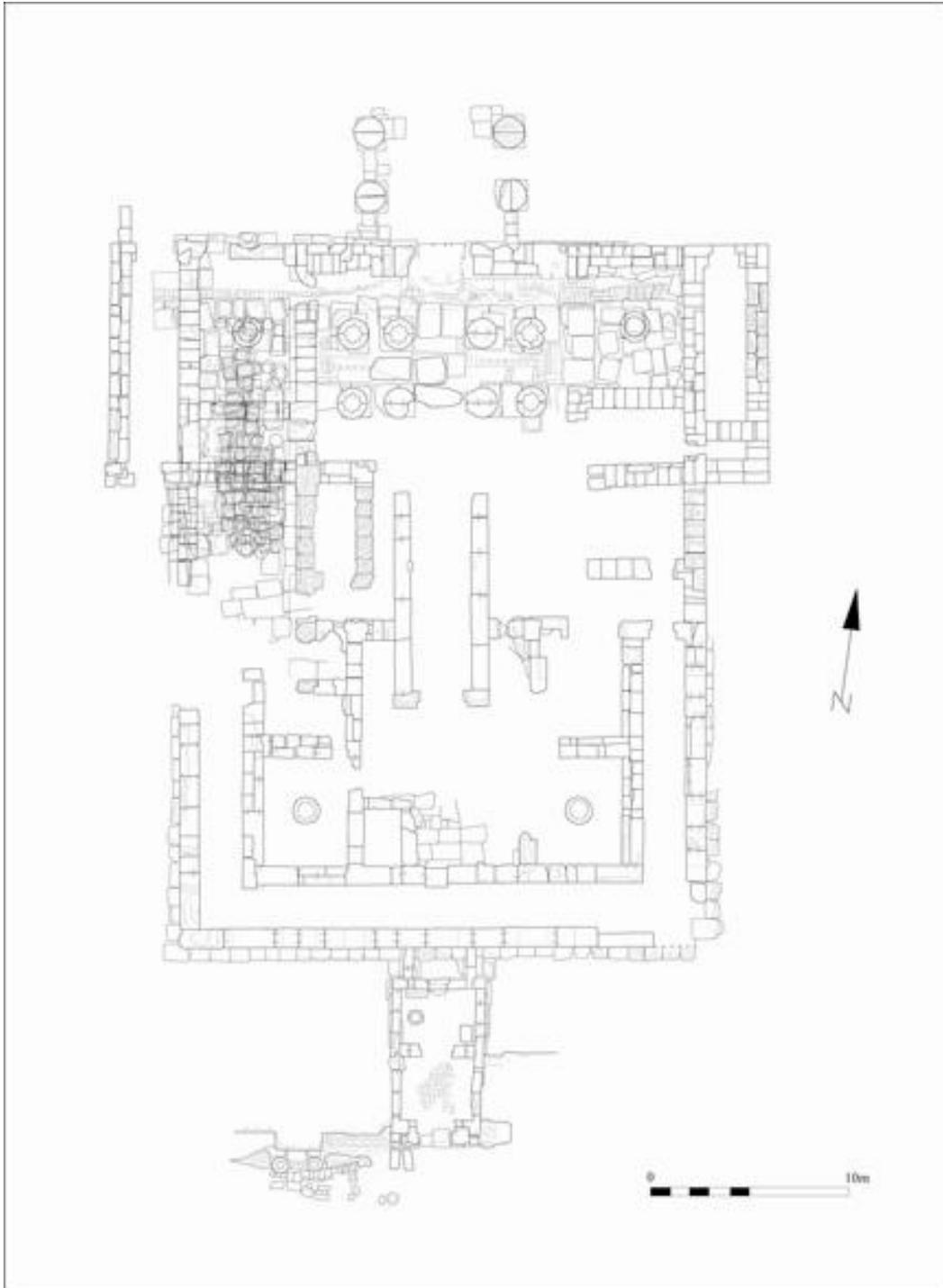


Fig. 2 Temple of Mut showing mud brick walls beneath within porch and Column parts along west side. Result of newest survey work from EAC grant, 2007.



Fig. 3 West wall at beginning of removal. Note foundation slippage.



Fig. 4 Mut Temple west wall before dismantling. Note foundation.



Fig. 5 West and east-west walls after partial removal and exposure of columns Beneath.

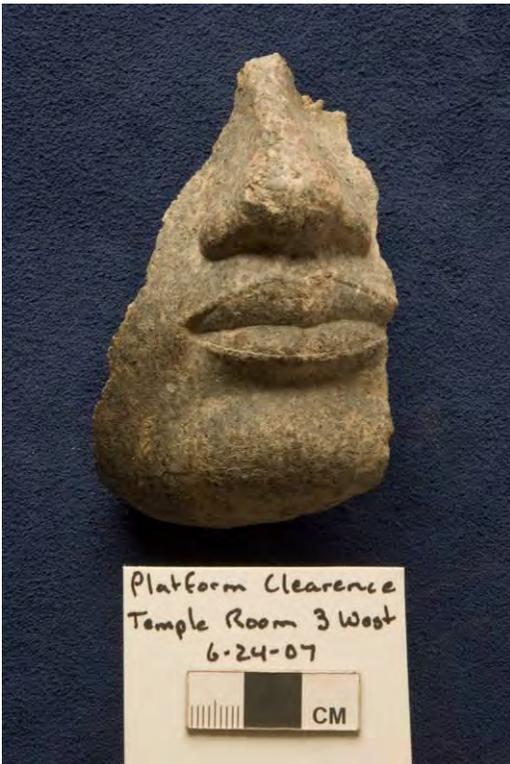


Fig. 6 Lower half of face with features of Amenhotep III. Found during wall removal, 2007.

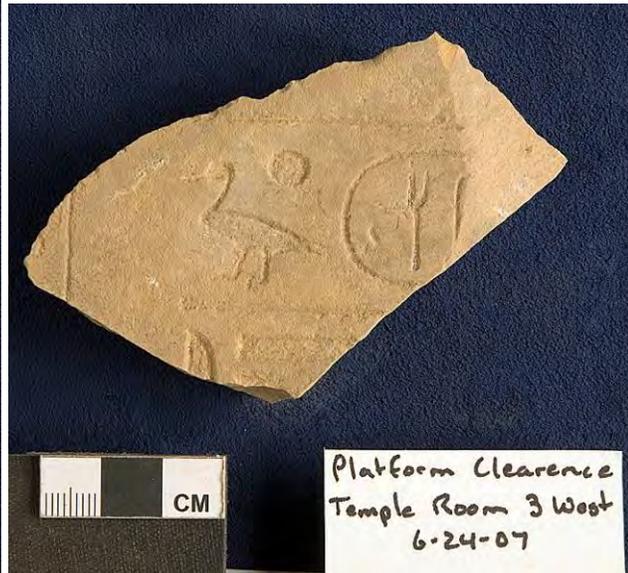


Fig. 7 Limestone fragment Naming a king [Sen]wosre[t] and the probable temple lake "Ish[eru].



Fig. 8 Column parts of porch of Hatshepsut, revealed following wall removals, June 2007.



Fig. 9 Subpavement found beneath Hatshepsut column drums across west extension of the temple.



Fig. 10 Statue of Mena found in trench  
Next to column deposit.

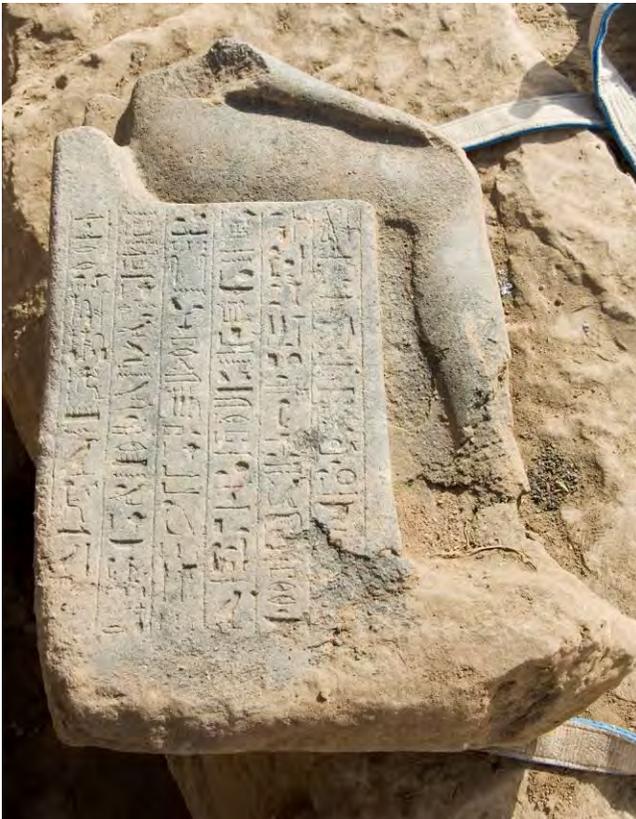


Fig. 11 Statue of Mena, right side.



Fig. 12  
North side of porch showing mudbrick wall running  
east and west.  
View from west to east.



Fig. 13 Mud brick temple gate (east flank) of  
Second Intermediate Period.



Fig. 14 Subpavement (beneath column drums) on west side behind north wall of porch. Small brick wall borders the pavement and may have been a construction wall.



Fig. 15 Kent Severson treating a block removed from the east end of the porch wall, February, 2008.



Fig. 16 Middle Kingdom mud brick wall excavated beneath porch foundation after its dismantling by Franck Burgos, February 2008. Wall was rebuilt after excavation.

## PHASE TWO OF MUT TEMPLE FOUNDATIONS PROJECT

Phase 2 of the Mut Temple Foundations grant project technically began in September, 2008. The work carried out resumed, however, in January 2009 when the stone mason Franck Burgos was able to return to the site.

To review the outline of work for this grant period, the aim was to strengthen the foundations of the Mut Temple, particularly on the north and west sides. We are pleased to say that the result has been far in excess of this stated goal. The final outcome is that the north and west outer walls have been rebuilt and/or restabilized, the columns of the “hall of Drunkenness” of Hatshepsut have been erected in the Second Court, and the temple floors have been refilled, leveled, and interior walls repaired so that from the Second Pylon to the rear, the Temple is ready to be opened to the public.

During winter of 2008 the east end of the north porch wall (see Fig. 1) was dismantled and a number of decorated blocks were removed for conservation and restoration. The lower masonry courses of this wall were rebuilt in February and March, 2008, and the upper courses utilizing in most cases the original 25<sup>th</sup> Dynasty blocks, were replaced. The new stones that filled gaps left by deteriorated or decorated blocks were set in position, but Mr. Burgos wanted to wait to “age” those stones until after the actual wind and sand from the environment had cured the stone somewhat. He instead turned his attention to the west walls that had been dismantled in 2007. Upon further inspection of this area, Mr. Burgos determined that the subsidence of the foundations was even more severe than he had originally recognized, and the rebuilding would require additional expert masons to be carried out along with the remainder of the work. He therefore requested that we wait until the next winter season and bring in additional stone masons. That brings the project to the beginning of January 2009 and Phase 2.

Mr. Burgos brought with him M. Laurent Lecocq and M. Christophe Chini, both masons from the CNRS of France. First Mr. Burgos began the aging of the exterior of the porch wall, and his team also plastered and finished the masonry on the interior. The masons split their time between the two main projects: rebuilding the west walls and re-erecting the columns of the porch of Hatshepsut in front of the Mut Temple porch. Both of these projects were very considerable in their demands and required that the masons focus entirely on one or the other. When the west walls are rebuilt, however, due to the ancient subsidence, there resulted a gap between those walls and the

west porch wall of the 25th Dynasty. This cannot be helped, because the subsidence apparently had begun already in the ancient period, and the Kushite architects actually built up against a spreading earlier foundation, and the action of the ground water under the temple has worsened the slippage since – for both foundation areas. Mr. Burgos has proposed that in the future we consider fixing the west porch wall, and we will see whether this is possible. After the masons left, we continued to clean up the temple, conserve the Sakhmet statues on the west side, refill the foundation trench on the west (excavated by the Fazzinis).

The work on the west walls was accomplished in March 2009 (Fig. 2), after which all three experts worked on the columns due to the demands of this work. Two concrete pads were built to house the columns, (Fig. 3) and two shipments of newly quarried sandstone from Gebel Silsila arrived at the precinct. The large blocks were trimmed outside the main gate of the Temple, and the stone was fork-lifted one block at a time into the First Court. In the Court M. Chini and M. Lecocq cut the stone into column drums according to specifications determined by Dr. Bryan and Mr. Burgos. The drums completed the gaps in the columns, estimated to be about 30-40 %. There are twelve columns (Fig. 4), and therefore the masons worked this stone into actual drums of the same type as the originals. Figs. 5-6 show examples of this work. There were some columns from which only a small amount of inscription has been retrieved. If that inscription derives from the lower part of the column, then only the lower portion of a column has been reconstituted. If the text, however, is from the top part, the entire column below was recreated. A few column parts were not placed in the reconstructed columns, but I intend to place them later, because we now are sure of their original settings. The columns were set on the two pads in two rows of three to the east and west of the central temple aisle. Those columns with inscriptions facing right were placed on the east (left) and those with text facing left on the west. All were placed with the inscription facing north, i.e., toward a person entering the temple. This is the decision despite our lack of information as to the original orientation of the inscriptions. We believe now that the porch stood on the west side of the earlier mud brick temple that stood until Hatshepsut herself built a stone one atop it. Thus she dismantled her own columned “hall/porch of drunkenness”. We cannot erect it where it originally stood and thus placed it so that it forms an elegant entrance to the Mut Temple. This work was completed in April 2009 (see below).

Roofing the block display area was completed by Mr. Lotfi Hassan and his team in April and May. A block that was taken in fragments during the dismantling and rebuilding of the Porch wall of the Mut Temple is a wall block from an addition made by Kings Ay and Horemheb in the late 18<sup>th</sup> Dynasty. This block was considered to have been an entire loss, but Lotfi Hassan has brought it back! It has just been installed in the newly roofed display area.

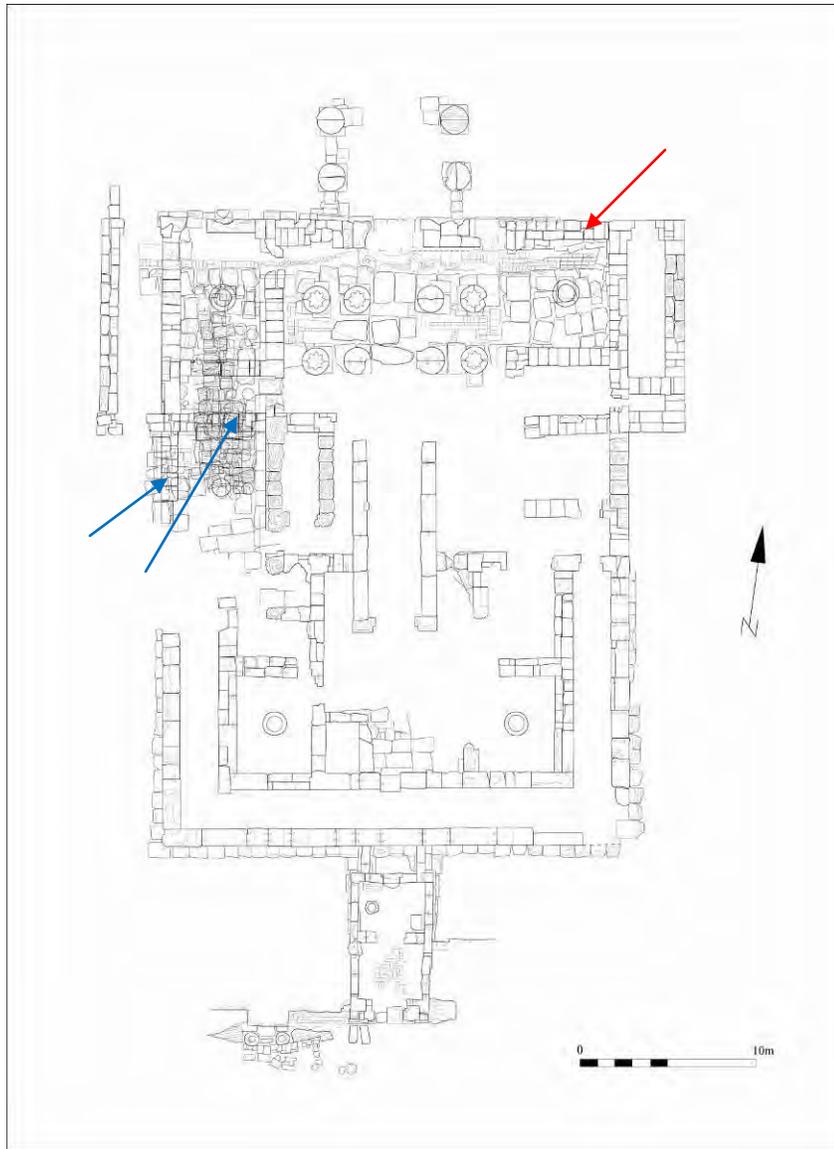


Figure 1. Mut Temple with red arrow indicating east end of North Porch. Dismantled and rebuilt 2008-09. On west are walls dismantled and now rebuilt indicated with blue arrows. Note column drums shown beneath. This is the area where the columned Porch/Hall of Drunkenness once stood.



Figure 2. West and north walls of Temple rebuilt, April 2009.



Fig. 3. Eastern cement pad built to hold columns of the Porch of Drunkenness, in front of the east façade of the Mut Temple Porch.



Fig. 4. West side of the Court showing columns and the second cement pad area being laid out on January 25, 2009.



Fig. 5. Laurent and Christophe cutting new sandstone into column drums.



Fig. 6. A complete new column drum and Laurent working on another.



Fig. 7 Block showing Re-Horakhty offering life to King Horemheb. Now in display area.



Figure 8. The display area at southeast of Temple of Mut showing completed roofing to protect blocks

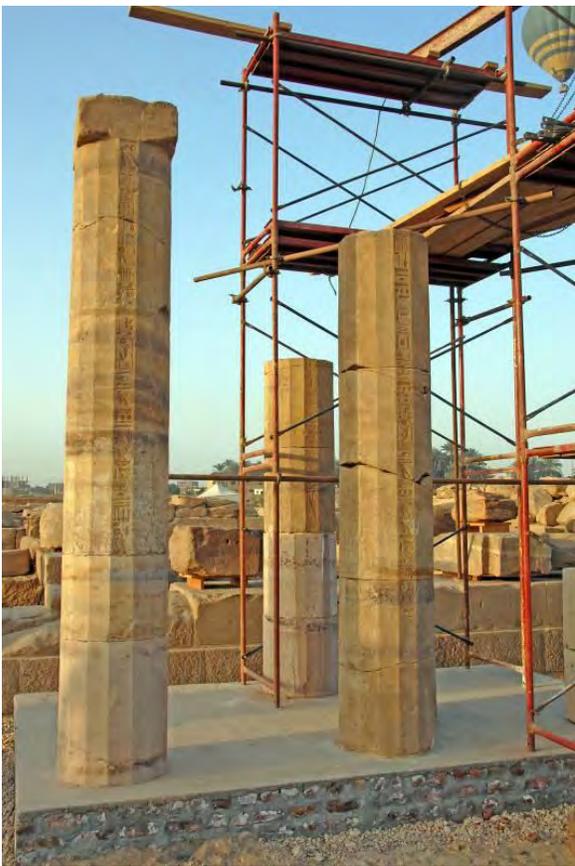


Figure 9. Columns of the Porch of Drunkenness during reconstruction, March 2009



Figure 10. Columns of the Porch of Drunkenness during reconstruction, March 2, 2009



Figure 11. Columns in the Second Court, completed May 2009



Figure 12. Columns on right with inscription naming the “Porch of Drunkenness”2010

This year's work has been entirely devoted to completing work inside the temple and to prepare it for eventual opening to the public in concert with the SCA's plans for the Sphinx Alley and Khonsu Temple site plans. The Johns Hopkins University concession begins at the Second Pylon of the Mut Temple and encompasses the Second Court and the remainder of the temple, as well as the precinct generally to the south of the Second Pylon. Our conservation work of 2006-2009 completed the walls of the porch and the west side of the temple, and this season has been given to the east, central, and rear areas, as well as the interior of the porch. Since excavation had taken place inside the porch and the east side of the temple in 2006-2008, those areas required refilling. The entire temple had uneven floor levels, and in order that visitors might safely walk through the area, it was necessary to fill in and create a walkable floor surface.

Figure 13 shows the temple in late April 2010 as cleaning work was beginning again, including refilling the floor of the porch atop the mud brick walls found there in 2006-08. A small amount was accomplished in February of this year. Figure 14 is of the same area during excavation in 2007, and the amount of fill that was put in can be deduced from comparing

them. It was decided this year not to bring the floor up to the level at the time excavation began in 2006, so as to allow the construction methods in the porch to be somewhat visible.



Figure 13. Mut Porch looking west during refilling of excavation area. 28-04-2010



Figure 14. Mut Porch 2007 during mud brick wall excavation



Figure 15. East side of Temple during floor leveling and before wall and masonry repairs. 04-2010

The floor areas had not been excavated in the area shown by Figure 15, but the unevenness was significant, and the decision was made to build the floors from stone rubble and redim, topped by clean sand and then gravel. All of this is easily reversible if further investigation is desired in the future. This same method of filling was used in the central area of the temple and on the west side of the porch. The remainder of the porch was filled with redim, sand, and gravel only, in order to protect the mud brick features found during the excavation of the area.

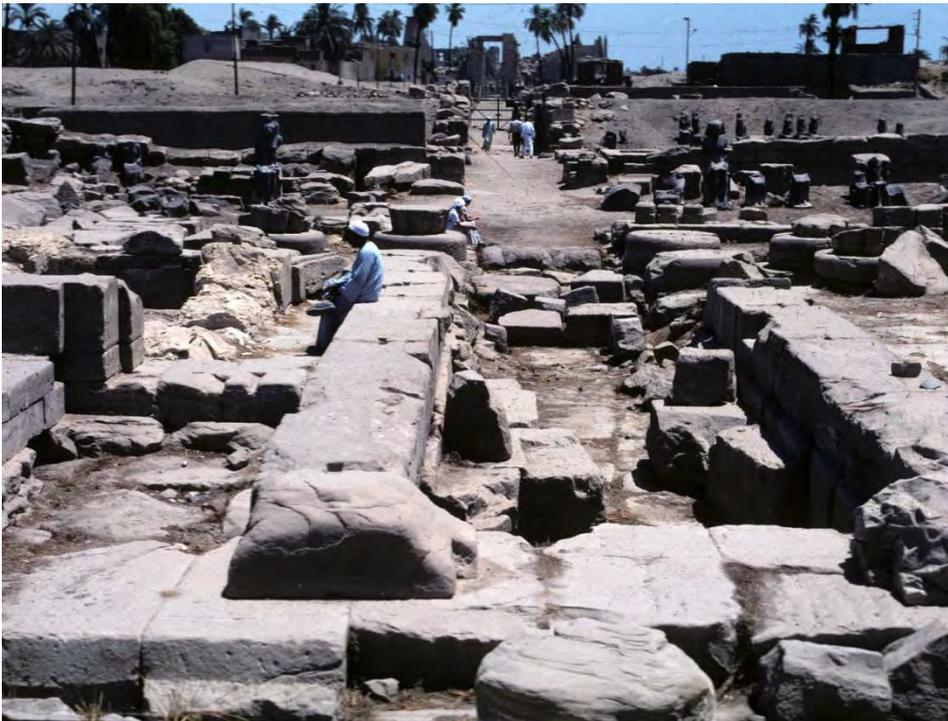


Figure 16. 2003

Figure 16 was a photo taken from the rear of the temple in 2003 and illustrates how uneven the floors were, even before excavation of the porch area took place. In order to open the temple to visitors, it was decided to even them to protect both the temple's fragile fragmentary remains and the tourists who might have difficulty walking. Figure 17 shows the same area now that the floors have been leveled, and both sand and gravel have been placed atop.



Figure 17. View from central shrine looking north after placement of gravel. 17-05-2010

In May 2010 the porch and temple were leveled with sand, after which gravel was placed as a surface. Walls were repaired. Figures 18-19 show the porch and temple during this process.



Figure 18.



Figure 19. The area shown in Figure 15 on the east side after floor leveling and repair of walls. May 15, 2010.

Repair to lower wall areas was also done on the west side of the temple, in the area abutting the central sanctuary. Figures 20-21 show this work in progress; 22-23 completed.



Figure 20. West side of temple showing wall repairs beginning. May 15, 2010.



Figure 21. West side of temple showing masonry repair underway. May 15, 2010.



Figure 22. Repaired walls on east side of temple. 25-05-2010



Figure 23. Walls on east straightened and patched.

The Second Court was used as a storage area for newly found reused blocks during the dismantling and restoration of the porch walls from 2004-2008. Figure 24 shows the west side of the court full of mastabas holding the New Kingdom temple blocks retrieved from the porch.



Figure 24. Second Court in 2006 after dismantling of north porch wall.

Following the conservation and transfer of these blocks to the Open Air display at the rear of the temple, the court has slowly begun to resemble its appearance in 2003 when work started.

Figure 25 shows the Court in May 2010 as two of the last mastabas were being dismantled.



Figure 26. The Second Court on 15-05-2010 showing the workers removing a mastaba holding small sandstone decorated fragments.



Figure 27. Transfer of small granite Sakhmet fragments from the Second Court to a new space on the wall to the east.

In addition to removing all mastabas, save those with Sakhmets and the blocks of the limestone gate of Hatshepsut (to be reconstructed in winter 2011), small fragments of the Sakhmet statues and other stone relief held in wood boxes, were moved from the court. A walled area was created on the east enclosure wall and was designed to be large enough also to allow sorting of the fragments. The boxes and stones were first moved up; then the wall was constructed.



Figure 28. Boxes containing granite fragments moved to top of east wall.



Figure 29. A walled area was created around the boxes of stone fragments.



Figure 30. Applying muna plaster to walled area.

The temple as of June 1, 2010 is ready for a site management plan to be put into action. Signage will be composed and created for the area. We will be working on that in the next weeks to be submitted for SCA approval. Figures 31-33 show the temple concession of JHU with cleaning finished.



Figure 31. View from south looking north showing repaired east walls and level floors.



Figure 32. View of temple from Second Pylon showing completed work. 30-05-2010

With the exception of the limestone blocks of the gate of Hatshepsut and Thutmose III seen, in part, on the mastaba at left, the only mastabas left in the Second Court hold the original Sakhmet statues found in the Court. A view of the Court in 2003 before work began shows both the difference in the rebuilt porch wall (visible behind the columns in Figure 32) and the newly restored open space.



Figure 33. View of Second Court looking south in 2003 before restoration began.



Figure 34. View of Second Court from temple porch showing result of removing mastabas and small stones.

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