

NEKHEN NEWS

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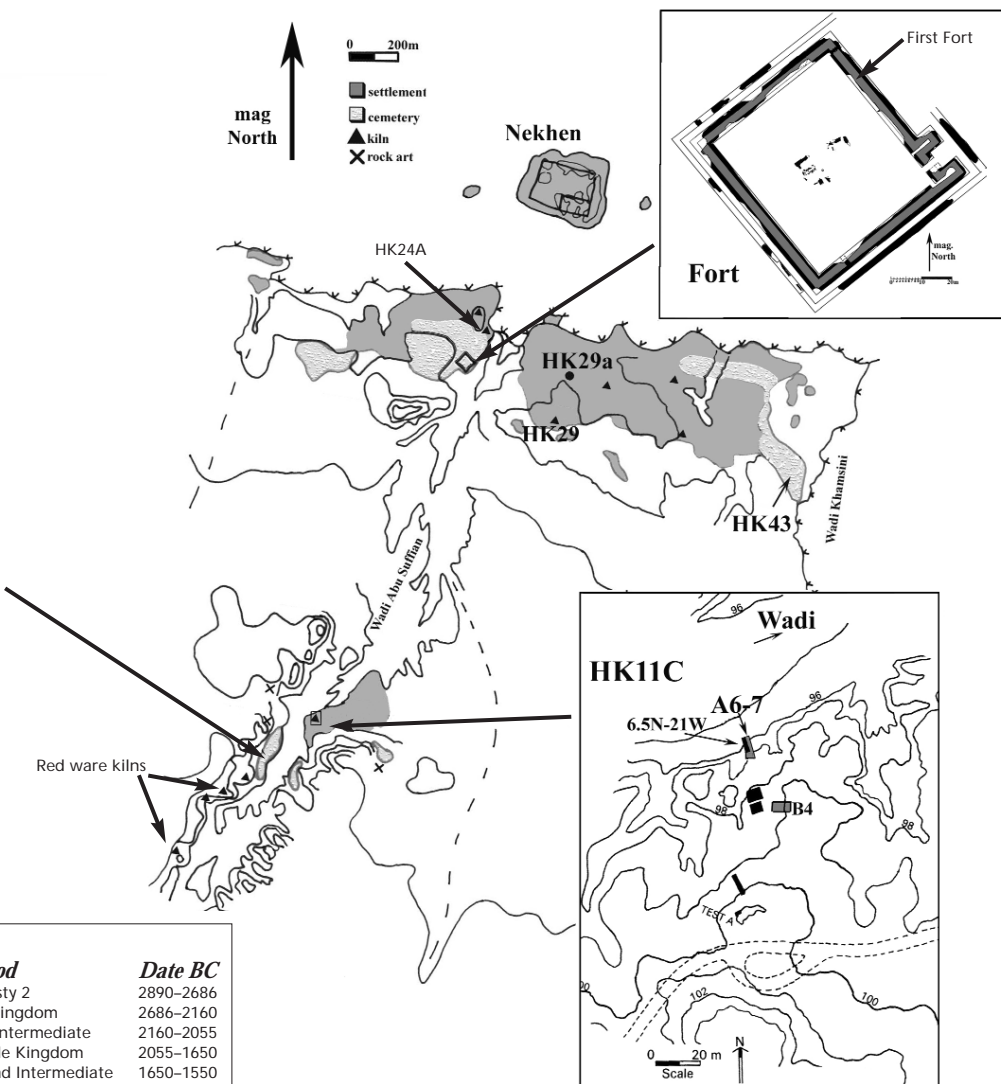
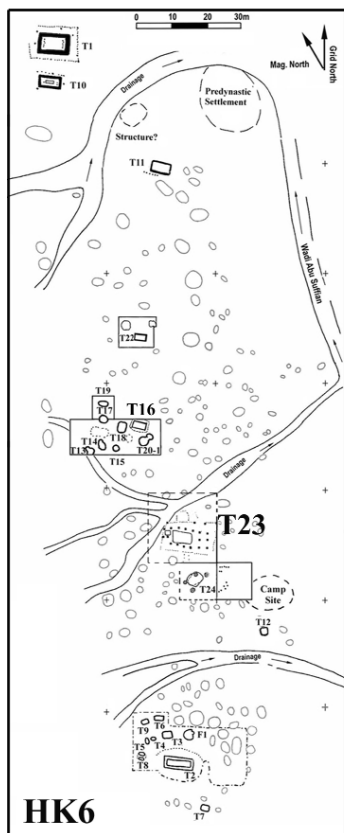
Excavating Egypt's Early Kings

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Hierakonpolis 2004/2005



Time Line			
Period	Date BC	Period	Date BC
Badarian	4400-4000	Dynasty 2	2890-2686
Naqada I	4000-3800	Old Kingdom	2686-2160
Naqada II	3800-3300	First Intermediate	2160-2055
Naqada IIIAB	3300-3050	Middle Kingdom	2055-1650
Unification/Narmer	3050	Second Intermediate	1650-1550
Dynasty 1	3000-2890	New Kingdom	1550-1069

Thank you!

The response of all of our Friends of Nekhen to the Fix the Fort Appeal has been nothing short of amazing. Thank you all so much! We especially grateful to the LaSalle Bank, Chicago, Tom and Linda Heagy, Archaeology Magazine, David and Crennan Ray, Larry and Renee Stevens, Courtney Taylor, James and Jeanne Manning, Susan Ann West, Francis Ahearne and Rikki Breem for their kind generosity and the World Monuments Fund for their support of the current work.

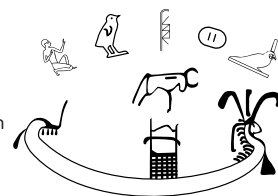
You too can help us help the Fort by becoming a Friend of Nekhen — see www.hierakonpolis.org and follow our progress at www.archaeology.org.

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Exceeding Expectations

— by Renée Friedman

Every year at Hierakonpolis results in new and important discoveries, but the 2004/2005 season exceeded all expectations. Even before the work began, the generosity shown by the Friends of Nekhen was and continues to be remarkable. We feel deeply honored by your trust and confidence. With your donations and the support of the World Monuments Fund we have been able to make substantial progress toward fixing the Fort, during the course of which we found out we had not one Fort, but two! Embedded within the walls is an earlier, partly finished version of the Fort — a Fort within a Fort. This unexpected discovery has not only allowed us to formulate a better understanding of the patterns of deterioration and how to address their repair more appropriately, it has also opened up entirely new possibilities for determining the purpose of this unique and enigmatic enclosure.

Meanwhile at HK6, Tomb 23 lived up to expectations and then surpassed them, when a research and exploration grant from the National Geographic Society allowed us to resume excavations. We already expected it to be a large tomb, in fact the largest of its time, but the extensively preserved above-ground architecture forming the earliest funerary complex in Egypt and the exquisite artifacts including a companion for the flint ibex leaves no doubt that this tomb belonged to one of Upper Egypt's earliest kings. Study of previously excavated materials also shows us that he wasn't the only important ruler buried at HK6 who was on the forefront of developments that would shape Egyptian culture.

Last year we commented that small holes made for simple answers, but we didn't expect that by expanding the excavations at HK11C Square A6 we would change the answer completely! Full clearance of the firing complex now suggests what we thought was a pottery kiln is actually an elaborate



Fixing the Fort!

brewery, similar and possibly even larger than the one found in 1989 at HK24A. While beer rather than pottery should perhaps now be considered Hierakonpolis' major product, experiments in pot making and firing using local materials has engendered a new found respect for the skill and ingenuity of the site's ancient potters.

Whenever he had the chance, Mike Hoffman was fond of saying that it all started at Hierakonpolis. We would always laugh and turn away, but now, after our tenth continuous season of fieldwork, it looks like he was right!

Introducing....

We are happy to welcome Dr Thomas Hikade, who joins the team as the new co-director of the Hierakonpolis Expedition. Recently appointed Assistant Professor of Egyptology at the University of British Columbia, Dr Hikade is a graduate of Heidelberg University, Germany with a dissertation on New Kingdom mining expeditions.



Over the last 10 years he has specialized in stone implements honing his skills with us at Hierakonpolis (see *Nekhen News* 12 & 16) and the German missions at Abydos, Elephantine and Maadi, amongst many others. His first excavation season at Hierakonpolis will be in November/December 2005, with an international team from Canada, Australia, Germany and England, examining the workshops around the predynastic temple at HK29A.



HK2005: The Brick-Makers.

Excavating Egypt's Early Kings

— by Renée Friedman

At the end of the year 2000 excavations in the elite cemetery at HK6, Barbara Adams knew she was on to something special. In addition to stunning artifacts, such as the exquisite flint ibex, she had also uncovered part of the burial chamber of what was to be the largest known tomb of the Naqada IIAB period (c. 3800–3650BC). Even more amazing was the presence of stout timbers flanking the tomb and a post fence surrounding it. These were clear evidence for the first funerary enclosure anywhere in Egypt and the beginning of developments that would ultimately lead to the Step Pyramid (see *Nekhen News* 13:4–7). Sadly she could not finish this work, but thanks to a grant from the National Geographic Society we were able to resume excavations in early 2005, revealing a tomb compound that surpassed all expectations.

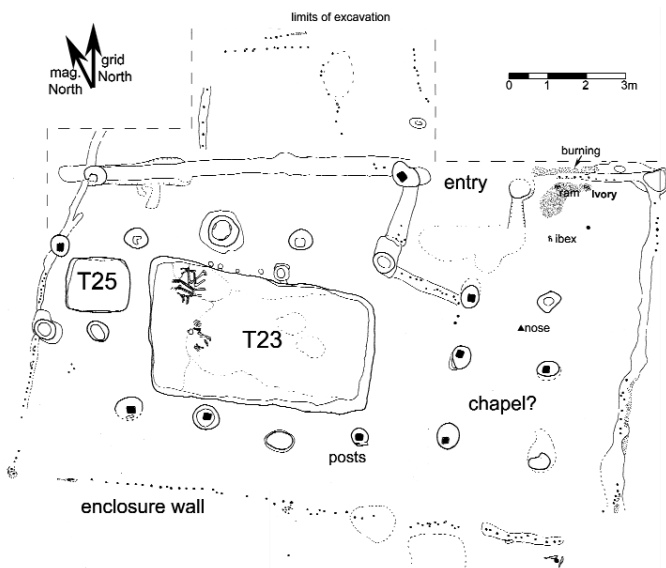


The Tomb 23 complex and preliminary reconstruction.

East of the grave, similar posts mark the presence of a separate above-ground structure, perhaps an offering chapel or 'serdab' (statue chamber). Then, surrounding it all, hundreds of regularly spaced smaller posts, some preserved to over 50cm in height, form an enclosure surrounding a precinct that is 16m long and 9m wide with an entrance on the northeast side.

Although badly and repeatedly plundered, the tomb chamber still contained a number of fine and unique items as would befit a regal owner. The ivories, a cow figurine, and a unique tri-lobed stone vessel are only a fraction of its original riches. It also contained further fragments of the ceramic funerary masks found exclusively at the HK6 cemetery, indicating at least two original high-ranking occupants.

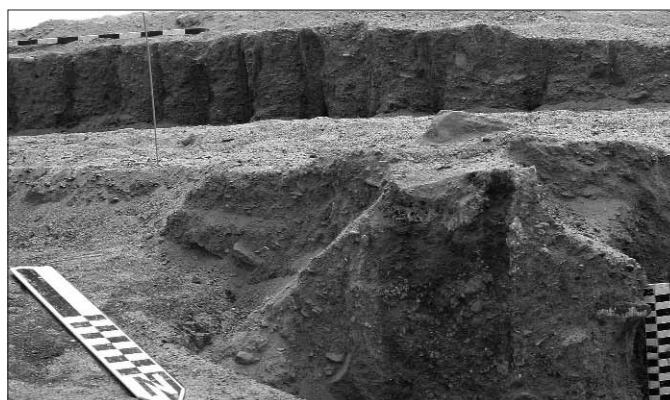
Human bone was found throughout the tomb chamber, but it was only in the north-west corner that *in situ* remains were recovered. Here, the legs and feet of three bodies were found in articulation, resting directly on the irregular bedrock floor with no matting, wrappings or grave goods. Arranged with little attention to order or orientation, it seems unlikely



Plan of the Tomb 23 funerary complex.

Moving to the west and north, our work revealed the full extent of the rectangular tomb chamber to be c. 5.5m long (E–W) and 3.1m wide (N–S), with an original depth of over 1.2m. That it can comfortably seat the entire excavation crew amply illustrates its substantial size (see cover).

It is also the earliest known Egyptian tomb to provide clear evidence of a superstructure. How early tombs appeared above ground has long been a question, with many suggesting that a simple mound of dirt did the job. Needless to say, nothing prepared us for what we found. Eight posts arranged on either side of the tomb cavity indicate that a wooden or reed-mat covered building stood high above it. Preservation was such that in four cases the actual timber posts survived, each one dressed to a 20x20cm square in cross-section.



Squared timber from the tomb superstructure and the enclosure wall behind.



Hamdy Mahallal uncovering the posts of the enclosure wall.

that these bodies belong to the tomb owner or his immediate family. If they are not intrusive, then it is possible that they belong to retainers or prisoners who were placed at the foot of the grave, figuratively beneath the feet of the main burial, which would have been located in the eastern part of the grave where the finest objects were found.

A shallow subsidiary tomb (Tomb 25) to the west may be a later addition, but as it is contained within the enclosure and appears to have had a superstructure, it presumably contained people of some importance. Although plundered in recent times (part of a plastic dust pan was found), the well-preserved remains of three disarticulated adults were recovered along with large amounts of resin-soaked textile, just like that known in the contemporaneous workers' cemetery at HK43, where linen was used to pad the hands, neck and head of three 'proto-mummies' (see *Nekhen News* 10:4-5). The wrappings in Tomb 25 show that this is not some strange aberration, but a practice in which the elite also engaged. Unfortunately it is not yet clear whether more, or different parts, of the body were wrapped in the elite ritual.

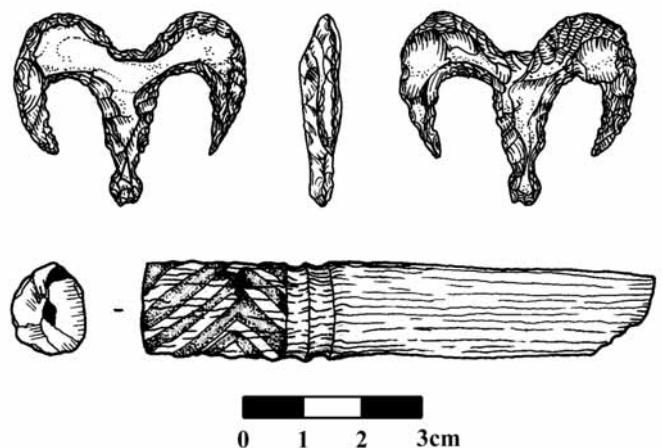
While the finds within the tomb chambers were fairly limited, one of the main areas of interest this season (and probably also in antiquity) was on the east side of the enclosure, in and around the offering chapel. It is here that the majority of the fragments of Egypt's first life-size human stone statue were found. Nearly 600 fragments have now been recovered, including the well-carved nose and the two ears, to which we have made new joins (see below). Thus, it is likely

that the statue was set up in the offering chapel and was the focus of special rituals and offerings.

A number of ritual deposits were concentrated in the northeast sector. Several included fragments of special ritual vessels paralleled only at the predynastic temple at HK29A. Hundreds of these distinctive matte red bottles and highly polished black egg-shaped jars were used in temple rites, which were possibly associated with the coming of the Nile flood when the dry (matte) red land would become the fertile (shiny) black land (see *Nekhen News* 15:8). The recovery of these unique vessels around Tomb 23 suggests that tomb owner's rebirth required similar rituals as the rebirth of the land. Reinforcing the theme of fertility and rebirth, a foundation deposit of blackened ostrich eggshell was also found beneath the post supporting the northeast corner of the enclosure wall.

Nearby, another ashy deposit contained even more intriguing offerings. Just below the surface we discovered the complete figurine of a ram's head expertly chipped from flint, an obvious companion to the flint ibex that was found in the same area in 2000. While the exact significance of these animal forms is unknown, their manufacture clearly required high levels of skill and patience, and only around 50 such flint figurines are known. Although less than half are provenanced, where their origin is known, they mainly come from elite tombs and/or temple deposits at the pre-eminent sites of Hierakonpolis or Abydos.

Because none of the fine examples from Hierakonpolis have been found actually within a tomb, Barbara believed that these figurines were made specifically for votive offerings, with their presence symbolizing control over natural chaos. The situation at Tomb 23 certainly supports this interpretation, as the same deposit contained part of an ivory cylinder incised with geometric designs (probably the handle for a mace), several transverse arrowheads, and one isolated human cervical vertebra with deep peri-mortem cut marks. It is unknown whether this neck vertebra belongs to any of the individuals



Flint ram's head and ivory cylinder from votive deposit at Tomb 23.

found in the tomb, but the deposit is sufficiently far away from the tomb chamber to rule out the possibility that any of these objects were accidentally placed here during tomb robbing events. Although the objects are no longer *in situ*, there can be little doubt that they are part of an intentional deposit of materials, all of which carried strong connotations of power and control.

While the question of human sacrifice must remain open, we know that the tomb owner took other companions with him to the afterlife. The most impressive of these was the 10-year-old African elephant that we found in 2003, buried adjacent to the enclosure wall in Tomb 24 (*Nekhen News* 13:9–12). The ownership and maintenance of such a mighty beast in both life and death is an eloquent statement on the power and wealth of its master, and there is no doubt that a variety of other exotic



Trilobed stone vase from Tomb 23.

animals will be found surrounding the funerary precinct in future excavations.

The scale of the architecture, and the presence of the stone statue, offerings, and elephant burial indicates that Tomb 23 belonged to one of the early rulers of Hierakonpolis. At a time when the settlement was at its peak and formed the largest urban center anywhere along the Nile (c. 3650BC), there can be little doubt that he also controlled a large portion of Upper Egypt as well. The implications of this discovery for understanding predynastic developments leading to the birth of Egyptian civilization, and the role that Hierakonpolis played in this, are hard to overstate. Figuratively capping the pyramid, this special tomb also allows us to bring together finds made throughout the site over the years, and combine them to tell an even more

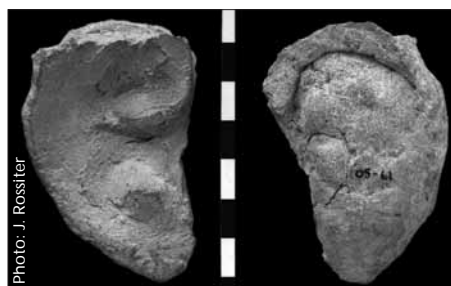
remarkable story of Egypt's beginnings. 🦉



Ears to You!

— by Renée Friedman

There is something very weird (dare I say eerie) about sticking your hand in a bag of sherds and coming out with an ear – even if it is made of clay. Yet it was proof that another example of the celebrated ceramic funerary masks exclusive to the HK6 cemetery had been present in Tomb 23. This well-preserved ear, with its detailed modeling and heavy lobe, had obviously been made separately and then attached to the



New ear (front and back) from Tomb 23.

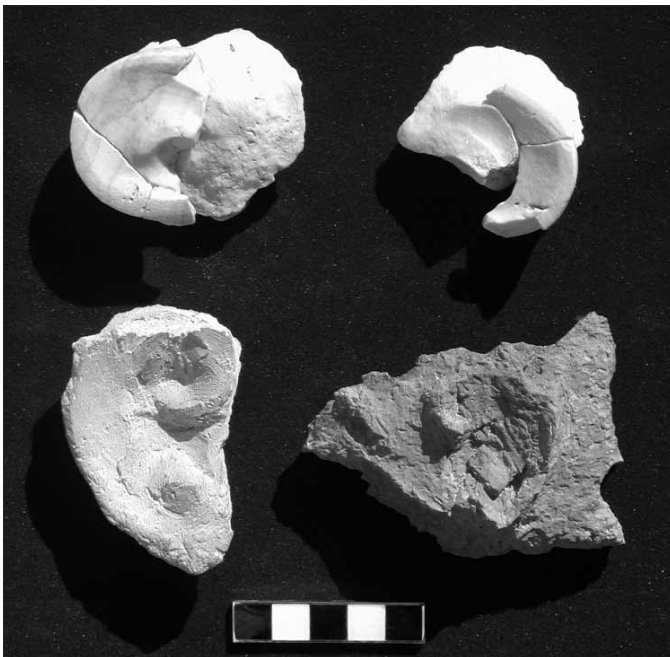
mask. It therefore derived from a different mask than the fragment found in the tomb by Barbara in 2000 (see right). In contrast, that ear had been made from the same piece of clay as the mask, and simply pinched into shape. We were fortunate to find more fragments to mend to that ear, including the mask's upper edge and two holes through which a thong must have been strung to tie it onto the face. Although the clay

is now somewhat abraded, the attention given to the inner details of this ear can also be seen.

They say that all human ears are individual. Although this claim is hotly contested among forensic scientists, is it certainly true for the masks. On the famous bearded mask, the



The famous bearded mask and the fragment with ear and upper edge from Tomb 23.



The ear collection: the limestone ears of the statue above, the clay ears from the Tomb 23 masks below.

ear is distinctly rendered in a more schematic fashion and was made from the mask's clay, while on the less complete smaller mask, the ears (missing) had been made separately and then applied. In total, we now have four ceramic masks from HK6, with minor fragments suggesting a fifth. Although far from complete, we can see that each one was unique, perhaps created to the individual specifications of the owner. There can be no doubt that, like later masks, these were highly charged images, providing protection for the deceased and allowing entrance into the spiritual world for him or her, (however, as two masks appear associated with each of the large tombs so far identified at HK6, it might be more correct to say 'him and her').

Ears remained the theme of the season as more fragments of the limestone ears of the statue also emerged. In fact, the ears were our one notable success in the task of joining the fragments of the statue, of which there are now over 560. Not only were we able to reconstruct the second ear, but we also connected the curving pieces showing that ears stood proud of the head by about 2.5cm, more or less as they would have appeared in life. More schematically rendered than those of the masks, these ears — semi-circular in shape without an apparent lobe — are still a testament to the skill of the stone carver. Clearly a great deal of care went into creating the sharp edges of the helix (the outer rim of the ear) and the smooth undulating curve for the inner detail. In the center, the deep carving to depict the opening of the auditory canal suggests that importance was placed on the statue's ability to hear. Unlike its only possible contemporary par-

allel, the disputed basalt statue of MacGregor Man in Oxford, these ear openings were not drilled; only the nostrils show the use of the drill, a feature also shared with Early/Pre-Dynastic ivory statuettes.

We were already up to our ears, when a suspiciously shaped object of stone turned up in the Tomb 23 complex. Made of lovely white calcite similar to parts of the statue,

we were greatly relieved when it turned out not to be a third ear, but what it is, however, we don't exactly know. Stranger still, an object of identical shape, but made of beautiful red breccia was found by Barbara near Tomb 19 (see back cover). The remnants of a tang on the reverse of both of them suggest they were meant to fit into a socket. Perhaps they are pivoting lids, and as our two near-ears are mirror images of each other, these 'lids' may have come in pairs. But this is only our best guess at the moment, and if anyone has any other suggestions, we would be more than happy to 'ear' from you. ♪

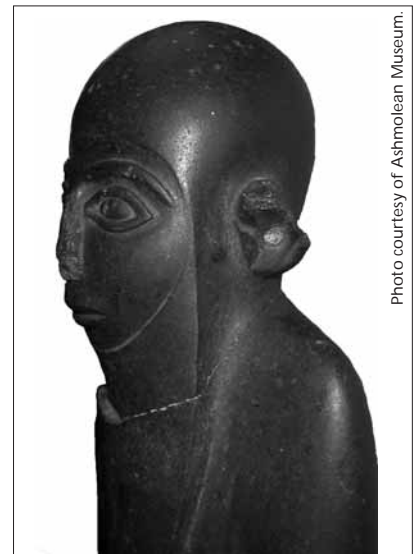


Photo courtesy of Ashmolean Museum.

Oxford's MacGregor Man has projecting crescent-shaped ears, but curious drilled ear openings.



This mask had applied ears, now lost.

Lifestyles of the Hierakonpolis Rich and Famous

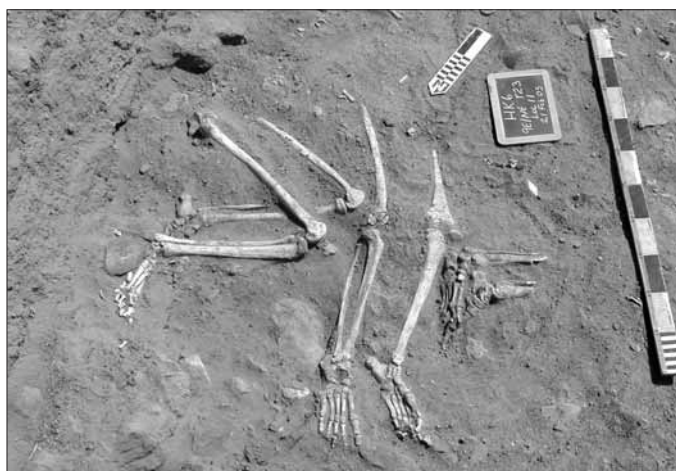
— by Jeanette Matovich

I came to Hierakonpolis this season to assist as an illustrator, drawing artifacts at Hoffman House, but my background in physical anthropology meant that my job description changed abruptly when the excavations at HK6 started to produce large amounts of human bone. I am certainly no stranger to the osteological material at Hierakonpolis and the opportunity to examine these remains was the answer to a long-held dream.

In 2001, I examined 53 skeletons from the working class cemetery at HK43 (see *Nekhen News* 13:17). I was impressed by how healthy and robust the individuals appeared. Evidence of arthritis and the pronounced muscle attachments left no doubt that these people were hard workers. Although many also suffered from mild iron-deficiency anemia, this condition is not fatal and may be brought on by a host of factors including diet, disease and parasitic infection. So, aside from a few severe dental abscesses and two skeletons with cut-marked vertebrae, I could not determine possible causes of death for that particular sample. Whatever killed those people did not leave tell-tale marks on their bones.

As I studied the HK43 individuals, I wondered what the skeletons of the Hierakonpolis elite might look like, as past research has shown that status differences may be seen in some archaeological populations. The elite classes often exhibit fewer skeletal stress markers, indicating that they enjoyed a more diverse diet, and did not engage in the heavy labor performed by the working class. In 2001 there were not enough complete skeletons from the elite cemetery at HK6 to attempt a comparative study, but when the bones began to stream in from in and around Tomb 23, I finally saw my chance.

My first task was to inventory the bones and to figure out what parts went with whom. I became increasingly perplexed as the numbers of people started to add up. Thanks



The only articulated remains: three lower bodies in the northwest corner of Tomb 23.

to the efforts of the grave-robbers, the majority of the human remains had been churned and scattered, probably on repeated occasions over the centuries, and had weathered at different rates. Assembling people from the ever-increasing bone pile was quite a challenge! For example, three pieces of a fibula (lower leg bone) fitted together perfectly, yet each fragment was a different color and texture.

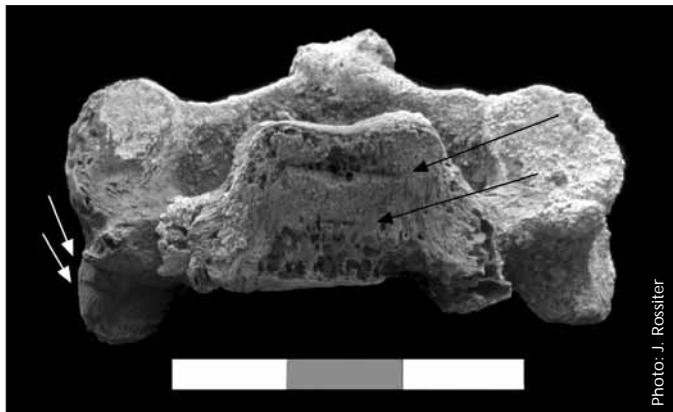
There were few articulated remains. The legs and feet of three individuals (all adults, one female) were found in the northwest corner of Tomb 23, while further to the south, badly fragmented portions of two upper torsos appeared more or less *in situ*. Unfortunately it was impossible to determine whether the torsos belonged to the same individuals as the legs and feet. Already, there were potentially five different people in this tomb, and these were the easy ones! At least three more individuals (two young females and a young man) could be distinguished within the highly disturbed contents of subsidiary Tomb 25.

Figuring out what was going on in the fill over both tombs was far more complicated. Luckily, the preservation of the feet was excellent and using the size and presence of these distinctive bones, the remains of at least another 8 people could be determined. Altogether, 16 individuals may be present in the HK6 sample, including an infant, three children, one subadult of undetermined sex, three young adult females, two young adult males, and six adults of undetermined sex.

As HK6 dates to about the same time as HK43, I was naturally interested to see if differences among the assemblages could be detected. Although sixteen individuals do not comprise a statistically valid sample for analysis, some general trends can be observed. The first thing I noticed was that the adults' bones from HK6 lacked the robust muscle attachments of their 'working class' contemporaries. I also did not see much evidence of arthritis in the vertebrae and joints of the elite, apart from one toe phalange which exhibited painful-looking bony spurs. Like the HK43 individuals, the teeth appeared to be in mostly good condition with little dental wear (see next article), but one young woman did have a cavity that had deteriorated an entire molar cusp — ouch! Dental caries combined with minimal dental wear indicate a diet of carbohydrate-rich, processed foods for both populations.


The skulls were heavily fragmented, and often severely weathered, so it was difficult to assess the presence of porotic hyperostosis and *cribra orbitia* — porous holes in the cranial vault and eye orbits — indicating iron-deficiency anemia. One child showed very mild *cribra orbitalia*, as did most of the children in the HK43 sample, although none appear to have been malnourished. Given their presumably iron-poor, grain-dependent diet, this finding was not surprising.

There were three big anomalies in the small HK6 sample. First, there was the isolated cervical (neck) vertebra from the votive deposit by the Tomb 23 offering chapel (discussed above) with peri-mortem cut-marks that suggest beheading at the time of, or soon after, death. Then there was a young woman with a twisted, bowed tibia, and finally, an adult of undetermined sex who had a severe pathology on the right femur head, which may be the result of an injury such as a dislocated hip. The bone was very rough and porous, and



The cut vertebra from the votive deposit at Tomb 23.

appears to have been in a state of healing when the person died. The bowed tibia was interesting because I had also observed three individuals at HK43 who exhibited mild twisting and bowing of the leg bones. Similar deformations are caused by rickets, a condition brought on by a lack of Vitamin D. As Vitamin D is absorbed through the skin from natural sunlight, one thing certainly not lacking in Egypt, the deformed limbs may be associated with an unknown hereditary condition.

This limited assemblage has thrown some light on the lives of the elite, although we are still in the dark as to how they died. The HK6 skeletons appear to be those of generally healthy individuals, who didn't have to work too hard, and perhaps enjoyed a somewhat more refined diet. As more finds are made, the picture will become sharper and I look forward to what future excavations will reveal about the elusive elite of ancient Hierakonpolis. 

Dental Health at the Predynastic Cemetery HK43

— by Tammy Greene, University of Alaska, Fairbanks

Excavations in the predynastic cemetery at HK43 have provided a great deal of information about the working class people interred there. In order to find out more about what life was like for this population, the teeth of 66 adult males, 80 adult females, and 32 children (between the ages of 6 and 17) were examined. Although many more burials have been excavated, some individuals could not be included either due to the poor preservation of their teeth, or post-mortem (after death) loss due to grave-robbing.

Dental diseases investigated include carious lesions (cavities), plaque (the white stuff your dentist scrapes off), abscess, and periodontitis (when gum disease spreads to the bone). Overall, the dental health of this population was very good, which is unusual for most prehistoric people, although not for predynastic Egyptians. Approximately 2/3 of all the adults examined had no cavities at all, with almost no difference between men and women. Only one child had a cavity. Interestingly, there was less evidence for cavities amongst older adults than younger persons, but this is probably due to complete loss of the afflicted teeth in older adults. Without modern dental care, cavities will continue to grow in size and may eventually consume the entire tooth.

While almost all individuals had at least some plaque, the amount was very slight; generally a very thin covering over less than 1/3 of the tooth. Having a third of your tooth covered by plaque may sound like a lot by today's standards, but in some prehistoric populations the teeth are entirely coated with thick layers. Males at HK43 had more plaque than females of all age group except for those over 50. These differences are statistically significant, but the reasons for it are unclear.

An abscess is a hole in the jaw-bone that forms to allow pus to escape. Pus is produced when either a cavity, trauma, or tooth wear provide bacteria with a means to reach the pulp inside the tooth. Only about one out of every ten adults at HK43 had an abscess. No children were affected. Twice as many males as females had an abscess, but this was not statistically significant. Older individuals were more likely to suffer, with the percentage of affected individuals rising from 5% in the 18–35 year olds to 55% in those over 50. The increase with age is expected as the teeth have had longer to form cavities, be exposed to trauma, and wear away from abrasive food or from using the teeth as tools.

Periodontitis is an infection of the bone around the teeth. Bone loss from the infection may become so severe that the tooth falls out. Overall very few people at HK43 were affected,



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makes the difference. Please remember
to join or renew today
Questions? Comments? Contact us:
friendsofnekhen@yahoo.com



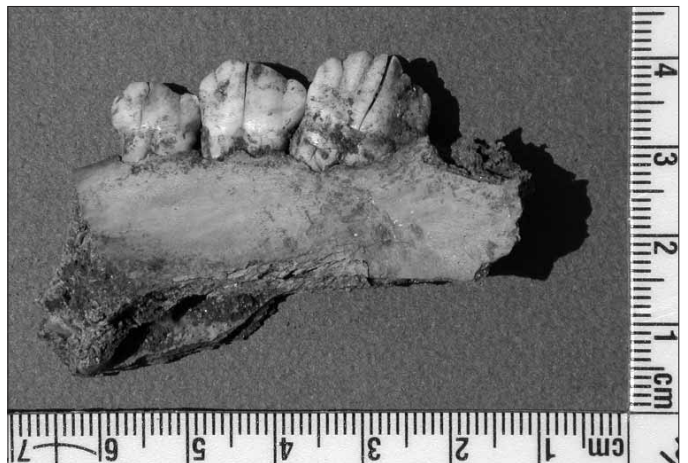
HK43 Burial 364. Maxilla of the older man showing heavily worn and missing teeth.



Mandible from Burial 364. Note the two large abscesses on the lower incisors. Not a pretty picture.



A pig's jaw deposited by the arm in Burial 364.



False teeth? The pig jaw from Burial 364.

with an almost equal number of males and females, but no children, suffering from the condition. The percentage of affected individuals rose from 3% in 18–35 year olds to 50% in those over 50. As with the other diseases, an increase is expected in older individuals.

The predominantly good dental health experienced by the people of HK43 can most likely be attributed to a combination of the types of foods eaten, food storage and food preparation techniques. It has been suggested that the methods used to store grain may have promoted the growth of microbes producing a natural antibiotic. Although there were some differences between males and females, the overall picture is not statistically significant, suggesting that their diets were very similar. The in-depth examination of the ingested food stuffs, planned for coming seasons, may verify this.

No discussion of the great dental health at HK43 would be complete without looking at an exception to the rule. Burial 364 belonged to a male over 50 years of age. He had lost six of

his teeth during life. The teeth he retained were so worn that there was little enamel remaining, and in some instances he was chewing on the roots of his teeth. One cavity had consumed the entire tooth, and another covered approximately one half of the crown. Six of his teeth had abscesses that were active at the time of his death, and the left side of his lower jaw was affected by periodontitis around the molars. With almost a centimeter of bone lost around the molar roots, these teeth would probably have fallen out soon.

The poor dental health of this older man is very surprising within a population where many people lived their entire lives without experiencing any dental problems. Could the exceptional condition of his mouth be the reason for the curious deposit found in his grave? Below his desiccated left arm we found a unique grave offering — the left lower jaw of a pig, complete with beautiful teeth. Could this have been a spare part for the next life? Or a comment on his personal hygiene? We may never know.... 🐷

Finding Lost Souls

— by Renée Friedman

Hierakonpolis, ancient Nekhen, has always been closely associated with rise of the first pharaohs and the development of the early state. This connection was recognized by the ancient Egyptians themselves and is supported by a wide body of evidence. Not only was its local falcon god, Horus, intimately associated with divine kingship, but there is also the evidence of royal patronage at its early temple in the form of unique inscribed ceremonial objects such as the Narmer palette. The palette put Hierakonpolis on the map in modern times, but for the ancient Egyptians the site was never forgotten. Throughout Egypt's long history, the jackal-headed demigods known as the Souls of Nekhen were honored companions of pharaoh in all of his sacred duties. Together with the Souls of Pe, these deities are generally considered to be the long deceased kings of the pre-unification Kingdoms of Upper and Lower Egypt, which had their capitals at Hierakonpolis and Buto respectively.



A Soul of Nekhen.

In 1998 and 1999, Barbara Adams excavated Tomb 16, a brick lined tomb of the Naqada III period, which she believed had been built within a specially constructed pit that had been dug through earlier graves (*Nekhen News* 12:4-6). In conjunction with the analysis of the pottery found around this tomb (see below), it is now clear that the 'construction pit' is actually another large elite Naqada IIAB tomb, measuring c. 4.3 x 2.6m, into which the brick lined tomb was inserted much later. Several posts found in the vicinity suggest that the original tomb had a superstructure or enclosure like Tomb 23, and it may now also be proposed that the two ceramic masks found nearby in disturbed contexts derive from the original Tomb 16,

Archaeological work undertaken over the last 100 years gives no reason to doubt the site's important role, but what is becoming clearer as a result of our recent discoveries at HK6 is that Hierakonpolis was a premier center far earlier than previously imagined. Now that the excavation of Tomb 23 has shown us the remarkable size of the early elite tombs, we can propose a new interpretation for some of our earlier finds.

again suggesting at least two important occupants. Pressing the comparison with Tomb 23 further, it seems likely that the graves of the elephant (Tomb 14) and wild cow (Tomb 19) should also be viewed as companions for the original owner of the Tomb 16 complex. Similarities among the ceramics suggest that Tomb 23 may date only a generation or so later.

With tombs this large and elaborate, you may ask why it has taken us so long to find them. The answer to that questions leads to one of the most intriguing results of our recent work.

We know from the investigations by Michael Hoffman and Barbara Adams that the elite cemetery was in use in the Naqada IC–IIB period (3800–3650BC), but was abandoned in Naqada IIC–D (3600–3300BC), when the royal cemetery apparently shifted to the vicinity of the famous Painted Tomb (Tomb 100) on the south side of the site. This transition may



The recently restored cult statue of Horus of Nekhen, the patron god of kingship (Egyptian Museum, Cairo).



Once considered a construction pit, brick-lined Tomb 16 was actually built within another large tomb of the early Naqada II period.

not have been peaceful. There are clear indications that Tomb 23 was burned probably not too long after it was built, as charred matting still adheres to some of the fence posts. In addition, the statue, which may have stood proud in the offering chapel, was intentionally defaced with glancing blows, making it very hard to mend.

When the cemetery comes into use again in the Naqada III period/early First Dynasty, large mud-brick lined tombs were constructed. The evidence from Tomb 16 and others now suggests that the location of these later tombs was not by chance. Instead, it seems that a conscious decision was made to place the brick lined tombs above, or even within, the earlier graves, apparently reflecting a desire by the later elite to be closely associated with their forebearers. The earlier tombs with their elaborate superstructures would have been easy enough to locate, and a restored version of their original appearance may have been what their descendants were aiming at when they too constructed wooden shrines and enclosure walls over and around their tombs, unlike anywhere else in Egypt. Evidence for post fences and wooden superstructures were found around Tombs 1, 10, and 11, and Hoffman's reconstruction of the superstructure for Tomb 1 shows a similarity so close to Tomb 23, it cannot be accidental. We may also now ask whether the elaborate wooden construction over these early tombs may have influenced the wooden shrines found within all of the royal tombs at Abydos as well.

A return to early predynastic burial grounds in the 'protodynastic' period is not restricted to Hierakonpolis, and there is clearly a strong interest in the past at this time. For example, Black-topped pottery reappears after a hiatus of 400 years,

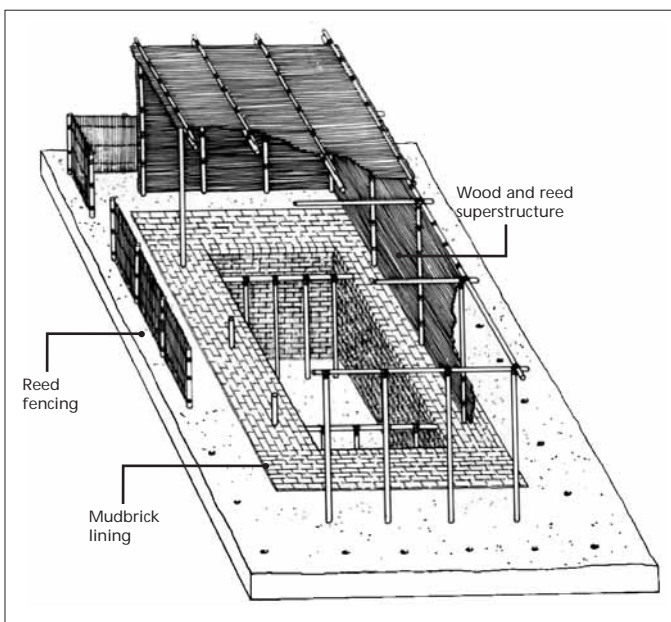


Mapping postholes from the superstructure around protodynastic Tomb 11 in 1982.

although the secret of its proper manufacture had been lost. An interest in exotic animals, not seen in the intervening Naqada IIC period, is revived at least in graphic form. Closer to home, the predynastic temple in the desert at Hierakonpolis (HK29A) is renovated in early Dynasty I, and may even be portrayed on the Narmer macehead (see *Nekhen News* 15:4-5), although the desert settlement around it had long been abandoned by this time.

The evidence all together suggests, quite remarkably, that even as Dynastic civilization was being born, the Egyptians were already looking to the past for inspiration and justification, as they would do again and again over the course of their long history. And Hierakonpolis was a great place for inspiration. With the characteristic hallmarks of Egyptian culture such as funerary masks, mummies, stone statuary and funerary architecture all well established at Hierakonpolis by 3700BC, it is little wonder that the ancient Egyptian venerated the site and revered its ancient rulers.

Our excavations have shown that the Souls of Nekhen were not a later fiction. Strong and rich rulers were present at the site in the predynastic period, and it is hoped that further excavations at HK6, like those in the Umm el-Qaab at Abydos, will reveal the tombs of an entire dynasty of early 'kings' and help us to understand more clearly the origins of Ancient Egyptian civilization and their influence upon it. ☩



Tomb 1 reconstruction (after B. Fagan, 1987. *New Treasures of the Past*, p. 74).



Questions? Comments?
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Rough Jars in an Elite Context

— by Stan Hendrickx

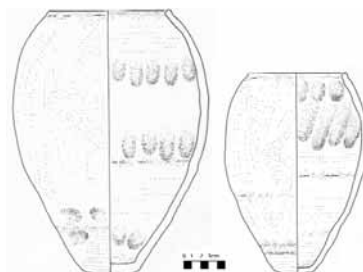
When I began work on the material from Barbara Adams' excavations at HK6, I soon realised that Rough pottery made up a vast part of the ensemble, with large quantities still to be mended and analyzed. As a consequence, I decided to concentrate this season's efforts on the extensive material found in Tomb 16, its so-called 'construction pit' and the fill around the adjacent Tomb 18. Many joins could be made between these locations, and the material, all dating to the early Naqada II period, obviously derived from the same source. Such a large collection of pots must come from a spacious tomb, and now we are aware of the extraordinary size of the early elite tombs, we can suggest that the 'construction pit' around Tomb 16 represents another large tomb, into which the mud-brick lined Tomb 16 was inserted during Early Dynastic times, causing heavy disturbance.

From the copious fragments of pottery, about 115 vessels were reconstructed this year, and more are waiting. The vessels include Rough jars made from straw tempered Nile silt, and fine Black-topped and Polished-red pots of types characteristic for the Naqada IC–IIA period, although several are rarely represented at other sites.

The straw tempered jars are of particular interest. The complete vessel shape of 30 examples could be reconstructed, but judging from the base fragments, there are at least 36 more. The jars have a flat base and low-shoulder with a wide aperture and a simple, slightly reinforced rim. Amongst them, two distinct size types could be distinguished. The first group measures around 30cm or more in height, while the second group is about 5cm smaller. None of the jars show any traces of use or contents, and it is therefore probable that they were made especially for funerary purposes. The regular occurrence of firing stains, both on the inside and outside, further suggests that vessel quality was not of great importance, as they were not intended for practical use. Vessels produced specif-

ically for the grave are very rare in 'regular' predynastic cemeteries, but their frequent presence at HK6 again confirms the special status of this cemetery.


The smaller jars closely resemble contemporary Black-topped forms and may be meant as imitations, but the more numerous larger vessels perhaps symbolically represent the idea of large-scale storage in, or provisioning for, the tomb, as would befit its elite status.



Large and small versions of the elite Rough jars.

The break pattern of some jars suggests they were deliberately smashed by sharp impact to the mid-shoulder, but because of the heavy disturbance, it remains uncertain whether this should be seen as ritual behaviour or simply the result of plundering.

No precise parallel for these jars can be found in Petrie's predynastic pottery corpus (the poorly known R83b has been suggested, but is inappropriate). Yet, jars of exactly this type are known from HK6 Tombs 6, 9 and 23 as well as the rich tomb U-279 at Abydos, all of which date to the early Naqada II. This not only helps to determine the chronological position of this jar type, but also its special elite usage.

The straw tempered jars from the original Tomb 16 represent the earliest large-scale occurrence of Rough pottery in a predynastic cemetery. Remarkably, the early appearance of Rough pottery is not connected to low-status tombs, as might have been expected from the rather coarse appearance of these vessels, but, on the contrary, is linked with the most important tombs ever found in Egypt for the early Naqada II period. This, of course, opens up new and interesting avenues for the interpretation of Rough pottery at that time. 



Reconstructed Rough jars from in and around Tomb 16.

The Earliest Example of Pharaonic Iconography

— by Stan Hendrickx

One of the many remarkable finds made by Barbara Adams during her excavations at HK6 was a fragmentary Polished-red bowl from the fill around Tomb 16. It was most probably part of the inventory of the original tomb, which judging from other finds dates to the early Naqada II period (see page 13). The bowl has flaring walls and a flat base, closely resembling Petrie's type P15 b/d, which is characteristic for the late Naqada I – early Naqada II period.

The bowl is slipped and polished on the outside, but only just below the rim on the inside. Although the rest of the interior is carefully smoothed, it is rough in appearance. Considering that this is where the content would have been held, one would expect it to be finished at least as carefully as the rest of the vessel.

Yet this part of the interior shows no traces of use and looks as if it has come straight from the potter's hands, despite the fact that there are signs of wear on the exterior. Presumably the bowl contained something that filled the interior but did not leave any traces. A liquid is not very likely, because the absence of slip and polish leaves the vessel walls rather porous. As the vessel was used at least occasionally, the content must have been something stable, but not very heavy or rough. One could suggest (dried) flowers or herbs, but this remains mere speculation. Although the

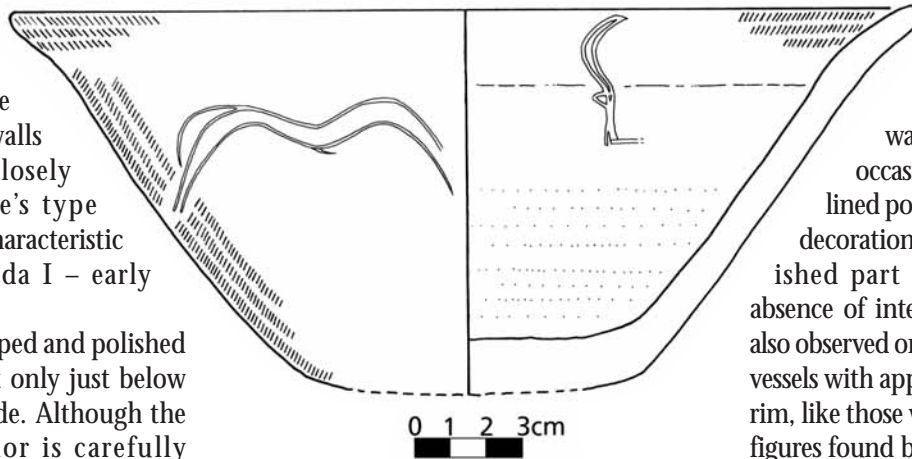
original content cannot be defined, it seems pretty clear that the bowl had no actual household function. Therefore, the vessel must be an expression of status, be it as an item of luxury, religion, or a combination of both.

Bowls with untreated interiors are very rare among Polished-red ware, but they do occur occasionally in White Cross-lined pottery where the interior decoration is limited to the polished part below the rim. The absence of interior slip and polish is also observed on a few very exceptional vessels with applied decoration on the rim, like those with snakes and female figures found by the German mission in cemetery U at Abydos. The fact that it is mainly bowls with decoration that are finished in this way corroborates the

elite function of such vessels.

It is indeed the decoration that makes the vessel from HK6 really exceptional, although it is neither painted nor applied. The bowl has two pot-marks on it, both of them incised after firing. One, on the exterior, represents a highly stylised quadruped. Although the head is slightly damaged, it looks as if it were never fully indicated. The long tail and other appendages suggest that a bull may have been intended, although the absence of horns is strange. Alternatively, it could be a running dog, because of the curved back, but such a long tail is rare for Predynastic or Early Dynastic representations of dogs. A preliminary search for parallels among pot-marks and rock-art did not yield any useful results, but the zoological identification was apparently not important to the artist anyway; for him, the symmetrical aspect of the drawing seems to dominate.

The second pot-mark is within the slipped and polished area on the inside rim. Unfortunately, only half of the drawing is preserved, but there is no doubt about its identification. When completed

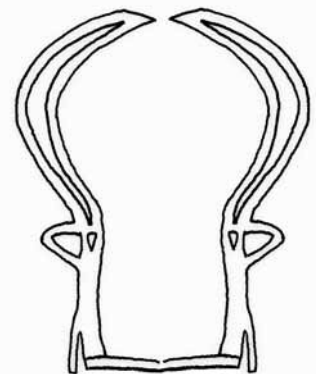


Polished-red bowl from Tomb 16 with pot-marks projected on the surface.



Photo: J. Rossiter

The Bat pot-mark.



The pot-mark reconstructed.



The goddess Bat on the ostracon from the temple at HK29A.

of years the example found in the predynastic temple at HK29A (see *Nekhen News* 15:8–9). This new find again connects the elite cemetery at HK6 with the temple at HK29A, but also, and more importantly, it provides us with a direct link to the dynastic style of representing Bat. This little drawing is in fact the oldest for which exact parallels can be found in pharaonic iconography. The importance of the goddess Bat during the Late Predynastic and Early Dynastic period is well known from the Gerzeh and Narmer palettes, among others. While it comes as no real surprise that the canonical form of her emblem is the earliest to appear, only a few years ago no one expected that any direct iconographic links could be made with the early Naqada II period.

symmetrically, it obviously represents the emblem of the cow goddess Bat, with the characteristic angular face, protruding ears and tall incurving horns.

This is not the first example of the Bat emblem found at Hierakonpolis, but it may well be the oldest, predating by a number

It is most remarkable that while these two very early examples of pharaonic iconography come from Hierakonpolis, similar finds have not been made at Abydos in the elite U cemetery. The Naqada IID–IIIA phase of the U cemetery is certainly to be considered the direct predecessor of the Dynasty 0 and I royal tombs at Umm el-Qaab, but whether the early Naqada II tombs in this cemetery also contain the burials of the most important people of this time now needs to be questioned. Both the size and complexity of HK6 Tombs 16 and 23 and the ‘Bat connection’ put the spotlight on Hierakonpolis in early Naqada II.

Our two very early attestations of the Bat emblem both appear in contexts that can be linked with the recurrent idea of ‘order over chaos’ and (divine) royal power at Hierakonpolis. That the emblem continued to be used in this way, even after the center of royal power shifted to Abydos, may be an additional argument for some sort of diplomatic accommodation rather than war between Abydos and Hierakonpolis during the final stage of state formation, as already suggested (see Hendrickx & Friedman 2003, *Göttiger Miscellen* 196: 95–109).

Returning finally to the vessel under discussion, although the two pot-marks may initially seem to be only rather ‘humble’ intellectual expressions, it is most tempting to recognise already at this early stage the difference between what Barry Kemp (*Anatomy of a Civilization*, 1989) has called formal and pre-formal art. ♪

The Goddess Bat

Even before the recent discoveries at Hierakonpolis, Bat was known to be a goddess of great antiquity and importance in the early period of Egypt’s history. Her name is thought to be the feminine form of the word *b3* meaning ‘spirit’ or ‘soul’. As a celestial cow goddess she is shown with stars surrounding her head on the Gerzeh palette and a recently discovered seal impression from Abydos (Tomb U-210, dated Naqada IID). In this guise she again appears, perhaps not coincidentally, on the rim of a large First Dynasty stone vessel found scattered around the temple area at Nekhen, on which she may also be explicitly named by the carving of a stork, the hieroglyphic writing of her name.

At the same time, she can be shown without her astral attributes, and on both sides of the Narmer palette she takes on the human face she will retain throughout Dynastic times. Heightening her protective abilities, she may have been conceived as a double-faced Janus-type figure according to



Emblem of Bat from the Middle Kingdom and her name in hieroglyphs.

an utterance (506) in the Pyramid Texts, where the king identifies himself as ‘Bat with her two faces’.

Because of similarities in appearance, Bat has been largely confused in modern times with the goddess Hathor, another protective cow goddess not explicitly attested until the Fourth Dynasty. Yet, even in antiquity, the connection between the two deities was close. In the Middle Kingdom Hathor begins to take over Bat’s cult and attributes, and by the New Kingdom this process of assimilation is complete.

Although Bat is an obscure goddess today, her emblem with its distinctive incurving horns is actually well-known. It is common on protective amuletic jewelry, and it has also been suggested that it is her face, not Hathor’s, that decorates the elaborate ceremonial rattles or sistra used to worship the gods from the Middle Kingdom down to the end of dynastic times — long after this once important and very ancient goddess had been sadly forgotten.



Narmer’s Bat.

Tomb 23 and Its Treasures



Photo: J. Rossiter

Tomb 23, the posts and postholes of the superstructure and enclosure wall along the south side



Tomb 23 general view.



Photo: J. Rossiter

The well-preserved posts of the enclosure wall.



Photo: J. Rossiter

Post-mould of a square timber from the superstructure over Tomb 23.



Photo: X. Droux

Perfectly squared timber from the offering chapel.



Photo: X. Droux

The joy of discovery!
The ivory cylinder revealed.



The exquisite flint ram and ibex and an arrowhead from the votive deposit.



Photo: L. Bavay

The ear from one of the ceramic masks.



Ritual vessels.



Fit for a King. Ivories from Tomb 23

Holding the Fort



Photo: J. Rossiter

Fort repairs at the Northwest corner.



Sand bags at the corners provide temporary support.



Bill Remsen points out the Fort within the Fort.



Photo: J. Rossiter

Hamdy making bricks.



Photo: R Jaeschke

Abdullah and Fahty making necessary repairs.



A hive of activity: filling sandbags to shore up the Fort.



Bringing in the dirt to raise the lower ground level by over 1.5m.



Sand bag delivery to the precarious Northeast corner.

Finds at HK11C: the Brewery



The firing installation at HK11C



The large vats of HK24A brewery discovered by Jeremy Geller.



Circular fire-bar Feature 12 with pile of charcoal behind.

Another look at HK11C Squares A6–A7

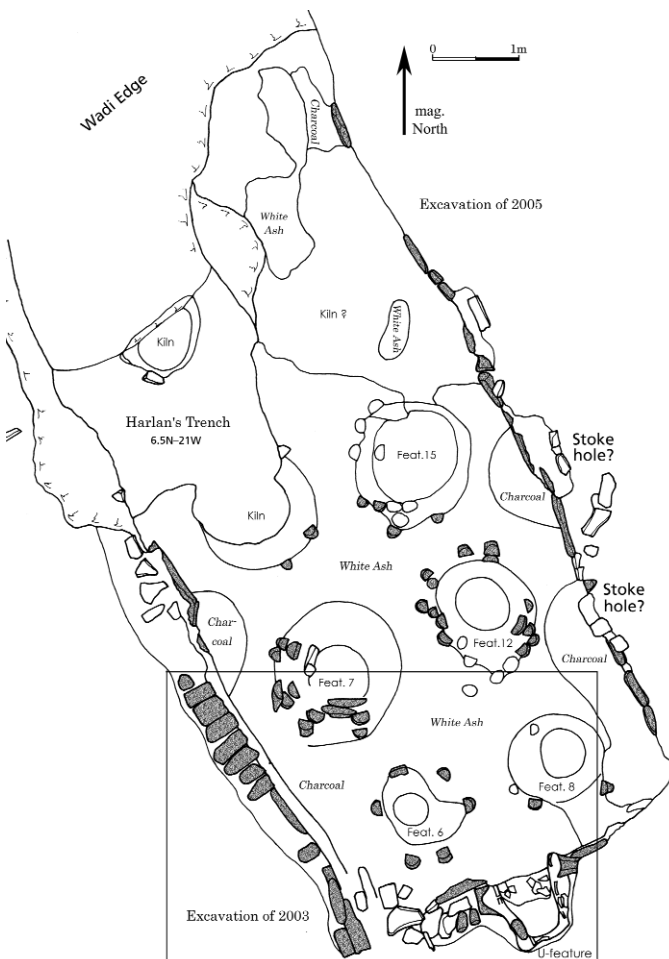
— by Izumi H. Takamiya, Kinki University, and Michiko Aoki, Waseda University, Japan

The excavation of the predynastic kilns at HK11C in December 2003 (see *Nekhen News* 16:18–20) left us with more questions than answers. How could we explain the differences between the simple pit kilns in square B4 and the curious fire-bar circles in Square A6? Knowing that these elements were only part of a larger complex, we returned to Square A6 in February 2005 to expand the excavations and find out more.

Unfortunately, the circular features had been completely destroyed by robbers, leaving in their place a deep pit, almost 1m below floor level — the only good news being that the sides of this pit clearly showed the structure continued to the north. After assessing the damage, we began excavations to the east and north (Square A7), extending the trench to the edge of the Wadi Abu-Suffian and incorporating the area previously excavated by Harlan in 1979 (6.5N–21W). Soon after removing the sub-surface layers, we recognized the outline of the structure's walls, and concentrating on its interior, we eventually uncovered more circular features like those discovered last season.



A new view of the firing installation.



Plan of the firing installation in HK11C Squares A6-A7.

An almost complete plan of this large firing structure can now be reconstructed on paper. Defined by linear walls on at least three sides, it is a rectangular complex, measuring about 3m (E–W) by at least 7m (N–S). The north wall could not be identified because of erosion at the wadi edge. Within it, originally eight or more circular features were arranged in two rows.

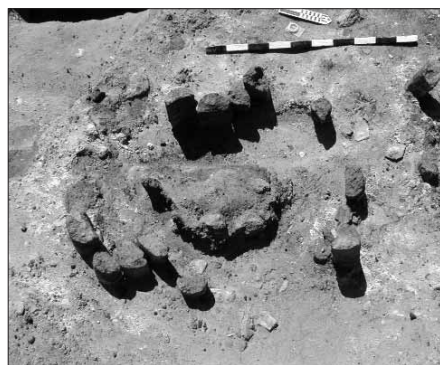
The long straight walls were constructed mainly with large fragments of square ceramic 'plates' set on edge, with fire-bars, potsherds and mud plaster filling the gaps. The original purpose of these large plates still remains a mystery. While the plates used in the walls were all fragmentary, severely burnt, and often covered with mud plaster, examples from the general debris had unburned surfaces and no plaster. We were able to mend numerous fragments and two plates were reconstructed almost completely. The largest measured nearly 80cm long, and was 20cm thick. Two shallow perpendicular lines, made by the potter's finger when the clay was wet, divide the surface into four quadrants. Similar marks were often observed on other fragments re-used in the structure's walls. It is obvious that the ceramic plates played an important, if unknown, role, but it is not so clear whether they were fired before their initial use, as



Ceramic plate from HK11.

unbaked fragments were also found in the debris, adding more to the mystery.

Within the rectangular space encompassed by these walls, we could identify the floor as a thin layer of white ash upon the burnt-red natural soil. The reddening of the sediments extended evenly over the interior, suggesting that heat was applied to the entire complex and not concentrated at individual firing features. This is further indicated by the thick charcoal deposits or remnants of fuel that were concentrated along the walls, often forming prominent heaps between the circular features. Corresponding to the charcoal heaps were semi-circular arrangements of fire-bar fragments placed along the exterior. These may have functioned as stoke holes for introducing more fuel. As no charcoal was found near the U-shaped structure on the south wall discovered in 2003, this feature may well have served for ventilation, as we previously suggested.



Feature 12 from above.

Four new circular kiln features were uncovered this year. With the three found last season and one previously excavated by Harlan in 1979, this makes a total of eight, although it is possible that two or more may have existed at the north

end, where the floor is now seriously eroded. The best-preserved example is Feature 12, which consists of 13 fire-bars still standing upright, slanting slightly inward, arranged in four closely spaced concentric circles. Although the upper parts of the fire-bars have broken off, it was easy to see that they were originally of different heights, becoming progressively smaller toward the innermost circle. In the center was a deposit of sand and ash.

After painstaking refitting, we were able to distinguish three different size variants among the fire-bars: 33cm, 54cm and 64cm in length respectively. All of the complete examples have pointed bottoms and wedge-shaped tops with D-shaped mid-sections. As more than 150 examples of wedge-shaped top fragments were recovered from in and around the excavation area, it seems that that the majority, if not all, of the fire-bars were of this shape. Fire-bars occur at other sites, but the wedge-shaped tops appear to be unique to Hierakonpolis.

At the end of last season we suggested that the structure was an elaborate pottery kiln, but now this must be reconsidered, although Harlan and Hoffman identified similar installations as such. Based on the evidence from the kiln


at HK29, Hoffman proposed that pots were fired within large vats supported above the flames by the fire-bars. However, preliminary experiments in Japan by M. Baba show that this technique would not have worked, as not enough heat can permeate the vat walls to fire pottery. More experimental studies are needed to verify this.

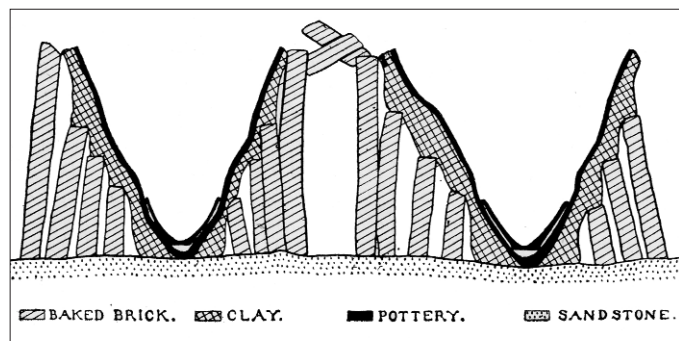


Reconstructed fire-bars.

On the other hand, the now complete plan of the HK11C complex bears a strong resemblance to structures identified as breweries. In particular, the rectangular chamber, the rows of circular features, fire-bars of diminishing height, and deposits of fuel along the walls all find parallels in the installation excavated by T.E. Peet at Abydos in 1911–12. Although we have not yet clearly identified the large vats like those found at Abydos, the configuration of the *in situ* fire-bars implies the existence of these large jars in our complex.

While Peet suggested that the Abydos kilns were for parching grain, when Jeremy Geller uncovered the brewery at HK24A in 1989, their true function became clear. The analysis of residue discovered within the large vats at HK24A provided proof that the product was beer (see color pages).

So far no residue has been identified at HK11C, but overall, our evidence suggests that the installation is indeed another extensive brewery. With eight or more vats in action at once, the simple kilns nearby in Square B4 may have served as the bottling plant for the copious amount of beer produced. But for whom was the brew intended? Was the local pub nearby? Or, given its location, close to the elite cemetery at HK6, is this evidence for a 'royal' mortuary cult as elaborate as the tombs on which it was focussed? 



Cross-section of the firing features from the Abydos kiln.

Understanding the HK Potters: Experimental Firings

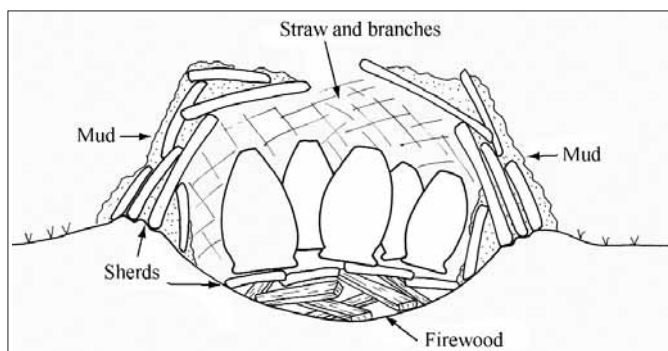
— by Masahiro Baba, Waseda University, Japan

In 2003 the excavation of HK11C Square B4NW revealed the remains of pottery kilns dating to the early Naqada II period. This discovery provides a valuable addition to our rather scanty knowledge of predynastic firing techniques. But how did they work?

The kilns take the form of pits about 1m in diameter, now filled with alternating layers of charcoal and sherds. Open on one side, they were built into the edges of a man-made platform, which was composed of burnt mud mixed with ashes and sherds (see *Nekhen News* 16:18–19). More intriguing, however, was the debris found around the kilns, which contained highly fired sherds with burnt mud adhering to them. These were found in amounts that strongly suggest they had been used in the kiln and were not simply the remains of unsuccessful pots.

In Japan, I have been investigating the production of predynastic pottery with experimental studies using methods ranging from simple bonfires, in which the pots and firewood are placed together (leaving few remains in the archaeological record), to more advanced updraught kilns, in which the pots are placed above and separate from the fuel (leaving structural remains). I also tried a method still widely practiced in East Asia, called Yunnan style, in which the firewood surrounding the pots is covered entirely with a layer of mud before firing. It was the debris produced by this method that most closely resembled the burnt mud and sherds scattered around the kilns in Square B4, so I decided to build one at Hierakonpolis to see if it would work.

First, I had to find a spot that was similar to the original kiln site, located at the edge of the wadi with access to the north wind. A bank of Sahaba silts overlooking the road to the dig house met the criteria and also provided a natural platform into which I dug a shallow pit (diameter: 70cm; depth:



Mud-covered kiln in cross-section.

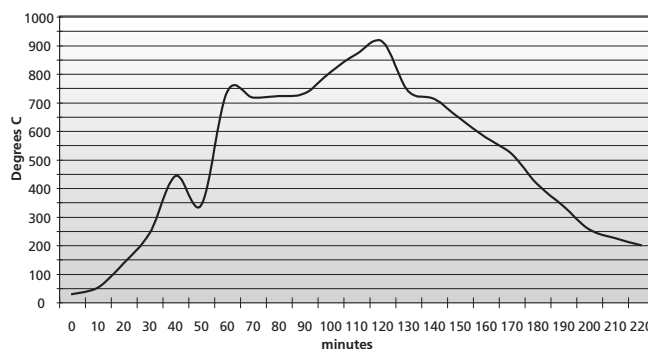
45cm). After coating and heating to make it more like the pits in the burnt earth platform, it was time to fire some pots.

I had wanted to use pots made from the local materials that the ancient potters may have used, but clay preparation turned out to be more arduous than anticipated. In the interest of time, we commissioned the local potter to make us copies of the straw tempered roll-rim jars, which account for over 80% of the assemblage around the kilns. He happily obliged, though some are closer to the original than others. For fuel, acacia branches and straw were used. The firewood and kindling was arranged on the floor of the pit, followed by a layer of sherds, on top of which I placed the pots. This arrangement was intended to keep the pots from direct contact with the fuel and prevent black stains (fire clouds) on the surface. The pots were then surrounded by more firewood and straw, which I covered with sherds and a thick coating of sticky mud.

Once the firewood was lit, the temperature rose gradually. Forty minutes after ignition, when the temperature inside had reached almost 450°C, the mud cover cracked, allowing in air, and consequently the temperature decreased. However, soon the temperature rose rapidly, and after 60 minutes it reached 750°C, with a maximum temperature of over 900°C attained after 120 minutes.



Masahiro applying mud to his kiln.



Temperature chart from experimental firing.




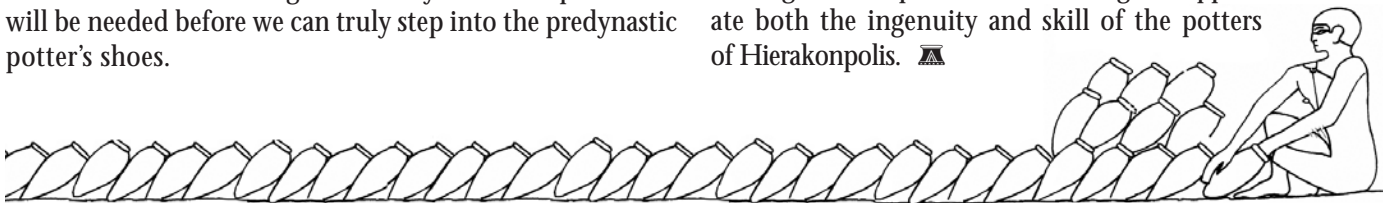
Mud-covered kiln at start of firing.



Finished pots and plenty of burnt debris at the end of the firing.

In the end, the vessels were well-fired, with no black stains on the rims thanks to the interposed sherds. The firing temperature of predynastic straw tempered Nile silt vessels has been estimated at 750–850°C, and in this experiment we achieved and maintained a temperature between 700–900 °C. Thus, the experiment was successful, but one problem still remains. Even though the organic temper in the pots' clay was burnt away, just as in ancient pottery, the surface color of our pots lacked the even redness of predynastic wares. This uneven coloration probably is a result of the unequal distribution of flames within the mud-covering. Obviously further experiments will be needed before we can truly step into the predynastic potter's shoes.

Studying the remains after the firing, it seems very likely that the ancient potters used this method. A mud-covered firing is easy to operate and needed little adjustment after ignition. It is also economical, requiring less fuel than either the bonfire (3 times less!) or updraught kiln, which is an important matter in a place like Egypt. The kilns in B4NW date to the early Naqada II period when the mass production of pottery is becoming evident, and economical techniques would have been highly valued. While these kilns are still 'primitive', they are technologically advanced, allowing the control of airflow whilst retaining heat and effectively separating the pots from the ash. Through these experiments we can begin to appreciate both the ingenuity and skill of the potters of Hierakonpolis. 



Moments in Mud

— by Jane Smythe

The recent excavation of the kilns at HK11C has sparked a real interest in the processes of pottery production at ancient Hierakonpolis and raised questions that only experimental archaeology may solve. While Masahiro explored the workings of the HK11C kilns, I focussed on the kiln sites on the other side of the wadi. In the cliffs above the HK6 cemetery are a series of sites apparently dedicated to the production of Black-topped red ware, arguably some of the most elegant pottery ever made in Egypt. Although no actual kilns have so far been found, the locations are obvious from the huge amount of firing 'wasters' (bloated, melted, warped fragments) that are still lying about on the surface. As no potter would want to transport either his wet clay or fragile pre-fired pots over long distances, chances are that the workshops are nearby as

well. But why make pottery far back in the wadi? The answer probably lies in the clay.

A visual inspection of the wadi leaves no doubt that there is clay here in great abundance. A few years ago I collected a little of this clay, took it back to the base camp and started to prepare it for pot-making. I found it highly workable, requiring no temper and relatively easy to clean. So just what did it take for a potter to make a black-topped vase? In order to obtain a better understanding of pot-



Photo: L. Bavay

Black-topped red ware: some of the most elegant pottery Egypt ever produced.



Jane wedging clay.



Jane painting the pots with a clay slip.

When it came time for the messy job of wedging (the opposite of kneading, as we don't want any air inside the clay) to make the paste homogenous and strong enough to model, we were ordered outside where the unfinished walls of the compound came in quite useful!

The pots were coil built by hand. We then applied a coating (or slip) made from crushed ochre found as thin layers of red nodules interbedded in the clay strata at the collection sites. Once leather hard, the pots were burnished to produce the wonderful streaky shine characteristic of Black-topped pottery. The ancients no doubt used a smoothed stone, but the back of a spoon also works well.

tery production in the Hierakonpolis area from the potter's point of view I embarked on a little experimental archaeology of my own.

Through the kindness of Hagg Sidain, rock-hard chunks of clay were collected from within the gullies near the Red ware kilns and hauled back to the dig house with little effort. Pottery production then proceeded to take over the workroom and the results of a hard day's archaeological work were shunted aside as containers of water and clay took their place.

Commandeering every bucket in the house, the clay was broken down in water, sieved and left to dry slowly until a workable consistency was reached. Although no temper was added to the clay, patience was certainly frayed.

The pots were then left to dry, a part of the process that can be the most important for success in the kiln. The fine and dense clay that allows this pottery to be so thin and elegant also makes it very difficult to dry. Slow, even drying is necessary to prevent shrinkage and cracking, but if too much water remains in the clay, the pot will explode when fired, as we learned to our chagrin.

The firing process has been the subject of much discussion and the conundrum of a black top on a red pot has engaged some of the greatest minds in Egyptology and has led to many experiments. It was only in 1974 that Mossbauer Effect Spectroscopy finally proved that the black area was produced by a combination of carbon uptake and the effect of an oxygen reduced atmosphere on the iron content in the clay and slip. Or, to put more simply: Put the pot rim down in smoke-producing, oxygen-reducing ash or dung and presto! But when?

Experiments using commercially prepared clays show that a black top can be produced all in one step during firing, yet the red tops on the overwhelming majority of fired sherds at the Red ware kilns in the wadi suggest that something went wrong before the black top was achieved. Given the extensive drying time required by the local clay, I am convinced that pre-heating (to drive off the remaining water) would have been an important process prior to that part of the firing that produced the black top, and this may be the key. Pre-heating can be accomplished in a simple, low-intensity bonfire. Not wanting to transport my fragile pre-fired pots too far, I chose a spot along the walls of the house compound to prepare such a kiln. Only after this pre-heating fire had



Transferring the pre-heated pots to the black-topping firing.



reached a good heat were the pots transferred to a prepared bed of dung, where they were placed rim down and then covered with fuel for the main firing.

Our experiments showed that the amount of fuel required for these processes is a major consideration. Charcoal remains, mainly of *Acacia nilotica*, have been identified in previously excavated kiln sites, which is very helpful when trying to reconstruct firing conditions, although after a couple of firings, I am convinced that the primary fuel was most probably palm fronds (which would not have survived as part of the archaeological record). Dung is also an important ingredient. And not just any type of dung — only that of cows and sheep will do!

Results from this first round of firings were encouraging and a fair replica of predynastic Black-topped red ware was made. However, insufficient drying time and the large amounts of salt present in the clay meant that few pots emerged intact. All aspects of the experiment need to be reviewed and refined, and most importantly the process must be repeatable. It may take a few seasons of work to become confident in the creation of these beautiful prehistoric pots, but with the patience of the Expedition team we may yet see the return of Black-topped red ware production at Hierakonpolis.

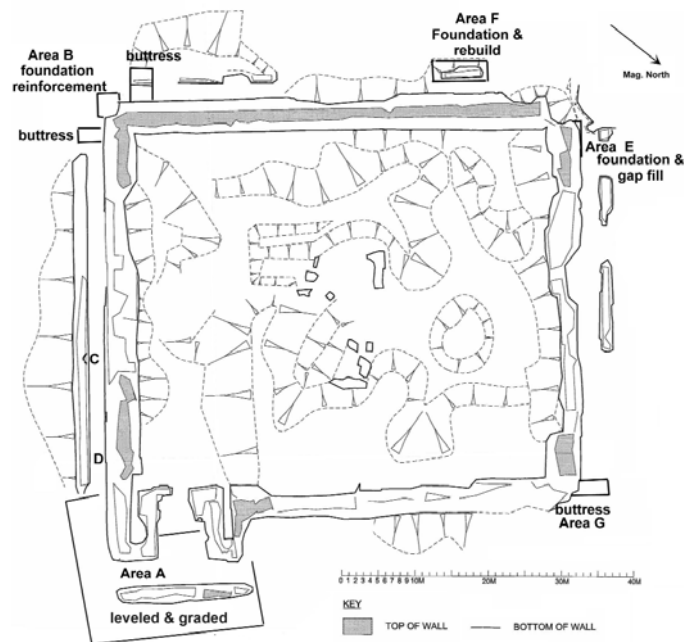


Fort-ifications

— by Richard Jaeschke

Back in 1982, I was commissioned by Mike Hoffman to report on the condition of the Second Dynasty Enclosure of Khasekhemwy (c. 2700BC), known as the ‘Fort’. Since that time, I have watched the monument deteriorate and despaired at the accelerating rate of damage in recent years, which culminated in the catastrophic collapse of the north-east corner in 2002. Having witnessed its heart-breaking decline, I am very grateful for the generosity of the Friends of Nekhen and the World Monuments Fund, which has allowed us finally to begin conservation measures, and it gives me great pleasure to report, if only briefly, on this important structure again. For more details see our updates at www.archaeology.org.

The first campaign to fix the Fort began in late November 2004, but before we could devise treatments to protect it, we needed to understand how the Enclosure was built and the damage it had sustained. To help us out, we called upon the invaluable advice of structural engineer Conor Power and



Plan of the Fort and areas addressed in the 2004-2005 season.



Raising the ground level around the entrance to the Fort.

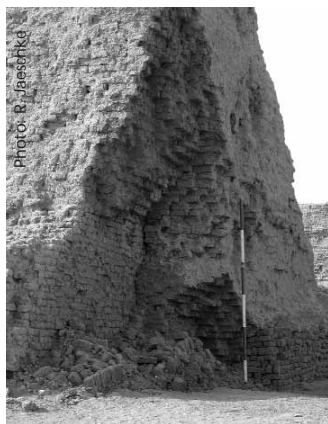
preservation architect Bill Remsen (both having worked on Khasekhemwy’s Funerary Enclosure at Abydos), and Mohamed el-Tahawy, engineer for Hassan Allam & Sons, Cairo, who has much experience in the conservation of Islamic monuments.

Together with HK veteran and construction professional Joe Majer, we walked around the structure, identifying areas requiring immediate intervention, considering work practices and safety issues. I filmed our discussions so we could review



the details later. With a little practice I found that it was just about possible to look through the viewfinder, point out conservation issues *and* avoid falling in holes all at the same time.

One of the more unexpected outcomes of this examination was the observation that the Fort had been constructed in two phases (see below). The damaged areas of the walls allowed us to see embedded within an earlier wall made with bricks of a distinctively different color and texture. The first wall, complete with a facade of regular pilasters, had been built to a height of about 2.5m before it was encased by the straw-filled bricks of the second phase. Six rows (1.5m) of bricks were built up along the outside and five rows (1.2m) on the interior of the first wall, but were not bonded to it. Once the height of the first wall was reached, construction continued upward as one massive wall, transversely bonded throughout.



The precarious northeast corner.

This discovery is very significant. As well as being historically interesting, it also explains the patterns of deterioration we are seeing. In essence, for the first 2.5m of the Fort we are dealing with three separate structures standing side by side, but not joined together. Because of this, if there is any weakness in the foundations or damage to the walls, the outer bricks easily fall away, exposing the full height of the inner core wall, and creating a dangerous overhang of the fully bonded masonry above. This is amply illustrated by the perilous state of the northeast corner.

The Enclosure has its share of inherent weaknesses from the materials and methods used in its construction, but the damage it has suffered is not the result of age alone. Although centuries of exposure to windblown sand have not done it any favours, most of its recent problems have been caused by the actions of man. We don't know who sunk the deep pits at each of the corners, probably in search of foundation deposits, or when this happened, but we do know that in 1905 and 1933 archaeologists excavating the predynastic cemetery below the Fort substantially lowered the ground level. The Fort has no underground foundations. The bricks were laid directly on a simple layer of sand c.10cm thick, which was placed upon a 15cm-thick layer of compacted silts. Exposure of these slight foundations has led to erosion, subsidence and more.

Having discussed a wide variety of materials and techniques, we decided to undertake three main tasks in our first



The undercut walls at the entrance before levelling.

season: raise the ground level around the monument's entrance where the wall footings are severely undercut (area A); repair selected areas with new bricks (areas C, D, E & F); and buttress others that could not be immediately treated (areas B & G).

For filling the gaps in the wall, concrete, cement blocks or fired bricks were definitely out, as they introduce potentially harmful chemicals and expand and contract differently from mud-brick. Since the look of the Fort is also a factor, the new material, as well as being benign to the old, should not detract from its appearance. So, we opted for new mud-bricks made in a similar manner to the original.

After measuring dozens of bricks to find the average size (those from the older phase averaged 25 x 12 x 7.5 cm while the newer ones were 26 x 12.5 x 8.5 cm), we made a wooden mould to fit the second phase bricks and began experimenting with different recipes, trying to match the strength, weight and shrinkage of the originals. To avoid any confusion in the



Richard and Mohammed experiment with brick making.

future, each brick was impressed with the HK2005 stamp custom made for us by the monks at the nearby Coptic monastery (see back cover).

While waiting for the bricks to sun dry and cure, we got to work at raising the ground level by the entrance. Using soil from old excavation spoil-heaps, we built up the surface; in some areas over 1.5m of dirt was re-deposited. After every 20cm or so, the soil was levelled, the top layer sprinkled with

water, and then tamped down to compact. As vibrations from machinery could cause the wall to collapse, everything had to be done by hand (or foot, as we gently patted down the earth). It was a slow process, but now the entrance area not only looks better, it is also safer for visitors.

After the holidays, with the bricks now dry and the failures discarded, it was time to fill some holes. After documenting each area thor-



Abdullah preparing the hole in the south wall for repair.

oughly with photographs and drawings, we then cleared away the loose debris. Any gaps in the foundations were filled with layers of compacted earth. When laying the new bricks we tried to follow the coursing and pattern of the original wall as closely as possible. This phase of the work progressed quickly as Abdullah Nour, the local mason responsible for building much of our dig house, proved quite adept. In total, four areas were repaired in this way: a recent hole dug into the south perimeter wall to obtain bricks; the lower part of a collapsing



Filling the breach with new bricks following the ancient pattern.



Building the brick box around the perimeter wall.

pilaster on the south wall; a severely undercut area at the northwest corner; and the last remaining segment of the west perimeter wall.

Each area required a slightly different approach, but the sad and lonely section of the perimeter wall at the northwest was a real test of ingenuity. It was so badly eroded on both sides that light could be seen through the base; collapse was surely imminent. The ground level over a wide area on all sides of this wall segment falls away sharply to over 1m below the foundations. There is no easy way this can all be refilled, so instead we created a small box, or caisson wall, using fired bricks to make it clear that it is not an ancient construction. We then filled the interior with compacted earth to provide a hard and stable foundation for the repairs. Since so much of the wall was lost, we filled only what was necessary to support the remaining masonry and did not speculate on the original dimensions. As a result, the wall does look a little strange, but after we see how the new bricks weather, we may decide to adjust the contours.

Once the work was complete, the fired brick box was banked with soil to camouflage it. In the coming season, we



The perimeter wall repaired.

Repair and Reveal

The repair of the pilaster (rectangular column of masonry projecting from the wall) revealed a detailed view of how these architectural elements were built. Two header bricks in every third course, laid so that they projected from the plane of the wall for half of their length (removed and replaced during the repair), served to anchor the rest of the masonry to the main wall. Tracing this distinctive brick pattern around the monument, we now know that the exterior of all the main walls were decorated in this way, even where none of the pilasters survive. The repaired pilaster is one in the series that is still well-preserved on the southern face of the Fort, some of which still retain traces of the mud rendering and white plaster that once covered the entire monument.



The pilaster during repair.



Pilasters along the south wall.

will check these walls for cracks and shifting. Fingers crossed! If it works, we should be able to make substantial progress in rescuing the west side of the Fort with maximum efficiency.

With our first batch of bricks exhausted, we moved on to sandbagging. The critical repairs of the southwest and northeast corners will be long-term projects requiring vast numbers of bricks, so to provide temporary support in the meantime, we built up buttresses of sandbags. Being unable to use machines meant that it was very hard work, but a local donkey cart provided safe and dependable transport.

This first campaign was a real voyage of discovery. We learned a lot about the Fort and how to conserve it. Next season we intend to improve our brick-making skills after we examine how the first batch weathers over the summer. Then it will be time to step up production — there is still so much to do! But we have made a good start at turning back the hands of time for a monument that truly deserves it. Thank you again for your support.



Donkey cart delivery.

In Just a Century...

The Fort is clearly a monument in need of immediate attention. Having survived for almost 4700 years, a look at the archival record shows how much has been lost in as little as 100 years. The changes are frankly astonishing. In the photograph taken by Garstang in 1905, the corners of the enclosure walls are still intact and the southern part of the perimeter wall still stands to near its full height. But only a century later, the perimeter wall has fallen over (possibly due to an earthquake in the 1930s) and most of the bricks have been mined away. The corners have also collapsed. Time is certainly not on our side...



The west wall of the Fort in 1905.
(Garstang Expedition, Liverpool University Archive Neg. H102).



The west wall in March 2005 after repairs.

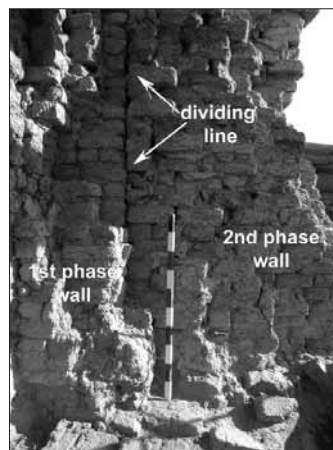
The most unwelcome new addition to the Fort's catalogue of woes is the large gap in the center of the west wall. About 15m long, 2.5m high and growing, but thankfully still only about 1.2m deep, this breach poses a major threat to the survival of the Fort. Since the ground surface here is c.1m below the wall footings, this gap just gets larger as more bricks succumb to gravity. If it gets any deeper, it will meet up with the dangerous cavity that has been excavated on the interior. Right now, a thickness of only about 1.5m of brick holds it all up — a precarious situation to say the least. Fixing this gap will be the goal of the coming season. It will take a lot of work and a lot of bricks, and we are counting on your help. **Please don't leave us holding the Fort.**

Fort Within a Fort

— by Renée Friedman

The identification of two phases of construction for the Fort was certainly a surprising discovery, but once we knew what to look for, it was easy to see. The walls of the first phase could be detected in the core of all of the main enclosure walls and were easily identified by their bricks. Although similar in dimensions to those used in the second phase, they are slightly thinner, made with less straw and composed from a dense, slightly yellow clay. The first Fort, with its façade of regularly spaced pilasters and c. 2.10m- (4 Egyptian cubits) thick wall, had reached a height of only about 2.5m when plans were apparently changed. In the second phase, the main walls were made thicker by adding six rows of grey, heavily straw-tempered bricks to the exterior face and five rows on the interior. These additional rows abut the core but are not bonded to it, and a distinct division between the brickwork of the two phases is quite visible in cross section.

The limited height and lack of plaster coating on the façade of the first phase Fort indicates that its construction was incomplete. Nevertheless, it is clear that all walls were being erected at the same time, and that the pilasters and complex niching at the entrance were intrinsic to the construction. It is currently unknown whether there was simply a change of plan or if the incomplete structure was abandoned for some time before the second phase of building began. While it is possible that the unfinished monument of one king was usurped by another, the exact adherence by the second phase builders to the plan and pattern of the decorative brickwork of the original suggests this is not the case. Whoever enlarged it, the large quantity of straw and other filler used in the encasing bricks suggests they wanted the work done quickly. The perimeter walls around and the building within the Fort appear to date entirely to the second phase.

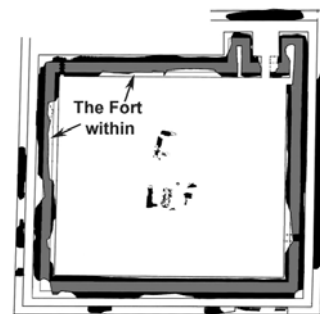


The Fort within the Fort at the southwest corner.

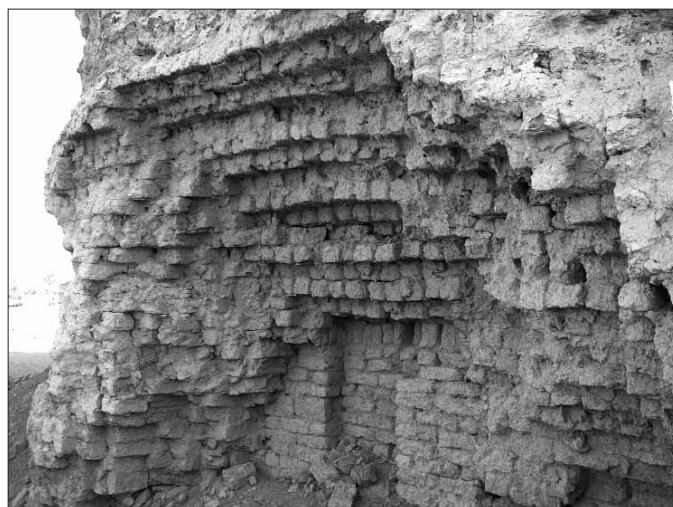
The Enclosure at Hierakonpolis has always been an enigma. It is attributed to King Khasekhemwy because of the carved granite lintel bearing his name found by Lansing, pottery recovered during excavations in 1999 (see *Nekhen News* 11:13), and similarities in construction patterns with the enclosure of Khasekhemwy at Abydos, so there is no reason to doubt its ownership. But why should Khasekhemwy build two of these huge enclosures?

The long-standing explanation has been that Egypt was undergoing the first test of its unity at this time, and that during part of the Second Dynasty the country was ruled by rival kings. It has been suggested that Khasekhem ('the power appears'), as he was initially known, first ruled as one of these kings, perhaps from a base at Hierakonpolis given the number of fine statues and objects bearing his early name found at the site. Possibly he originally planned to be buried here and so built his funerary enclosure, but when he defeated his rivals and assumed control of all Egypt, he changed his name to Khasekhemwy ('the two powers appear') and constructed a new enclosure and tomb at Abydos, the traditional burial place of Early Dynastic kings, of which he was the last.

The two construction phases may support this explanation. Perhaps Khasekhem did begin a funerary enclosure at Hierakonpolis, which was only partly completed when he defeated his rivals and could move his immortal ambitions to Abydos. Perhaps he then finished the Fort as a cenotaph. On the other hand, its unique features — the projecting gateway containing stairs on either side, the square plan and centrally placed internal building — all suggest that the Fort was conceived from the beginning as a different type of monument, one perhaps for use in life rather than death. The Fort is still an enigma, but as our program of conservation and research continues, we may well get to the heart of the matter.



The Fort within the Fort.



Embedded deep within: the pilastered façade of the first phase wall peeks out at the northwest corner.

THE HIERAKONPOLIS HOME PAGE

Fair Trade

— by Renée Friedman

Thanksgiving dinner has now become a tradition at Hierakonpolis. It was only the first Thursday of the season, but preparations were underway. We were all looking forward to a succulent turkey, none more so than the cat, Belly-boy, who was, unbeknownst to me, holding an intense vigil by the oven. This I found out soon enough when I dashed into the darkened kitchen to grab a serving spoon and inadvertently stepped on him. His reaction was quick and decisive: he bit me, sinking his mouse-sharpened fangs into my toes. Ouch!

Definitely not an auspicious way to begin the season, but everything has a silver lining. When, after a few days the pain and swelling had not abated, I got in touch with Friend of Nekhen, Dr. David Counsell, who was in Egypt touring with his family. Prior to his trip he had expressed interest in visiting us, and to my relief, a house call could be arranged for the next morning. After various salves and antibiotics had been administered and it was decided I would in fact live, it was now time to pay the bill. Hobbled off, I gave him a tour of our desert treasures: the Fort, the burnt house and of course, the predynastic temple. Those who have had the opportunity to see the site, know the surface is covered with an irresistible sea of artifacts: sherds, lithics, bone — the general debris of ancient life, turned over and scattered by fertilizer diggers of centuries past.

Pausing at the temple, we allowed our eyes to wander (and my toe to rest). After years of intensive archaeological investigation, I had little expectation that our search would yield anything of interest. The kind doctor quickly proved me wrong when he presented me with a unique black polished




Belly-boy enjoying the annual Thanksgiving Day feast.

sherd decorated with an animal head in raised relief. Although the identification of the animal is still a matter of debate (donkey or giraffe), the importance of this adorable piece is without question.

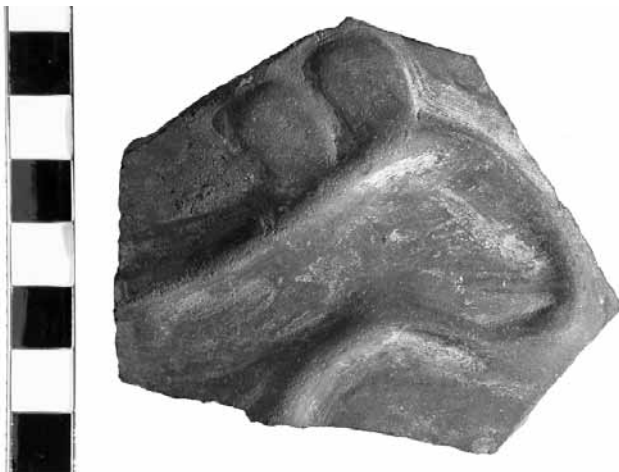
Vessels with decoration applied in raised relief are very rare, the most famous example being the fragment bearing the Red Crown found at Naqada (now in the Ashmolean Museum, Oxford). Motifs on others include arms encircling the pot to hold breasts, human forms and faces, cow horns, lizards and scorpions — all, of course, considered to have ritual significance. While certainly related to the elaborate vessels to which separately modeled figures of hippos, crocodiles, ladies, etc., have been attached (mainly to the rim of open forms), the decorative technique differs.

On our sherd, a ribbon of clay has been applied to the exterior of a large cylindrical vessel to form the raised outline of the creature. The joins have been carefully smoothed down and subsequently burnished. We can't be sure whether the vessel was originally all black or black-topped, but when complete it must have been quite striking, and one of the most elaborate examples of its kind. Unfortunately, the intensive search around the find spot produced no further pieces.

In the end we were all winners. The cat got its dinner (and a hearty one while we were otherwise engaged in staunching the flow of blood), Dave got his tour, and I got a fascinating artifact and a strong indication that the temple has many more secrets to divulge. 



Red Crown.



The new sherd with an animal head in raised relief.

A First Timer at Hierakonpolis

— by Peter Robinson

“Can you dig? We need diggers and planners this time. Oh... and it’s going to be hot...” The e-mail from Renée arrived and I knew it was going to be a challenge. I’d done archaeology before: mainly medieval British, and a Roman fort or two. I could draw pottery and small finds, knew how to survey, and was handy with a trowel. Yet, although I had been to Hierakonpolis before as a tourist, nothing quite prepared me for what I was about to experience.

Flying out of Manchester UK at the crack of dawn, I arrived later that day in Luxor with instructions to load up at the airport duty free for the famous ‘Hierakonpolis sun-downers’ and then catch the train to Edfu. A couple of hours later, I was in the team’s minibus for the 17 km drive to the site, arriving in time for the evening meal with the international crew.

Beit Hoffman, the dig house, is a great place with well-equipped workrooms, sleeping areas for the team and a wide open courtyard where it’s possible to look up and see the stars embedded in a dark velvet sky. One can well understand why the ancients saw the constellation we call ‘the Plough’ or ‘the Big Dipper’ as a haunch of meat, since it ‘stands’ up vertically, the wider ‘bowl’ forming the muscle at the top of the hind leg. In fact, on many nights we sat out in the dark, just gazing up at the constellations, refreshment in hand, and occasionally we would see a meteorite leaving its trail in the night sky.

But there is work to be done! The routine: wake up at 6 AM, make your own breakfast, prepare a cool-bag for the mid-morning break, and be at the steps by 7 AM to get in the truck. Then to the site. By the time I arrived, excavations were already underway in HK6. Tomb 23 had been cleared and the wood posts of the enclosure wall were just beginning to emerge from the sand along the west side of the complex. Could we find more of this fence along the south and north? Marking out the trench, we slowly inched our way down through the various lenses of sand and gravel with notable success. But Renée was right... it was hot, unseasonably so for February. By 10:30 AM, when the workmen took their break, we were more than ready for the sugar rush from our ‘second breakfast’, which consisted of fruit juice, cookies and processed cheese. Yet, exposed in the desert, we were baking in the sun, by now high in the sky, and there were still a couple more hours of work before we could return to the shade of the dig house to await a hearty lunch cooked by our chef Ali.

Afternoons at Hierakonpolis are spent at the dig-house, where the cataloguing, drawing and pot-mending takes place. Sometimes the conversations can seem quite surreal or bizarre: “Any of those guys from Tomb 23 missing a leg?”



Peter Robinson mapping Tomb 23.

One task of which I was especially fond was sorting, cleaning and numbering the potsherds from each day’s excavation. It was often possible to match up two or more pieces from the same vessel right away, but in each bag there would be fragments of fine red bowls, pieces of black polished egg pots and coarse straw tempered ware. The problem was that you had to remember the shapes and colours, hoping to recognise gaps and familiar edges that might match up to the sherds that were brought the day before. It’s like doing a multitude of jigsaw puzzles, each with similar looking pieces most of which are missing. Nevertheless, it can be quite rewarding as you see a pot coming together from var-



Piecing it all together.




The work room at Hoffman House.

ious fragments, some smaller than a postage stamp! Handling the sherds also gives you a real appreciation for the skill of the predynastic potters. While many vessels had clearly been made with infinite care (for example, the fine, thin egg-shaped jars), some seemed to be clever window dressing, their highly polished surface hiding a rough unfin-

ished interior and thick heavy walls. In the extra-ordinary context of Tomb 23, it looks like quantity sometimes trumped quality.

Evening gives us time to see the sunset flash by in a stream of blues, oranges and reds. Then it's time for a final meal of the day, which is something that we knock together from what is available unless it is 'gourmet night'. Dig veterans know to bring the fixings for their speciality, which this year included Japanese sushi, Swiss fondue, Mexican burritos (with real tortillas) and Belgian *vol au vent* (or at least a facsimile thereof).

It would be wrong to say that my first dig in Egypt was a holiday. It was definitely hard work, but I found it exciting and rewarding. I not only improved my own archaeological skills, but also learned new ideas and techniques. The dig house is no five-star hotel, but there is a great sense of fun and community amongst the team. I, for one, will be avidly following the progress of the Hierakonpolis excavations through the pages of the *Nekhen News* in future years, knowing just how much hard work has been put into every discovery, remarkable or mundane. 

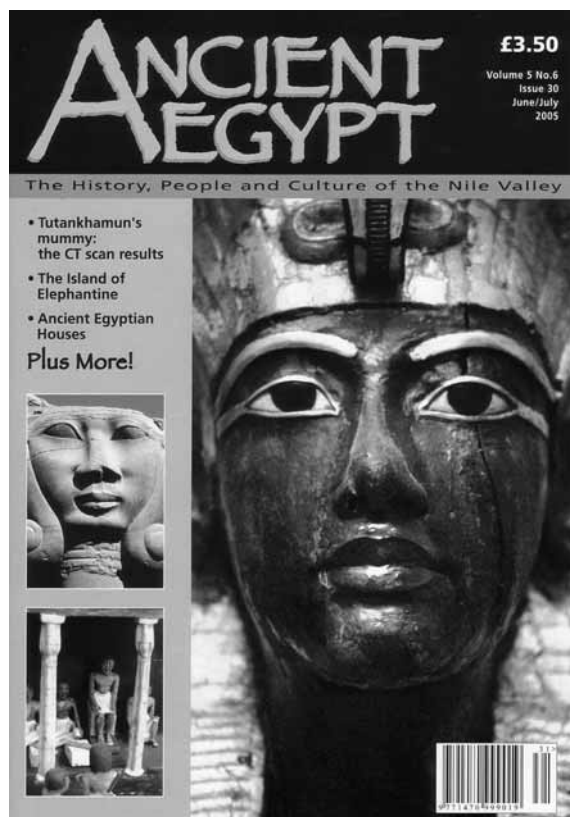
We've Been Adopted

The UK-based publication *Ancient Egypt*, in its sixth year of production, is now under the editorship of Bob Partridge, a long-standing Friend of Nekhen. With six issues a year, the magazine explores a varied range of subjects with popular articles on sites, new excavations and research on the culture, art and history of the ancient Nile valley.

Keen to promote new research, *Ancient Egypt* magazine has chosen Hierakonpolis as its adopted Egyptological cause for 2006, having supported the Friends of the Petrie Museum in 2005.

From the February 2006 issue, *Ancient Egypt* will include reports of the work and research at Hierakonpolis and thereby bring the importance of this site to a new and wider audience, and we hope inspiring them to join the Friends of Nekhen. At the end of 2006, the publishers will also make a donation to the Friends so that work may continue to fascinate and inform.

For more information about the magazine, please visit the web site www.ancientegyptmagazine.com or contact the editor, Bob Partridge, bobegyptpl@aol.com or write to him at 6 Branden Drive, Knutsford, Cheshire. WA16 8EJ. UK.



The Friends of Nekhen

Nekhen is the ancient Egyptian name for the site of Hierakonpolis, the city of the hawk, and one of Egypt's first capitals. The Friends of Nekhen is a group of concerned individuals, scholars and organizations that is helping the Hierakonpolis Expedition to explore, conserve, protect and publish all aspects of this remarkable site. The largest Predynastic site still extant and accessible anywhere in Egypt, Hierakonpolis continually provides exciting new glimpses into this formative — and surprisingly sophisticated — age, and more.

As a Friend of Nekhen you will receive the annual newsletter, the *Nekhen News*, produced exclusively for the Friends. Lavishly illustrated, the *Nekhen News* keeps you up-to-date on all of the Expedition's latest discoveries. Membership in the Friends of Nekhen also entitles you to special rates on Expedition publications.

Help the Hierakonpolis Expedition to continue its important work. Your contribution (tax-deductible in the US) will support vital research that might not otherwise be possible. Share in the excitement and the sense of commitment by making a genuine contribution to the search for understanding. Join the Friends of Nekhen.

Membership Application

I would like to help the Hierakonpolis Expedition by joining (renewing my membership in) the Friends of Nekhen. In return for my contribution (tax deductible in the USA), I understand that I will receive the annual newsletter and qualify for reduced rates on expedition publications.

The membership category I prefer is:

- Regular (\$25/£17/€25*)
 Sponsor (\$250/£150/€250*)
 Patron (\$500/£250/€500*)
 Sustaining (\$1000/£500/€1000*)
 Student[†] (\$20/£12/€20*) [†]enclose copy of current student ID
 This is a renewal for the 2005–2006 season.

(If you have already renewed, thank you!)

Make your check/cheque payable to

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*If you wish to pay by European bank transfer, please contact friendsofnekhen@yahoo.com





The Fort needs fixing: Please help!

Don't leave us holding the Fort.

We are very grateful for your past donations, but need to ask for your help again. We have a *lot* of bricks to make! In fact, we estimate c. 14,000 will be required just to fix the growing gap in the middle of the exterior west wall, one of our biggest worries. This giant wound is a major threat to the survival of the Fort. A corresponding gap on the interior means that only 1.5m of brick is holding it all up — not a lot to balance on! We can only fix the interior after the exterior has been stabilized. So we need to raise the ground level, strengthen the foundations, make a lot of good bricks and get busy! We can only do it with your continued support. The Fort still needs fixing: please help.

Special contribution for the
Fort Fund

\$/£€ _____

Name: _____

Address: _____

City: _____

State/Province: _____ Postcode: _____

Country: _____

Hierakonpolis Highlights 2004/5



Repairing the Fort....see page 24.

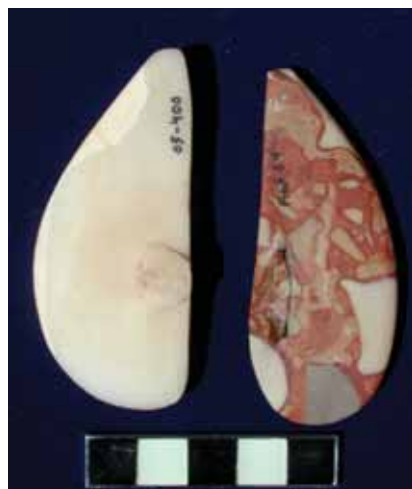


Photo: R. Jaeschke

Making our mark...see page 24.



Flint ram's head....see page 4.



'Near ears' from HK6...
see page 6.



Ivory cylinder...
see page 6.