

Great Aten Temple Spring 2013 Season

Preliminary Report

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Stone registration piece S-7863, a corner of a patchwork slab made from indurated limestone.

Introduction

The first part of the spring 2013 season was directed by Barry Kemp and ran between February 1st and March 28th. The main work was at the Great Aten Temple, located beside the modern village of El-Tell; in addition, at the Small Aten Temple, the reconstructed column was subjected to a thorough inspection followed by maintenance. The SCA was represented by inspector Ahmed Fathy Saddik.

The re-examination of the Great Aten Temple

At the Great Aten Temple, activity was limited to the front part, and continued from where the spring 2012 season had left off (Figures 1–3). The participating archaeologists were Miriam Bertram, Anna Hodgkinson and Sue Kelly. Part of the work was along the line of the pylon entrance in the mud-brick enclosure wall. It had been largely covered by a spoil heap dating back to the British expedition of 1932 (that had been directed by John Pendlebury). About half of the spoil heap had been removed in 2012. The remainder was now excavated and fully sieved for finds, the sand and rubble being used to extend southwards an embankment running beside the asphalt road that helps to define and protect the site. Beneath the spoil heap, layers of sand and rubble on the west side of the pylon were also excavated, down to the ancient ground level. This surface was exposed for a width of about 6 m, along 15 m of the west pylon face, until the side wall of the entrance ramp was reached. Close to the face of the pylon, this ancient surface was coated with a floor of Nile mud. It had formed the ground before the pylon was built, the foundations for the pylon having been laid in a trench that cut through this surface.

The exposure of the brickwork of the pylon made it possible to make a detailed plan of the masonry. When joined to the plans made last year, it creates a continuous length of planned brickwork from the front entrance system of 25



Figure 2. View, to the east, of the spring 2013 area of work. Part of the excavation is already backfilled and the entrance vestibule of the reconstructed small palace was finished two days after the photograph was taken.



Figure 3. General view northwards of the reconstructed small palace and the excavation, partially backfilled.

The entrance ramp, that initially was built on both the eastern and western sides of the threshold between the pylons, was 9.15 wide and had been filled with sand. A large patch of compacted limestone chippings covered the sloping surface on the western side, a remnant probably of the original hard cover to the ramp. The sand was held in place by long walls of mud brick, the tops of which that sloped down to ground level. Patches remained of a thick coating of white-painted mud plaster. On both sides on the west face, in the angle where the ramps met the pylon brickwork, a low, square brick platform had been added.

The eastern ramp had descended to a mud floor, an area of which was uncovered last year. This year, a further area was uncovered to the east, along the line of the 1932 Pendlebury excavation trench. It took in two rectangular pedestals made from limestone blocks (Figure 4). One, fully exposed by the excavation, measures 2.2 x 1.2 m; the other is 1.12 m wide but its length remains to be determined when the adjacent ground is excavated. A single course of limestone talatat-blocks with roughly finished surfaces remained in place, with no sign that anything had ever been attached above them. Although the 1932 expedition had run trenches around them, it could still be determined that they had been built so that their top surfaces were flush with the ground. These two pedestals, aligned north–south, had had a third companion to the north, exposed in 2012. Its stone blocks had, however, been removed in ancient times, to make space for the construction of the small stone building that lay a little further still to the north. The purpose of the pedestals remains uncertain.



Figure 4. The two limestone pedestals, defined by trenches dug around them in 1932. View to the north-west.

The Pendlebury trench along the temple axis had cut through a layer of about 90 cm of mostly mud-brick rubble that had been laid down when the floor level of the temple was raised. This had, in turn, been covered by a spoil heap from the 1932 excavations. Over the space of two 5 x 5 m square, the spoil was removed towards the end of the season, exposing the top of the ancient fill. The intention is to explore this further in 2014.

Further still to the east, Pendlebury had discovered a group of narrow basins or troughs cut into the ground. Three of these were uncovered again and found to be in good condition. Two of them were on the lower floor level that belonged to the ritual area that had been laid out before the pylon was built and the ground raised to a higher level. They comprised a central rectangular area (that averaged 2.2 x 1.1 m in size), coated with mud plaster and then gypsum plaster (Figure 5). On each side was a single narrow basin, separated from its neighbour along the next side by a narrow embankment. The basins, too, had been thickly coated with gypsum. During their lifetimes they had been given further coats, up to a maximum of seven.



Figure 5. Gypsum-lined troughs surrounding a central area, originally also coated with gypsum. View to south-west.

The third Pendlebury basin was on the upper level. It had a simpler form, in that the central platform was surrounded by a single, continuous basin. Again, several resurfacings were visible, up to a maximum of seven. The cleaning of the upper mud surface into which they had been constructed was extended to the north, beyond the limit of Pendlebury's excavations. This revealed a further basin set, laid out more like the two lower examples, with narrow embankments separating the individual basins (Figure 6). These upper basins demonstrate how this practice, that must have involved the use of water deemed to be pure, continued from the early phase of the temple, represented by the lower floor, to the later phase, represented by the upper floor.

Beyond the lower mud floor, to the east, Pendlebury had dug a side trench to the north, through the filling material that had raised the ground level. This was cleaned out, to expose the early mud floor (Figure 7). Along the east side of the trench ran a wide but low wall of mud bricks that had been built directly on the mud floor. Only a narrow strip of the western edge was exposed this time.



Figure 6. Four sets of basins, each lined with gypsum, two on the upper level, two on the lower. View to the south.



Figure 7. Area north of the easternmost set of basins, showing the earlier temple ground level and the remains of a constructional wall of the final phase. View to the south-west.

Further still to the east, everything of the earlier phase had been destroyed by the heavy foundations of the later phase temple that had been built of stone blocks. These foundations had been rapidly explored and planned in 1932. First came two rectangular platforms, approximately 10 x 19 m, separated by a gap of 9.15 m. The gap had been filled with a thick gypsum concrete floor laid over a bed of sand. In Pendlebury's time, this had preserved the impressions of limestone blocks that must have formed a stone surface to the entrance path to the temple front. In recent years, the two platforms have been used as a site for the drying of dung cakes by villagers.

This year, the flat, top surface of the northern gypsum platform was cleared of its debris. The Pendlebury excavations had discovered that it (and its neighbour) had been surrounded by a deep trench floored with a layer of gypsum concrete which bore the impressions of limestone blocks from walls that had surrounded the platform. These trenches were also cleaned of the sand that had blown in since 1932.

Once cleaned, a detailed plan was begun which, by the end of the season, had covered just over half of the surface. The surface is of gypsum cement that had been largely covered with a pavement of stone blocks that had their outlines impressed into the surface. In three places, deep spaces had been left in the structure, two along the east face (where the original stone pylon would have run) and one in the north-west corner. The impressions of stone blocks showed that they had originally been solidly filled (Figure 8). An attractive explanation, which takes into account the shapes of the two eastern ones, is that they were reinforcements for large stone statues that stood on top, in the case of the eastern pair, directly in front of the stone pylon.



Figure 8. One of the spaces along the eastern edge of the northern gypsum platform that had been filled with limestone blocks to support probably a large statue group. View to the west.

A study was made of how the platform had been created, using the many clues visible on the top and along the sides (Figure 9). It had been built up within a pit that, on the north side, had reached a depth of 1.8 m. The first step had been to build the surrounding wall from limestone blocks, to the height of the intended ground level. The north-west corner, however, had been filled with a rectangle of limestone blocks, to create a solid pedestal, presumably for a particularly massive piece of sculpture. On the floor of the box so created, a series of embankments and pedestals had then been raised by heaping up a viscous mix of gypsum and stone chippings. The roughly square pedestals seem to have numbered eight, in two rows of four running east to west. Each pedestal was intended to be the foundation for a large stone column and each was joined to its neighbour by a ridge. This is similar to the foundations beneath the small stone palace built beside the brick pylon and re-excavated in 2012.

A layer of limestone gravel was next spread on the floor of each compartment, to a depth of around 50 cm. Above this, the spaces were filled with the same mix of gypsum and stone chippings as had been used for the initial pedestals and embankments, this being done in layers. During the course of doing this, two courses of limestone blocks were set in place along the east side, following the outlines of intended statue bases. A pavement of limestone blocks was laid across the rectangle, and only then were the column bases introduced and the columns built.



Figure 9. The north face of the northern gypsum platform, showing the internal structure and impressions of limestone blocks from the surrounding wall. View to the south.



Figure 10. Hieratic label of regnal year 12 from beneath construction debris from the final-phase temple.

During the course of cleaning the north face of the trench along the northern side, a hieratic label of regnal year 12 was recovered from rubble beneath a brick wall that was a temporary part of the construction (Figure 10).

Recreating the layout of the Platform Building (Small Palace)

In May, 2012, following the end of the period of re-clearance at the Great Aten Temple, a team of builders from El-Till built up a level set of foundations along the lines of the original walls of a small stone building that stood just inside the north mud-brick pylon (the Platform Building). This year, the same builders continued their work,



Figure 11. The site of the Platform Building, probably a small palace, showing the lines of the walls and positions of the columns being recreated in new materials. View to the south-west.

laying a single course of limestone blocks along the lines of the walls and marking the positions of column bases by means of circular pads made from white cement and limestone chippings cast in iron moulds. The blocks were cut in the limestone quarries at Turah and each measured 52 x 26 x 26 cm, the size of a talatat-block (except that the depth was made 26 instead of the original 23 cm). The final stage was to spread a layer of clean sand over all the spaces, partially burying the walls and column bases (Figure 11).

The positions of walls and columns were, to a large extent, determined by the pattern of the gypsum concrete foundations. The positions of doorways, however, had to be estimated. They were marked by the use of blocks that were 13 cm deep.

During the course of the work, conservation architect Surésh Dhargalkar paid a visit to inspect progress and advise on the next stage of the work, that will involve the northern gypsum platform.

Maintenance at the Small Aten Temple

In 1994, one of the columns at the Small Aten Temple was recreated in modern materials, following a design based on large pieces of sandstone column drum that had remained on the site. The recreated column used panels made from glass-fibre reinforced concrete, coloured to match the sandstone. They had been fitted around a tower made from an iron lattice. The lowest part had been filled with concrete to anchor the column in place but otherwise it had been left hollow. Its height, when finished, was 8.5 metres (including the limestone column base). The design and its execution were the work of British sculptor, Simon Bradley.

This year, Simon Bradley returned to make an inspection of the interior of the column and to carry out any necessary maintenance. Local wooden scaffolding was erected around the column for the full height (Figure 12). When



Figure 12. The column in the Small Aten Temple, reconstructed in 1994, with temporary scaffolding for maintenance.



Figure 13. The top of the column, showing the newly cleaned and repainted iron support tower.



Figure 14. The top of the column, showing the new wooden cover bolted into place.

inspected, the interior (that had been left open at the top) was found to be in good condition. Two local men were employed to clean the ironwork and then to apply two coats of red oxide paint (Figure 13). As a further protection, a thick wooden cap or lid was made, the outside edge cut to match the scalloped profile of the top of the column (Figure 14). This was securely bolted into place, and the scaffolding then dismantled and removed.

Simon Bradley then turned to the exterior surfaces. Part of the way up, the papyrus-bud design was interrupted by a large panel with a smooth, curving surface that had, on the original, been decorated with a scene of the king and queen. In making the replica, a different technique had been used to that for the rest of the column, which necessitated applying to the surface a thick layer of plaster. Over the years this had started to fall away. Mr Bradley removed the remainder and then coated the surface with a different material that is likely to be more resistant to weathering, finally adding colour to match the remainder of the column.

Work at the expedition house

For much of the season, Kristin Thompson and Marsha Hill continued their extensive study of stone sculpture fragments (see below). The Great Aten Temple itself contributed many new pieces, some of them from a dump of fragments buried by the Pendlebury expedition in one of the sets of gypsum-lined troughs. Some of the fragments come from statues; some (especially in indurated limestone and quartzite) were pieces that had been fitted together to form a patchwork surface probably set into a wall or gateway of limestone blocks. The expedition also received a visit from Alexandra Winkels, who is doing research on different kinds of plaster from ancient Egypt. She concentrated on gypsum specimens, mainly those collected at the Great Aten Temple. It is likely that the substance that we call 'gypsum' is actually a lime-gypsum, made by burning limestone to a higher temperature. Photographer Gwil Owen was also present for a large part of the season, photographing sculpture fragments as well as the site.

Report on the Statuary Project, Tell el-Amarna, Spring 2013

by Kristin Thompson, registrar of stone fragments

From March 6 to 24, around 500 hard-stone fragments were assigned numbers and added to the inventory of Amarna statues, reliefs, balustrades, inlays, and architectural elements. These all came from the 2012 and 2013 excavations at the Great Aten Temple. A small number had been left over from the end of the spring, 2012 excavations. A larger group was collected during the October-November field school's investigations of the back area of the "Long Temple" at the front of the GAT (primarily excavation squares S30, T30, and U30 and 31). The largest source of new stone fragments was the spring, 2013 season at the front of the GAT, where numerous pieces were discovered in John Pendlebury's dumps and spoil heaps from the 1930s excavations in the temple. Others were found in situ in the areas around the first to second pylons.

One large group of fragments was in travertine ("Egyptian alabaster"). Some of these were small sections of reliefs, mostly apparently large and small offering scenes. Others were pieces from balustrades lining some of the ramps that were prominent features of the temple.

Many fragments of quartzite in a variety of colors were found. These included numerous pieces of dark yellow stone from walls that had been prepared with depressions for the insertion of inlays. Some of these were depictions of offerings; others were large hieroglyphic texts. There was evidence that these walls were made up of many small blocks of various shapes, fastened together like a jigsaw puzzle to create large-scale reliefs and inscriptions (Cover picture). There is some evidence for quartzite statues in the front of the temple as well.

Granite and granodiorite pieces were numerous as well. These include portions of balustrades, reliefs, and architectural elements. Although there were relatively few pieces of statuary, a fragment of the edge of a statue base indicated that at least one large granite statue stood in the front area.

Limestone of various kinds was common. Some of this was high-quality indurated limestone. There seems to have been a small building, perhaps a chapel, built of this material. Evidence for reliefs and perhaps statues emerged.

Small pieces of painted ordinary limestone from more than one statue were found. A join between two sections of a head offers the possibility that parts of these statues might be reconstructed. Further fragments were being discovered as this year's season ended.

One small piece of a painted sandstone arm was also discovered. Sandstone statues are rare at Amarna, and this one might be either an image of one of the royal family donated by a private individual, or a statue of a private person placed in the temple.

Finally, numerous hard-stone inlays of various materials were found (Figure 15). These included pieces of hieroglyphs, several granodiorite and red quartzite pieces from a feather pattern (probably from a cavetto cornice), and the borders and bindings of cartouches.

The fragments of hard stone being generated by the current excavations make it vividly clear that the front of the Great Aten Temple was decorated in a colorful and lavish fashion using many varieties of beautiful hard stones. Though the destruction of the temple was thorough, and many of the pieces that have come to light are small and difficult to interpret, some yield important clues that permit us to guess at the decoration of this crucial building.

In addition to work on the Great Aten Temple material, the project for Kristin Thompson and Marsha Hill, a curator at the Metropolitan Museum of Art, to write a book on Amarna royal statuary continues. They studied the fragments registered over the past eleven seasons, making notes and photographs. They also added details to the registration sheets. As part of this work, they continue to make matches between pieces. Around twenty fragments were joined this year, adding to the hundreds of joins made in the past.

The plan is for this work to continue in 2014.



Figure 15. Stone registration piece S-8202, a fragment of a stone inlay in granodiorite representing a human face and hair.