

**Volume 27, Number 1
June 2021**

Published twice per year since 1993

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Research Foundation

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Greetings Amarnaphiles,

What a year it has been for us all. I sincerely hope that all our dear members have weathered the Pandemic and stayed well.

In this edition of the Sun, we are again treated to two very interesting and informative articles by Barry Kemp and David Pepper. Barry gives us some wonderful history of the expedition along with the colorful personalities that made it happen.

David's article is yet again another instalment of his wonderful book about the Amarna court. It is a work that he continues to research and expand upon, and we will all be the beneficiaries in the end.

There is an exciting new development that I want to make you aware of. If you go to our website, you will see that it now has a link to the History of Egypt Podcast written and produced by New Zealand Egyptologist Dominic Perry. If you are not aware of it and want to learn about the whole history of ancient Egypt, I encourage you to listen to it and become a follower and supporter of it. Dominic is quite frankly a brilliant scholar and Egyptologist, and he has a lot to say about the Amarna Period! I think that you will enjoy his podcast as much as I do.

With best wishes always,

Floyd

Ralph Lavers, Amarna architect between 1931/2 and 1936/7

Barry Kemp

Throughout the excavation seasons at Amarna run by the Egypt Exploration Society (EES) from 1921 to very early in 1937 the planning of buildings (and of the Royal Tomb) was entrusted to a series of professional architects. For the six seasons directed by John Pendlebury (1931/2 to 1936/7) the architect was Ralph Lavers who therefore had the responsibility of planning the entire Central City as its individual parts were exposed by excavation. Trained as an architect in the early 1920s, the Australian-born Lavers became an Associate of the Royal Institute of British Architects in September 1930 and was recruited to the Amarna expedition the following year.

It is standard nowadays for planning to be an integral part of excavation, done on the spot as the site is uncovered. Our practice at Amarna is mostly for the site supervisors to make their own plans as the excavation unfolds before them. This takes advantage of the sensitivities of the human eye as it accompanies the actions of excavation, often the final brushing of soft and ephemeral features where transient differences of colour and texture are significant and cannot necessarily be captured to the same extent by photography or electronic survey instruments. The drawback is often that a general plan is a composite of several local plans, perhaps done by different supervisors. They need to be fitted into an independently derived surveying framework. Since 2010 the expedition has owned its own electronic total surveying station, bought with a generous donation from TARF (*Akhetaten Sun* 16, no. 1, 9-10, Figure 2). Its main use at the temple is to fix the corners of the 5x5 m excavation squares and some of the prominent features of the building, mostly its corners, within a general map of the entire site (it's also used for contouring the ground by the cemetery excavation team).

The style of the earlier EES Amarna architects was to work largely independently of the excavation taking place. They saw it as their job to produce a plan (at the relatively small scale of 1:100) of buildings once they had been completely freed of the rubble and sand which filled them. They made regular visits to the site and drew freehand on paper a sketch map of a particular building or group of buildings. On this sketch map they recorded numerous distances, both the lengths of walls and diagonals linking corners or other features, using a metric tape measure. Once back at the expedition house they plotted in pencil the lines, distances and other features at the scale of 1:100 on large sheets of fairly stiff cartridge paper. Once they were satisfied with the result, they went over the plan again, this time in black ink, filling the spaces between wall outlines in solid black. Very few of the working sheets and even final plans of the old Amarna expedition have survived, largely because it seems to have been standard practice for the printers of the resulting reports not to return or to archive original artwork.

An omission that remains a surprise was that no attempt was made to record relative heights. Even though Amarna is a fairly flat site, the archaeological features are not spread over an entirely flat and even surface. At the front of the Great Aten Temple, for example, the early ground level, covered with a mud floor and mud-brick offering-tables, is anything up to 80 cm below the level of the ground which belongs to the later, rebuilt temple, and it is useful to have this difference regularly recorded. At the Great Palace, where we still have to rely entirely upon the Pendlebury reports, the lack of spot heights is a real hindrance in interpreting Lavers' plans, the photographs and Pendlebury's descriptions. This is not a result of improvements in equipment as time has passed. The Borchardt expedition of 1911–1914 regularly took spot heights (and also planned at a significantly larger scale, able to show more detail).

At the Great Aten Temple, the first excavation of the entire Long Temple was completed within the month of December, 1932 (plus January 1st, 1933). By the end, the site had been largely freed from rubble and sand, except for beds of sand where the builders had avoided putting down the foundation layer of gypsum concrete. Photographs taken at the time show how impressive the result was. On January 2nd Pendlebury began to excavate an adjacent site to the south and continued digging until the end of the season (January 24th). Lavers must have spent much of the month reducing the intricacies of the temple to an ordered plan on paper, continuing into January, since Pendlebury noted in his diary (January 10th): 'Lavers solves the temple.' The meaning of this remark is given in a series of descriptive notes (part of the EES archive in London) written by Pendlebury (but with an acknowledgement to Lavers): as he planned, Lavers had also worked out a chronology for the whole Great Aten Temple enclosure and this formed the basis of the text in the final publication, *City of Akhenaten*, volume III.

When our own workmen have cleaned a part of the site again, what we see is something much more fragmentary than is marked on Lavers' plan. None of the stone blocks remain. What is left is a series of clues: lengths of the original builders' ink guide lines; occasional pads of gypsum mortar on which the impressions of the now-lost bottom course of stone blocks is preserved; irregular lines of shallow circular holes which helped the ancient demolition teams to lever up blocks which were too firmly stuck to the foundation layer; smeary lines of gypsum mortar grooved by the builders' fingers along the edges where blocks had been laid. If one takes all the clues into account, a reasonably complete plan of the building emerges (though lacking the positions of doorways). For Lavers, with limited time and the constraints of planning at the scale of 1:100, marking all this detail was out of the question.

Accordingly, as he worked, he reduced the mass of fine detail to the outlines of individual blocks, giving the impression of a much greater degree of completeness of the plan than actually existed. This reached its maximum for around half of the length of the north wall of the temple. Lavers shows it unbroken and complete, all the blocks regularly delineated. In reality, this part had not been excavated at all, as has emerged from our own work.

The best test of Lavers' reliability as a planner comes from the rear part of the Long Temple, where a maze-like layout of walls and offering-tables occupies the whole area (Figure 1). Lavers, obliged to interpret the clues as he worked, got it right. His reconstructed plan cannot be seriously faulted. It is our guide to what we are doing although, area by area and seventy years later, our own fresh detailed plans (e.g. Figure 4) are replacing his schematic ones.



Figure 1: From left to right: Hilda Pendlebury, Ralph Lavers and John Pendlebury, on holiday on Crete. From Imogen Grundon, *Rash Adventurer; a Life of John Pendlebury*. London, Libri 2007.

The spring season 2021 at Amarna

Barry Kemp

Despite the uncertainties, fears and regulations of our times we have managed to keep the Amarna expedition in the field for a further season (spring 2021) since last I wrote from Cairo in late January (*Akhetaten Sun* 26, no. 2, 22–39). With a permit from the Ministry of Tourism and Antiquities valid for the whole year we were able quickly to set ourselves up at Amarna on February 4th: opening the expedition house, greeting the small committee of the local antiquities inspectorate charged with preparing the legal document which allows us to work both at the Great Aten Temple and inside the large antiquities storeroom (the ‘magazine’) where all our finds are kept, and, on February 9th, meeting the crew of builders and workmen on the site itself actually to begin the work. We were few (myself, Miriam, Juan from Argentina, Marzia from Italy and our photographer, Andreas from Cologne) and our workforce, numbering 25 (10 of them builders), plus two night guards. During some seasons we work on site for only five days each week, allowing more time for catching up with recording. This time we chose a six-day week, ending with final pay day on March 23rd, closing the magazine on the 25th, and travelling back to Cairo the next day. Miriam and I stayed on in Cairo until May 18th, which allowed time for the preparation of a report to the Ministry and for the preparation of our application papers for 2022. These we duly handed in to the office for foreign (archaeological) missions which stands close beside the Great Pyramid.

The area enclosed by the mud-brick perimeter wall of the Great Aten Temple is huge, even though a large portion lies forever inaccessible beneath the modern cemetery of the village of El-Tell. Many questions can only be answered by excavation but this needs to keep to a plan which suits the resources available (essentially staff and money) and which also allows for the re-creation of the ground-plan of the temple in new stonework. All our effort this time was devoted to the foundations of the stone temple. Having completed the study and reconstruction of the front, we have concentrated on the long north wall which also separates the temple from the modern cemetery. All of its original stonework, down to the foundation layer of gypsum concrete, had been removed after the end of the Amarna Period. Much of the trench that remained had filled naturally with sand and then, in 1932, had been partly cleared by the Egypt Exploration Society expedition directed by John Pendlebury. Our recent work had included the progressive cleaning of the trench and then filling the space with new foundations built from local limestone blocks up to the present ground level. This creates an excavation that is quite narrow (at the most about 4 m/13 ft wide) but very long. By the end of the spring season of 2020 we had cleared and rebuilt along a total length of 110 m/360 ft. A distance of 80 m/260 ft remained to take us to the back wall of the temple. You can see photographs of this in *Akhetaten Sun* 26, no. 2.

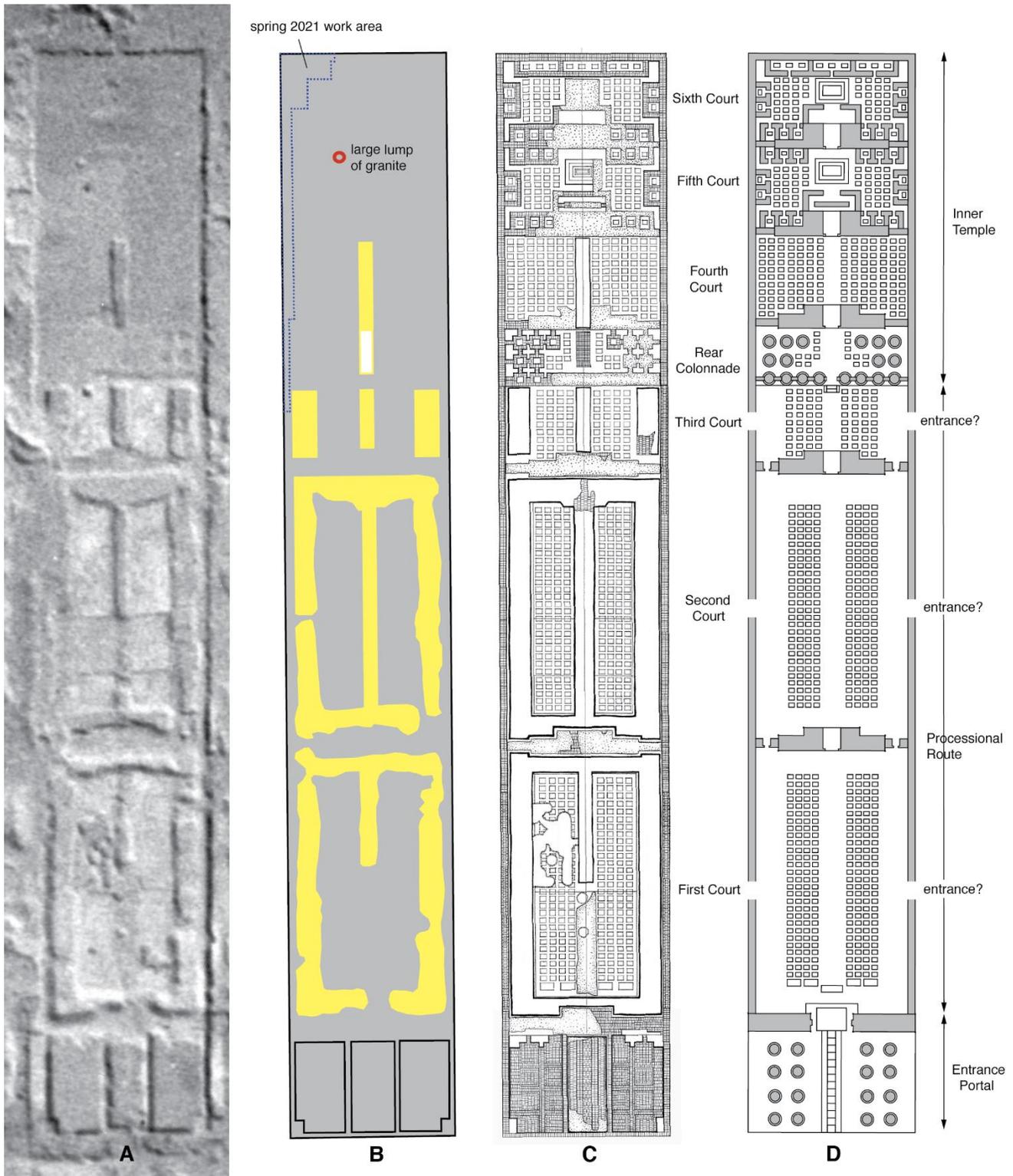


Figure 1: Four versions of the Long Temple. A: part of a 1935 aerial photograph; B: an interpretation of the aerial photograph, the yellow representing the remains of the thick layer of sand which was used to create a flat and slightly raised floor for the temple; C: the 1932 plan of traces of the walls and other features made by architect Ralph Lavers (*City of Akhenaten III*, Pl. III); D: an interpretation of the ancient traces of foundations.

It is a feature of the temple layout that the initial distance of 120 m/390 ft from the front was largely open space across which 516 stone offering-tables had been built though with subdivisions of the space into three courtyards (Figure 1). Along the sides something like an avenue had been left which presumably provided access for large numbers of people. Although it cannot be proved, the layout would have made good sense if doorways were positioned at intervals in the long side walls. Perhaps from a wish to economise on labour and the use of the raw material gypsum, the lower foundation layer was not carried across the wide side avenues or, for part of the distance, across the central pathway (Figure 1B). In practice this means that the inner side of the long foundation trench is composed of a thick layer of sand which had been put down to support the final raised floor level. In pushing ahead with our plan to complete the recording and rebuilding of the north wall we have left this bank of sand in place (as had Pendlebury in 1932) and not sought to clear the foundations of the hundreds of offering-tables which occupied much of the space (courts 1–3) running back from the front of the temple.

At a distance of 120 m/390 ft from the temple front, a major change takes place (Figure 2). The final area is marked off as a separate building, with its own colonnaded front. Inside, the offering-tables spread from side to side, running up close to the side walls. As a result, the hard, gypsum foundation layer continues unbrokenly from side to side, a distance of 30 m/98 ft. This has a marked effect on how the area is to be excavated. Pendlebury cleared it completely, leaving it as a shallow rectangular pit (Figure 1A). We are starting to do the same. Suddenly the excavation is no longer a narrow trench, safely bounded on both sides. It is as if, having navigated a long narrow canal, we have suddenly found ourselves in a wide but shallow harbour.



Figure 2: The point at which the gypsum-concrete foundations change from being limited to the width of the temple wall on the north side (the foreground) to being a continuous layer stretching from one side of the temple to the other. Many impressions of individual *talatat*-blocks remain. View to the south.

Since Pendlebury's day the hard, gypsum-concrete surface has been covered by a shallow layer of sand blown in by the wind. This must have accumulated quickly since, when it is brushed away, the surface looks much as it must have done in 1932. This is a happy surprise since, prior to this season, one could not tell from the surface if the underlying gypsum had been damaged by weathering and modern traffic. Only on the north and south sides is there much debris to remove. This is because Pendlebury's workmen heaped the debris they excavated to immediately beyond the line of the temple wall. Since then the nearer edges have slumped back down again. In wishing to clean the foundation layer thoroughly it was necessary to excavate the edge of this old spoil and, in fact, to extend the excavation a little further in order to create a flat buffer zone between the temple and the edge of the cemetery. This relatively modest amount of digging produced many fragments of carved stone which remain to be catalogued although a few key pieces were photographed (see below).



Figure 3: View of the same area as Figure 2 but viewed to the north-east and after the new stone foundations had been nearly finished. The thick projections added to the main wall represent the beginnings of walls which cross the temple from side to side. When the intended scheme is finished, none of the small blocks will be visible.

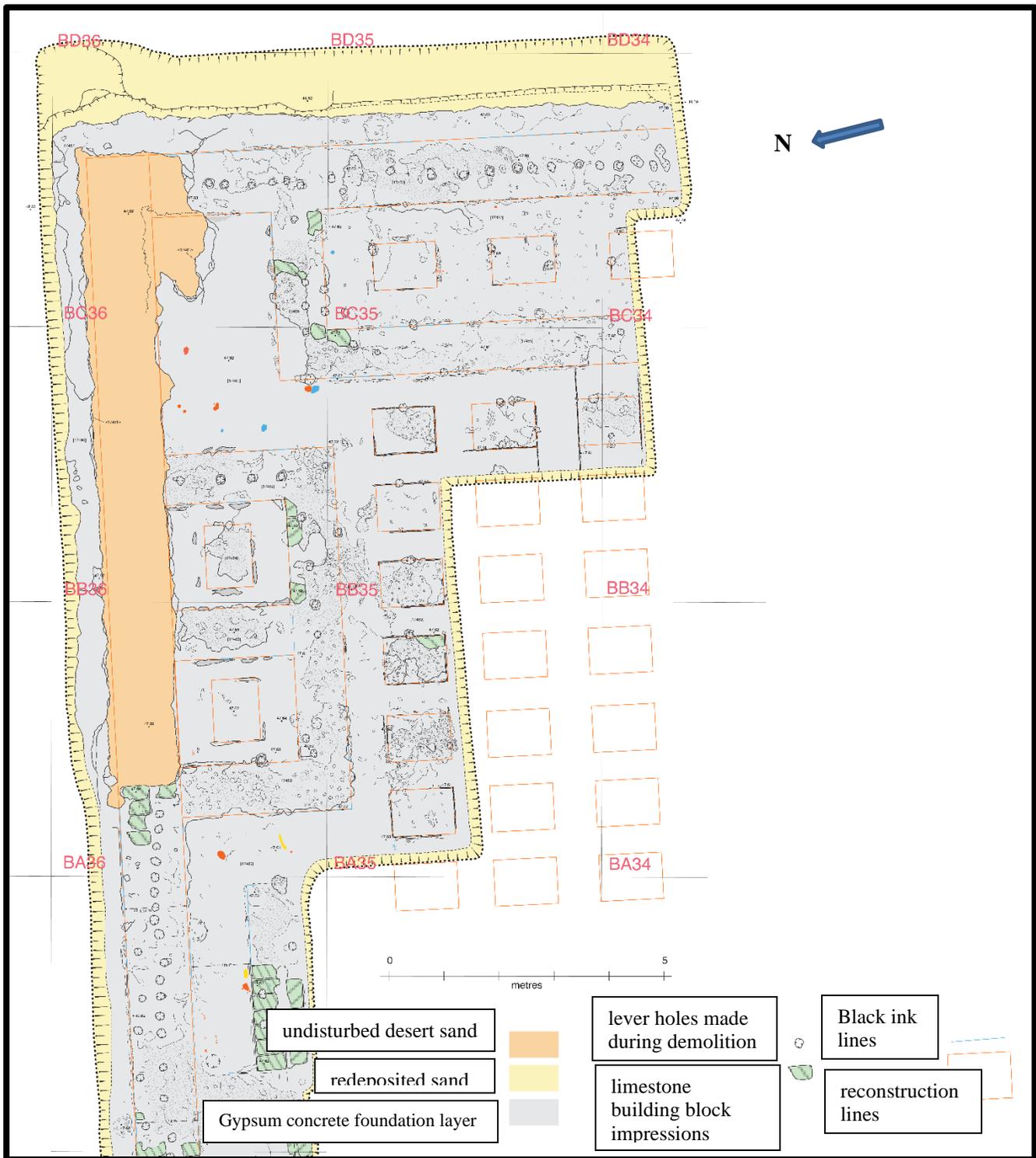


Figure 4: Plan of the north-east corner of the Long Temple following the re-excavation of 2021. Original plan by Juan Friedrichs. Compare with Figure 1B and 1C.

By the end of the season the strip on which the north wall of the temple had been built was completely cleared and recorded, and the new stone foundation put in place (Figure 3). Because the original foundation layer extends all the way across the temple, it is not feasible to hide the southern, inner face of the new stonework

(although it is easy to hide the northern, outer face by filling the edge of the foundation trench with sand). How should we proceed in the next few seasons? Simply working around the edges of the temple — cleaning, recording, rebuilding — would, in this rear part, produce an unsightly effect. The markings on the foundations show a dense and distinctive layout (Figure 4) that suggests a more complex usage than the repetitive presentation of offerings implied by the layout of the offering areas (courts 1–3) to the west. But if left with its present thin covering of sand this will be mostly invisible and the new foundations of small limestone blocks around the edge of the site will be hard to disguise (Figure 5). This reflects a general fact about the temple: the original floor, of limestone blocks on a thick bed of concrete and then of sand (see the section, Figure 10) more or less coincided with the present ground level. Much of the Pendlebury dumps which ring the site consists of the sand and rubble which originally lay beneath the floor of the temple. The appearance that the temple now has, of being in a series of wide and shallow pits, is misleading.



Figure 5: View to the west of the completed foundations for the final course of Tura limestone blocks along the line of the north wall of the Long Temple. The foundations run to the pylon at the front of the temple. The wall under construction in the foreground is the side of one of the small rooms, each of which contained a single offering-table, visible at a later stage in Figure 15. The large granite boulder discussed in the text stands in front of the motor-cycle.

The answer is obvious if daunting. It is to work methodically across the entire area with the ultimate aim of recreating in new stone the outlines of the original building, including its colonnaded entrance, and raising the ground level so that it is roughly flush with the present ground. The difference in level is around 77

cm/2.5 ft (Figure 10, below). It might seem obvious to return Pendlebury's spoil heaps to where they were before he began and so in this way to build up the ground level again. There are, however, so many broken pieces of carved stone in the dumps that the necessary full excavation of them would delay us for far too long. Instead we purchase sand from local sand quarries and have it delivered by tractor and trailer.

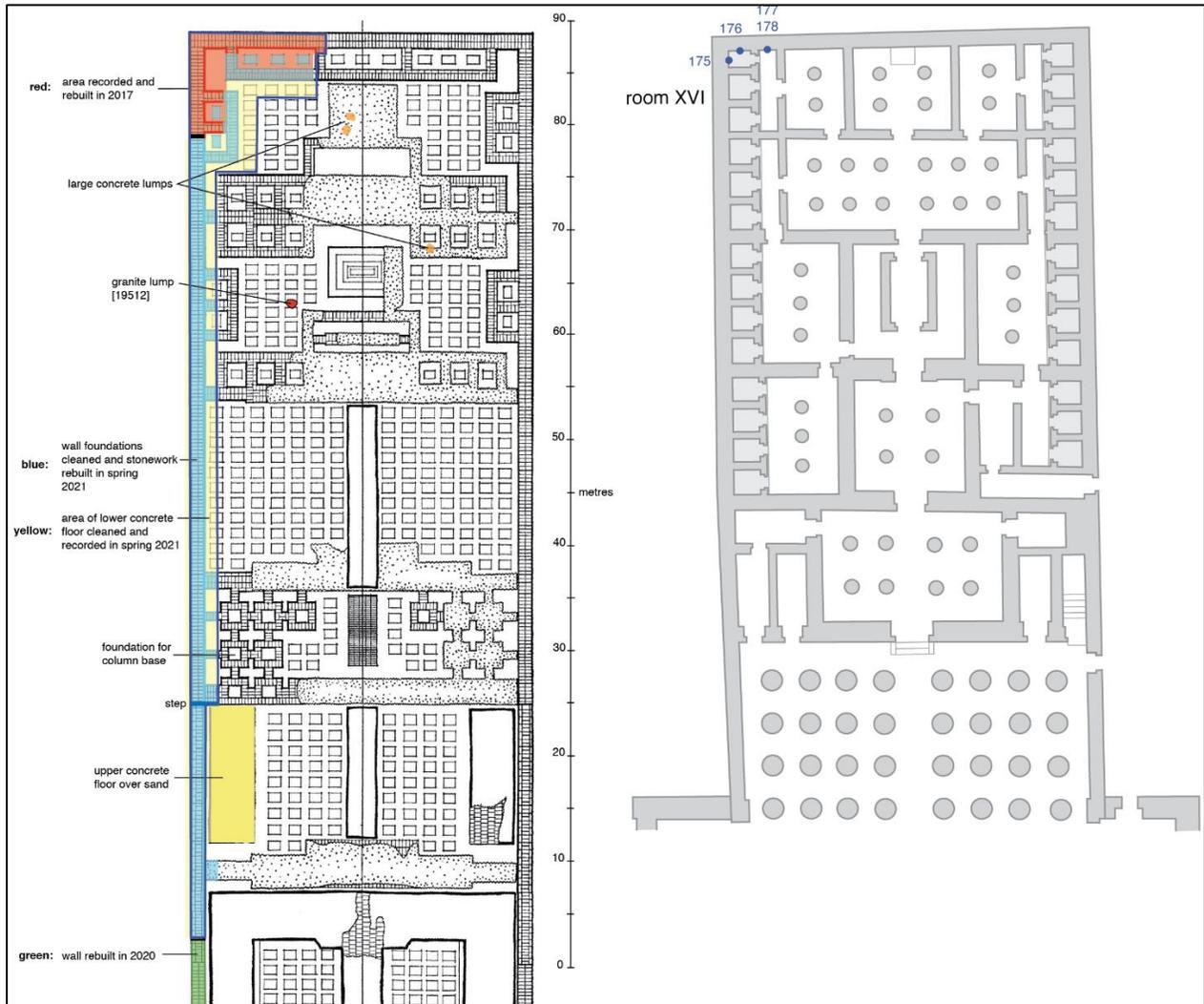


Figure 6: Left: plan of the rear part of the Long Temple showing the progress of the work of study and reconstruction achieved in spring 2021 (in blue & yellow). The underlying plan is that of Ralph Lavers, made for the Egypt Exploration Society expedition of 1932 (*City of Akhenaten* III, Pl. III). Right: the rear part of Luxor temple at the same scale. The side walls have largely been lost to later modifications, the best-preserved part being the south corner, Room XVI. The areas of raised floor (shaded in gray) are largely restored. Numbers in blue are those of wall scenes published in H. Brunner's, *Die südlichen Räume des Tempels von Luxor*, Mainz, von Zabern 1977 and given as references in Figure 10.

It is of immense help that we already have a reasonably good plan of the temple made in 1932 (Figure 1, C). We know, more or less, what faces us before we begin. The plan was made by Pendlebury's architect, Ralph Lavers (see separate

note at the end). The most distinctive feature of the rear part of the temple is that many of the offering-tables stand within small rooms built against walls, either the outer defining walls of the temple or screen walls which cross the temple from side to side (Figures 6, 7). The offering-tables in the rooms on the north and south sides are also the only ones anywhere in the temple layout (including those of mud brick from the earlier period) which are orientated at right angles to the east-west temple axis (although the same alignment was given to offering-tables along the sides of the Sanctuary at the rear of the great enclosure and of the Sanctuary at the Small Aten Temple). Why might these offering-tables be singled out and housed in separate rooms? What was special about them? The detailed pictures in the rock tombs do not give answers. They show that the honouring of the Aten was a performance by the royal family carried out in a single location. What is perhaps the most realistic of the scenes is the one in the Royal Tomb, chamber alpha of the Meketaten annexe. The areas of offering-tables are populated by men who tend the offering-tables, perhaps by resupplying them with more foodstuffs. Identifiable priests are absent (unless they are part of the group of anonymous officials behind the royal family).

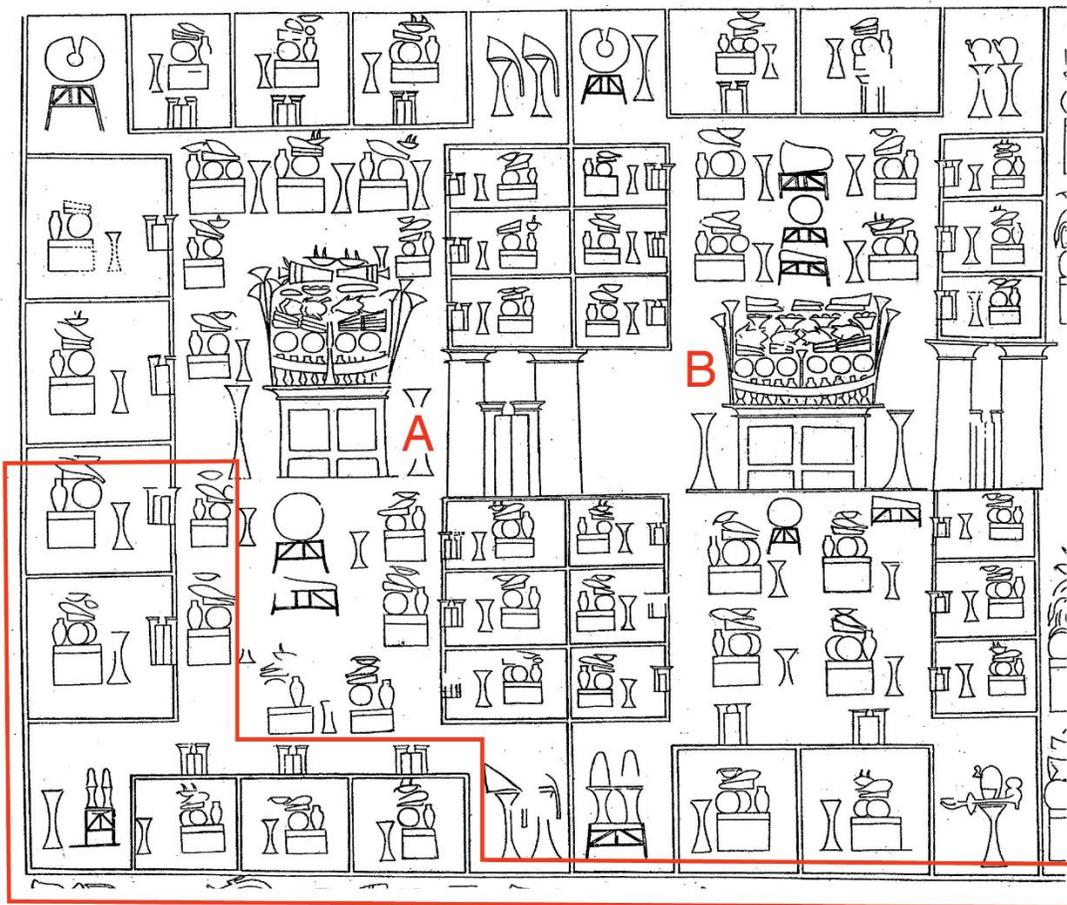


Figure 7: Courts 5 and 6 at the back of the Long Temple (Figure 1D), as depicted in the tomb of Meryra. The area outlined in red represents the main area of the recent fieldwork (Figures 4, 6). A and B are large offering-tables (after Davies, *Rock Tombs I*, Pl. XXVIII).

As the season drew to a close another line of enquiry came to mind, if a somewhat oblique one. The way that selected offering-tables in their separate small rooms hug the outside walls of the rear of the temple is reminiscent of the rear of Luxor temple. Built against each of the two long side walls are (or were, since much of the masonry was removed in Roman times) chambers very close in size to the ones we have at the Great Aten Temple. As I imagine is the case with most visitors to Luxor temple, I have paid no serious attention to this part. It is a requirement of our permit to work at Amarna that, at or shortly after the end of a season, the director presents an illustrated preliminary report on the work. With the main libraries in Cairo closed on grounds of public health, I was able to gain a much better idea of this aspect of Luxor temple from the kindness of a colleague (Marsha Hill) who supplied me with a scan of a portion of the standard publication of Luxor temple's southern rooms and from the happy coincidence that one of the team, Juan Friedrichs, travelled to Luxor at the end of the season to visit friends. He kindly took photographs and measurements Figures 8, 9).



Figure 8: Luxor temple, the rear wall of Room XVI. The outline of the dividing wall, the raised floor and cavetto cornice are preserved from how the builders dressed the surface of the sandstone walls prior to carving the decoration. Photograph by Juan Friedrichs.



Figure 9: Luxor temple, part of the preserved façades of three of the small rooms on the south-east side. The red circles indicate parts of the cavetto cornice which originally ran continuously and fronted the raised floors inside each room. Floors and partition walls were removed in later times. The smallest of the red circles is the location of Figure 8. Photograph by Juan Friedrichs.

The chambers along the side walls at Luxor were not small rooms that could be entered. They were more like tall, narrow cupboards with solid, raised floors ending at the front in a cavetto cornice. To judge from the surviving reliefs, each chamber had contained a statue of a god or goddess who was honoured by the presentation (officially by the king, Amenhotep III) of one from a range of objects or substances held to be sacred (that is, fit for a deity's attention or even consumption). The number of chambers was 27 (compared to 35 at the Long Temple), and these were only a part of a larger set of decorated rooms which formed the core of Luxor temple. The number alone implies that the actions were carried out by a staff of priests who acted on the king's behalf.

The main conclusion that is relevant to our temple at Amarna is that the chambers at the rear of the Long Temple are likely to represent stations in a lengthy performance in which each was visited in turn and the Aten honoured in one of a prescribed set of actions accompanied by spoken words. The actions performed

at Luxor include the presentation of a bowl of incense, setting up water-filled vessels over which lotus-flowers were draped and presenting a broad collar on a tray (Figure 10). The equivalent chambers at the rear of the Long Temple did not contain statues. The Aten was a presiding presence throughout each day, but this did not prevent the same ceremonies from being performed, ceremonies shown in many of the rock tombs at Amarna and centring on the presentation of a special item (a sceptre, a bouquet of flowers, incense cones, an incense-filled censer and a broad collar, Figure 7) over a heap of food-offerings.

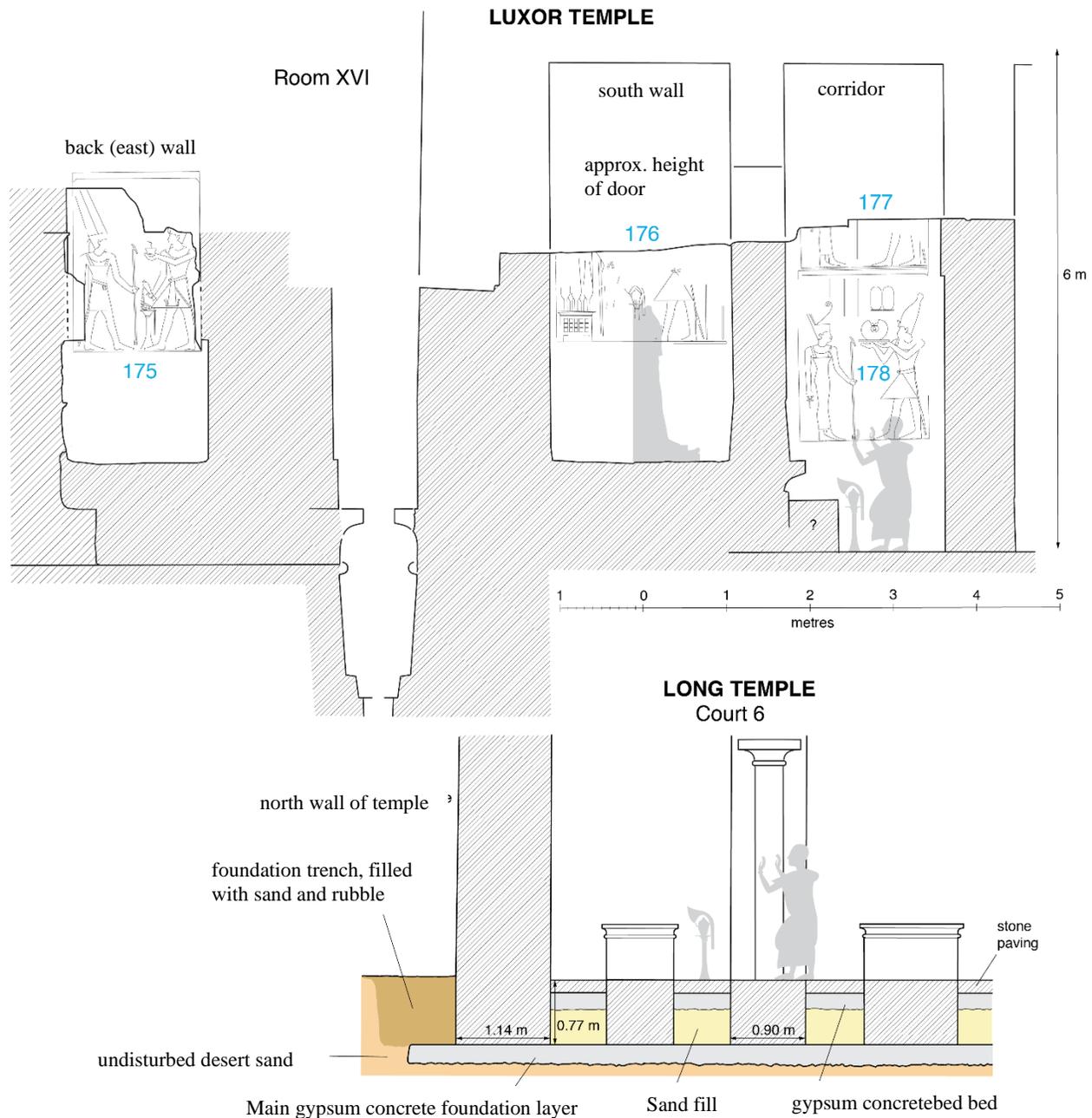


Figure 10: Above: sections through the surviving masonry of the south room of Room XVI of Luxor temple (after Brunner 1977, Taf. 6, 7). Below: north–south restored section across the rear part of the Long Temple at Amarna. The two sections are at the same scale. The blue numbers are the same as those in Figure 6.

It then becomes obvious that the sheer number of chambers and offering-tables in the rear part of the Long Temple far exceeds what a one celebrant could reasonably manage during a single ceremony. It points to the existence of a staff, a priesthood, who would deputise for Akhenaten. Here we should recall Akhenaten's prediction on the first set of Boundary Stelae that he would not always be present at Amarna, recognising that, if he died whilst absent from Amarna, his body would be brought back for burial in the tomb he was preparing there (the same being true for Nefertiti and Meretaten).

The precise meaning of the performed acts at Amarna cannot have been quite the same as at Luxor. But meaning in ceremonial performances makes up only part of their ability to satisfy performers and onlookers. The other part is variety in what was done and the overall length of the performance. Satisfaction comes from respectfully completing the schedule as much as from contemplating the meaning.

One debate about Akhenaten concerns how new his ideas were. Against the idea that his agenda was revolutionary can be cited evidence that much of it can be found in earlier sources. The Luxor comparison seems to feed neatly into the latter view. The Long Temple seems to have been built to serve an adaptation of a long-established style of satisfying the needs of gods, in this case the Aten on its own. The main result of our work at the temple since 2012, however, is to highlight the fact that between Akhenaten's Karnak phase and the building of the Long Temple comes the intermediate phase of the huge, mud-floored space on which at least a thousand mud-brick offering-tables had been built and other actions catered for. One of these involved low rectangular platforms laid out on an east-west axis, each surrounded by small shallow basins lined with gypsum plaster. Another saw an area of offering-tables cleared away to make space for a building of wooden-post construction which seems to have contained a painted brick throne dais. The place where the food-offerings were prepared (the Stela site) lay to the rear, closer to the separate Sanctuary building. The interpretation that I have found increasingly attractive is that this huge space was intended from the beginning to act as a place of ceremonial gathering for a large part of the citizen body of Amarna. The offering-tables might even have been built and maintained by them.

This picture of the earliest layout of the Great Aten Temple represents a major break in the continuity of development between what was done at Thebes and what was done at Amarna. It is important to know how many years the intermediate phase lasted. In the spring of 2013 workmen cleaning the edge of ancient fill from the side of a foundation trench at the front of the temple found a well-preserved hieratic wine-jar label (*Akhetaten Sun* 19, no. 1, 10–12). The label begins with a date, (regnal) year 12. It follows, from its position in the side of the

trench, that the foundations for the portico fronting the new temple were being laid down after Akhenaten's twelfth year of reign had begun. This becomes also the date before which the earlier layout was buried beneath the thick layer of brick rubble and sand. Much hangs upon the integrity of this piece of evidence.

Discussions of chronology within the Amarna Period have recourse to a feature of the iconography of the times, a change in the way that the names of the Aten were written (inside cartouches with unusually fat encircling lines). There are no agreed translations of the names although their general sense is clear enough. One version runs as follows:

Early names: 'May live Ra-Horakhty who rejoices on the horizon, in his name of "light which is in the Aten".' Later name: 'May live Ra, ruler of the two horizons, who rejoices on the horizon, in his name of "Ra the father who has come as the Aten".'

In a small number of cases (none so far from the Great Aten Temple) the older names were re-carved to follow the revised form but most often the older names were left untouched. (There is also a version of the names which seem to be intermediate between the two forms although they are not common.)

It is generally taken for granted that the change took place at a particular moment rather than that the new name began to be used in new buildings more gradually, so that the use of the two pairs of names overlapped. This assumption opens up the possibility of using the names as a means of dating particular occurrences. A widespread view is that the change had occurred by the end of Akhenaten's twelfth year of reign.

Fragments of carved stone bearing Aten names are amongst the material found by the EES expedition (including within the Sanctuary at the rear of the great enclosure) and by ourselves since we began in the Long Temple in 2012. In the former case the results were summarised thus, by H.W. Fairman in his contributions to the *City of Akhenaten* III volume (published in 1951, 185, with table, see Table 1):

	Early form I	Early form II	Late form 1	Late form II
Sanctuary	12	8	2	1
Long Temple	2	0	5	5
Entrance col.	2	0	3	2

Table 1: Distribution of early and late forms of the cartouches of the Aten at the Long Temple, according to material found by the Egypt Exploration Society. For the term Long Temple, Pendlebury used the term Gem-Aten; likewise for the term Entrance colonnade (at the front), he used the term Per-hai (after *City of Akhenaten* III, 185).

Fairman wrote: “The evidence is so scanty that any conclusions based on it must be treated with every reserve, but the available evidence indicates perhaps that the decoration of the Great Temple started in the Sanctuary at the east end before the 9th year and that the sculptors gradually worked westwards towards the entrance, which may, therefore, have been the last part, to be decorated.”



Figure 11: Two fragments of carved limestone from the rear part of the Long Temple, each with part of one of the cartouches of the Aten. S-16037 is from the early version of the cartouches; S-15959 is from the later version. Photographs by Andreas Mesli.

The cataloguing of the hundreds of fragments of carved stone from the current work still has a long way to go. From the rear part of the temple, where this last season’s work was concentrated, three examples can be cited. Two are fragments probably from limestone carvings, one identifiable as the early version of the cartouches (S-16037), the other (S-15959) as the late version (Figure 11). The third example (S-15509) is one of several fragments of granite (Figure 12). It comes from a corner, decorated on both faces. Three pairs of Aten cartouches are present, all of the early form. Finding granite fragments in the rear part of the temple directs attention to a rounded, boulder-like lump of granite, with rough surfaces, which has stood in this part of the temple since Pendlebury’s time at

least, since it appears in some of the photographs taken at the time (and the 1935 aerial photograph, see Figures 1A, B, also 5). It would be a heavy piece to move far and makes one wonder if it is not far from its original location. The tomb pictures show, in this part of the temple, two large offering-tables piled with offerings in the usual way (Figure 7). They are drawn as if of openwork construction, which I have previously assumed was of wood probably covered with gold leaf. Kristin Thompson, however, has wondered if the boulder-like lump is the remains of one of them, meaning that they had been made from solid granite.

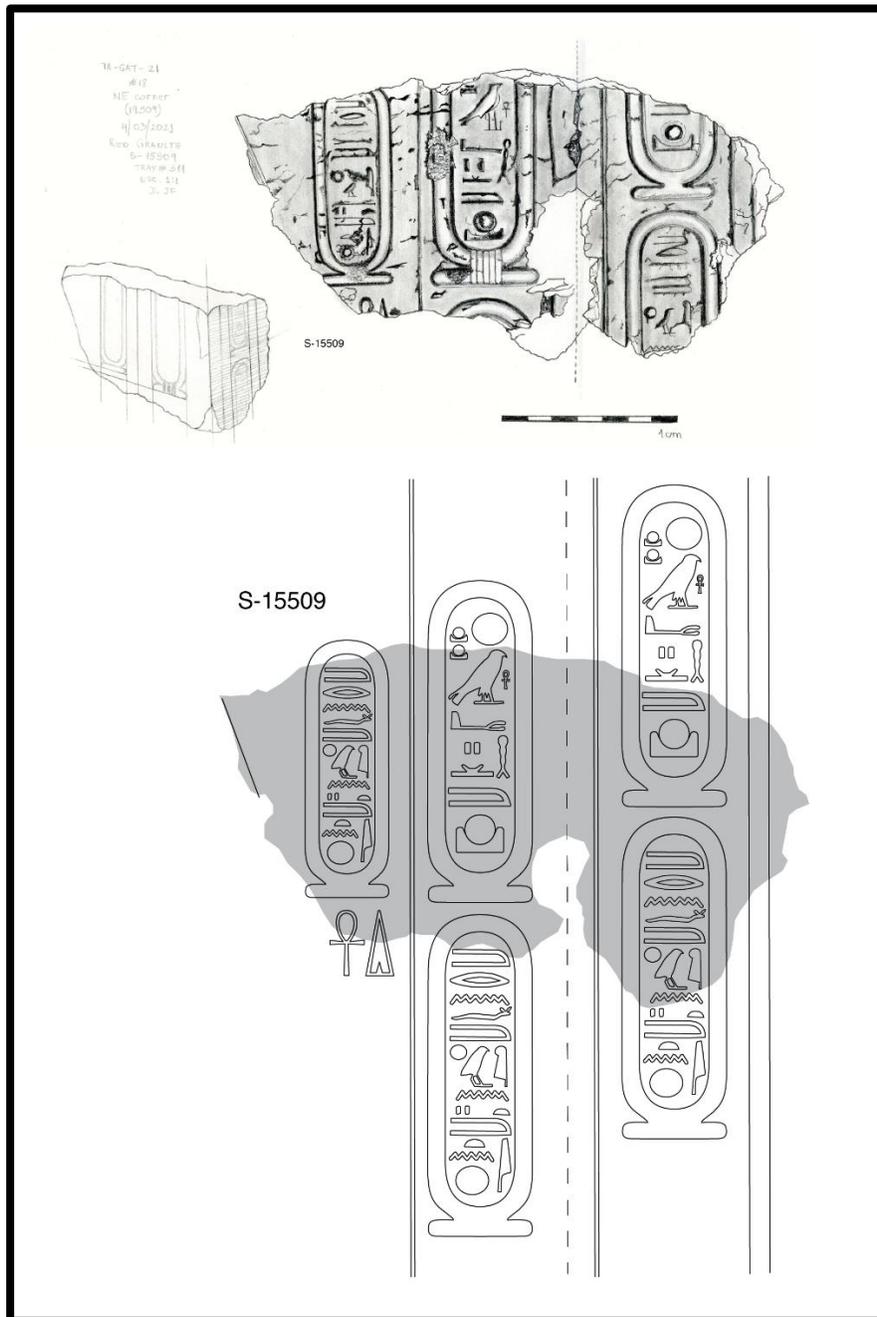


Figure 12: Granite fragment S-15509 from the rear of the temple. It is part of a corner, with the early version of the Aten cartouches on both faces. The pencil drawings are by Juan Friedrichs.

Another granite fragment (S-15692, Figure 13), from the dumps beside this part of the temple, appears to be part of a base of a statue on which was preserved a pair of feet which, from their tiny size, likely represented one of Akhenaten's daughters in a family group. The figures had been joined to a vertical back surface. One is reminded of the family statue groups that accompanied some of the boundary stelae. This possibility makes it particularly hard to estimate how large the group was, given the disproportionate smallness of the daughters. The shape into which the statue could have fitted is a naos, of the kind represented by the quartzite example in Berlin which contains the statues of Bek and his wife Taheret (Figure 14) and is also represented with greater depth and scale in the tomb of Any (Davies, *Rock Tombs V*, Pls. VIII, XX). A naos would also accommodate the corner fragment S-15509, the longer of the two sides preserving traces of a continuation of the decoration beyond the paired cartouches. It would have come from one of the sides. Other granite fragments, one with a cavetto cornice, would fit a naos well. It is to be hoped that more fragments will be found which will help to define better the size and shape of the objects from which they come.



Figure 13: Granite fragment S-15692 from the rear of the temple. It is part of a statue group, almost certainly of the royal family, standing on a flat base which rises to a vertical surface behind them. The preserved part is a pair of feet, presumably from a princess. Photograph by Andreas Mesli.

Finding early Aten cartouches (as well as one example of late cartouches) in the rearmost part of the temple does not fit comfortably with the view that building work on the temple seems to have begun no earlier than Akhenaten's year 12. Fairman's suggestion that work began at the back of the temple before the 9th year (when he felt that Aten cartouches were still in the early form) and finished at the front of the temple a few years later (when the later cartouches were being used) is hard to reconcile with the appearance of the layer of gypsum concrete which underlay the entire temple and on which the lowest course of blocks was laid. The concrete was not semi-liquid and poured into shuttering as is done today. It had a stiff consistency which must have been laid by hand, portion by portion, and then smoothed over. Although there are many places where the concrete was broken up during the ancient demolition, our clearance of the complete north wall and of the full width of the front colonnades gives us a fairly continuous picture of it. Particularly at crucial places where the temple was divided by cross walls, there is no sign of the kind of break or join in the concrete suggestive of a significant pause in its creation. The entire 200-metre long building, with its hundreds of offering-tables, seems to have been planned in detail from the beginning, and the plan to have been followed by the builders without changes or corrections. The rapid hardening of gypsum when mixed with water must have required, on the part of the builders, full and confident control over this initial stage in the construction of the temple. This reinforces the view that the main stone temple was built as a single edifice.

At this time, when much more study needs to be done on the mass of stone fragments, it looks as though early and late forms of the cartouches co-existed in



Figure 14: The quartzite naos of the sculptor Bek and his wife Taheret. Amarna Period, no provenance. Berlin, Neues Museum, SMPK Inv.-Nr. 1/63. Photo: Cambridge University Press.

the same building, early forms still being used as the building work got under way from year 12 onwards. There might be no objective grounds for thinking that we can identify one part of the temple as having a different date to another. Once started, it was built as a single construction with early or late cartouches carved according perhaps to how high individual walls or other elements had reached.

The whole study of the temple is, however, haunted by an elusive possibility. The banks of sand which mark the present appearance of the site (Figure 1B, marked in yellow) were put in place as part of the temple builders' intention to raise the level of the pavement. Sometimes, when the sides of the sand banks have been cleaned, pieces of broken building materials emerge: fragments of gypsum mortar from walls and actual pieces of carved stone. The likely explanation for their presence is that they come from an earlier building which had been demolished and broken up to make way for the new post-year 12 Long Temple. Could the early cartouches have come from it? So far, no trace of an earlier foundation has come to light. The foundations of the new temple might have been sufficiently deep to have destroyed them. The amount of residual material in the sand banks is small. Does this imply that this hypothetical earlier building was also quite small?

Progress with the rebuilding

The autumn season ended with a gap still to be excavated and filled with new foundation stonework (the very last 10 m/32 ft, to the actual north-east corner, Figure 6, left, had been built up in 2017, complete with the final course of *talatat*-sized blocks from the Tura quarries outside Cairo). As the excavation team worked so the builders were not far behind. No sooner was a length of wall foundations cleaned and recorded than the builders moved on to it, covering it with a layer of sand, taking note of the ancient wall lines (often visible as black ink lines). Having set out their own lines they began to lay new walls, using small limestone blocks. The final stage of the work will be the laying of a single course of *talatat*-sized blocks which should begin in September (half the needed quantity has already been purchased and delivered to the site). The foundation wall of small blocks is built from three thinner, parallel walls with spaces between, filled with sand and rubble (Figures 3, 5).

As always, our builders timed their work to end exactly on the last day of the season. By this time they had reached the rear of the temple and there was just sufficient time to complete two sample chambers built into the north-east corner. Using a small store of Tura blocks left from a previous season they were able to complete the chambers, with a sample offering-table in each (Figure 15). We have chosen to leave the floors as sand rather than as stone paving blocks.



Figure 15: The north-east corner of the temple as left at the end of the spring 2021 season. View to the south-east.

Maintaining a regular programme of research and development at archaeological sites, especially when they are far from one's home, is bound to be a challenge. It has grown even more so as, in the face of the current worldwide health emergency, freedom to travel has been curtailed. The Amarna Project is doing what it can to maintain the continuity of its work and to reassure the officials and workers in Egypt of our intention to keep going. Thus we are preparing to run a season at Amarna from mid-September 2021 to the beginning of November. The support which the Amarna Research Foundation makes each year is vital to us. Thank you, David and Jill, the rest of the Board and the members.



Barry Kemp surveys the Great Aten Temple. Photo: Royal Ontario Museum

The Royal Court at Amarna – Part 2

David Pepper

MAHU - CHIEF of POLICE – tomb TA9

Mahu was ‘Chief of the *Medjay* at Akhetaten.’

On the door jamb of his tomb, Mahu (Figure 1) praises the Aten as a creator god. “O living Aten, august god, beloved one, who created himself and gave birth to himself by himself.” He goes on to say “May you grant me a good funeral after old age.” [1]

Medjay was an archaic term for the people of the eastern desert of Nubia who were employed as mercenaries in Egypt. . By the New Kingdom, the term *Medjay* was used for a paramilitary group of desert police. At Amarna their duties included protecting the pharaoh, policing the city, and guarding the tombs. (Figures 3-5) At Amarna, the local squad of the *Medjay* were called the *Mazau* [2].

Mahu would have reported directly to Nakhtpaaten, the Vizier, and that is why he is shown in Figure 2, presenting to the Vizier three bound prisoners, one Egyptian, and two Asian. Three policemen holding sticks guard the prisoners. The text above them says, “Examine these men, O princes, whom the foreigners have instigated.” The Vizier exclaims, “As the Aten and the Ruler endures!”, perhaps in admiration of the importance of the capture [3].



Figure 1: Mahu, Chief of Police [4]

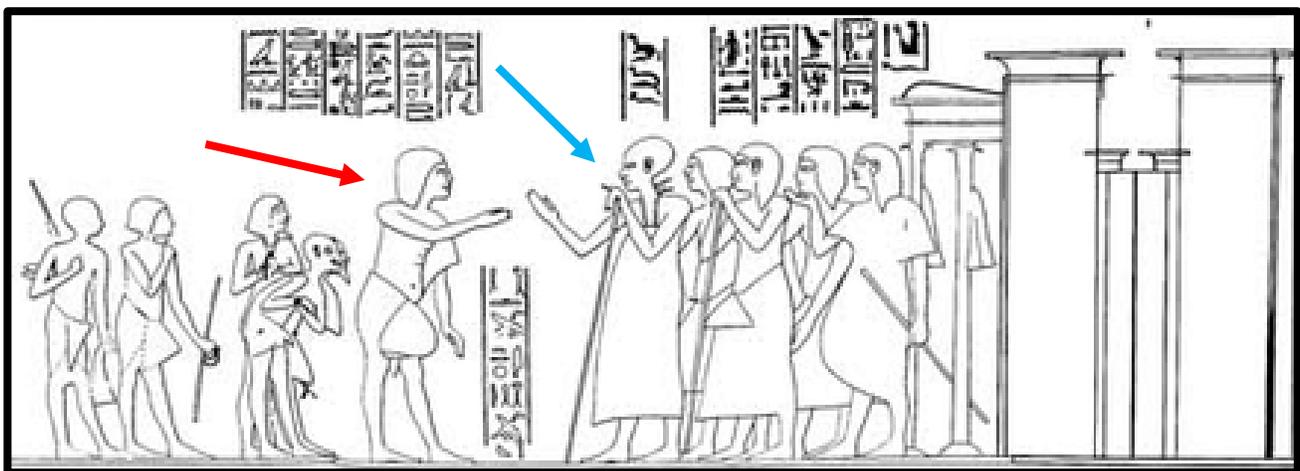


Figure 2: Mahu, red arrow, presents prisoners to the Vizier, blue arrow [5]

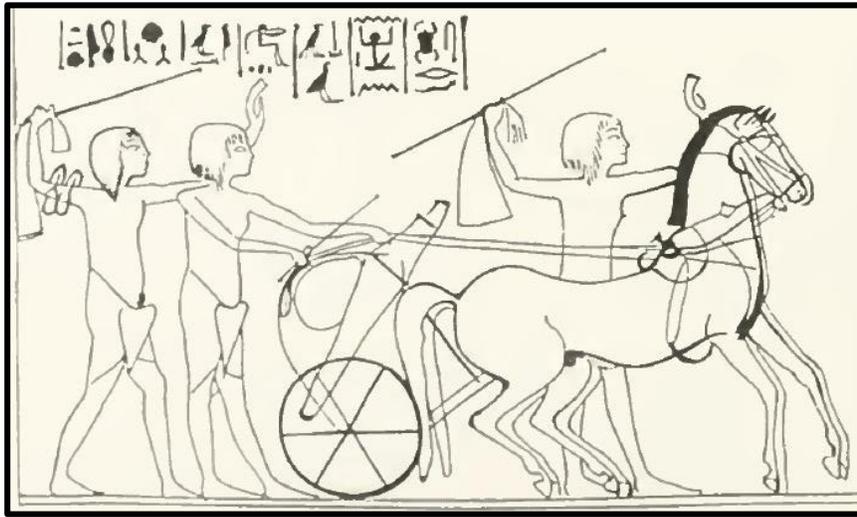


Figure 3: Medjay secure Mahu's chariot while he visits the Aten Temple [6]

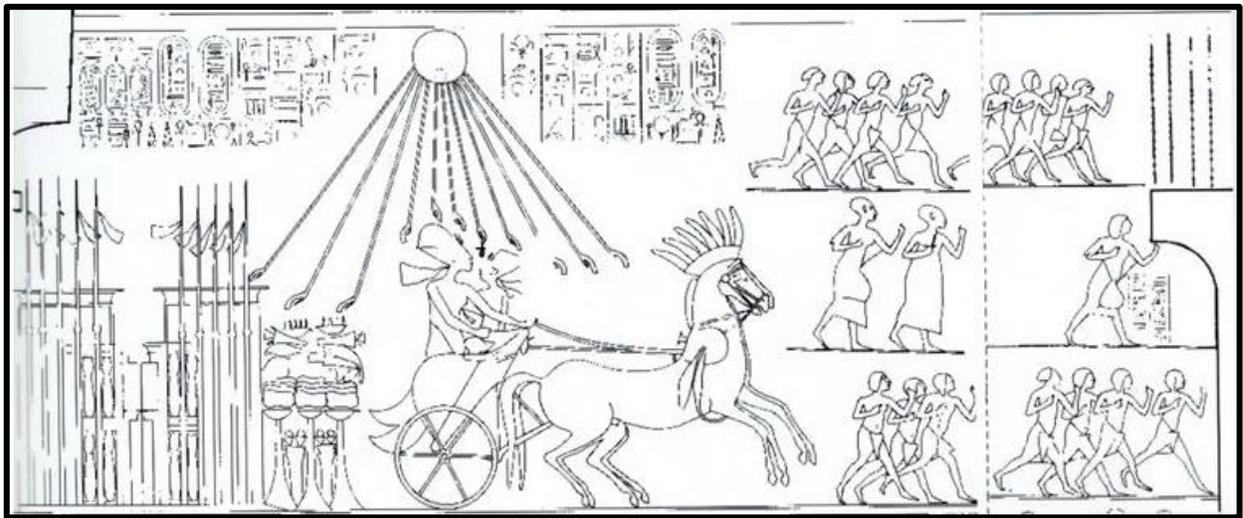


Figure 4: Medjay run in front of the royal chariot leaving the Aten Temple [7]

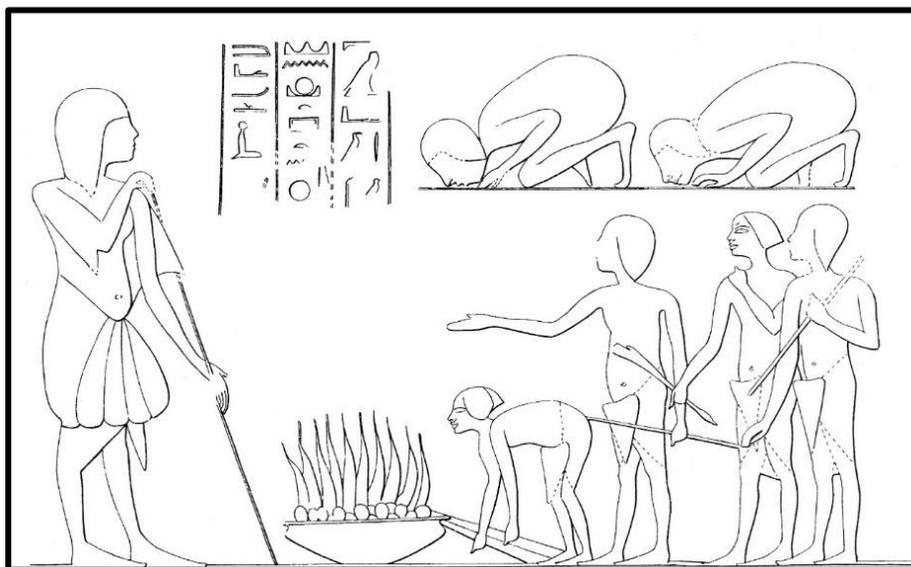


Figure 5: Mahu inspects troops guarding the perimeter of the city [8]

During the New Kingdom, the police used dogs to guard buildings and track felons. Three breeds that were popular, shown in Figure 6 [9], were the Basenji, the Molossian, and the Greyhound. Figure 117 shows Mahu with his Greyhound dog.

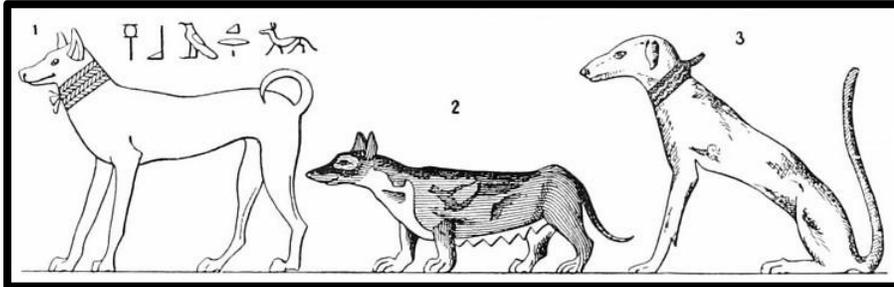


Figure 6: Egyptian guard dogs, Basenji (1), Molossian (2), and Greyhound (3) [10]

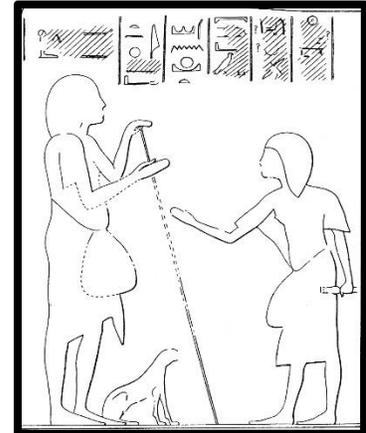


Figure 7: Mahu and his dog [11]

In another scene, Figure 8, on the back wall of his tomb a standard-bearer stands in front of Mahu, who proclaims to pharaoh, “You are made great by [my] troops, and [by my] troops, sire, the ruler of (Akhet) Aten, you shalt live forever” [12]. The standard shows pharaoh in the traditional pose of smiting an enemy. Figure 9 shows two standards found at Amarna.

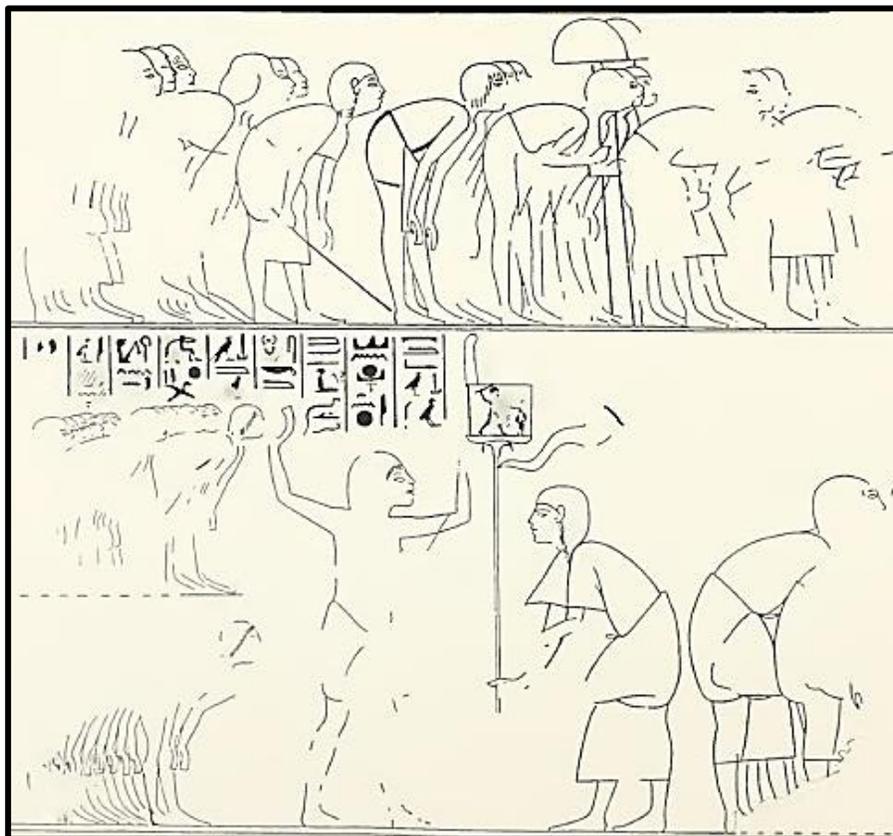


Figure 8: Mahu leading his troops with a standard bearer [13]

Figure 9, left, is a wooden top to a police standard depicting a figure kneeling beneath an image of the god Wepwawet on a stand. Found in the Sanctuary of the Main Chapel in the Workman's Village. Right, is the reverse side of the wooden standard, depicting two figures running



Figure 9: Police standards found in Great Aten Temple [14]

In other scenes in his tomb, Figure 10, Mahu offers in front of the Aten's Temple, and in Figure 11, he inspects the security of its storage rooms.

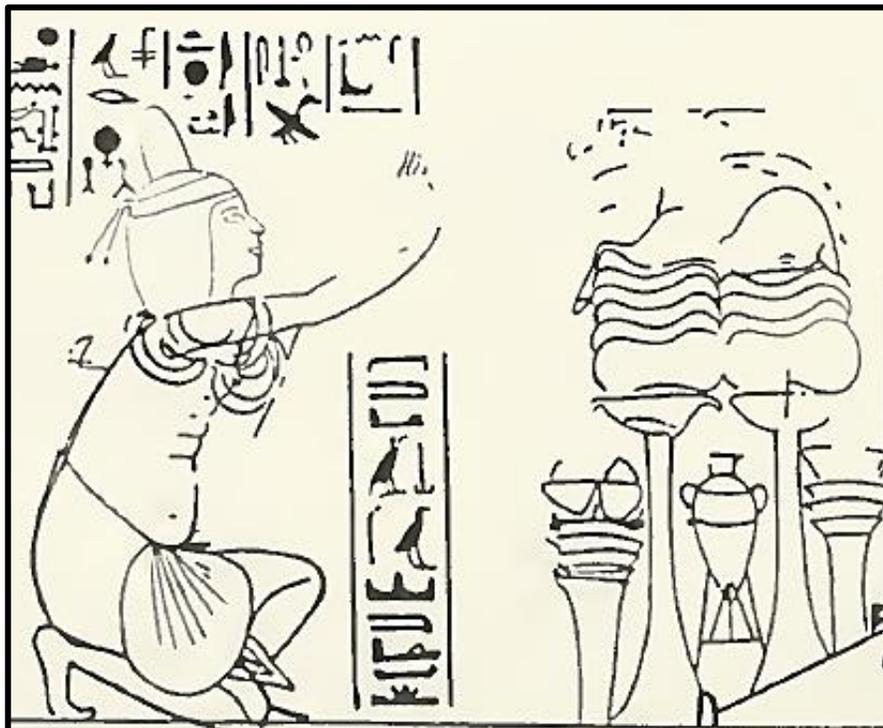


Figure 10: Mahu offering at the Temple [15]

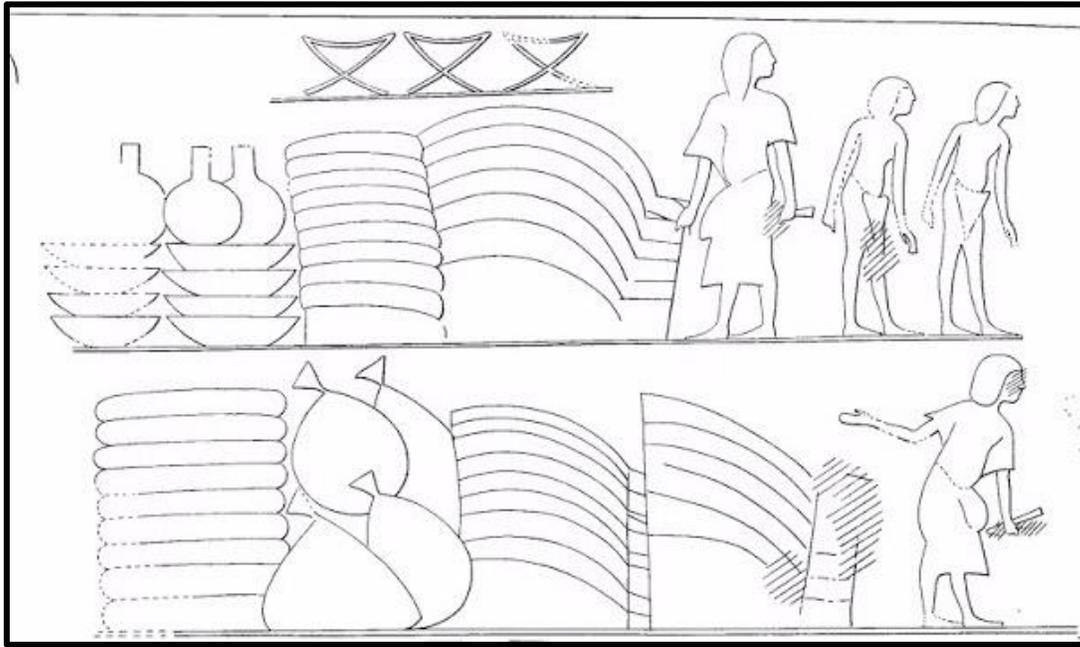


Figure 11: Mahu inspects the security of the storage rooms [16]

Figures 12 and 13 show Mahu's 'office' in the Military and Police headquarters building at Amarna, as it looked when excavated in 1926.



Figure 12: Military & Police quarters from the Amarna Project (photo 1936) [17]

In a humorous scene, Figure 14, from Mahu's tomb, he tries to calm the horses drawing Akhenaten and Nefertiti's chariot, after little Meritaten has spooked them by poking them with a stick (red arrow)!

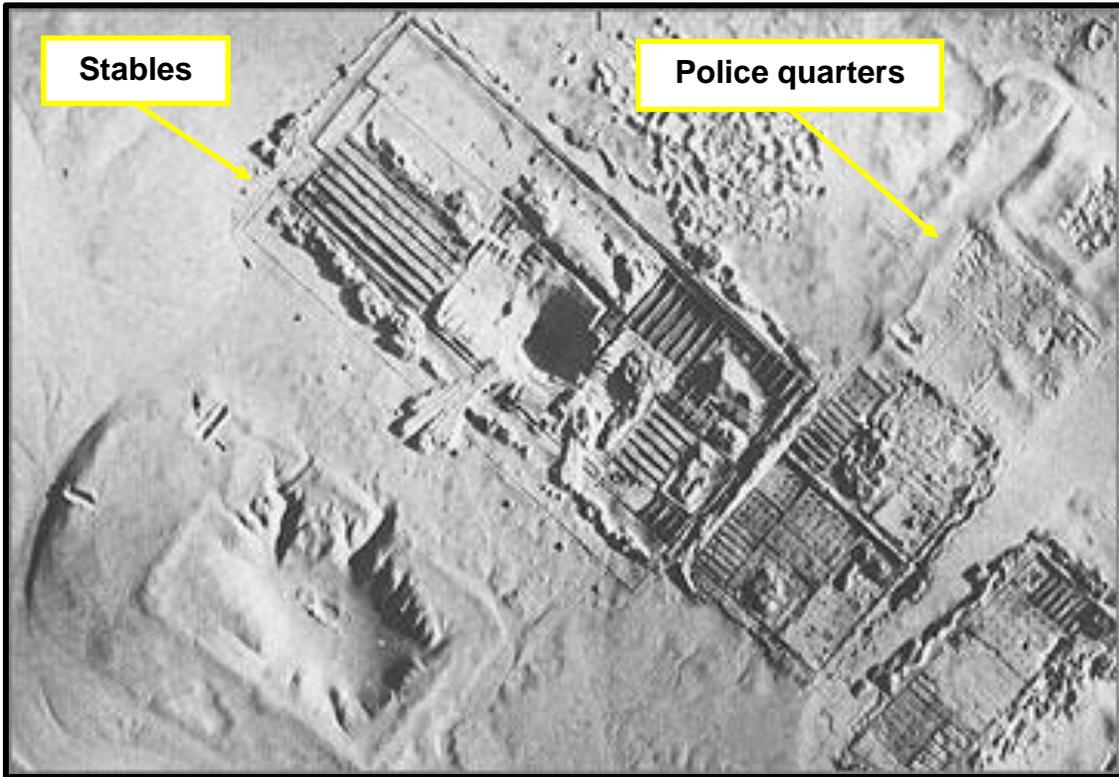


Figure 13: Aerial View: Military and Police quarters, 1934 [18]

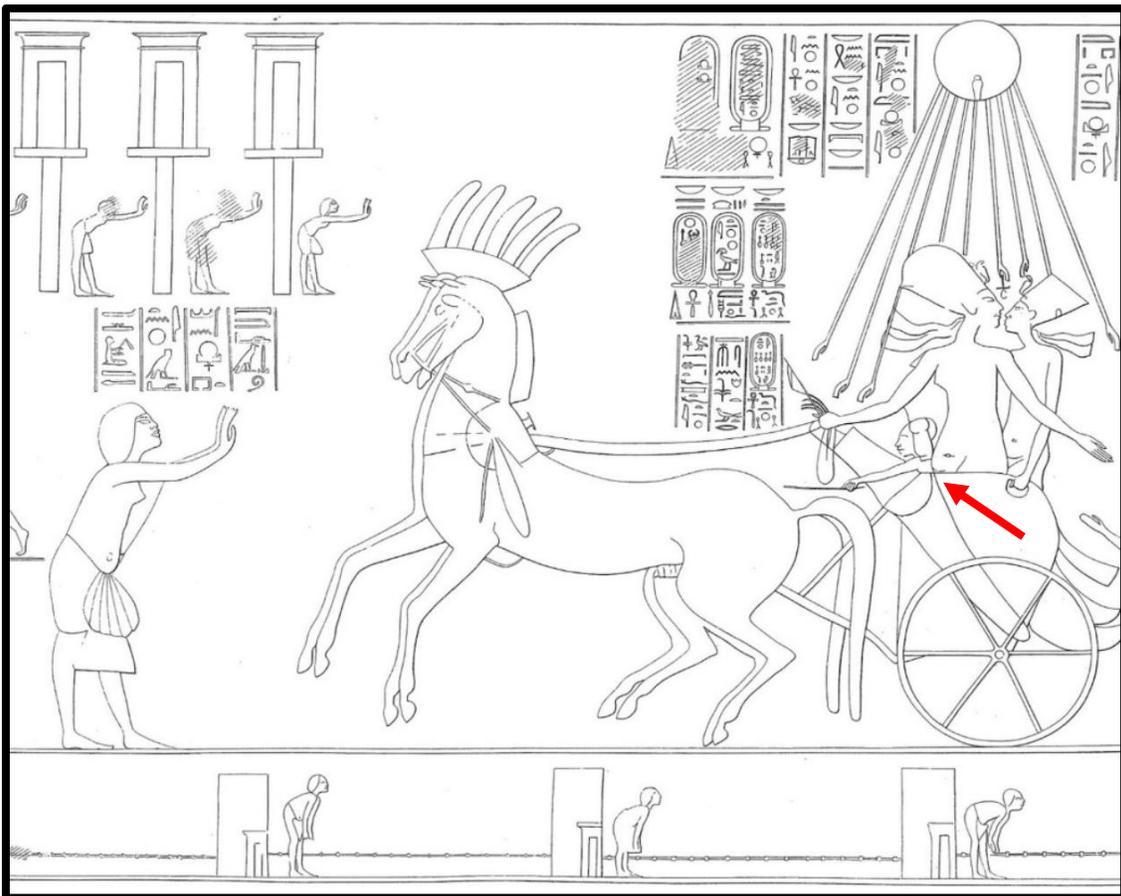


Figure 14: Mahu calms the chariot horses of the king and queen [19]

NEFERKHEPERUHERSEKHEPER, Mayor, tomb TA13

The mayor of Akhetaten assumed the name “Nefer Kheperu” (Akhenaten’s Throne Name) “causes me to live”. His title official title was *ḥꜥꜣ niwtꜣ ʒḥt itm*, “governor of the city”, in other words, Akhetaten’s mayor.

A stone marker, Figure 15, found among the remains of building Q42.33 in the central city (location shown in Figure 16), just north of the so-called ‘King’s House’, near the “records office” where the Amarna Letters were found, was marked with the text “Northeast corner of the Office of the Town of the Aten. And, as Barry Kemp speculates, “Who would one expect to find in charge of the “Office of the Town of the Aten? The mayor of Akhetaten named Neferkheperu-hersekheper, perhaps.” [20]

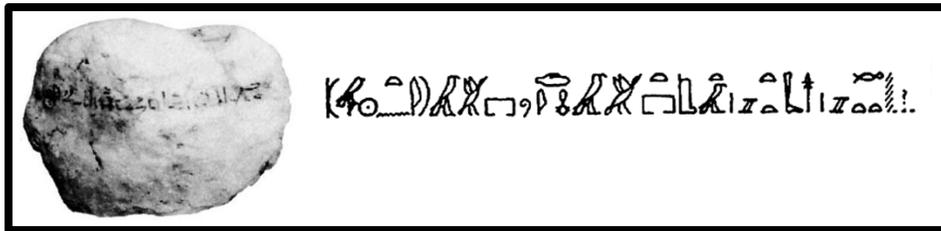


Figure 15: Stone marker locating the northwest corner of the Office of Akhetaten [21]

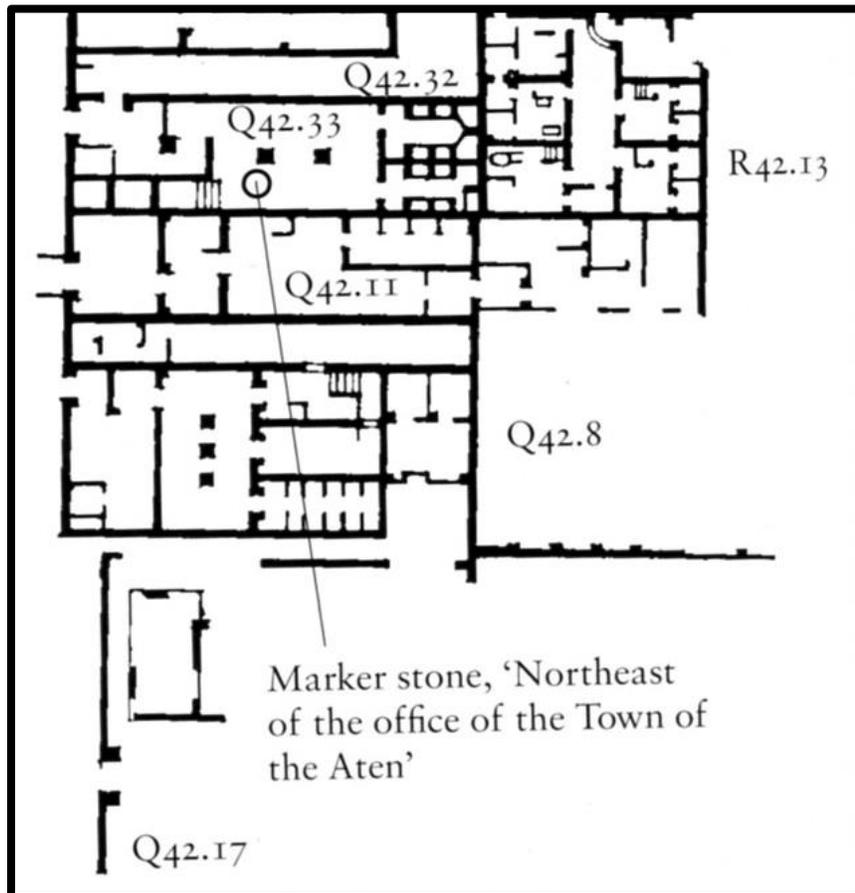


Figure 16: Findspot of the Stone marker in Figure 125 [22]

Like Police Chief Mahu, Mayor Neferkheperuhersekheper (let's call him NHK) would have reported to pharaoh through the Vizier, Nakhtpaaten.

NHK's job would have been made more difficult due to the huge amount of building and construction going on in his new city. Supplies needed to be brought in by the Chief of Works, constructions undertaken and supervised by the Chief Builder and his men, and barracks provided and provisioned for the large number of laborers.

It would not have been an easy job, administering this rapidly growing city. Van den Boorn points out that in the New Kingdom, mayors also had responsibility for the agricultural areas around the city. At Amarna this would have included the farms and fields on the west side of the Nile within the boundary stele markers, just south of modern-day Tuna el Gebel. The overseers of the fields, both within the city limits and along the Nile to the north and south would have reported on the irrigation, and sowing and harvesting of crops to Akhetaten's mayor, NHK. [23]

Van den Boon says:

“The mayors were the chief agents of the central policy to keep a close control on agriculture to ensure an adequate food supply in addition to the produce of a surplus, in the form of taxes, at the disposal of the state ... In addition in many instances they were charged with the support (of produce) for the local temples.” [24] (editors note: Not a small task at Amarna, considering the hundreds of offering tables at the Great Aten Temple!)

Offices in the Central City, (literally translated from the Egyptian word 𓂏𓂏 , *st*, “place”), were constructed like houses, but they lack ovens and food production areas. [25] Scattered among the offices in the central city, were residences - perhaps second story ‘flats’ for overnight stays of administration staff or a ‘town home’ for high-ranking officials, like the mayor, who could stay overnight in the city center, instead of commuting back and forth to their residences at the far edge of town. [26]

Administrative records in ancient Egypt were kept on Papyri, which were stored in wooden chests or pottery jars, and substantial space was often required for this storage.

At the back of building Q42.33, probably the office of Akhetaten's mayor Neferkheperuhersekheper, were two sets of benches packed into two small rooms, which may have served as storage racks for the boxes and jars of papyri. [27]

First opened by Robert Hay in 1830, NHK's tomb, Figures 17 and 18, was cleared in 1893 by M. Daressy. This unfinished tomb received a hasty burial, at the end of a descending stairway in the north-east corner of the tomb. A gallery at the foot of the stairway was extended far enough to accommodate a coffin, but the tomb was found to be empty when cleared. [28]



Figure 17: Entrance of Amarna tomb, TA13, Neferkheperuhersekheper [29]

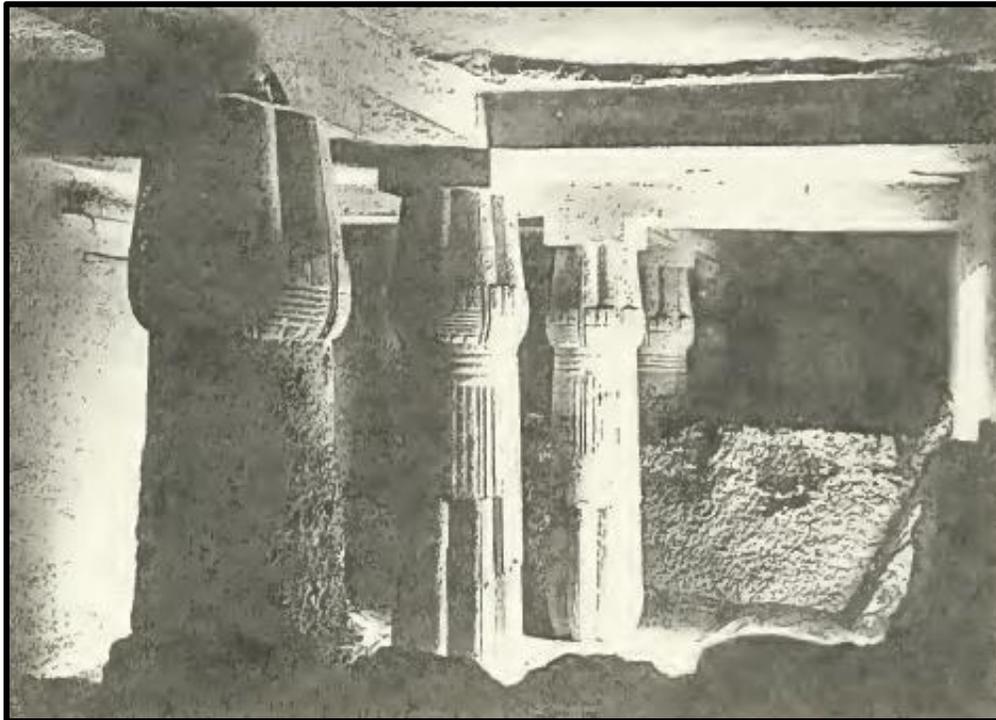


Figure 18: Unfinished Chamber of Neferkheperuhersekheper's tomb [30]

HUYA - STEWARD of the HOUSE of QUEEN TIYE – tomb TA1

Huya was the *imy-r pr wr*, “overseer of the great house” of Akhenaten’s mother, Queen Tiye. Davies speculated that Tiye did not initially live at Amarna and the scenes in Huya’s tomb represented a visit to Akhetaten. As well as Steward he was Treasurer, and Overseer of the Harim, of Queen Tiye. [31] Kemp suggests that during Akhenaten’s early reign Tiye may have lived nearby at Gurob [32], where her bust, Figure 19, was found (it’s now in the Egyptian Museum, Berlin). It’s thought that Queen Tiye died at Amarna and was originally interred in the Royal Tomb. Tiye’s mummy was recently identified, via hair samples and DNA analysis, as the ‘Elder Lady’, found in a side chamber of Amenhotep II’s tomb, KV35.



Figure 19: Queen Tiye [33]

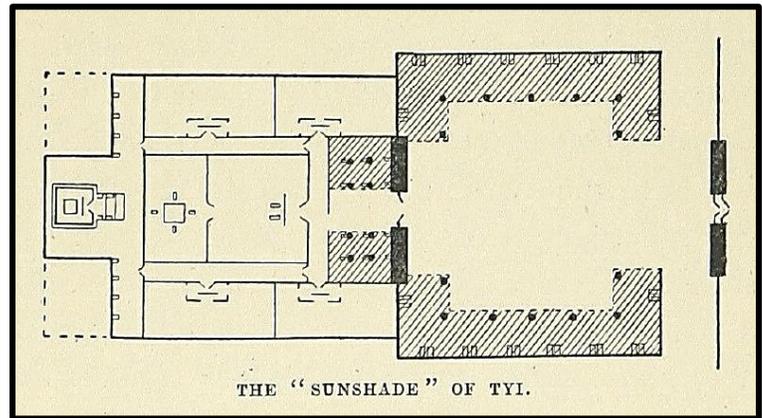


Figure 20: Plan of the Sunshade in Huya’s tomb [34]

An important scene in Huya’s tomb shows Akhenaten and his mother Tiye visiting the Great Aten Temple (Figure 21). On the far left in the scene is a structure that text calls “The Sunshade of Tiye.” Its plan is in Figure 20.

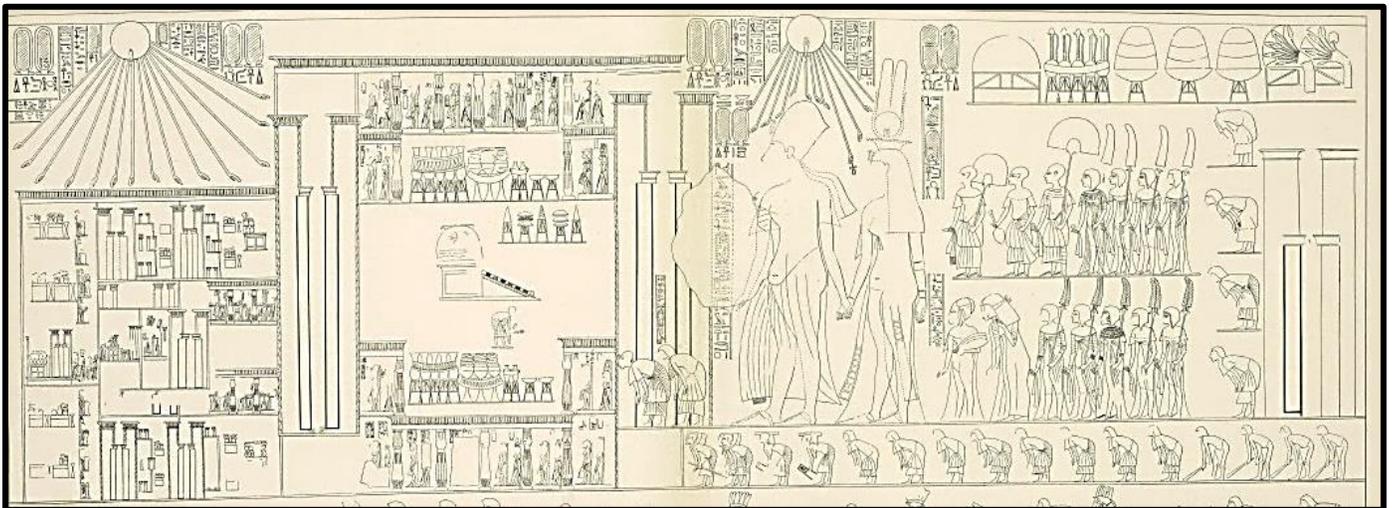


Figure 21: Akhenaten & Tiye visit the Temple [35]

Both Davies and Kemp speculate that Tiye’s ‘sunshade’ is a rendering of the Lesser Sanctuary of the Great Aten Temple, and not a separate building to the south of the city. [36]

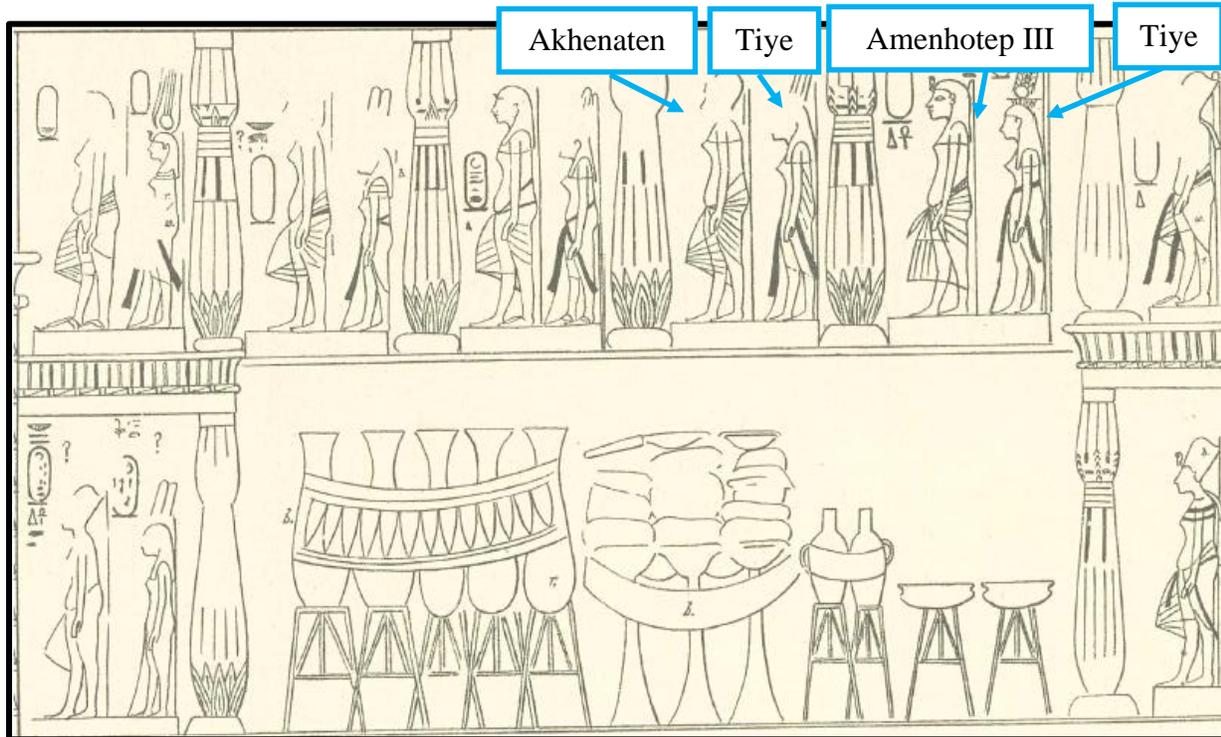


Figure 22: Detail of the Statuary shown in the Temple in Figure 21 [37]

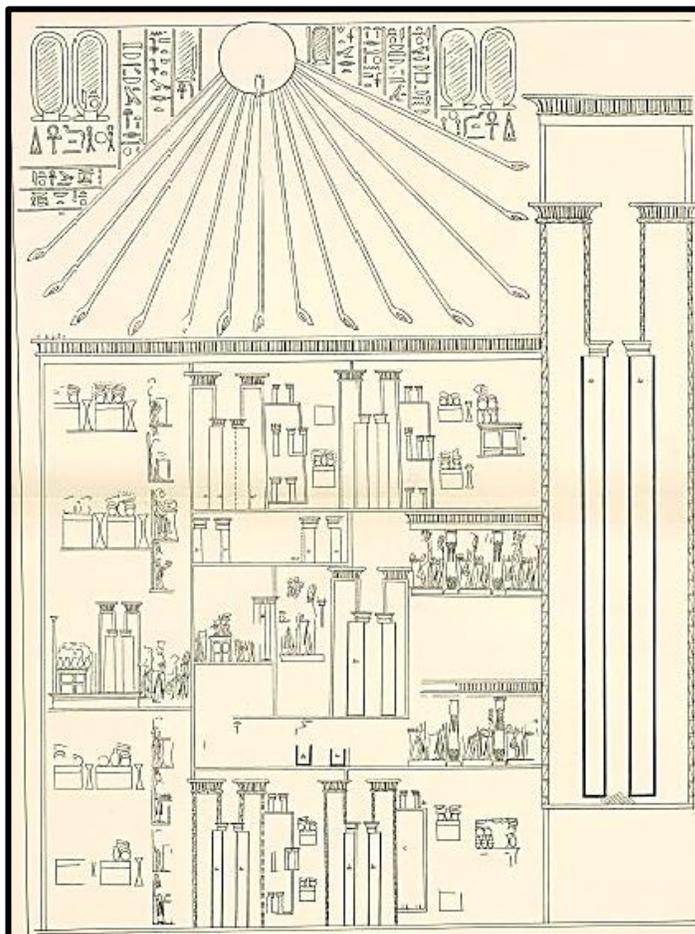


Figure 23: Detail of the Sunshade of Tiye shown in Figure 21 (far left).
Its plan is shown in Figure 20 [38]

Petrie found evidence of smashed statues in the Great Aten Temple, which are likely from the statues shown in Figure 22 [39]

Another scene in Huya's tomb (Figure 24) leads Davies to postulate that showing both of the families of Akhenaten and Amenhotep III harkens back to the co-regency of the two kings. [40]

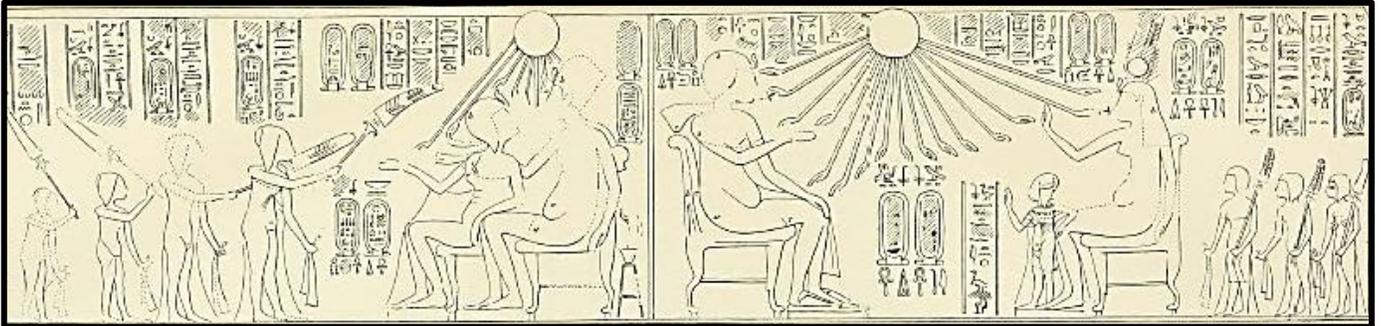


Figure 24: Akhenaten, Nefertiti, & 4 daughters (left), Amenhotep III, Tiye, & Beketaten (right) [41]

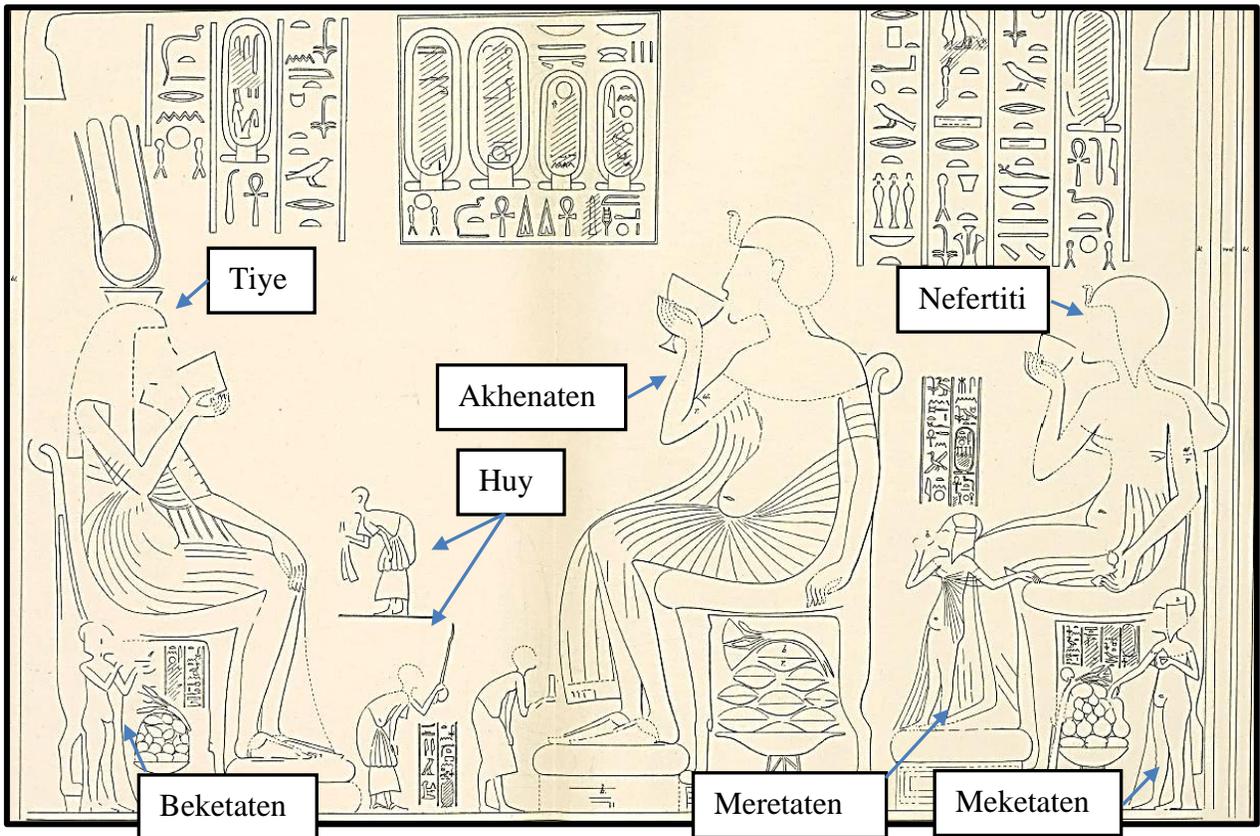


Figure 25: Queen Tiye and her daughter Beketaten, entertained by the king and queen and their oldest two daughters, attended by Huy [42]

A scene in Huya's tomb, described by Davies as a visit to the Great Aten Temple by Queen Tiye (Figure 25), show Tiye and Beketaten, who is thought to be Tiye and Amenhotep III's youngest daughter (and Akhenaten's sister), attended by Huy, being honored by Akhenaten and Nefertiti.

Huya's tomb also shows him honoring the shorter version of the Hymn to the Aten (Figure 26), and a scene of a workshop, where Queen Tiye's chief sculptor, Iuty, renders a likeness of Beketaten in Figure 27.

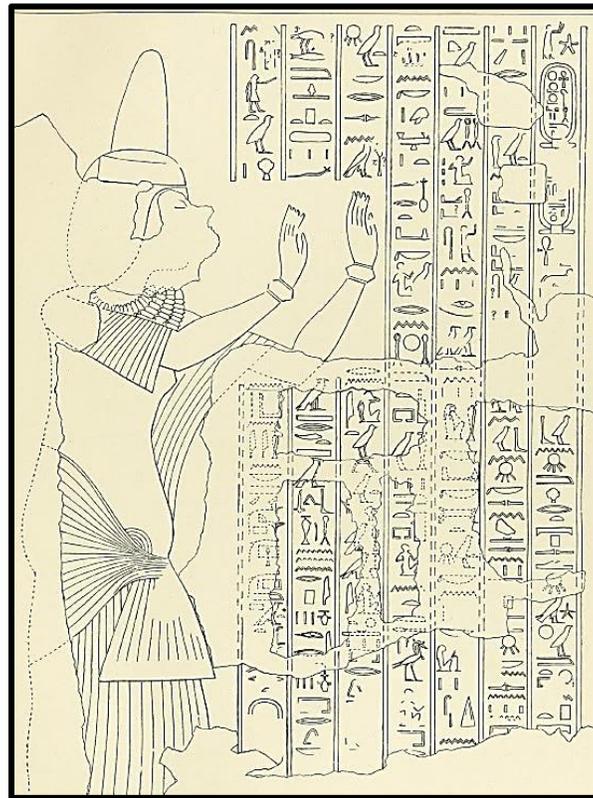


Figure 26: Huya and Hymn to the Aten [43]

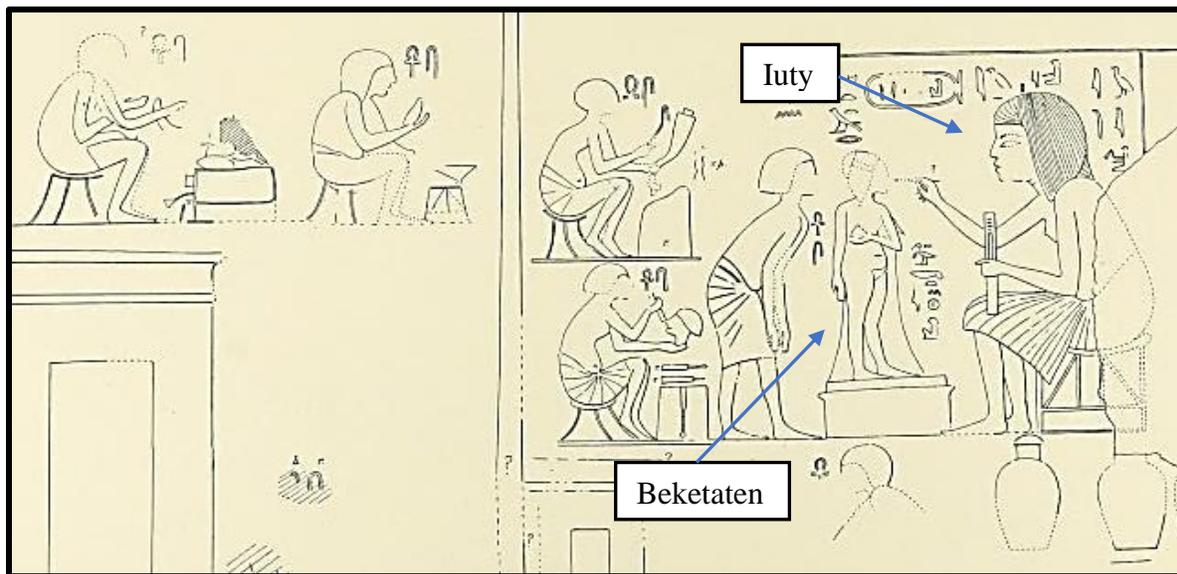


Figure 27: Sculptor's workshop shown in tomb of Huya [44]

Huya ends his scenes with his own funeral, Figure 28, which shows his sisters, Nebet and Kherput, grieving before Huya's mummy. Figure 29 is a photo of how Huya's tomb looks today.

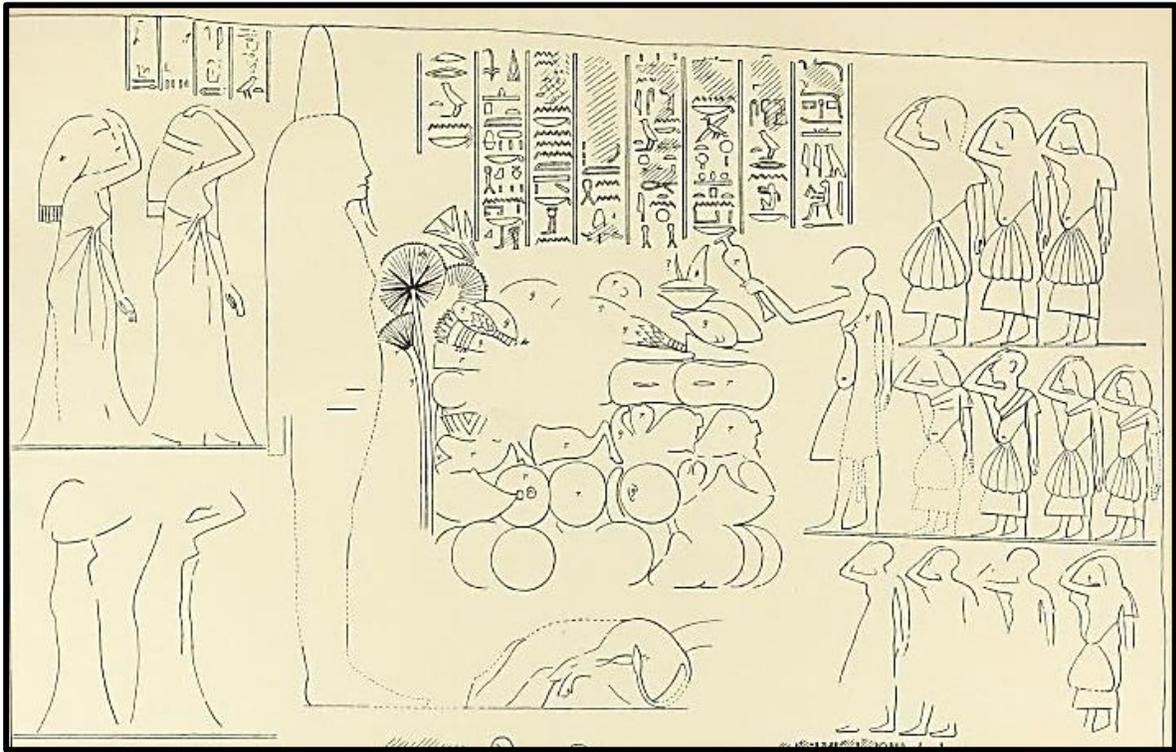


Figure 28: Huya's funeral [45]

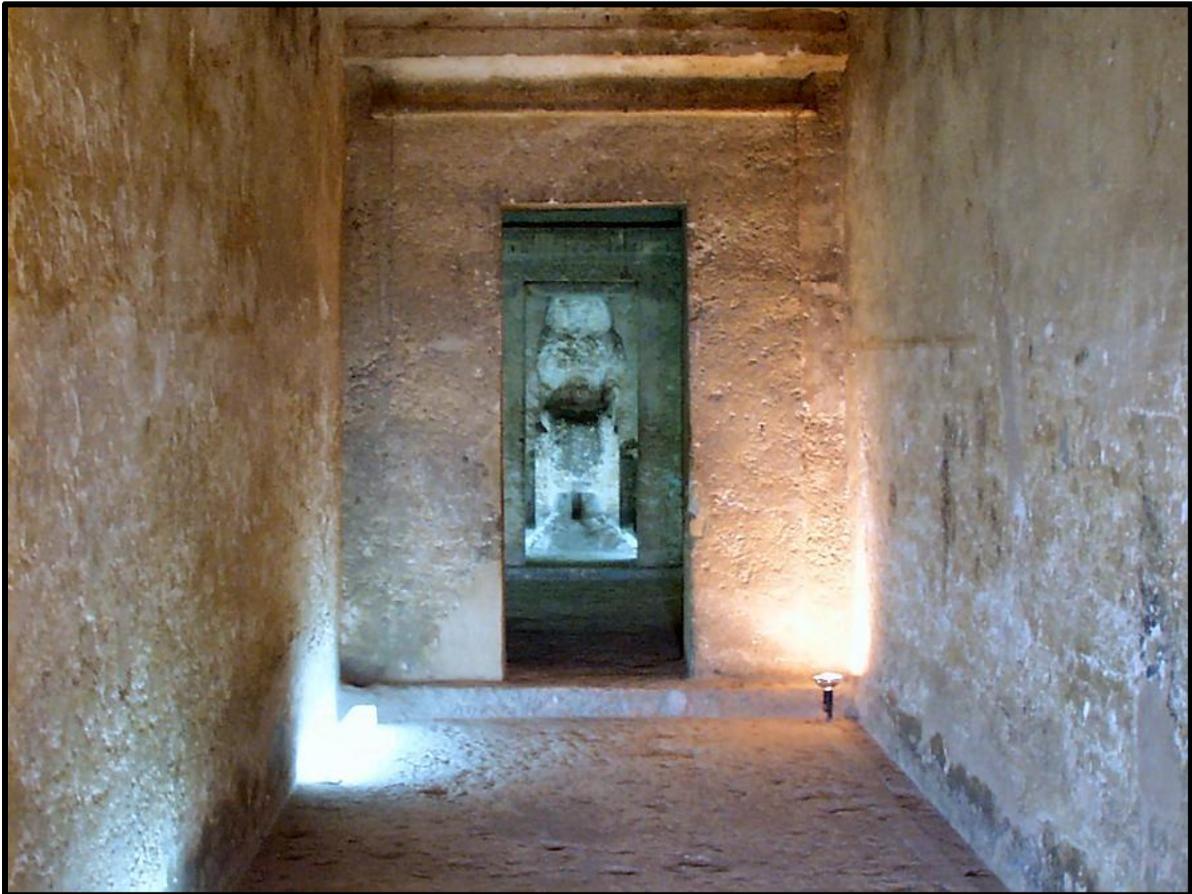


Figure 29: Shrine in Huya's tomb with unfinished statue [46]

IPY - STEWARD of the KING's HOUSE – tomb TA10

Ipy's mostly unfinished tomb had a scene of Akhenaten & Nefertiti offering to the Aten, and text of the Shorter Hymn to the Aten. See *The Akhetaten Sun*, Vol 25 No 1. [47]

Ipy built Tomb TA10 in the Southern Rock-cut Tombs at Amarna, however it was only partially finished. Among Ipy's titles in this tomb is *imy r pr wr*, "Steward of the Great House of the King."

On the right wall of the entrance is the Shorter Hymn to the Aten, Figure 30.

The only other surviving scene in Ipy's tomb is the offering scene (Figure 31) which shows Akhenaten and Nefertiti presenting the names of the Aten (inside cartouches) to the god (symbolized by the sun with rays ending in hands).

Ipy is not depicted on any scenes in his tomb, as construction on the tomb was abandoned before it was finished.

Ipy's tomb, like the other nobles tombs at Amarna, had been open and empty since antiquity.

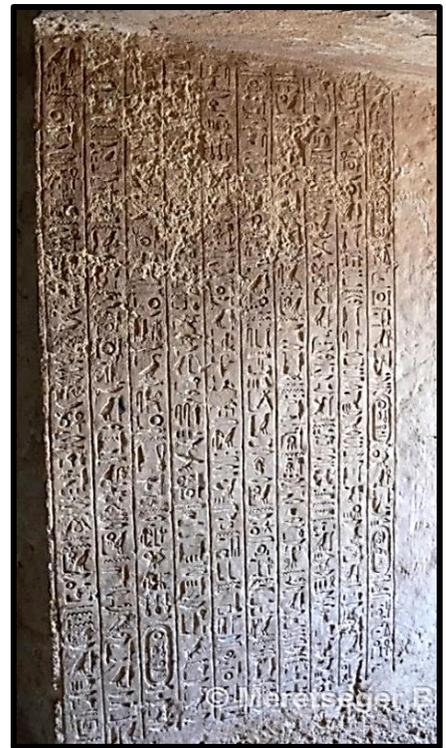


Figure 30: Ipy's Shorter Hymn to the Aten [48]



Figure 31: Akhenaten, Nefertiti, and 3 daughters offering to the Aten – tomb of Ipy [49]



Figure 32: Offering scene in Ipy's tomb [50]



Figure 33: Interior of Ipy's tomb [51]

PANEHESY – ‘CATTLE & GRANARY OVERSEER – tomb TA6

Panehesy's titles included; Chief Servitor of the Aten, Second Prophet of the Lord of the Two Lands, Seal-bearer of Lower Egypt, and Superintendent of both the Cattle and the Granary at Akhetaten. He was responsible for preparing the offerings in the Great Aten Temple [52], and is shown praising the king in Figure 34.

Panehesy also had a large house in the Central City (R.44.2, location shown in Figure 35, red arrow, which would have looked similar to the house shown in Figure 36).

In it was a domestic shrine, Figure 37, showing Amenhotep III and Queen Tiye sitting on draped thrones in front of offering tables piled with food and flowers [54].

South of, and adjacent to Panehesy's house were a group of some 40 homes that likely housed Panehesy's staff (Figure 34, blue arrow).



Figure 34: Panehesy [55]

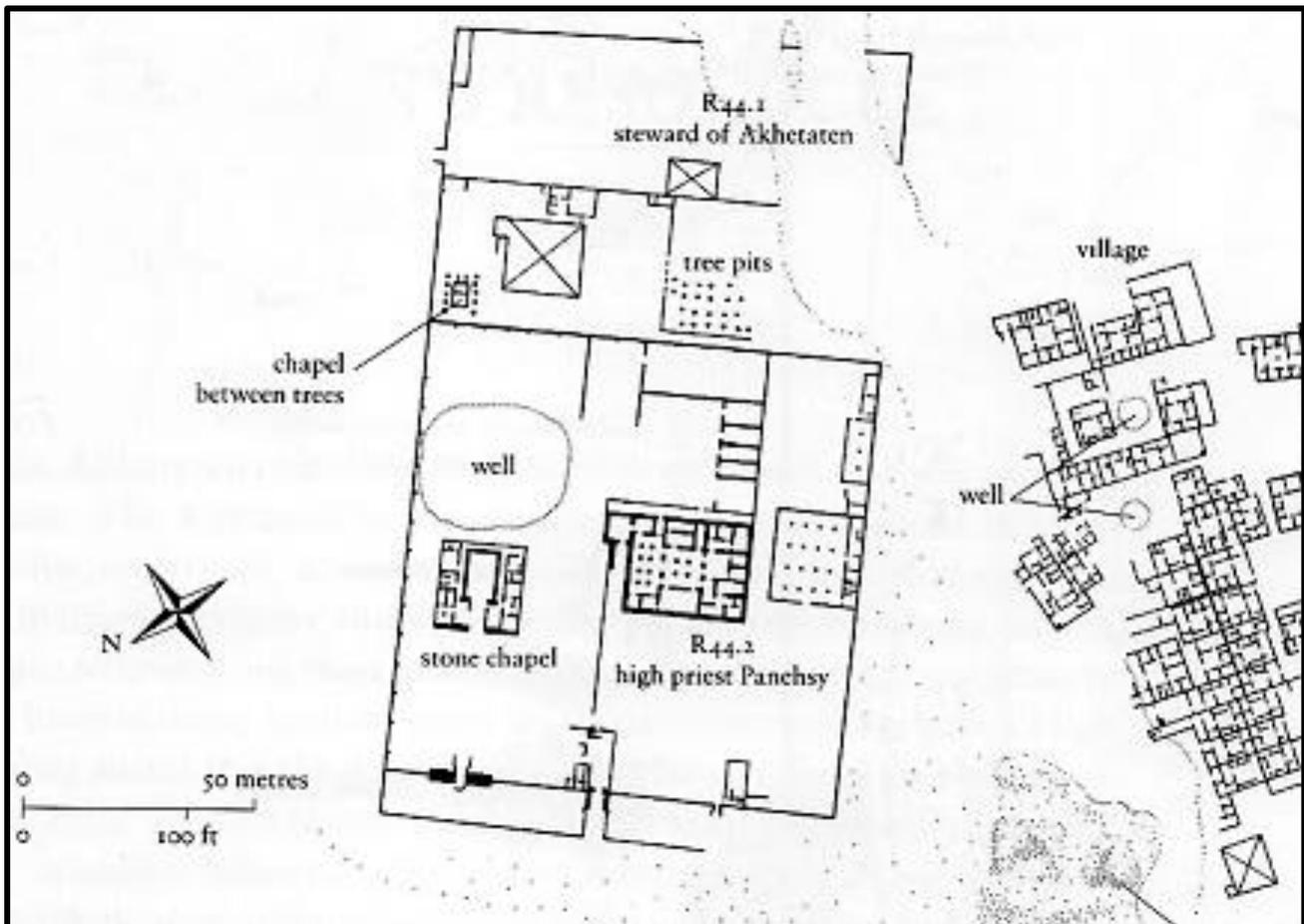


Figure 35: Panehesy's City House [56]

The figures of Amenhotep and Tiye were done in Amarna style, and Amenhotep's name is listed as Nebmaatra, his throne name, so as to avoid calling him by his birth name which contains the name of the god Amun.

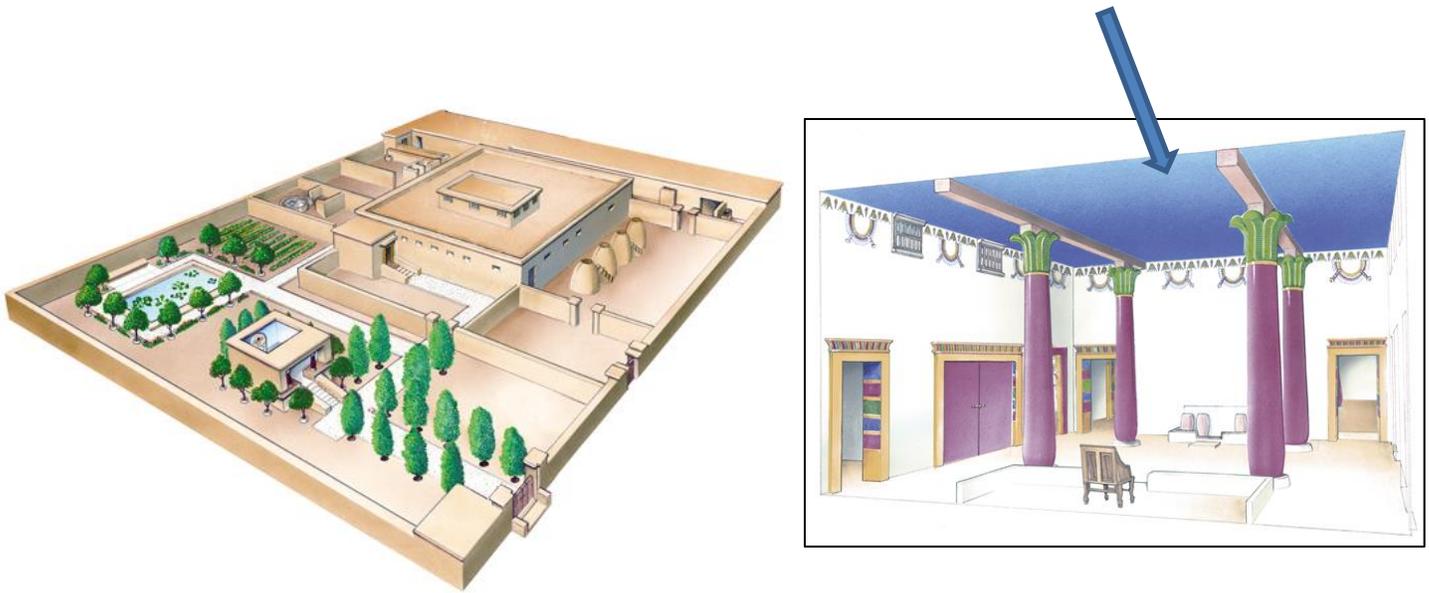


Figure 36: Left, typical villa of a Noble in Amarna' Right, interior view. [57]



Figure 37: Panehesy's house shrine showing Amenhotep III and Queen Tiye, British Museum, London [58]

Panehesy also had an office/residence beside the Great Aten Temple, location shown in Figures 37 & 38.

Inside his office was discovered a large shrine, Figure 39, which depicted Akhenaten, Nefertiti, and Meretaten offering to the Aten. Built in the form of a temple façade, it probably had wooden doors covering an image of the king. It's now in the Cairo Museum.

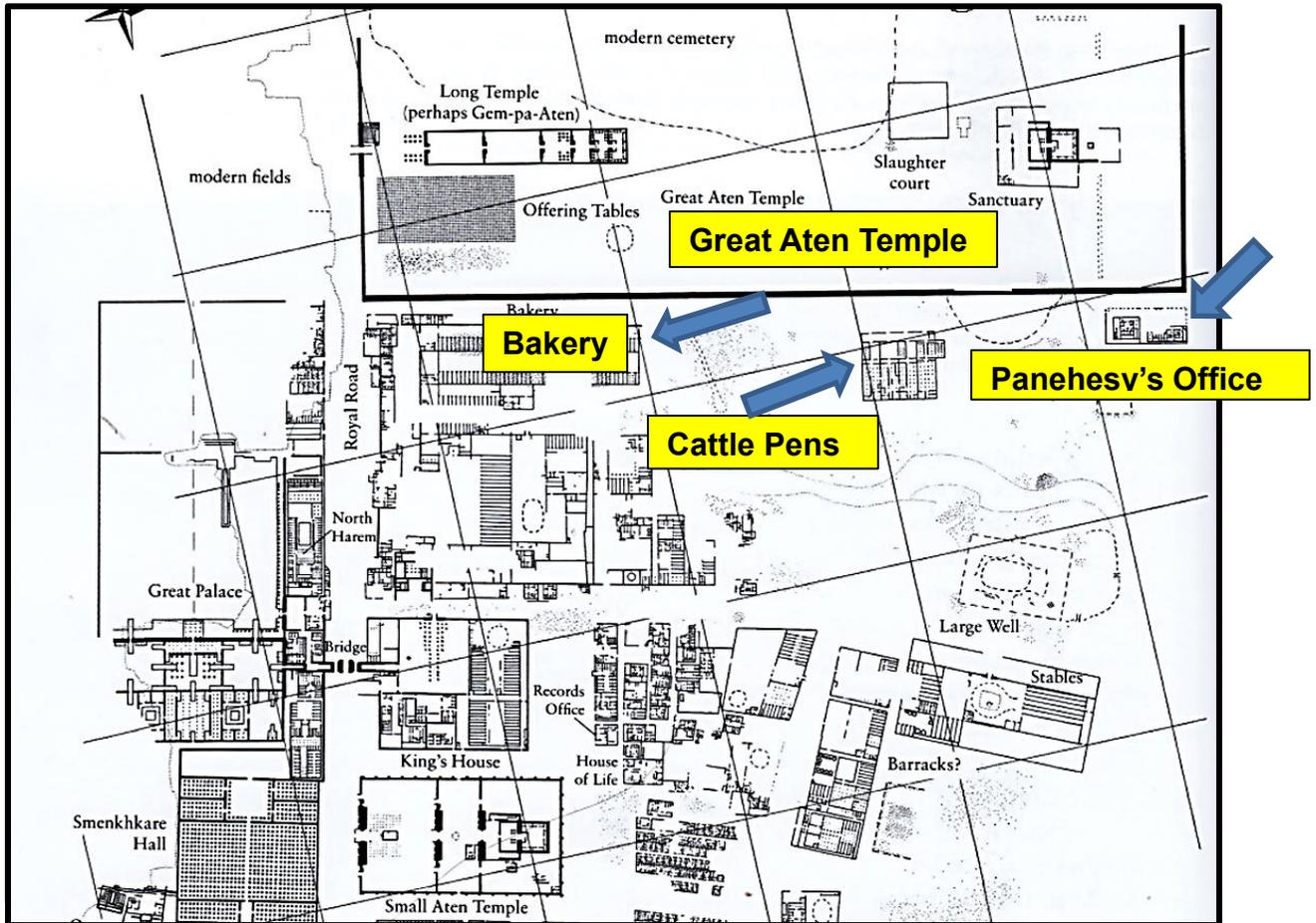


Figure 38: Panehesy's Temple 'office' [59]

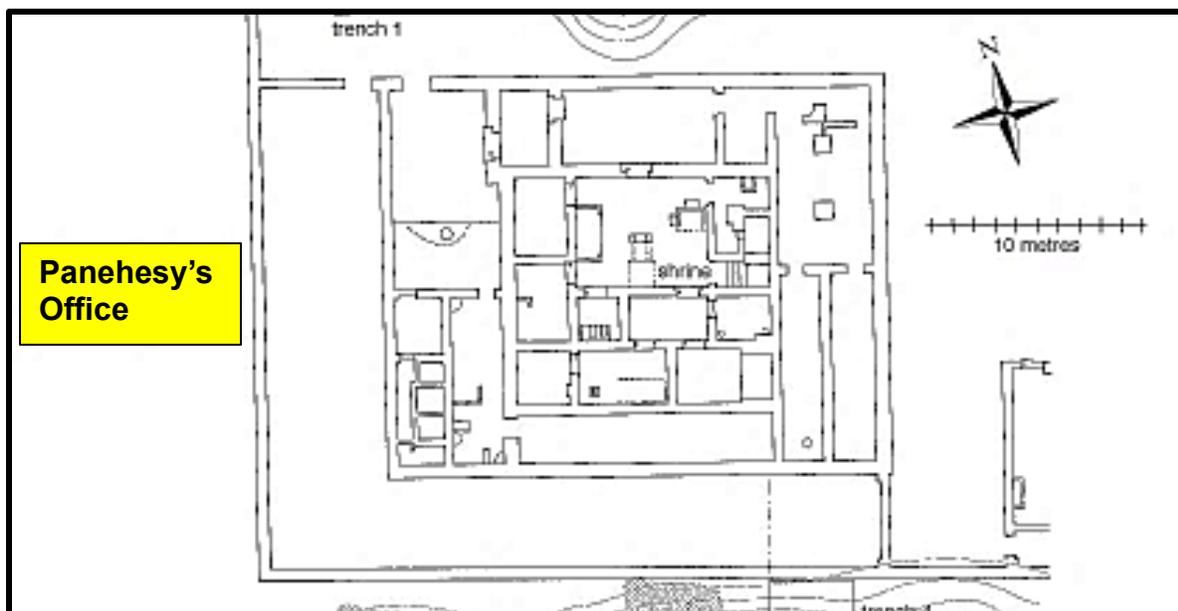


Figure 39: Panehesy's northern house/office [60]



Figure 40: Panehesy's 'office' shrine, showing Akhenaten, Nefertiti, and Meretaten offering to the Aten, JE 65041 Cairo. [61].

Panehesy's 'office' was next to pens built with stone floors and brick mangers. Remains of cattle, including bones and horns were found next to this structure, indicating that cattle were probably butchered here for offerings in the adjacent Great Aten Temple (Figure 40) which is shown in his tomb (Figures 41 & 42).

This activity supports Panehesy's title as Overseer of Cattle. [62]

Two other Servitors of the Aten are known from Amarna, Pentu Tutu.

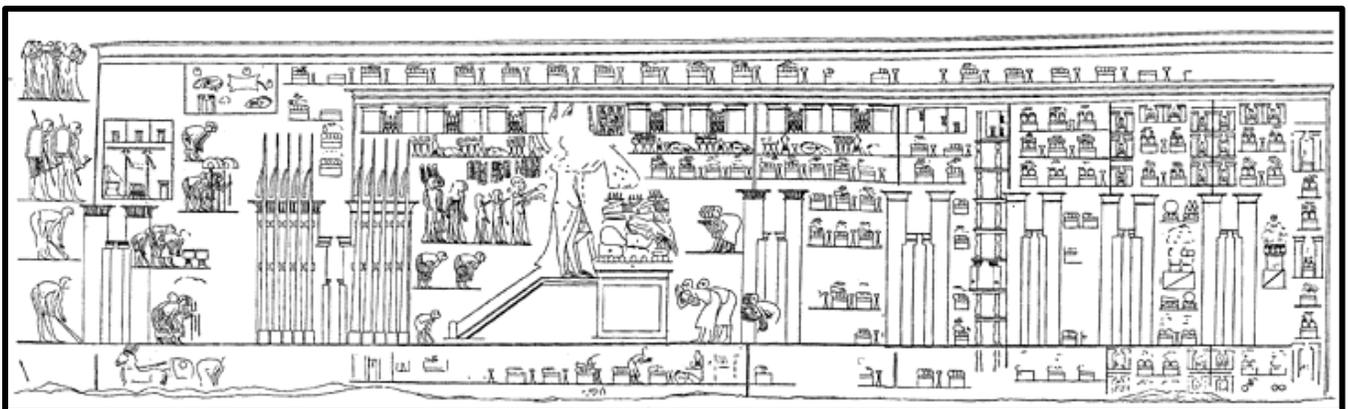


Figure 41: The Great Aten Temple depicted in Panehesy's tomb.[63]

On the wall of the entrance to the outer hall of Panehesy's tomb, is a scene of Akhenaten and Nefertiti offering to the Aten.

Under that scene, on the register below, however, is an interesting depiction of Nefertiti's sister, Mutnodjmet (whose name is also translated as Mutbenret), blue arrow, who stands in front of two attendants who are dwarfs. Behind them are two shade-bearers, four fan bearers, three nurses and a detachment of police. Mutnodjmet is being received by an official. The scene is shown in figures 42 & 43.

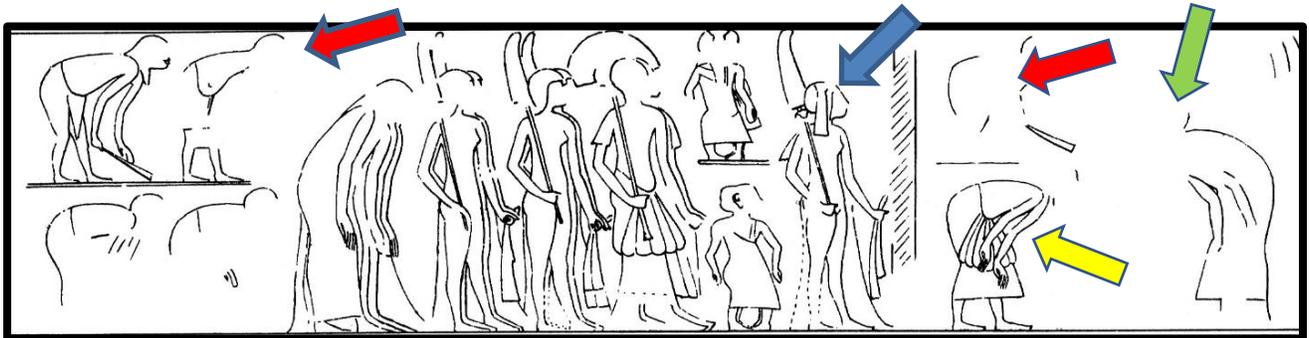


Figure 42: Nefertiti's sister is received by an official (Panehesy?) [64]

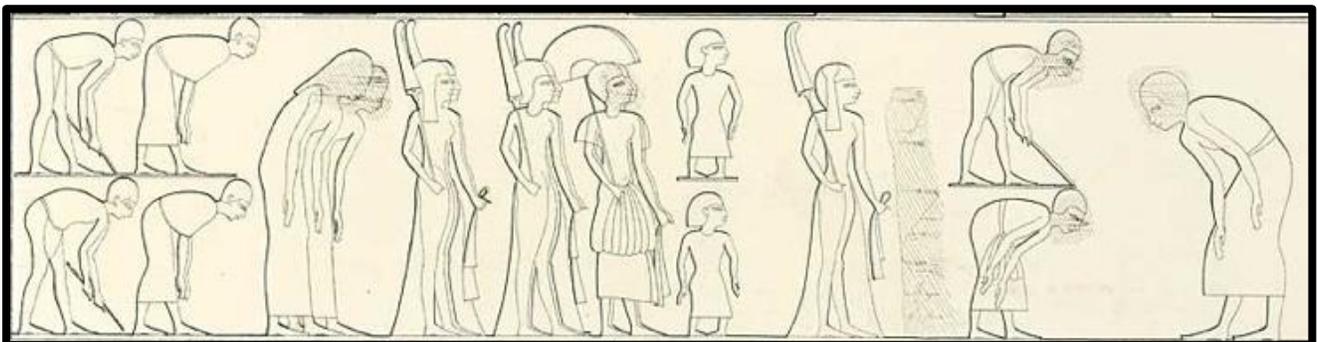


Figure 43: Lepsius' drawing of the same scene shown in Figure 147 [65]

Here, the police, red arrows, are probably being led by none other than the Chief of Police, Mahu, yellow arrow. The official greeting them, is probably Panehesy himself.

Mutnodjmet has a child's side-lock of hair, but is shown quite tall, especially in comparison to the king's other daughters, so she is probably on the verge of adulthood.

Because Nefertiti's sister is depicted as still a child, it is likely that Nefertiti and her sister are Egyptian, and not foreign born. For it would have been unusual for a foreign king to send Akhenaten a bride accompanied by her child sister.

Some have speculated that Nefertiti's sister is the same Mutnodjmet who later married Horemheb [66]

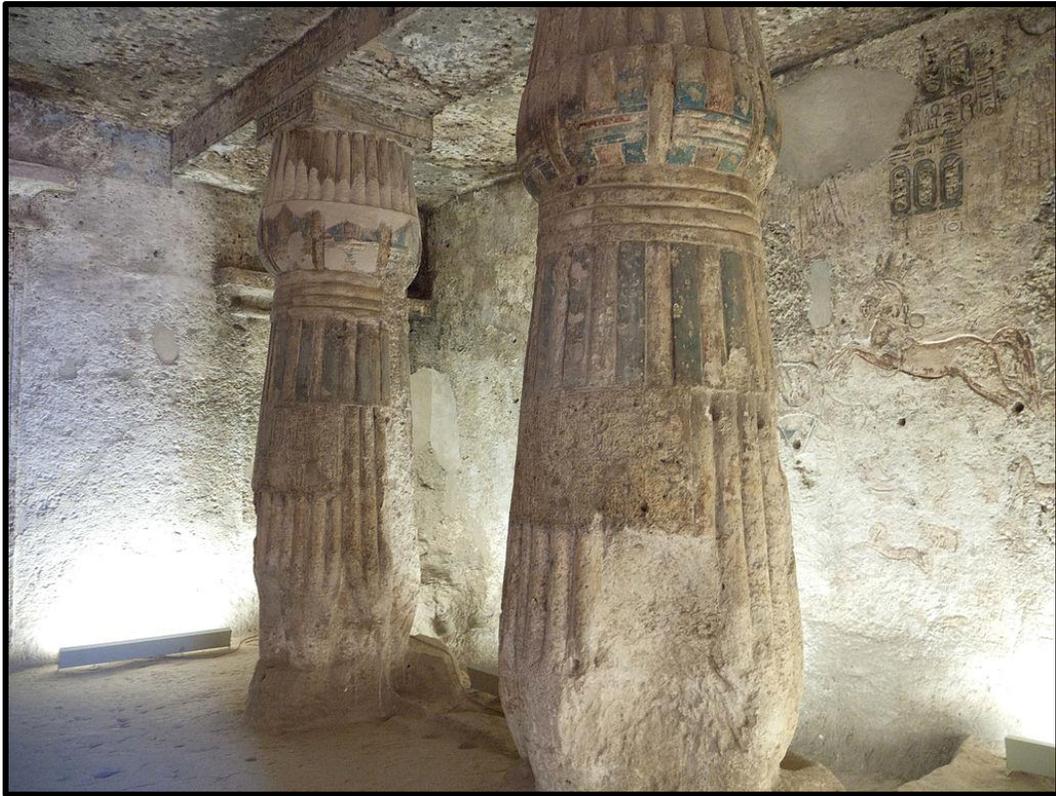


Figure 42: Panehesy's tomb [67]



Figure 43: Panehesy's tomb [68]

The Amarna Royal Court, part 3 continues in the next issue of the Akhetaten Sun (December 2021)

ENDNOTES:

- [1] Murnane, William, *Texts from the Amarna Period in Egypt*, 1993, p 148
- [2] Davies, Norman de Garis, *The Rock Tombs of el Amarna*, Egypt Exploration Society, 1908, Vol IV, p14
- [3] Davies, Ibid. Vol IV p. 17
- [4] Davies, Ibid. Vol IV, pl XVI
- [5] Davies, Ibid. Vol IV, pl XXVI
- [6] Davies, Ibid. Vol IV, pl XIX
- [7] <https://slideplayer.com/slide/13583414/83/images/8/Tomb+of+Mahu%2C+scenes+of+Akhenaten+with+his+queen+Nefertiti+on+the+royal+chariot+drive+attended+by+a+running+bodyguard+led+by+Chief+of+Police+of+Akhetaten%2C+Mahu+%3B+Amarna+%2818th+Dyn%29.jpg>
- [8] Davies, Ibid. Vol IV, pl XXVI
- [9] <https://www.worldhistory.org/article/1031/dogs-in-ancient-egypt/>
- [10] <https://www.worldhistory.org/article/1031/dogs-in-ancient-egypt/>
- [11] Davies, Ibid., Vol IV, pl XXV
- [12] Davies, Ibid. Vol IV, p14
- [13] Davies, Ibid. Vol IV, pl XVI
- [14] http://www.amarnaproject.com/pages/amarna_the_place/workmans_village/index.shtml
- [15] Davies, Ibid. Vol IV, pl XVIII
- [16] Davies, Ibid. Vol IV, pl XXIV
- [17] http://www.amarnaproject.com/pages/amarna_the_place/central_city/index.shtml
- [18] http://www.amarnaproject.com/pages/amarna_the_place/central_city/index.shtml
- [19] Davies, Ibid. Vol IV pl XXII
- [20] Kemp, Ibid. p. 126
- [21] Kemp, Ibid. p. 126
- [22] Kemp, Ibid. p. 122
- [23] Van den Boorn, Ibid., p. 328
- [24] Van den Boorn, Ibid., p 243
- [25] Kemp, Ibid., p. 129
- [26] Kemp, Ibid., p. 128
- [27] Kemp, Ibid., p. 128
- [28] Davies, Ibid., Vol IV, p. 23
- [29] Davies Ibid., Vol IV, pl XLII
- [30] Davies, Ibid. Vol IV, pl XLII
- [31] Davies, Ibid. Vol III, p 4
- [32] Kemp, Barry, information given during personal communication, 2020
- [33] <https://www.world-archaeology.com/features/gurob-unlocking-a-royal-harem/>
- [34] Davies, Ibid. Vol III, p 21
- [35] Davies, Ibid. Vol III, pl VIII
- [36] Davies, Ibid. Vol III, p 20 & Kemp, Ibid. p 119
- [37] Davies, Ibid. Vol III, pl VIII
- [38] Davies, Ibid. Vol III, pl VIII, p 21
- [39] Davies, Ibid. Vol III, p 24
- [40] Davies, Ibid. Vol III, p 16
- [41] Davies, Ibid. Vol III, pl XVIII
- [42] Davies, Ibid. Vol III, pl VI
- [43] Davies, Ibid. Vol III, pl III
- [44] Davies, Ibid. Vol III, pl XVIII

- [45] Davies, Ibid. Vol III, pl XXII, and p 17. Also described by Kemp, *The City of Amarna*, p. 252 as the funeral of Huya, attended by his sister Nebet and his sister Kherput – Murnane also says showing Huya's deceased mother Tuy, p 141
- [46] http://ttnotes.com/royal-tomb-of-akhenaten.html#gal_post_921_royal-tomb-of-akhenaten-tell-al-amarna-5.jpg
- [47] <http://www.theamarnaresearchfoundation.org/articles.html>
- [48] <https://www.meretsegerbooks.com/gallery/358/tomb-no10-apy/>
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- [50] <https://www.facebook.com/photo/?fbid=1024646267576086&set=pcb.1024646500909396>
- [51] https://the-ancient-pharaohs.blogspot.com/2017/08/the-southern-tombs-of-el-amarna-tomb-of_19.html
- [52] Stevens, Anna, Ibid. p. 107
- [53] Davies, Ibid. Vol II, pl V
- [54] Ridley, Ibid. p 181, mentions "...Salima Ikram ... was able to catalog eighteen simple (domestic) shrines, three mini-temples, two altars, and nine other miscellaneous shrines and chapels ... The shrines thus attest to the willingness of at least the more affluent inhabitants of the new capital to adopt the new cult."
- [55] Davies, Ibid. Vol II, pl V
- [56] Kemp, *The City of Amarna*, p45
- [57] <https://erenow.net/ancient/red-land-black-land-daily-life-in-ancient-egypt/10.php>
- [58] On display at the British Museum in London, <http://eventosacademicos.filo.uba.ar/index.php/artesencruce/AEIV2016/paper/viewFile/3365/1873>
- [59] <http://www.civilization.org.uk/miscellaneous/dump/late-egypt/amarna-town>
- [60] http://www.amarnaproject.com/pages/recent_projects/faunal_human/2006.shtml
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- [62] Kemp, Ibid. p 100
- [63] Davies, Ibid. Vol II, pl XVIII
- [64] Davies, Ibid. Vol II pl VII
- [65] Lepsius, Karl, Denkmäler, *Südliche Gräbergruppe, Grab 3. [B.]*, Abh.III.BI.109
- [66] <https://www.encyclopedia.com/women/encyclopedias-almanacs-transcripts-and-maps/mutnedjmet-c-1360-1326-bce>
- [67] <https://www.flickr.com/photos/manna4u/4127883553/in/set-72157622861795438/>
- [68] <https://arthistoryproject.com/timeline/the-ancient-world/egypt/akhenaten-and-nefertiti/>



The “Wilbour plaque” an artist’s sketch model, Brooklyn Museum [68]

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