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TARF Membership
May 18, 2006

United States	**118 members**
Foreign	**19 members**
Trustees	**8 members**
Corporate	**4 members**
TOTAL	149 members

The President's Papyrus

While I did not get to Egypt this past winter, I am still hoping to visit at the end of this coming year. The new KV63 tomb, and stories from my son's second season in Egypt have kept my interest up. My son has been working on an Italian-led excavation working under Dr. Paola Davoli. They are excavating at Sok Nopaiou Nesos, a Ptolemaic site in the Faiyum. I had intended to visit their dig and then travel to Amarna and meet up with Barry Kemp. Well, hopefully next year …

Many of you know that TARF's administrative functions are staffed entirely with unpaid volunteer help. This minimizes the expense of running our organization, and maximizes the amount of your contributions that can be directed to support work in Egypt. Our only "domestic" expenses are related to the publication of the Akhetaten Sun, and membership mailings. We have no fancy parties, no gourmet dinners, not even pizza for the publication committee! One of the drawbacks of volunteer labor is, however, the need to sometimes slip publication and mailing dates when key people are not available. In the past year we have had significant turnover in some of our positions like membership and publications, due to personal situations that forced several people to resign their involvement. In particular, the TARF board would like to thank Ellen LeBlanc for her work with membership, and Louise Babel for her contributions to the Sun, both of these ladies have contributed a lot to keeping our organization running. When you can help again, we'd love to have you back. Thanks are also due to Jill Pepper, who will be picking up membership, and Floyd Chapman, who has done the layout of this issue of the Sun.

In an effort to simplify membership renewal activities, the TARF board has decided to send members annual renewal notices with each year's Spring Issue of the Akhetaten Sun, and align all memberships with a calendar year that begins in April. This issue of the Sun has renewals for 2006, however if you have already paid a renewal in 2006, your next renewal will not be due until April 2007.

Simplifying the process will help our volunteers and simplify the process for everyone. Thanks for your patience in reading this!

David Pepper

The Amarna Expedition 2005

Report from Barry Kemp

It proved possible this year to remain longer at the site and, in consequence, much more work was done. I began by spending part of November and December registering the finds from the 2004 season, and then returned on February 13th, well ahead of the main party, in order to make further progress. At this point I overlapped with the expedition of Marc Gabolde, working in the royal valley. He was accompanied by his twin brother, Luc, also an Egyptologist, plus his photographer and one of our regular team, Amanda Dunsmore, working on his pottery. We formed a very amiable party. I particularly appreciated seeing them off to work in the morning, so that I was left to continue quietly in the house without any sense of responsibility for what was going on. The highlight came one morning in February. Luc has an interest in ancient astronomy and has calculated when, during the year in Akhenaten's reign, the spring equinox would have fallen. It is a date significantly earlier than its present occurrence. On the chosen day we set off in the cool morning twilight before dawn and walked to the Small Aten Temple. With cameras at the ready we waited. At around 7:15 in a clear sky the bright edge of the sun suddenly appeared, and with a speed that always surprises, it rose above the sharp line of the cliffs, pretty closely on the axis of the temple. We all felt very satisfied and agreed that this was unlikely to be a coincidence.

Architect Suresh Dhargalkar joined me on the 20th, to prepare for the start of his repair work at temple and palace, and to do the many small tasks that are necessary now for the house to run smoothly, matters to do with electrics and plumbing. He had our fleet of around forty wheelbarrows brought out of the garage so that the tyres could be checked. The workmen are much taken with them, and they have become essential to maintaining an even rhythm to all the work, both the excavating and the building.

The full team began arriving on February 24th. Apart from myself, the team was comprised of: Andrew Bednarski, Paul Buckland, Ann Cornwell, Suresh Dhargalkar, Jane Faiers, Helen Fenwick, Rainer Gerisch, Dimitri Laboury, Gregory Mumford, Gwilym Owen, Evgenia Panagiotakopulu, Sarah Parcak, Phillipa Payne, Gillian Pyke, Jerry Rose, Pamela Rose, Margaret Serpico, Anna Stevens, Christopher Stevens, Kristin Thompson, Boris Trivan and Jacquelyn Williamson. The SCA inspectors were successively Fathy Awad Riyad and Omar M.M. Zaky; Raghib Abd el-Hamid Khalafalla was inspector for the South Cemetery bone collection; Fathy Mokhtar represented the SCA for the work of building restoration. This is a slightly larger a group than the house will accommodate, and required the running of what is in effect a hotel register to make sure that everybody had a room to themselves. But in the end it worked out.

Excavation

The season's programme included a continuation of the excavation begun in the housing area of the main city last year, not far from the house of Ranefer. It was begun to provide a means of training archaeologists from Qatar, under an agreement that the Qatar Antiquities Department had made with the Egyptian Ministry of Culture. Five of them were due to come this year. A major disagreement between the parties (but not with ourselves) brought the arrangement to a premature end. Nonetheless, I decided to continue with the planned excavation, with just two archaeologists supervising and recording, namely myself and Dr. Anna Stevens. By the end of the season we had covered a significantly larger area than we had managed the previous year and in a period of time of roughly the same duration

We began on February 26th, by locating the iron spikes buried in the ground at the end of the 2004 season at the intersections of the five-metre grid, which is grid no. 12 in our excavation sequence. We then laid out more and decided on the order in which we would excavate them, aiming for a larger open area that would join last year's excavations to buildings dug by the German expedition early last century (Figure 2). Twenty workmen formed our labour force plus a boy, Ahmed Mokhtar Nassar, who was engaged to undertake the preliminary pottery sorting. This is a time-consuming task that requires patience and

(The pictures to accompany this report are printed on pp. 7–11 of the previous issue,11, no. 2)

common sense as much as archaeological knowledge. Ahmed quickly picked up what was needed and was able to keep pace with the rubber-tyre bucket-loads of sherds that constantly came from the diggers, so saving the archaeologists time better spent on planning and drawing sections

Grid 12 lies towards the eastern edge of the city, not far from the easternmost broad thoroughfare that the German excavators called High Priest Street. It is very likely that this main residential area of Amarna developed by a process of piecemeal growth outwards into the desert, so that when our houses were built they were, for a time, on the actual edge of the city and faced empty desert. Our excavations removed all of the deposits down to the level of the desert. This disclosed several pits and features that make sense only if they were there before the houses of Grid 12 were built. The biggest was a pit of which we found only a short section of the edge, close to the eastern limit of our work. It had been filled with sand and rubble and many sherds and small objects, and then the fill had been covered by the walls of some of the buildings, although its position had remained visible as a broad depression. It looks very much like an abandoned well. Many wells were dug across the city, some within the compounds of rich houses, some for public use in neighborhoods of small houses. This one would have had a very short life, and it is not clear to whom it would have been useful. Amongst the objects that the fill contained were some that belonged to the crafts of working in glass and glaze, showing that somehow they too were pursued before many of the local houses were built.

The walls of Grid 12 gradually resolved themselves into a series of small to medium-sized houses closely packed together and in part accessed from High Priest Street to the east (Figure 3). The mostly thin walls had been built in a way that has left clues as to the order in which they were put up. When adding a wall at right-angles to an existing one it was common to make an L-shaped join in order to increase the surface area of the attaching mortar. The people who made the bricks used local desert material in differing quantities, which affected the colour. Some bricks had an orange hue from a high proportion of local desert clay; others that used more alluvial soil were more grey in appearance. These differences also help us to distinguish which walls were built as individual lengths. As a result one can, to some extent, reconstruct the order in which walls were put up, spaces enclosed and the general housing neighborhood created. I have made, as an experimental version, a coloured map to illustrate the process. It is possible that many stretches of wall are simply what one person could build in a day (Figure 4).

It looks as though what was there first was the large enclosure at the western edge of the excavation area. We have cleared only a small corner portion. Perhaps it surrounded one of the large compounds. People then added their walls to its sides and to one of its corners, and began the process of piecemeal addition towards the east. As the ground was enclosed the need for access was felt, and a narrow alley was left between N50.42 and N50.39, and another probably to the south of N50.39, just on the edges of the excavation (Figure 5). By the end of the process, what had been created was an enclosed, private group of dwellings. Perhaps the irregular construction that was built over the 'well' acted as a storage place, even for keeping donkeys in, for the people whose houses lay barely accessible in the ground behind.

Although the houses (as always at Amarna) show similar interior arrangements, no two are the same. They have also been laid out subject to some form of constraint. Why, for example, once the space for N50.37/38 was laid out, were two small houses put inside it rather than one larger one? To understand how such a layout came into existence one has to consider the kind of society that came to Amarna.

Egyptian society revolved very much around the class of officials that by the 18th Dynasty included military men as well as scribes and priests. For them wealth and status were measured in part by the number of retainers or dependants they had. Amarna must have been populated by flocks or bands of the dependants of rich men arriving together. Once the dependants were ashore, they swiftly claimed a piece of the desert that had not yet been built on, even though it might have been briefly in use for the disposal of rubbish or for craft activities that demanded heat. They camped and quickly began the search for building materials,

making their bricks from whatever soils they could locate. There must have been amongst them some degree of hierarchy as well as family bonds. The plot divisions presumably reflect the outcome of negotiations done on the spot, as the walls went up, everyone anxious to get a roof over the heads of themselves and their families.

More work is needed on the details of the plans in order to refine the order of building. It is an opportunity to come closer to explaining why much of Amarna looks as it does, a series of joined villages built without reference to an overall city scheme.

The continuous sieving of the soil yielded small objects, often of faience or glass. Some of them are finger rings or pendants, designed in the shape of a 'charm' that had the power to protect (for example, the figure of the domestic god Bes, often shown banging a tambourine, Figure 6). A proportion of these small items of jewelry were made on the spot, the evidence being the small clay moulds from which the items were cast. The people who lived in this part of Amarna seem, in fact, to have possessed the skills to make a range of small items in glass and faience. They evidently acquired from outside ingots of glass of one colour, reheated it until it became molten, and then, using metal tongs, drew out of the molten long thin rods or 'canes', of which we found numerous short lengths (Figure 7). Such canes were later heated again until they were soft, and then used to make small many-coloured glass vessels (Figure 8) or to added decoration to, say, earrings.

Many of the pieces of glass and faience were of a single colour and intended for inlaying, either into large wooden items or more likely into pieces of architectural stonework. How they were made opens an interesting window on attitudes towards manufacture at the time. The makers had several different methods to follow depending on colour and material. If the inlay was red and of faience it was made in a mould using a formula that created a uniform red colour throughout the body (Figure 9). If the inlay was blue faience, however, the process was different (Figures 10 and 11). An irregular slab of blue faience, more like a rough square puddle with rounded corners, was prepared. After firing it was turned on its back and V-shaped grooves were cut into the grey granular backing material. These provided lines of weakness along which the tile was snapped into narrow strips, or occasionally pieces of other shapes, including triangles. This was also the way to cut off the irregular edges of the original tile. Some inlays in red, blue and also green were made from glass, and seemingly in grid 12 also. They were never moulded. Instead the glass was formed into a strip. Often the sides were patted in before it cooled too much, creating a pattern of compression wrinkles on the surface (Figure 12). Sometimes the strips were folded longwise, producing a narrower bar that was twice the thickness. Once made, the glass strip or bar was treated like a piece of hard stone and worked cold, by rubbing the surfaces with an abrasive to remove the wrinkles and produce a smooth, almost glossy surface (Figure 13). It should be realized that glass was a relative newcomer to Egypt at this time. This approach to glass suggests that the full potential of glass-working was not yet appreciated.

The pieces we find are, of course, those that were not used. They might all have been rejects. The way in which the blue faience inlays were produced – snapping along a scored underside – is not one, however, that leads to accuracy in outline. They would have been set into place using gypsum. If the inlaid object was architectural the inlays might not have been visible close to, and the gypsum would have filled the slightly jagged edges of the inlay pieces.

It is possible that some of the inlays were intended for wooden objects, but it is more likely that they were to be fitted to shapes cut into the surfaces of stone columns and other architectural pieces. Yet there is no evidence from the excavation area for the making or receiving of stone items needing inlay. We have to imagine that people at grid 12 made up bags of inlays of slightly mixed sizes and shapes and sent them off to craftsmen at the stone building sites who did their best to fit the pieces in.

Other fragments seem to derive from small-scale working with metal, probably bronze rather than copper. They comprise fragments from hand-made pottery bowls that have been heated primarily from the inside and often have pieces of green metal corrosion either embedded in the vitrified clay or adhering in a bubbly layer over the inside surface (Figure 14.) The source of the heat must have been blowpipes or pottery tubes worked with bellows. A few fragments of these thick coarse tubes were also found. The people working in this way were not smelting, but probably melting down scrap pieces. Many small pieces of bronze were found, some of them, around the size of a fingernail, with cut edges and a few also folded over and pressed flat (Figure 15). These could well be pieces prepared for the re-melting. What happened next is not clear. We have found no moulds for metalwork, so the melted down scraps were not used to make casts of arrowheads, for example. But if the melted-down lumps were then hammered to make bronze sheeting, we would probably not know since this is a craft that leaves no obvious traces in the archaeological record.

These fragments seemed to be scattered fairly uniformly in the fill of the rooms and other spaces that we excavate. The deposits that our diggers carefully removed to expose the walls did not lie in horizontal layers as one might have expected. Everywhere the stratigraphy was a complex interleaving of deposits of sand, rubble and dust. In most areas these lay directly on the desert floor. It is abundantly clear that most of the original floors had been carefully dug up whilst the walls of the houses were still standing. Was this done by scavengers not long after the end of the Amarna Period, or could the occupants have done it themselves, just to make sure that they had not missed something valuable buried perhaps a few years beforehand? Burying things under the floor seems to have been very common, sometimes in pottery jars the mouths of which lay flush with the floor, and sometimes in deep brick-lined pits of which three well preserved examples came to light this year. The floors, whether of bricks or beaten earth, were fairly soft and would offer little resistance to someone intent upon digging a small hole to receive something small but valuable. One item that was left behind and not recovered was a hemispherical bronze bowl discovered early in the season buried beside an internal wall in the building complex N50.23 (Figure 16).

Well after the excavation had finished, when all the planning and photography had been done, a contractor was brought in and, using 140 trailer loads of clean sand, he and a gang of men backfilled the site to protect its fragile walls. On June 3rd Dr. Stevens and I finally left the site to itself.

Desert hinterland survey

The Amarna desert hinterland survey began with the arrival of Helen Fenwick on March 3rd. Her main aim was to include within the survey the various boundary stelae that lie to the south, including those in the El-Hawata region. The precise fixing of their locations should be useful to people who take an interest in the scheme for the layout of Amarna that Akhenaten described in the texts of the boundary stelae themselves. They are, of course, points spread over a huge area of complicated topography. Mapping this, even with a differential GPS unit, takes much more time than fixing the locations of the stelae. In the course of her walking the desert in this little visited area she was able to locate two long stretches of the pattern of desert trackways that belong to the Amarna Period.

Cemetery survey

During the desert GPS survey of 2003 a cemetery was discovered on the east side of a narrow wadi, which runs southwards behind and to the east of tomb 25 (the famous tomb of the God's Father, Ay). It lies approximately 650 metres to the south of the modern path which connects the rock tombs of the southern group. To judge from the condition of the ground the cemetery has been thoroughly robbed. It has also been partly washed away by occasional floods that have swept down it and across the desert plain in front. The floods have left behind a scatter of human bones down the floor of the wadi and along the sandy watercourses that spread across the desert plain beyond. Many of the bones appeared to be in fairly good condition, sufficiently so as to make it worthwhile to collect them for expert examination.

The collection of the bones was done between March 7th and 15th (with no collection on Friday 11th). Six men were engaged to work in pairs. As a first step a series of nine numbered white tiles were laid out at intervals along the wadi floor, from a point just beyond the cemetery down to the modern track that crosses the wadi mouth. Their exact positions were then ascertained by Helen Fenwick and her GPS survey unit. For the desert plain in front, ranging poles were set up to mark the approximate course of the main channel and were likewise surveyed in.

Working in pairs the men crisscrossed the wadi floor between the numbered markers, collecting bones and bone fragments in large plastic trays, and also all sherds (Figure 17). They avoided collecting on the cemetery itself, which lies on a low terrace beside the wadi. By the end of the third day they had covered the ground between the nine markers. A short distance south of marker 9, on the west slope, their collection took in the bones from two very shallow graves scooped into the sandy side of the wadi. The bones are light brown in colour, in contrast to the whiteness of those lying exposed on the wadi floor. These two burials are probably far more recent. From marker 9 the men crossed the modern path and continued the collection out on the desert plain, using the ranging poles as a guide. For this second stage they were instructed not to collect sherds. On the last day (March 15th) one pair of men returned to the wadi for a final collection.

On March 16th Jerry Rose, Professor of Anthropology at the University of Arkansas, Fayetteville, began an examination of the collection, sorting them into groups of diagnostic bones and examining them for indicators of minimum number of individuals, their age and sex, and evidence of disease.

He reports that the analysis of the South Tombs skeletal material washed out into the wadi yields the following demographic profile: 53 adults with 19 females and 18 males; 14 juveniles between the ages of 5 and 17; and 3 infants. Arthritis and degenerative joint disease of the spine and joints indicate that in general workloads were not excessive. Only 2 to 8% of the adult population exhibits arthritis. Broken bones that have healed are also only 2 to 8% of the adult sample (Figure 18). These traumas of the elbow region are most likely due to work accidents. There is one healed fracture of the skull that indicates violence (Figure 19). The adult infection rate is between 2 and 8%, which is relatively low with no severe infections being observed. Childhood anemia rates could range between 6 and 23% and indicate that there was a significant problem with childhood diet and iron deficiency. Thus life for the common residents of Amarna appears to have been satisfactory with no extremes of work or stress.

One finger phalange-bone was stained green from having once had a copper alloy ring around the finger, which had been present with the burial.

The two 'graves' next to marker 9 (and probably not of the Amarna Period) yielded the remains of six individuals. Two adult females and one child are well preserved, while the adult and two children are represented by fragments. Spinal stress in the adult females is the only remarkable observation.

The significant quantity of pottery collected at the same time was briefly examined by Dr Pamela Rose. She confirmed that it is of the 18th Dynasty and thus that it is virtually certain that the cemetery is of people who had lived at Amarna. These are the bones of some of 'our' people.

West bank survey

Sarah Parcak, with Greg Mumford, spent part of the season on the west bank survey, a project of her own. This season she was able to use the new coring equipment and to examine what lies below some of the identifiable sites. Surprisingly, even at depths of six meters the datable sherds were no earlier than Roman.

Either sites of the Pharaonic period are buried at an even greater depth, or the locations of towns shifted considerably between the eras, so that the discovery of sites of later periods is not necessarily a guide as to where earlier settlements were. We might be only at the beginning of understanding the history of occupation of this stretch of the Nile floodplain.

At the end Sarah and Greg spent two days with the coring equipment, at the North Palace, trying it out on the huge well depression that occupies much of the rear court. They managed to reach a much greater depth than we have with previous equipment, as far down as 8.5 metres from the current ground surface of the palace. They had to stop at this point, having hit saturated limestone debris. Yet even so they think they are some way from the bottom. This finding reinforces the idea that the depression contained a deep, as well as wide, well and not an ornamental lake.

The aerial photographic survey

The helium balloon was filled and taken out on four days for photographic runs. The excavation site was covered from the full height, and a series of strips of city housing were included as well, one of them to the south of the expedition house. The Small Aten Temple and the North Palace were photographed for a record of the new work done.

Although the balloon has a relatively new replacement envelope, and Gwil the photographer has lined it with a sealant, it lost too much helium too quickly this year for it to remain viable. Gwil and I have concluded that this style of balloon is simply not sufficiently rugged for the Egyptian desert environment. We are trying to locate other balloon manufacturers.

The building conservation and repair programme

Once again architect Suresh Dhargalkar was able to supervise teams of builders at two sites, the North Palace and the Small Aten Temple.

At the **North Palace** two builders with their own teams worked separately through most of the season. One concentrated on the rear outside wall of the palace, continuing the task of re-facing the weathered upper part of the outside surface, the part that visitors see first. This was completed, and the re-facing then taken around the northeast corner and along the north outside wall to a short distance beyond the northern gateway. The brickwork on the north side was especially in need of support and repair. The wall had originally contained wooden beams set end-to-end within the brickwork but flush with the surface. They were long ago eaten away by termites, and the empty space left has been widened by weathering to undermine the overlying brickwork. As part of the repairs the deep groove was filled with mud plaster, so preserving the location of the beam, and where it was sufficiently wide the missing mud brick courses above and below were replaced.

In recent seasons much attention has been paid to the central hall of the palace (Figure 20). The positions of the missing column bases have been marked, and the area of the stone platform outside the front has been covered by a new layer of stone blocks. The ground level around the platform is lower than it must have been in the Amarna Period. During this season some men were employed to spread soil from one of the old excavation dumps around the area of the platform in order to level up the ground so that the stonework is almost flush with it. It now has a much more natural look to it.

The broad thresholds of three of the entrances into the central hall were replaced with new stone blocks, following the patterns still preserved in the ancient foundation layer of gypsum. The entrances in question were the two on the south side, and the wide eastern doorway on the axis of the palace (Figure 21). The site of the entrance to the throne room was cleared of dust revealing another well-preserved gypsum foundation. This was photographed but has not yet been planned.

The main work of the second team of builders was on the group of rooms immediately to the south of the central hall. The group included a bathroom and bedroom with alcove, and the broad staircase running behind them. The brickwork of the western rooms is relatively well preserved. When first exposed in 1924 the lime-stone floor and gypsum wall facings to the bathroom were still in good condition, although subsequently all traces of them vanished. The eastern rooms, by contrast, have lost most or all of their brickwork, which has evidently been deliberately robbed.

The lines of all of the walls have now been given at least two new courses of bricks, so that the plan of the little complex is now immediately visible (Figure 22). The aim in the future is to insert a new stone floor into the bathroom and to remake the alcove with its low bench in the bedroom. The staircase that ran behind these rooms rose over a line of three brick compartments that had originally been filled with soil. The eastern one had been repaired last year and the central one needed little attention. Both of them are now refilled with rubble. The missing north wall of the easternmost compartment has been rebuilt, enabling this one, too, to be filled up. At the same time, the greater part of the lowest four courses of the mud brick stairs has been replaced (leaving some of the original brickwork of the stairs where it survived best on the south side). A much better idea of the size of the staircase, especially its length which implies that it ran to a considerable height, can now be gained from the tourist viewing area on the embankment towards which the staircase points.

At the **Small Aten Temple** Suresh continued the scheme to improve the definition of the first and second courts of the temple (Figure 23). To this end the two side gates of the wall that divides the two courts were re-floored with stone at the same level as that of the central gateway, which was given a new floor last year. This brings out even more clearly how the ground of the temple rises from front to back, necessitating ramps in front of the side gates. These have been made in sand held in place by new brick walls on either side.

The relaying of the stonework at the high level implied by the topography of the site necessitated the building up of the brick walls on either side, incorporating into them the step at the base of the walls which is a feature of all of the main brick walls of the temple. The original purpose was probably added stability but now this line gives further definition to the varying levels of the ground within the temple. Close to the end of the season a start was made on laying out the brickwork of the southern side gate of the wall that separates the rear sanctuary court from the middle court. This is in preparation for defining the side gates in the same way as has been done for the others, with stone block thresholds.

The central court had two small entrances in the middle of the north and south enclosure walls. These show no signs of having had stone thresholds. The repairs here took the form of replacing the sides with new brickwork.

The first court had contained a field of small mud brick altars arranged symmetrically around a large brick platform that had been reached by stairs on the temple axis. It is likely that this was built at the very beginning of the Amarna Period and later demolished. It was the place where the current programme of repairs to the temple fabric was begun in the late 1980s. The new bricks made then were not as good as those made now, and since the restoration was done the brickwork has deteriorated. This year the entire altar was remade in new bricks (Figure 23). The staircase was given a clearer definition, with three steps inserted flanked by the beginnings of sloping brick balustrades. The opportunity was taken of remaking some of the smaller altars and of setting out new ones so that the sets on the north and south sides of the main altar are symmetrical.

The building work at both sites needs a constant supply of water, for the making of bricks and mortar. At the Small Aten Temple two men are employed each day (the same two for many years now) to carry buckets of water from a hand-pump beside the fields, across the ruins of the Great Palace,

the road and on to the brick-making yard beside the front of the temple. At the North Palace the absence of a hand-pump has left us to rely upon a water-tanker that belongs to the antiquities inspectorate and is normally kept at El-Ashmunein. This year the inspectorate was trying to kill the tough halfa-grass that grows all over El-Ashmunein, using chemical weed-killer that requires loads of water. So, no water-tanker for us. As if by a miracle, an enterprising local farmer had, since last year, dug a well not far behind the palace and installed a simple hand pump. So, once the work commenced, the palace brickyard was also supplied by a man carrying buckets, none other than the owner of the pump, whose wage became our payment for the use of his convenient facility.

The bucket carrying had a surprising archaeological consequence this year. One of the pair of men at the palace, trudging along the same route he takes each year, turned over a stone with his foot. On the underside was a beautiful sculptor's trial carving of the face of Akhenaten, one of the nicest things that has come to light since I started, and worthy of any museum (Figure 24). It seems only fair to give the name of the discoverer: Abd el-Aziz Sawi from El-Till. When questioned as to exactly where he found it, he took us to a place beside the modern dirt road where local boys sometimes play football. The trial piece was in a little pile of stones they were using as a goal post!

The site museum

For many years architect Michael Mallinson and I have dreamed of creating a place where the meaning of the ancient city could be explained to visitors. To begin with Michael designed a visitor center, which was to contain no original objects but was to convey its message by means of illustrative panels and perhaps casts. As the Supreme Council of Antiquities began to take a real interest in the project we felt confident enough to convert the plan into that of a site museum that did the same job but used original pieces, mainly from our own site collection, to support the exhibits. At last, during the summer, the contractor appointed by the SCA moved on to the site and began work on the foundations. The shell of the museum is at last going to rise, the site being reclaimed land at the tourist landing site beside the river at Et-Till (Figure 25).

The job is now under way of designing the interior. The main story that the museum will tell is not that of Akhenaten and his family. That job is reserved for an entirely separate museum of Akhenaten that the SCA is simultaneously building at El-Minia, and which will display important works of art. The Amarna site museum will tell the story of the city itself and of the people who lived there. It will endeavour to engage people's imagination on the theme of what it was like to be an ancient Egyptian. We have outlined a series of themes that the exhibits will follow and made preliminary designs of the individual areas. We tell ourselves that there will be no other museum like it in Egypt. To realize this properly, however, is going to need considerable outside injections of funding. The SCA has embarked on an ambitious programme of museum building, and our museum is not at the top of their list of priorities.

An important step is planned for the coming winter and spring. The objects that we want to use are largely stored in the site magazines. They need to be selected, laid out in provisional groups, and tentative text has to be prepared. For this a secure laying-out building is needed, in effect an extension to the existing magazines. An SCA engineer, Tariq Sanadiki, has received designs from architect Suresh and, as I write, is making the foundations for the extension so that it can be used for laying out the exhibits during the spring season. Although this has to go ahead, it is being done on precarious finances. Help is badly needed.

Next season

I return with a small group for a six-week season in December and January that will include Christmas. Mostly it will involve study and recording, but a survey of the enigmatic Stone Village of the Amarna Period is planned, and is to be undertaken by Dr. Anna Stevens. We all break for a while in

January, and then reassemble at the end of February for the main season that, I hope, will cover a varied range of projects, including a first trial excavation at the cemetery near the South Tombs.

This last year's work was longer and on a larger scale than ever. That this was possible is due in no small part to the support of the Amarna Research Foundation. A warm thank you to you all again.

(The pictures to accompany this report are printed on pp. 7–11 of the previous issue,11, no. 2)

The 2006 season at Tell el-Amarna

Report from Barry Kemp

The expedition began to assemble at Amarna from February 28th. The personnel comprises Barry Kemp (field director), Lindsay Ambridge, Ann Cornwell, Suresh Dhargalkar, Mark Eccleston, Erno Endenburg, William Erickson, Jane Faiers, Helen Fenwick, Rainer Gerisch, Gwilym Owen, Sarah Parcak, Phillipa Payne, Gillian Pyke, Jerry Rose, Pamela Rose, Mary Shepperson, Anna Stevens, Kristin Thompson, Boris Trivan and Andre Veldmeijer. The SCA representatives are Ahmed Said Nassef and Nabil Naaom Thabet (inspectors) and Shaaban Ragab (building convservator)

The main target of this year's excavation is the cemetery of the Amarna Period that runs along the side of the wadi that extends back into the desert behind tomb 25 of the South Tombs group. Last year a surface collection was made of human bones that lay on the floor of the wadi. They had apparently been washed out from a cemetery located in a low sandy terrace that occupies one side of the wadi. A report on the associated pottery left no doubt that the age of the burials was of the Amarna Period. This year we have made a start on a formal excavation of the cemetery itself. It is being supervised and recorded by Mary Shepperson and Lindsay Ambridge. Assuming that the burials lay within the terrace, a grid of five-metre squares was laid out over a part of it, towards the upper end of the terrace, where a few mud bricks and stone blocks suggested a better degree of preservation than elsewhere.

The grid is number 14 of the current series (number 13 being reserved for the Stone Village). Within it a line of five adjoining squares was set out for excavation, forming a five-metre wide trench, 35 metres long, and spanning the full width of the likely cemetery, from the edge of the terrace back up the slight slope until close to where hard limestone reaches the surface. At the current time, the deepest part of the trench is somewhat less than a metre down. So far the digging has been within soft yellow sand. Evidently a broad flat dune had accumulated along the floor of the wadi and this was utilised as a site for inexpensive burials during the time that Amarna was occupied. The burials had later been robbed, the robbers pulling the bodies out of the ground and sometimes leaving them heaped on the surface. As they were pulled so parts became detached. Most of the robbery must be ancient, for the present surface shows very little disturbance.

As soon as excavation began, bone groups appeared and have continued to appear as the sand is removed. It is impossible to distinguish grave cuts or robbers' pits. Although complicated bedding planes are visible in the side of the trench, the only horizontal difference is the occasional brief appearance of ill-defined patches of gravel. The excavation of the site thus involves the simultaneous removal of the fill of grave pits and of the entire ground surface in between them. At any one arbitrary level the site looks relatively barren, but when all of the burials and bone groups are superimposed on to a single cemetery plan, a fairly densely used cemetery appears. At the time of writing, at two places it looks as though the bottom surfaces of graves have been exposed, at less than a meter below the present surface. These patches of grave floor are marked by staining, areas of matting, and undisturbed legs and feet.

The manner of burial was simple. The bodies were wrapped in cloth, or matting or in sheets of reeds bound together, and provided with several pots. Almost all the pots were of Nile silt fabric and were mostly either small bowls or medium storage jars. Apart from traces of bead necklaces, no other grave goods have so far been found. Two small complete stelae lay not far from each other. They are of simple shape, devoid of carved scene or inscription. One has a triangular top, the other a set of three triangles side by side.

The bones are now being studied by Prof Jerry Rose, who is expressing much enthusiasm as to their condition. The cemetery is also likely to be much larger than first thought. The surface disturbance is slight, but the ancient robbery led to the breakage of the pots. If the presence of small weathered sherds on the surface, accompanied occasionally by bone fragments, is taken to mark where burials had been then the area of burial extends down to the wadi mouth and, towards the mouth, includes an area on the far side of the wadi as well. Mapping this revised limit will be a task for Helen Fenwick and the GPS survey unit before the season ends. The likely extent of the cemetery also coincides with a scatter of large dark stones across the desert surface. They are of local origin, but it could be that they were used to mark the positions of individual graves.

A short examination is also under way (by Pippa Payne assisted by Anna Stevens) of the dumps around the house of Panehsy near the Great Aten Temple. The aim is to increase the number of cattle bones available for the study that Pippa is undertaking. Where the bones are found in the dump they are accompanied by flaked flint tools that are hard to disassociate from the butchery of the cattle and which point to a future study that should be made. A neat illustration of the connection between Panehsy's house and cattle has been the discovery of a blue-painted sherd bearing a line drawing of a cow or bull.

This year the building conservation programme under Suresh Dhargalkar is limited to three weeks at the Small Aten Temple. The main task is the better definition of the inside face of the enclosure wall around the Sanctuary. This has several breaches or low points that act as unofficial access points that we wish to close in order to protect what remains of the original brick wall.

Within the field station the Amarna team have continued to work on varied projects. One new one this year is a study of the leather items from both the Amarna Period and the Late Roman Period. Andre Veldmeijer, assisted by Erne Endenburg, spent a week making a preliminary assessment of the material and completing a study of the pieces from Grid 12 that will form part of the publication. The value of expert assessment of material has also bee underlined by a brief period spent by Gillian Pyke examining the pottery from the excavations at Grid 10, carried out a few years ago close to the cultivation. The excavation produced many bones from dogs, recently studied by Pippa Payne. It seems most likely that they derive from a much later cemetery of dogs buried as part of a cult of sacred animals. Gillian has isolated a set of sherds that belong to the Ptolemaic and early Roman periods, something that adds weight to the idea that a small sacred dog cemetery had been established here.

Work undertaken in the Wadi Abu Hassah al-bahari Tell al-Amarna

by the expedition of the Universite Paul Valery — Montpellier III led by Marc Gabolde:

24/12/2003-08/01/2004

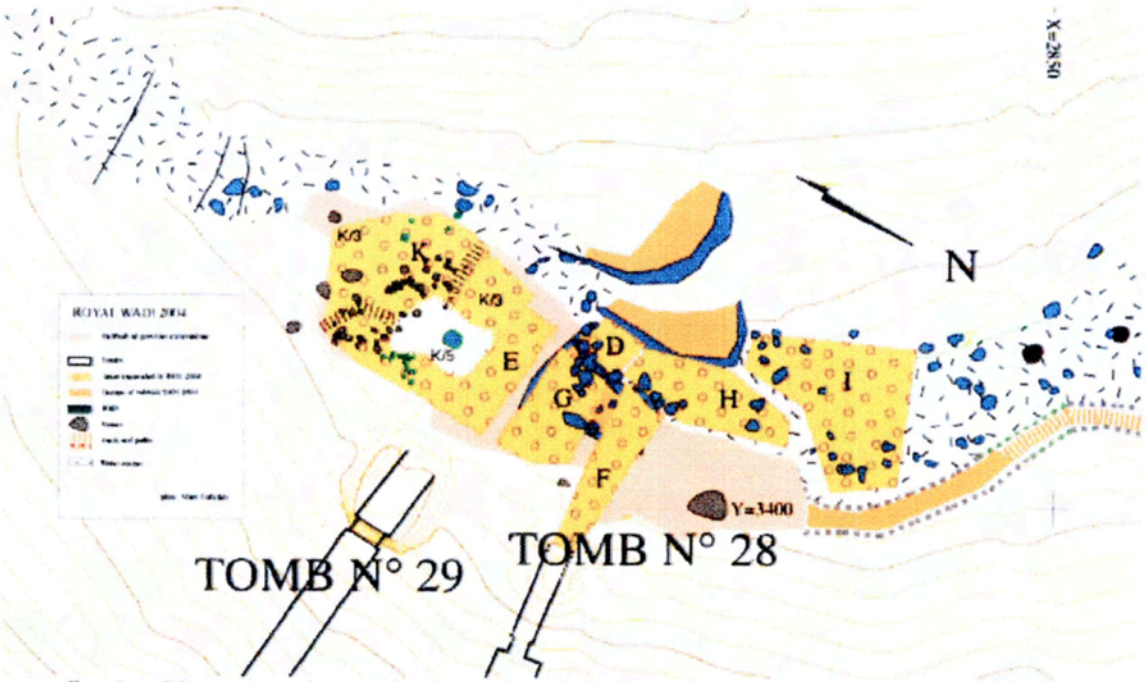
Thanks to the hospitality of the Egypt Exploration Society and with the generous support of the Tell el-Amarna Research Foundation (Denver) who provided some funds for the airfare of Mss Amanda Dunsmore, the work of the expedition of the Universitë Paul Valóry — Montpellier Ill at Wadi Abu Hassah al-bahari (Tell al-Amarna) started on 24/12/2003 and finished on 08/01/2004. The participants were Marc Gabolde, Amanda Louise Dunsmore and Sayed Abd al-Malek Abd al-Hamid (inspector). Our work may be described as follows:

§I. The main aims of the mission were:

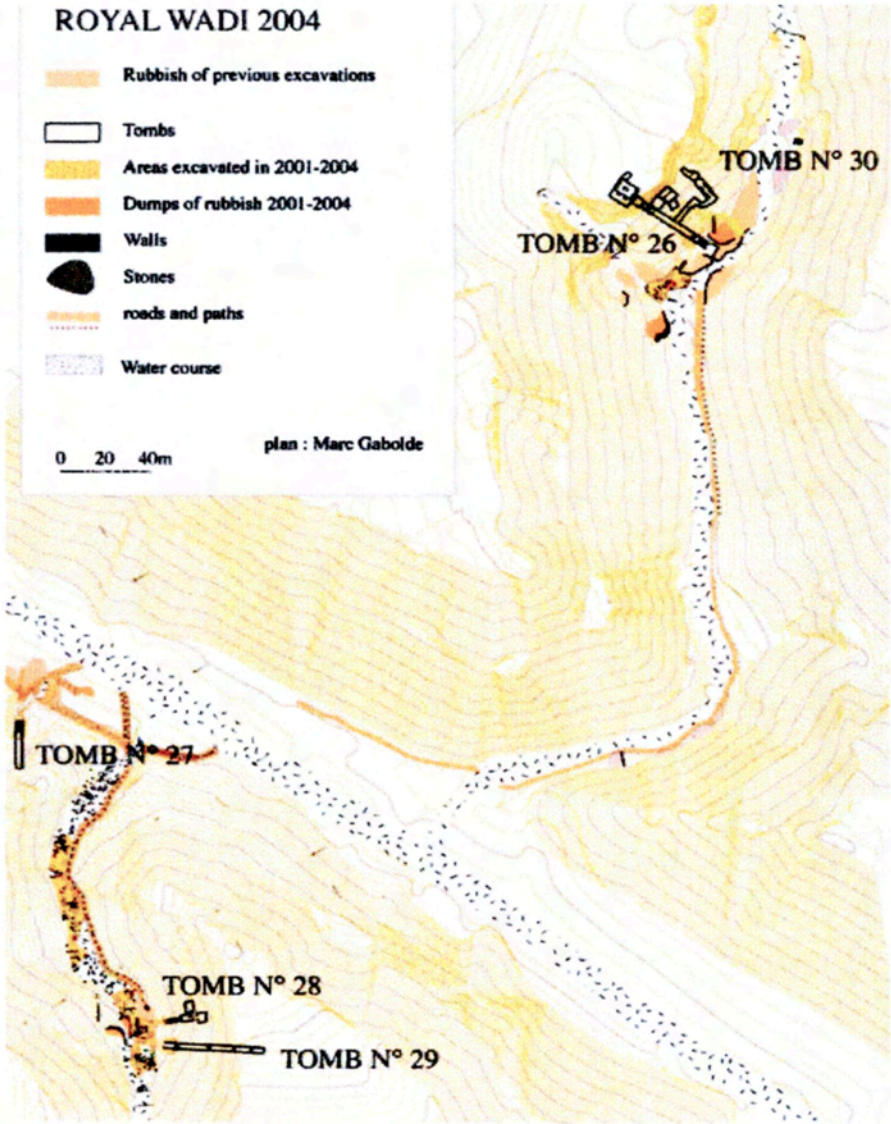
1) To continue the topographical survey,
2) to complete the clearance of the area south of the entrance of tomb no. 29 in the side wadi of at Wadi Abu Hassah al-bahari (Tell al-Amarna), and to investigate the dumps in front of tomb no. 27,
3) to continue the study of the pottery from the 2003 and 2003-2004 seasons.

§II. Topography (fig. 1-2):

To complete the map of the Royal Necropolis of Al-Amarna about **1000** new points were recorded. The drawing of the two maps (scale 1/5000 and 1/20000) is now partially complete, and only a few new points are needed to complete it (fig. 1-2)



— fig. 2 : Clearances in front of Tombs n° 28 and n° 29 —



- fig. 1 : Map of the Royal Necropolis of Tall al-Amarna, january 2004 —

fig. 5 : Hieratic ostracon from the cutting dump in front of Tomb n° 29

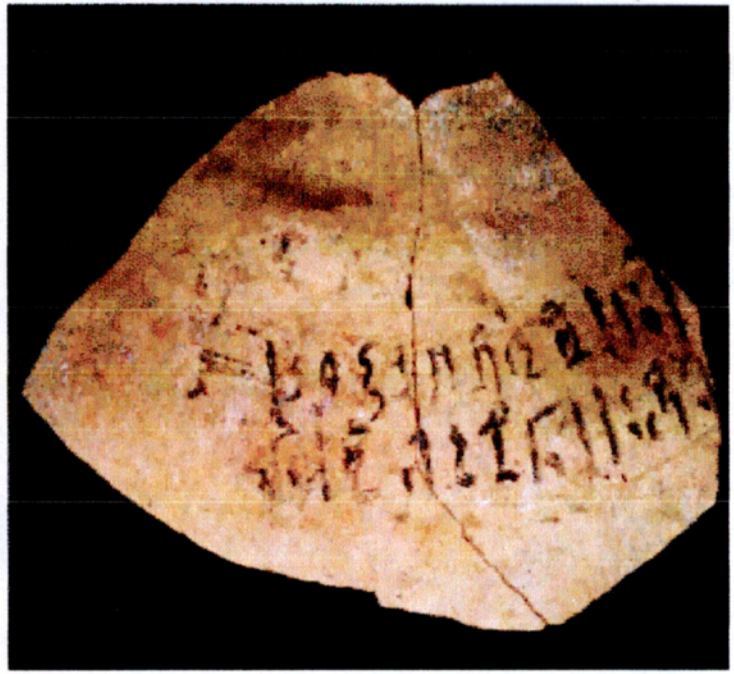


fig. 6 : Hieratic docket from Barsanti's emptying dump

§III. Clearance (fig. 3-5):

The first task was to extend northwards the clearance of the dump located on the southern part of the entrance of tomb no. 29.

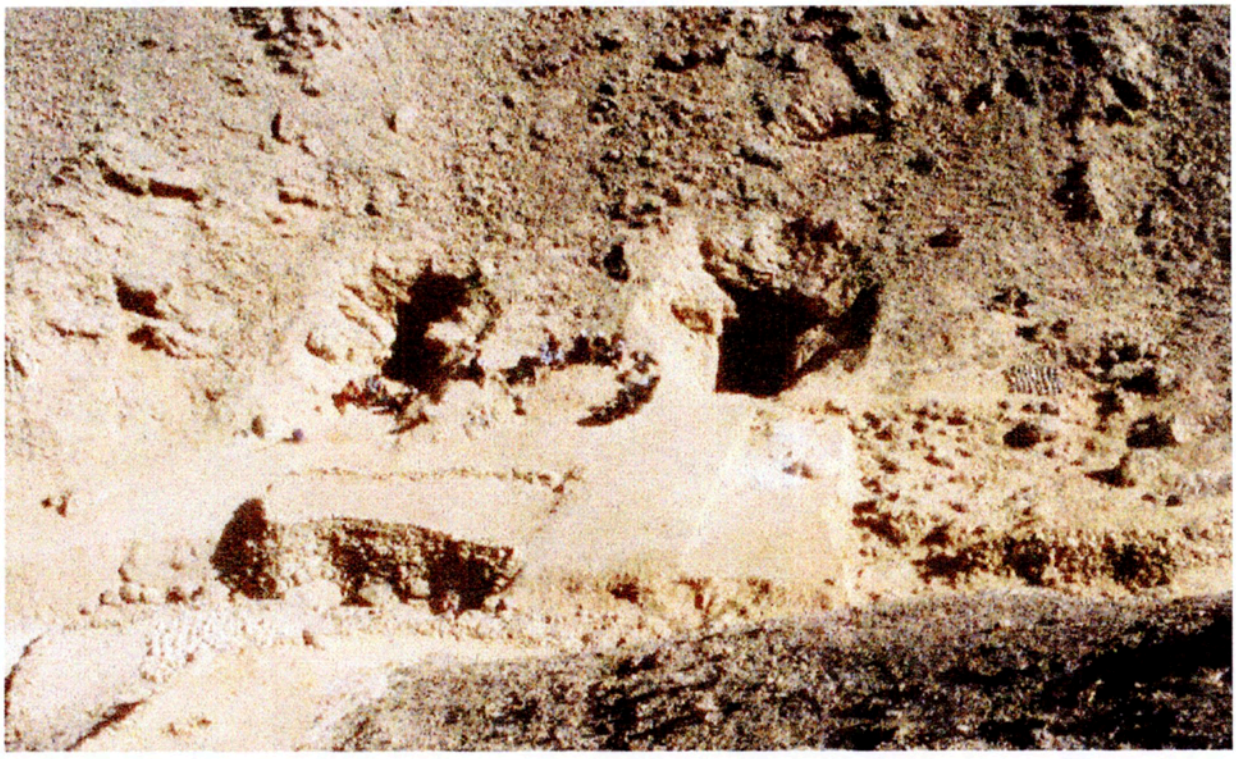
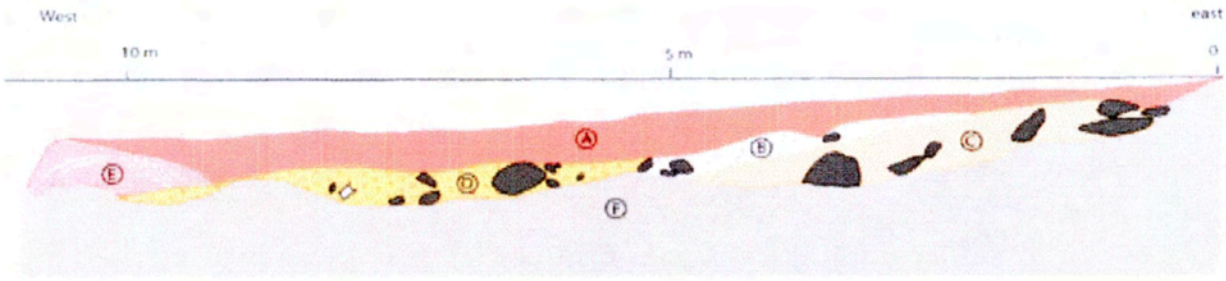


Fig. 3: View of clearances in front of Tomb n 29 –



STRATIGRAPHY EAST-WEST IN FRONT OF TOMB N° 29

Description
A) sand, few limestone chips, few sherds,
B) limestone chips, few sherds,
C) sand, sandstone fragments, few sherds,
D) sand, few limestone chips, big sherds, pounders, fragments of gypsum,
E) sand, few limestone chips, few sherds,
F) natural surface covered with grey sand

Interpretation
A) levelled off rubish from A94's excavations,
B) original cutting dump of the lower part of tomb n° 29 (limestone),
C) original cutting dump of the upper part of tomb n° 29 (sandstone),
D) dump from the emptying of tomb n° 29 by Barsanti,
E) dump of 1984's excavations,
F) natural soil before works.

— fig. 4 : Stratigraphy West-East in in front of Tomb n° 29 —

The stratigraphy (fig. 3) helps to describe the successive layers as follows:
Natural soil
Cutting dump: first part consists of sandstone material, second part of limestone chips (K/5)
Dump from the emptying of the tomb by Barsanti (K/3)
Dump from the clearance of G.T. Martin and A. El-Khouly (1984) (K/8)
-Leveled off surface after the excavations of 1984 (K/2 + K/1)

The dump of Barsanti, whose upper part had been eroded by the excavation of 1984, provided most of the material. This material consists mostly of pottery whose study is undertaken by Amanda Louise Dunsmore. One limestone ostracon bearing a hieratic line 'male' (fig. 6), a docket, almost complete, reading *(1) Year one, wine for the house the Aten from (2) the Western [riv]er, the chief of the vintners Ioun(...)* (fig. 7) and another docket, from the cutting dump, concerning *Clarified) butter for the house of the Noble* (?)(...) (fig. 8) are the most noteworthy finds.

The dump in front of tomb no. 27, trenched by J.D.S. Pendlebury was also excavated in the western end. It proved to constitute only material from the emptying of the tomb by Barsanti. A few XVIIIth dynasty and Roman sherds were found.

— fig. 7 : Hieratic docket from the cutting dump of Tomb n° 29 —

As the cutting dump of tomb no. 27 was still not located, it was decided to make a trench in the dump from the 1984 excavations. Unexpectedly this trench provided the upper part of a shabti of Akhenaten (fig. 9), probably moved from the area surrounding of the royal tomb in the 1930's. This dump consists of material from the emptying of the tomb in 1984. No trace of the original cutting dump was found.

The rubbish from the 2003-2004 excavations was used to refill the excavations of 2003 on the southern part of the entrance to tomb no. 29 by Building a protective wall along the watercourse.

— fig. 9 : Upper part of a shabti of Akhenaten from recent rubbish in front of Tomb n° 27 —

§ IV Pottery:

This season, pottery from the 2003 and 2003-2004 seasons was sorted, and is ready for recording. As there was not enough time to begin full recording, extensive notes were taken on the most important contexts and many diagnostic sherds were drawn in order to begin to understand the pottery record. One of the major aims in studying this pottery is to try to determine what may have belonged to a burial assemblage and what was workmen's pottery. It is possible that the pottery from Area K will shed light on this question and careful study of this material is envisaged in future seasons.

§ V Conclusions:

The topographical part of the project is now complete. Most of the modern rubbish dumps have been investigated but some places, north of tomb no. 28 and in the bed of the wadi, remain to be tested or cleared. The emptying of the recent fill in tomb no. 28 and no. 29 is also desirable. Some test trenches in front of tomb no. 27 may also help to locate the original cutting dump of this tomb.

From the historical point of view, the work already done suggests some improvements to the modem and ancient histories of the Royal Necropolis.

Only five tombs are known and, due to the extensive tests of Pendlebury and our own observations, it is quite certain that no other tomb exists in this part of the necropolis.

One of these tombs is surely not a burial place. Tomb no. 30, due to its small scale and the lack of appropriate room for a burial, looks more like an embalming cache as those known for Tutankhamun (KV 54) and Amenhotep III (WV 22a). It is very possible that refuse embalming material from one of the burials in the royal tomb was once located there.

The royal tomb itself, no. 26, is the only one of the tombs under discussion here that is decorated. The reliefs and inscriptions as well as the fragments of funeral furniture make it clear that the king, queen mother Tiyi, and three daughters of Akhenaten were once buried there. For the king, the evidence includes: a sarcophagus, a canopic chest, and numerous shabtis. Queen mother Tiyi is identified by two reliefs in the main chamber and fragments of her sarcophagus. Reliefs and inscriptions in room gamma as well as fragments of a sarcophagus mentioning Maketaten are indisputable evidence of her burial in room gamma. Lastly, scenes depicting the mourning of the corpses of two other princesses in room alpha and the fact that the two last princesses are missing in the funeral scenes of Maketaten's suite make plausible that room alpha was the burial place of Neferneferure and Setepenre. The large unfinished suite of rooms starting on the right side of the main corridor is not inscribed. It looks like another tomb inside the tomb. It is tantalizing to attribute it to queen Nefertiti. As the king wanted clearly to be buried close to three of his daughters and his mother, it is hard to imagine that Nefertiti could have foreseen being buried far from him in any of the other tombs of the royal wadi. Moreover, the text from the boundary stelae asserts that the "burials" of the queen and her children are foreseen to be located in the same "tomb" as that of the king. But it is also clear that she has never been buried here. There is no relief related to her funeral rites, and no fragment of her burial equipment, especially no piece of a sarcophagus. However, the fragment of a funerary statuette of queen Nefertiti entered in the Brooklyn Museum early in year 1933 and was isolated. One can assume that it comes from the royal necropolis of Amarna and was found by locals during Pendlebury's excavations and sold to the dealer Nahman.

The areas excavated by J.D.S Pendlebury in 1931-1932, southeast from the entrance to the royal tomb, and the side wadi of Tombs no. 28 and no. 29, are well known as he explicitly wrote in his report of the ASAE. The fragment of shabti, attests that Nefertiti died as queen. She is not the female successor of Akhenaten.

When Nefertiti died, probably a few months before the death of Akhenaten himself, the Royal Tomb was already the burial place of four members of the royal family. It was necessary to leave some room for the burial of the king, and the large suite extending to the right off of descending corridor B, was probably cut for the queen. I suspect that when the queen died, her burial-place was far from finished. Consequently she was perhaps buried 'temporarily' in another tomb awaiting the completion of her suite in the Royal Tomb. This then is also a plausible explanation for the absence of relief and sarcophagus related to her. As the necropolis was still under construction at least two years later (dockets from the site), I suppose that the cutting of the final burial suite of the queen continued for a time after her death before being definitely abandoned.

The three other tombs of the royal necropolis are located at about 500 m from the Royal Tomb. The first one, tomb no. 27, is clearly a royal tomb. The dimensions of doorway and corridor are exactly the same as those of the Royal Tomb: door 4 cubits, corridor 6 cubits. Moreover, the presence of a slope in the middle of the stairway is only documented for the tomb of the king at Amarna. Only the first corridor is finished and no trace of a burial is visible. It is more probable that it was cut for one of the successors of Akhenaten, probably the female pharaoh Neferneferuaten rather than Smenkhkare or Tutankhamun who never ruled at Amarna

Tomb no. 29 is impressive. Four corridors are cut and plastered but no burial chamber was completed. Due to the bad quality of the rock in the upper part of the first corridor, which may collapse, the ancient architects inserted wooden beams in rows at the top of the walls to make an artificial roof. The beams (about 12 cm. in diameter) were plastered to create the illusion of a roof. But all the beams were removed later (either by the time the burials were removed to Thebes or later during the Roman Period) and not one piece of wood from it was found. Fragments of plaster from this plastered roof have been recovered by my team with the print/cast of the round-section beams.

The dimensions of the doorways (4 cubits in width) and corridors (5 cubits in width) are similar to the lateral suite extending to the right within the royal tomb, which apparently was cut for a queen. Due to its location, half a kilometre from the royal tomb, it is reasonable to suggest that this burial place was cut for a royal spouse of lesser rank than the great royal wife Nefertiti. The original emptying dump of Barsanti provided no evidence of burial but a quantity of pottery from the main city was reused here. Some wine jars had re-cut necks. One docket mentions the *"Great of the Seers"*. A stamped handle reads *"House of the Aten [...]"* ". The weight of sherds collected in this side wadi is nearly 400 kg, which seems actually too big for burial material. Among the labels, one was clearly dated to year 1, obviously of a successor of Akhenaten due to the title of the vintner, and another, from G.T. Martin and A. El-Khouly's excavation is probably from year 2. An udjat-eye, roughly worked, can hardly be part of a royal funeral piece of equipment during the Amarna period and looks more probably like the private amulet of a worker. The large amount of stone 'pounders' found in the wadi (160 pieces) and especially in the emptying dump of Barsanti (40 pieces) suggests deeply that tomb no. 29 was used as a storage place for the workers working in tomb no. 27 down-slope.

Tomb no. 28 is on a smaller scale. But it is the only finished tomb of the royal necropolis; even the wall surfaces are badly preserved. Its entrance is only 15 cubits north of the entrance to tomb n°. 29. The dimensions of the stairway (3 1/3 cubits) and of the door (2 1/3 cubits) is close to those of the princesses' rooms (alpha, beta, gamma) in the Royal Tomb and the remaining rooms are of about the same proportions. This fact suggests that the tomb was originally cut for a prince or a princess related to the owner of the adjacent tomb no. 29.

The identity of the original owners of these two burial structures (Tombs no. 28 and no. 29) may be deducible from their characteristics. We have seen that they can be attributed to a secondary spouse of the king and her child. The fact than one object coming from the *"house of the Noble* (?)" was found in the rubbish from the cutting dump of tomb no. 29, (even the jar was re-used), is perhaps relevant too. Such indices suggest strongly that tombs no. 28 and no. 29 were first cut for Kiya, called *"Noble"* on some dockets from the main city and her daughter, probably Baketaten. This scenario fits well with what is known of Kiya, whose funerary equipment has been re-used for the burial in KV 55 at Thebes after she falls from grace. It would then not be astonishing that her burial was changed to a storage place for the workers of Tomb no. 27 after the death of Akhenaten.

Therefore it is quite certain that a burial occurred in the side wadi of tombs no. 28 and no. 29. Numerous fragments of blue-green faience plaques undoubtedly belong to a luxurious piece of furniture. The lower part of a shabti's coffin found by C.T. Martin and A. El Khouly and one piece of a faience object, looking at first sight like a "new-year" flask, which was found downhill from tomb no. 28 and no. 29 can hardly be considered as some worker's implements. The temporary results of the clearances lead to the conclusion that if a burial occurred, it was probably in tomb no. 28 whose modem dump is scheduled to be investigated next season.

Marc Gabolde
May 2004

Meeting Nefertiti

Barry Kemp

The 2006 Amarna season began with a delightful and unusual diversion. A German television filmmaker, Dr. Luise Wagner-Roos, of the company Digital Drama, was in Egypt to film sequences for a documentary on the original discovery of the famous painted bust of queen Nefertiti and what subsequently happened to it. She and her team spent three days in Cairo and, having travelled with us to Amarna, put in three long days of work at Amarna itself, being blessed with fine weather. Luise had done a great deal of research beforehand, and her seriousness of purpose and professional approach made it a pleasure to co-operate.

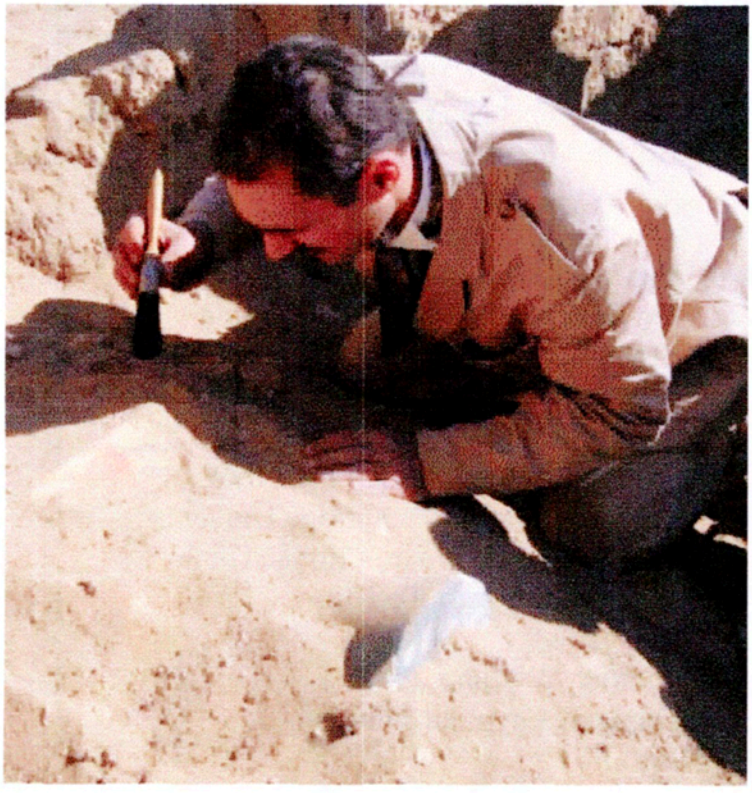
In Cairo I joined her team for two sequences. The first was on the premises of the Swiss Institute for Research into Ancient Egyptian Architecture, a graceful villa beside the Nile in Zamalek, which, in the early decades of the twentieth century, had been the house and library of Ludwig Borchardt, the man who discovered the bust. He had been fortunate in finding a wealthy patron, James Simon, who funded his excavations and was also a generous benefactor to the Berlin Egyptian museum. Borchardt put in a preliminary season of exploration at Amarna in 1907, building a dig house in the process (the one that we now use). In 1911 he began what he hoped would be a long series of excavations, but these events were terminated by the beginning of the First World War in August 1914.

The Institute remains very much a memorial to Borchardt. It is his large oil portrait that one first sees on entering the reception room, and a bronze bust occupies an important place in the library. Packets and packets of letters, tied with ribbon, that he wrote to his wife, Mimi, fill old suitcases that the present director, Cornelius Pilgrim, brought out for the filming. Borchardt's ghost was evoked by a young German actor with a similar cast of features (though with less body mass than the original, to judge from the oil painting). Cornelius, Luise and myself discussed how it might have been that the bust of Nefertiti was not selected for the Egyptian Museum in Cairo.

In Borchardt's time, at the end of a season of digging, the Egyptian government permitted a division of finds to take place between a representative of the Egyptian Museum and the excavator. Borchardt's division took place at his Amarna dig house, the Egyptian government representative being a French scholar, Gustave Lefebvre, sixteen years Borchardt's junior. Lefebvre was faced with a mass of fine pieces of sculpture displayed in cramped premises. He chose several for the Egyptian Museum, including a limestone altar piece. He did not choose the painted Nefertiti bust, which now seems an astonishing oversight. Lefebvre, however, was working at a considerable disadvantage, not least in being faced, in Borchardt, with a person well known for his forceful character. Lefebvre's omission need not be ascribed to trickery on Borchardt's part although the accusation has often been made.

In his excavations at Amarna, Borchardt concentrated on the outer edge of the main housing area, where digging for treasure by the local villagers and dealers was at its least. On December 6th 1912 he cleared the house of the sculptor Thutmose. In a small room leading off the outer reception room he found a collection of heads and faces mostly made from limestone or gypsum. It remains the most important discovery of sculptor's models from ancient Egypt. The painted bust of Nefertiti lay face down in a pile of rubble, as if it had fallen from a shelf higher up the wall. Borchardt himself concluded that this had happened, and has left a neat sketch to illustrate this, in the Swiss Institute archives.

It is now expected that films about history include re-enactments. So Luise wanted Borchardt to discover Nefertiti all over again, but this time in front of a camera. The original house of Thutmose still stands, and the place where Nefertiti was found can still be identified. It would not be right, however, to turn it into a film set, heaping sand and rubble back in and having a camera team with its portable gantry moving around the walls. Luise was happy to accept the next best thing. Close to the dig house is a small ruined building of mud bricks that dates from the 1920s and was used to house some of the skilled archaeological workmen who, in those days, were brought in from elsewhere in Egypt. Rubble was heaped into a corner, a few workmen were engaged to dig it out again (and checked to make sure they were not wearing trainers or digital watches), Dr Borchardt himself, in smart khaki attire, made an appearance, and there, in the sand and the dust were patches of colour – a rounded area of blue and a flattish area of yellow with red, green and blue patches.



Dr Borchardt's first glimpse of Nefertiti.

Dr Borchardt took over, brushed around it, and suddenly we saw Nefertiti nose down. To achieve this Luise had brought from Berlin a high-quality hand-painted cast of the real bust. The rest of the Thutmose material, although beautiful in shape, is not coloured and was found amidst the muted tones of brick and dust. The painted bust of Nefertiti must have been a shock when first exposed. My first thought on seeing the yellow with coloured patches (from the back of Nefertiti's neck, representing her bright bead collar and the red tassel that hangs down from her crown) is that it looked like an area of painted plaster that had fallen from a wall. Was that Borchardt's first thought, too?

The bust has remained the subject of controversy ever since. For a short time, as with everything else that Borchardt sent back to Germany from Amarna, it was the personal possession of James Simon. A photograph shows it amongst the furnishings of his drawing-room. But then he simply gave the bust and everything else to the Berlin Egyptian museum. The Egyptian government has, more than once, asked for it back. The most famous occasion was to mark the accession of the Egyptian King Faud in 1933. The request was refused by Adolf Hitler personally.

Luise's other sequence in Cairo was in the Egyptian Museum, and the interviewee Dr. Zahy Hawass. He is in no doubt about the return. Nefertiti should come back home to Egypt. But whereabouts in Egypt? The best (if perhaps too idealistic) answer is to the new site museum at Amarna. After all, it lies not far from the place where she spent at least a few of her years.

The film is not finished yet. A sequence has yet to be filmed in Berlin in the summer, when the real bust will be put through a CAT-scanner (it is not solid limestone but built up with an outer layer of gypsum). The tone of the film is not sensationalist. It promises to be a thoughtful, balanced and very well informed account of one of the world's great discoveries of ancient art