# Great Aten Temple Autumn 2012 Season 

Preliminary Report



## Introduction

A period of cleaning and planning at the Great Aten Temple took place between 15 October and 13 November, 2012. It was done as part of a field school run with the agreement of the Supreme Council of Antiquities of Egypt, under the guidance of Mohamed el-Biali and Abd el-Rahman el-Aidi and on behalf of the Institute for Field Research (California). Those who took part were Mazher Ezzat Abd el-Rahman, Mohamed Rushdi Abd el-Monam, Shimaa Mustafa Fadle Orabi, Shenouda Rizkalla Fahim Youssef, Hala Abd el-Hamid Hasan, Ahmed Abd el-Rahim Abd el-Mageed and Hamada Mohamed Abd el-Moeen Kellawy from the Supreme Council of Antiquities, and Susan Kelly, Juan Friedrichs, Hanna Kurnitzki-West, Rennan de Souza Lemos and Julia Vilaró Rodrigez. The SCA inspector was Salama Nagi Mohamed Embarak. Instruction was given by Hans Barnard (surveying), Gwil Owen (aerial photography) and Miriam Bertram (planning).

The site
The part of the Great Aten Temple where the work was carried out is the Long Temple that stood on the central axis of the main temple enclosure, and towards the front (Figure 1). The entire building was excavated in 1932 by the Egypt Exploration Society, the field director being John Pendlebury. This earlier work established that the Long Temple had been built mainly from limestone blocks laid on a thick bed of gypsum concrete on which the outlines of walls and other features had been marked prior to the laying of the stones. After the end of the Amarna Period, nearly all of the stone blocks had been removed, but leaving behind traces on the foundations as to where they had been. Pendlebury's architect Ralph Lavers had made a plan at a small scale, published in J.D.S Pendlebury, City of Akhenaten III (London 1951), Pl. III. The site has remained open since, exposed to weathering and damage from the nearby village and its cemetery.


Figure 1. Map of the Central City showing the extent of Pendlebury's excavations. The red arrow points to the area of the cleaning carried out during the autumn 2012 season. The area outlined in green is that of the modern cemetery.


Figure 2. The Pendlebury-Lavers plan, on which is marked (as a shaded area) the location of the autumn 2012 cleaning and re-planning. After J.D.S. Pendlebury, The City of Akhenaten III (London 1951), Pl. III.

The Long Temple had consisted of a series of open courts, one behind the other and separated by walls pierced by pylon-like doorways. The area chosen for cleaning and re-examination was the first court (Figure 2). In the time available, it was possible to complete only the western half. The gypsum foundation platform had been laid on the existing desert surface which was here about one metre below the ground level further to the north that the builders had chosen as the intended final floor level of the temple. The first metre of stonework was therefore foundations never intended to be seen. The spaces between the foundations had been filled with dusty sand mixed with stones to build up the ground level. The final floor, also a thick layer of gypsum concrete, had then been laid over the top. Strips of this, standing on ridges of surviving ancient fill, still surround the gypsum foundation platform on four sides (Figures 10, 11, 18). These were mistakenly interpreted as raised platforms by Pendlebury and Lavers rather than remnants of the final floor that had originally covered the whole building.

## Progress of the work

Before the work began, the gypsum foundation layer was either still exposed and visible or covered by sand and rubble. Some of the sand had blown in but some, mixed with stones, had collapsed from the long ridges of ancient fill that Pendlebury had left in place. Cleaning began where the gypsum was already exposed (Figure 3). As areas became clear, a five-metre grid was laid out, the intersections marked by limestone blocks in which nails had been embedded, a method that avoided marking, or in any way damaging, the ancient gypsum surface. By the end, an area measuring 17 m wide (north-south) by 23 metres long (east-west) had been cleaned.


Figure 3. Beginning the cleaning of the covering of wind-blown sand from the gypsum concrete foundation platform.

The condition of the surface varied considerably. Where it had been protected by sand, principally along the west, south and north edges, preservation was good, with the details of ancient markings looking sharp and fresh (Figures 4, 5). In other areas the surface had deteriorated, become powdery or broken into patterns of drying cracks, probably formed after rain had fallen. A large strip running down the central axis was missing altogether, something that Pendlebury had found to be the case in 1932.


Figure 4. The gypsum concrete foundation platform at the end of the cleaning, viewed to the east.

## Results

The surface of the gypsum bore the outlines of rows of rectangular spaces that had been carefully lined up along both axes. There can be no doubt, when comparison is made with scenes in some of the rock tombs, that these
rectangles marked the foundations beneath stone offering-tables. The rows formed two east-west groups, with four rows in each, leaving a broad space in between the two groups, running down the middle axis of the temple. The rectangles had first been marked by black ink lines (with, here and there, short red lines) and then by v-profile grooves cut into the gypsum surface along these lines, by blows from a small adze or chisel (Figure 7).

The size of the rectangles was $1.06 \times 0.90 \mathrm{~m}$, except at the west end, where they were replaced by two pairs of larger rectangles, $2.70 \times 1.30 \mathrm{~m}$ (Figure 6). When the stone blocks were lifted and removed after the end of the Amarna Period, mostly they pulled up, at the same time, both the bed of gypsum mortar in which they had been laid as well as a thin layer of fine gypsum that had covered the entire foundation platform. Most of the rectangles were therefore marked by a scar where the surface had been lost. In a few places, however, the gypsum mortar layer had stayed behind, leaving the impression of the underside of the block (Figure 8). The ground level rises slightly from west to east. At intervals, a low step was formed in the gypsum foundation platform to allow for this. The first step crossed the site towards the eastern end of the cleared area. It had been made without reference to the layout of the offering-tables, which had straddled the step on either side.


Figure 5. The gypsum concrete foundation platform at the end of the cleaning, viewed to the east.

The loss of the wide strip running down the axis of the temple leaves it uncertain as to whether this had been an open area or had supported a larger and longer offering-place, as is hinted at in the tomb pictures. The remaining rubble in this part contains pieces of gypsum mortar with block impressions, that perhaps shows that a stone construction had stood here. The only structural clue is a length of straight incised line running east-west across the axis near the back of the area. Further back, the gypsum foundation layer has an original edge, marking the beginning of a central strip where there were no foundations and instead the filling material was piled up directly on the desert surface, to be covered by the upper gypsum floor. At the far western end of the clearance, an area of gypsum mortar bearing the impressions of limestone blocks was found, crossing the axis of the building (Figure 9), and probably representing the foundations for a heavy threshold at final floor level, a feature not noted on the Pendlebury-Lavers plan.

Pendlebury had encountered burials belonging to the modern cemetery of the village of El-Till and marked the approximate positions on his map. Mostly they still seem to be present. One child burial was so close to the
surface, lying on the gypsum foundation layer, that excavation and removal was inevitable. But other possible graves in areas that had been cut through the gypsum were not investigated. In the north-east corner of the cleared area the sand cover itself contained burials, at least one of a baby. These, too, were left alone and the baby covered again with sand.


Figure 6. The south-west corner of the platform showing one of the larger offering-table bases and the remains of a temporary mud-brick construction built directly on the gypsum surface. View to the south.


Figure 7. An example of one of the ares marked for the construction of an offering-table foundation.


Figure 8. An example of one of the areas marked for the construction of an offering-table foundation, still retaining a patch of the gypsum mortar bearing the impression of the underside of two blocks.


Figure 9. Foundations for a threshold at the western end of the cleared area of the first court, viewed to the south.


Figure 10. Aerial view of the front part of the Great Aten Temple at the end of the season (photo by Miriam Bertram and Sue Kelly). North is towards the bottom of the picture.


Figure 11. Aerial view of the offering-table oulines at the end of the season (photo by Miriam Bertram and Sue Kelly). North is towards the right of the picture.


Figure 12. Sample of 1:25 plan of the gypsum foundation platform (original by Juan Friedrichs).
The entire area was planned at the scale of 1:25 (Figure 12). Each offering-table position was photographed at ground level. The whole surface was also photographed from the expedition helium balloon (Figures 10, 11). At the end, a layer of sand about 10 cm deep was spread evenly over the gypsum foundation layer to protect it.

## Objects found

During the cleaning, many fragments of carved stone were found, either in the material that had collapsed from the side baulks and spread over the gypsum foundation layer or actually within the baulks as they were cut back for short distances (Figure 17). The fact that they came from material that was the original ancient fill, put down


Figure 13. Fragment S7720. Travertine (alabaster) fragment with cartouche of Nefertiti.

Figure 14. Fragment S7733. Red granite, with edge of cartouche and Aten rays.


Figure 15. Fragment S7734. Basalt, with cartouche of the Aten. The slightly sloping line above suggests that it comes from a balustrade.


Figure 16. Fragment S7741. Travertine (alabaster) with a feather design.
as part of the construction for the final phase of building the temple, shows that the breakage did not take place after the Amarna Period. The most likely explanation is that the pieces belonged to stonework from the first phase of building, the remains of which were found by Pendlebury and which had occupied the area at the west end of what became the first court of the Long Temple.

The fragments came primarily from architectural elements in travertine (alabaster) (Figures 13, 16), indurated limestone, conventional limestone and granite (Figure 14). There were also inlays in grano-diorite and red quartzite, mostly from a large cavetto cornice the background of which was made from indurated limestone. One or two pieces (one of them made from basalt) seemed to come from balustrades (Figure 15).


Figure 17. Section through the ancient fill material lying between the upper gypsum floor layer (top of picture) and the main gypsum surface (below the bottom edge of the picture). The fill consists of sand and stones, a few of which are broken pieces of sculpted architectural elements.

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Figure 18. Survey plan (by Hans Barnard) of the front part of the Great Aten Temple over which have been laid the outlines of the areas cleared and planned in the spring and autumn of 2012.


