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The Amarna Research  
Foundation

Linda Anderson - Editor  
William Petty - Publisher

### A word from the President...

Dear fellow TARF members:

I have just returned from Egypt - more specifically el-Amarna, where I had the opportunity to watch the spring "dig" operation in progress. It was an exciting visit, even though things did not go exactly as planned.

The season was in full swing, with work being done in a number of different areas, not the least of which was the North Palace. I had the fortune to meet and talk at length with Kate Spence, to whom Barry has assigned the responsibility for the work at that site.

Kate is no beginner when it comes to Egyptian Archaeology; she spent over ten years working at Luxor. This is her second year at el-Amarna, and she says she much prefers Amarna over Luxor (and so do I). She is working toward a Doctorate in Structural Archaeology. At the time of my visit she had three projects going on site: 1. the replacement of critical brick elements to shore up walls, 2. the excavation of the pool in front of the Royal chambers, 3. some re-excavation work on the wall or pylon that splits the palace into two sections.

Working with her is Mr. Suresh, a fine individual that Kemp recruited to his team. He is a Structural Engineer who for the past 20 years has served as

Advisor to Queen Elizabeth II on matters pertaining to the Royal buildings in and around London -- i.e. Buckingham Palace, Kensington, Clarence House, Hampton Court, etc. He was responsible for the rebuilding of Windsor Castle after the devastating fire of a few years ago. He is a very friendly, outgoing person and his credentials speak to his abilities. At the time I was there, he said he believed the North Palace had been a two level structure.

While at Amarna I took the opportunity to again visit the Royal Wadi, most specifically to examine the three unfinished open tombs located there. (More about them in a future issue of "The Akhetaten Sun".) The effect of the November 1995 flood is quite obvious in the Wadi. The trails to the three tombs are washed out and are slowly being repaired. Here is a "high water mark" in Akhenaten's tomb. The road up the Wadi showed considerable signs of the flood and there has been a good deal of repair work to it. It was not very good before the flood. One wonders how Akhenaten ever got back to inspect his tomb as it progressed. I don't think a chariot could make it - and you know darned good and well he didn't walk that far!

In any event, the tombs are again accessible, and, along with Akhenaten's

Tomb, will be one of the spots we visit on our tour this fall, about which you have received information.



North Palace wall showing the deterioration before re-construction

photo by Ryan Hanawalt

A quick note about the tour -- we will be limiting participation to around 20 individuals, for logistical as well as informational reasons. If you plan to go, it would be wise to register soon. If you have questions about it, don't hesitate a minute longer to ask. You will be happy to know that a portion of your fee will be a contribution to TARF, where it will immediately be passed on to aid in financing the work at Amarna. Whether a tour into the Amarna area will become a permanent part of the TARF program and be repeated in the future is yet to be ascertained.

In summary, I would say from what I saw at the North Palace, the Amarna Research Foundation contribution is being very well utilized. Kemp has the



North Palace wall showing the re-construction funded by TARF

photo by Ryan Hanawalt

ability to stretch money in Egypt beyond our wildest expectations. His Director's report of the spring season, which already has some quite interesting finds, will be included in the next issue of the "Akhetaten Sun."

Sincerely

*Robert A. Hanawalt*

## TARF MEMBERS TO TOUR EGYPT

Join us September 21 through October 5, 1997, in sunny Egypt. Enjoy palm trees, camels, culture, and sandy antiquities. While visiting all of the major monuments and attractions, the tour will concentrate on the monuments and objects of the Amarna Period.

The price is only **\$2,950** per person (based on double occupancy) and includes round trip airfare from New York to Cairo, ground transportation in Egypt, hotels and breakfasts, portage, entrance fees and local guides. A three day extension is available for **\$600** additional.

To fully experience all of the planned activities, participants should be able to walk 2 miles a day in hot, sandy terrain. The main trip includes visits to: Giza Plateau pyramids, tombs and museum; Saqqara's Step Pyramid of Djoser, among other pyramids and tombs; Memphis' Clossus of Ramses; Cairo's Egyptian Museum (with emphasis on the Amarna Period), and the old bazaar; Dashur's Pyramids; Amarna -- Akhenaten's North Palace, Northern Rock Tomb Chapels of the Nobles, Royal Tombs, Great Aten Temple, Small Aten Temple, King's Palace, Maru Aten, Kom el-Nana, boundary stele "U", South Rock Tomb Chapels of the Nobles; el-Minia -- Tombs at Beni Hasan; Luxor's temples, including Akhenaten's, Valley of the Kings, workers village at Dier el Medina, And if that isn't enough, the optional extension will include a cruise to Aswan and a trip to Abul Simbel (highly recommended for the first time visitor).

This tour should be extremely interesting and educational. Barry Kemp will be in residence at Amarna. The tour leaders are well-versed in the history and well-seasoned Egyptian travelers. The photo processing companies will love us! For more information visit the web site: <http://www.museum-tours.com/tours/nefer.htm> or contact Bill Petty of Musuem Tours at **1-888-932-2230** (toll free).



Barry Kemp is Professor of Egyptology on the Faculty of Oriental Studies at the University of Cambridge in England. He has spent the past 18 years working on the excavation, conservation, research and publication of Akhenaten's capitol city at Amarna. Currently under the sponsorship of the Egyptian Exploration Society, Mr. Kemp is the only Egyptologist doing physical work in this area.

### Excavation at 042.1 and .2

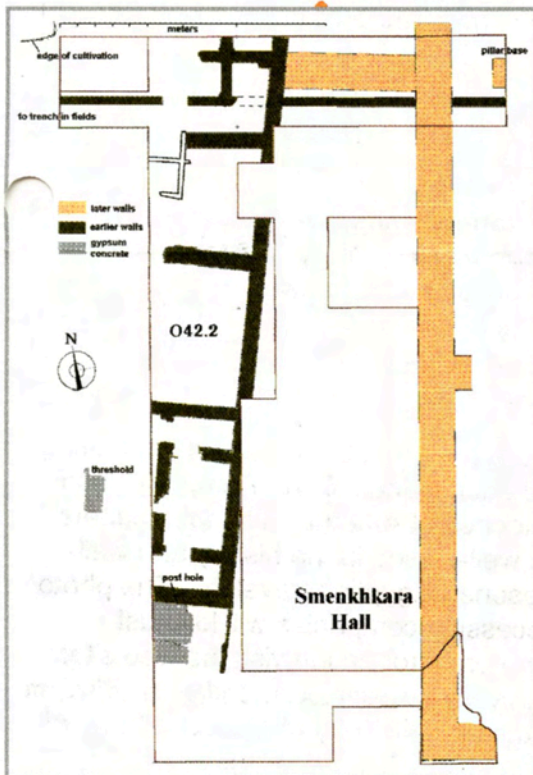
(Barry Kemp, Patrick Gilbert). These two buildings belong to the southernmost part of the Central City, and were excavated by Pendlebury in 1934. Side by side, but on slightly different alignments, each pavilion is constructed partly of brick and partly of stone on foundations of gypsum concrete. According to Pendlebury's plan, they seem to be attached to Smenkhkara Hall's western wall in a way that implies that they are of the same date, although the plan made of the brick

walls also implies that one was built subsequent to the other. The reason for looking again at these buildings lies in the expedition's general strategy of investigating how the Central City grew during the Amarna Period. During Akhenaten's reign, the area occupied by Smenkhkara Hall must have been an open space or the site of a building with a different layout. The complex of walls around 042.1 and .2 is an obvious place to start looking for evidence. The site also offers the prospect of exploring how the Great Palace ended towards the south.

A five-metre square grid was laid out along the west face of the west wall of Smenkhkara Hall. Using this guide, a strip of ground was excavated to reveal the eastern side of 042.2. A fresh plan was made of the walls and of an area of gypsum concrete on which had stood the stone ramp leading to the raised columned hall. Several new architectural features were noted, including a large post-hole in the gypsum, perhaps for supporting a flag-pole. The foundations of three stone gateways, their large thresholds evidence of the building's original importance, were plotted on a general map as a check on the plan made for the Pendlebury excavations.

The location of 042.2 in respect to Smenkhkara Hall differs considerably from Pendlebury's plan. The building not only lies at an angle to the Hall, but is closer to its south-west corner. The old plan shows it directly linked to the Hall by a thick east-west wall which continued westwards into a complex of further walls clearly not of a single building phase. After a false start, this linking wall was located and found to be still in good condition. A second wall was discovered beside and almost parallel to it, but this wall crosses the line of the Hall and continues eastwards on the far side. The place where it had been cut down to make way for the wall of the Hall was also very clear. It must therefore belong to an earlier phase and be part of a building or enclosure which divided the ground differently.

An important observation: this wall joins the rear wall of 042.2 in a way that suggests contemporaneity. Building 042.2 must also have been built earlier, presumably in the reign of Akhenaten, and formed part of this larger original building complex. When Smenkhkara Hall was built everything east of 042.2 was demolished. It was now that the linking wall between the Hall and pavilion was constructed, presumably to close off the gap that had been created between



Excavation Site Plan:  
042.2 and Semenkhkara Hall's west wall

the two buildings. One other feature of this early building was revealed. From the debris packed between the foundations of old and new walls came a number of unmistakable fragments of a painted gypsum floor, a rare form of palace decoration. This area also revealed traces of an even earlier phase -- an uneven surface of mud, sometimes mixed with straw, cut into by the foundation trench of the earlier wall. This was perhaps a working surface created by the builders prior to, or simultaneous with, the first major building on the site.

Westwards from Smenkhkara Hall the desert surface slopes downwards and the degree of erosion of the brickwork increases. As the edge of the fields approaches the ground becomes damp. It was important to re-clear part of this area because of the manifest errors of Pendlebury's plan. Progress was slow,



**Great Palace: Re-clearance of Pendlebury's excavation. The west wall of Smenkhkara Hall runs left to right. Running away from the viewer is a major spur wall. A wall from an earlier building has been cut through by it.**

but, within the limits of the excavation area, the same walls that Pendlebury saw were uncovered and were planned in their correct positions, and again, areas of irregular mud surface were

encountered which could have belonged to the initial use of the ground. The Pendlebury plan has three parallel walls running westwards for a distance of around 65 metres. We found that, for a short distance, the middle one is represented only by a shallow trench of the correct width and alignment and full of homogeneous alluvium instead of bricks. Since this is another part of the wall which had been partially demolished when Smenkhkara Hall was built, we

suspect that the demolition also extended further to the west and here left only a robber trench which had filled with rubble. Further evidence of this is implied by placing, Pendlebury's plan of 042.1 astride this wall (outside the limits of this year's excavation).

The line of the southernmost of the three walls was interrupted by the foundations of a rather poorly constructed pair of rooms. This could have been a very early house which was removed to make way for the building of the palace walls. The way that the palace wall seems not to have continued across it, however, could be a sign that the house was actually built later.

Building 042.1 lies west of 042.2, and areas of its gypsum foundation concrete were visible initially. Removal of surface dirt revealed that much of it has survived in remarkably good condition. A few reference points were surveyed for the general plan of the area, but there was not enough time to replan it completely. Since 1934 the fields have encroached upon the rear of the building and upon areas of adjacent brickwork which belong to more than one phase of building. Pendlebury did not try to follow wall foundations under the modern fields and there are no means of estimating what, if any, traces do actually survive, unless excavation is undertaken.

The farmer whose land runs past the northern side of 042.1 agreed, near season's end, to a trench being dug into his fields. Over an area measuring 5 x 2 metres soil was removed in layers to a depth of 50 cm. At a depth of about 30 cm damp sand was encountered but not over the full extent of the trench. Instead a persistent pattern of alluvial interruptions was found, containing shards and some pebbles. The boundaries with the sand were clear and fairly straight, but careful examination failed to reveal the presence of individual bricks. Sections also confirmed the regularity of the boundaries between sand and alluvium, in one place with a

profile that looked like a foundation trench. The alignment of this particular feature is the same as one of the parallel walls found in the main excavation, the very one in which the bricks have been removed even within its foundation trench. We could, therefore, be looking at the same phenomenon. If this is so, it demonstrates that beneath the cultivation useful archaeological features do survive.

The results of this exploration mark a promising start on resuming the investigation of the Great Palace, and have already provided evidence for the major changes that took place near the end of the Amarna Period.

### Small Aten Temple

Eighteen days were devoted to continuing the marking of the outline of the original stone Sanctuary in modern stone blocks, a project begun in the Spring of 1996. The cement foundations for all of the planned wall outlines were completed, and good progress was made on laying the blocks and filling up the intervening spaces with chippings and sand from the adjacent Pendlebury dumps. The internal wall blocks are being laid two courses high, in places, up to the level of the original floor. The main outside walls and the walls of the stone pylon are to be three courses high. It is highly likely that the bottom two courses originally served as a pedestal, and that it

was only with the third course that the visible masonry began. The third course is therefore being stepped in, allowing for the circular torus mouldings which ran up the corners, as on traditional temples. Several

examples of large torus mouldings have been recovered, providing dimensions for a wooden mould. Sixteen new ones were cast, in a mixture of white cement and alabaster chippings which matches the coarse crystalline structure of the limestone blocks used for the walls.

Two parts of the Temple were looked at for the first time by Lucinda Clark and Katherine Spence. One is the corner of a walled enclosure in the north-west corner of the Sanctuary Court. Its full extent is still disguised by the large dump of excavated material on the north side. An area of plastered and whitewashed floor survives. The second part is

the gateway between the two towers of the Second Pylon. At a deeper level than that reached by Pendlebury, the remains were found of a gypsum concrete foundation for stonework within the gateway.

### North Palace

Katherine Spence visited the North Palace to make a list of possible conservation priorities. In places the ancient bricks are of poor quality and badly eroded, often aided by the loss of timber beams originally built into the brickwork. The problem is so severe that different methods of conservation, which aim to keep the maximum of the original brickwork visible, should be tried.

### North Tombs

Peter Sheehan carried out the first stage of mapping the various buildings of the Christian Period in and around the area of the North Tombs.

### Experimental glazing kiln

Drs. Paul Nicholson and Caroline Jackson constructed replica of glazing kilns excavated in 1993 and 1994. The kiln was fired and the emperature gradient recorded. Inside the kiln were crucibles containing broken pieces of



**Small Aten Temple:** the foreground stonework is reconstructed to desired height and the space between in being filled.

modern glass, and raw materials for the making of blue glass and frit. When removed, after firing, the crucibles contained glass and frit. This convincing demonstration shows the suitability of kilns of this design for this purpose.

#### Study of material in store and magazine reorganization.

Good progress was made on the study both of Amarna Period and Christian pottery excavated at Kom el-Nana in previous seasons. (Dr. Pamela Rose, Odile Hoogzaad, Gillian Pyke and Jane Faiers). As part of a major study of the history of fishing in Middle Egypt, and its relevance to investigating environmental change, Dr. Rosemary Luff made a close examination of the fish bones from deposits of the Amarna and Christian

Periods, before joining a team from the University of Ismailiya who are collaborating by providing regular catches of certain kinds of fish in the Minia area. A large number of stone fragments from the Small Aten Temple Sanctuary which had been recovered from Pendlebury's dumps in past seasons were catalogued by Alison Gascoigne. A great many turned out to be from the sandstone columns which formed the front of the Sanctuary. Once recorded, fragments of no individual interest were returned and reburied in the foundations.

The gradual reorganization of storage at the expedition house continued, and it proved possible to transfer the registered antiquities from the old to the new magazine, where they are now stored in a separately secured cage.



#### MEET YOUR HONORARY TRUSTEE: Dr. Richard Wilkinson



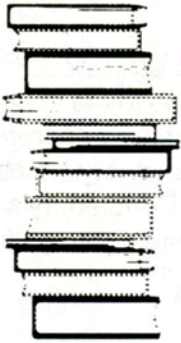
Richard Wilkinson received his Ph.D. in Egyptology and Near Eastern cultures and languages from the University of Minnesota's Center for Ancient Studies in 1986, and also did post-doctoral research as a scholar in residence at UCLA. He is currently a member of the faculty of the University of Arizona where he teaches ancient and Egyptian culture and Egyptian hieroglyphs, and is the Director of the University of Arizona Egyptian Expedition which has conducted archaeological excavation and research in the Valley of the Kings since 1989.

Born in England, Wilkinson came to the U.S. after completion of his first degree and now holds British, Canadian and U.S. citizenships. Favoring Arizona over other states -- especially for its Egyptian-like climate! -- he lives in Tucson with his wife Anna and two sons.

An acknowledged expert in Egyptian symbolism, Professor Wilkinson is the author of *Reading Egyptian Art* (1992) and *Symbol and Magic in Egyptian Art*

(1994); editor of *Valley of the Sun Kings* (1995) and co-author, with Nicholas Reeves, of *The Complete Valley of the Kings* (1996). He has also published many scholarly and popular articles on various aspects of ancient Egypt and is editor of the annual *Directory of North American Egyptologists*. He founded and directs the Arizona Chapter of the American Research Center in Egypt and is currently a member of A.R.C.E.'s National Board of Governors.

Greatly interested in the Amarna period, and especially its Theban precedents, Wilkinson was involved in the excavation and study of several Amarna era tombs located in the Western Valley of the Kings -- such as WV-23, the tomb of Aye; pit tomb WV-24; and the unfinished WV-25, the probable Theban tomb of Akhenaten himself. Currently working in royal tombs of the 19th and 20th Dynasties, he continues to be fascinated by the lasting influence and effects of the Amarna age.



## EDITORS BOOK REVIEW

### **The Complete Valley of the Kings**

co-authored by Richard H Wilkinson and Nicholas Reeves is currently available from local bookstores for \$29.95

The book is an excellent read with many sidebars, lavish illustrations, drawings and maps. Three-dimensional floor plans of the tombs allow for easy visualization. Special "Factfile" boxes provide at-a-glance information in condensed form. The information is up-to-date and includes KV5.

The authors delve into the history, the finds and current conservation. You meet archeologists, looters and mummies.

## MEMBERSHIP INFORMATION

### **Time to renew your membership?**

Receive a TARF "brick" with your renewal. It can be used as a paperweight until you have enough to construct your own miniature wall, temple or palace. These are symbolic of the much larger contribution you are making to preserve ancient history. You will receive a reminder when the time comes to renew your membership.

### **Notice:**

In order to help offset the expense of international postage, all individual memberships from outside the U.S. will be assessed an additional \$5.00. We apologize for any inconvenience that this may cause, and hope that you will understand.



### **Contributors to this issue of the Akhetaten Sun**

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