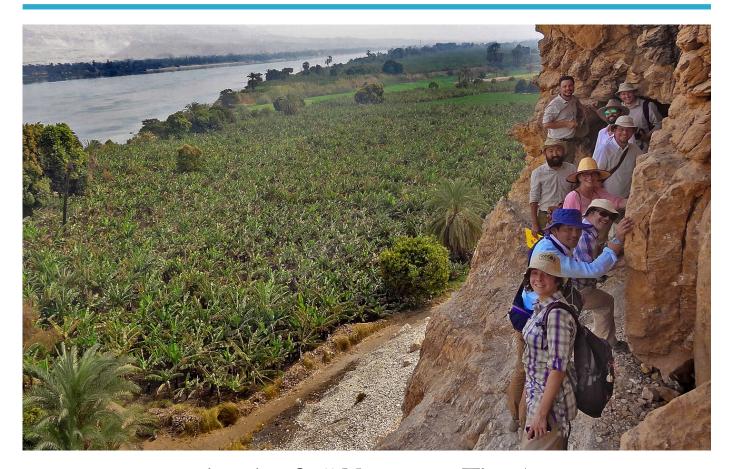


Volume 28 Winter 2016

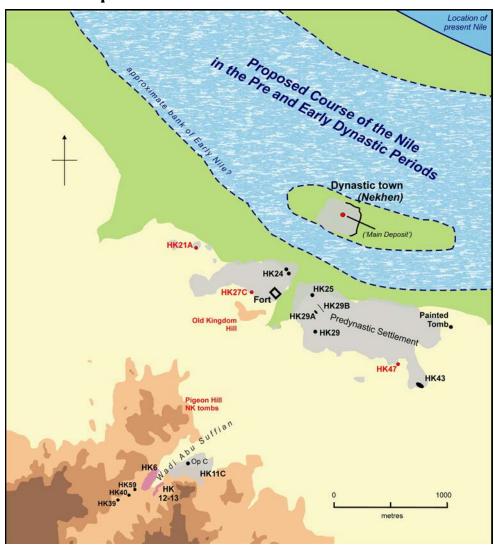


We Are Still Hanging in There!

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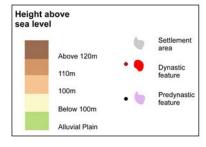
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Hierakonpolis in 2016... and a Bit Earlier



Based on analyses of bore-holes and topographic features, Judith Bunbury and Angus Graham suggested the Nile was once much closer to Hierakonpolis than it is today (see Nekhen News 20). Using their data, team member and esteemed webmaster, Peter Robinson, has created this map to help us visualize the site and its potential setting in Predynastic and Early Dynastic times.

Time Line			
Period	Date BC		
Badarian	4400-4000		
Naqada I	4000-3800		
Naqada II	3800-3300		
Naqada IIIAB	3300-3050		
Unification/Narmer	3050		
Dynasty 1	3000-2890		
Dynasty 2	2890-2686		
Old Kingdom	2686-2160		
First Intermediate	2160-2055		
Middle Kingdom	2055-1650		
Second Intermediate	1650-1550		
New Kingdom	1550-1069		
Third Intermediate	1069–656		
Late period	664–332		
Ptolemaic	332-30		
Roman	30-AD 395		



Thank You for Your Continued Support

Thank you to all our Friends of Nekhen for allowing us to continue our work at Hierakonpolis. In particular, we wish to express our gratitude for the generosity of Tom & Linda Heagy, Grier Merwin, Bonnie Sampsell, Ben Harer, Patricia Perry, Nicoletta Pirazzoli, Dagmar Bird, Geoff Phillipson, Mel & JoAnn Hunt, David Aid, Richard Fazzini & Mary McKercher, Robert Metzger, Helen Nash, Helen Barlett, Andrew & Elizabeth Beeston, Tracy Gill, Lyn Stagg, Mike Stammers, John Wall, Leanna Gaskins, Matthew J. Adams, Roger and Maissa Sanders, Barry Fitzpatrick, Angie Gillespie, Rose Halsall, Alan Lloyd, and Roz Parks. Thanks also to AWT and the Bloomsbury Summer School for their generous donations. We pay tribute to the memory of Hans Nissen for his support and for the legacy he left us from the sale of his books. We are deeply touched and grateful to our Danish Friends of Nekhen for looking after his wishes.

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Vol. 28 2016

A Little Bit of Everything

- Renée Friedman, Director, Hierakonpolis Expedition

Despite a slightly delayed start, we managed to pack in a lot this season, with examinations and excavations touching on just about every part of the site. Continuing our work at HK6, we quite literally got to the bottom of Structure F, the woodpost construction surrounding Tomb 72. This has allowed us to start joining up the dots (postholes) into a somewhat coherent story—at least for now (page 4). However, such stories are always subject to change, as we learned this year by working around the edges of the Tomb 16 complex. Here, the discovery of a number of new enclosure walls is revising not only the map of the cemetery, but also some of our assumptions about its appearance, use, and reuse (page 6).

While posts were the flavour of the month at the dig, pots were the major focus in the dig house—but we were not just potting around! Substantial progress was made in the final analysis of the thousands of sherds remaining from the family burial circles in the workers' cemetery at HK43 (page 14). The ceramic assemblages from the two Pan-Grave cemeteries, HK21A and HK47, were also subjected to intensive scrutiny and their elegant products contrasted and compared (page 24). We also began to contemplate our growing collection of C-ware (Predynastic pottery with white-painted geometric or figural designs) and what it can tell us about its prevalence and use at Hierakonpolis (page 7). Finally, the ceramic spindle whorls from a number of localities across the site were gathered together and woven into a tale of a textile industry (page 13) every bit as sophisticated as that being exposed for bead-making (page 11).

At HK11C, this season marked the conclusion of work in the fish and meat factory at Operation C. The final exploration of the interior revealed one last hearth as well as a most unexpected wall (page 10). Tending to unfinished business around the exterior also netted another load of sandstone 'potatoes', bringing the grand total harvested from this site to nearly 1500!

Preparations for the comprehensive publication of the Nubian cemeteries are well underway, but the tying up of some loose ends can still deliver revelations. Final examination of the C-Group leather has shown that appearances can be deceiving and a second look (aided by the latest technology) is always worthwhile (page 22). The same can be said for the Pan-Grave material (page 26), since a perusal of the leather and hide, this time through the viewfinder of the infrared camera, revealed yet more tattoos!



White like cheese: Kiri.

Saving the best for last, near the end of the season we found a new friend: a cat we have named Kiri, after the white processed cheese we eat at our field breakfast. This is a group effort, because Kiri is consumed not for its taste or nutritional value (listed as 65% fat in dry matter), but for the box it comes in, which is perfect for finds. Not yet a full team player, Kiri himself won't touch the stuff—tuna, however, is another matter entirely!

Off-site, discoveries continued to be made in archives and museums, especially in our new home, the Ashmolean (pages 18–21). This interplay between new finds and old not only provides us a better understanding of and appreciation for the site and its past explorers, but it also shows how much more there is to learn and discover everywhere.

Cover Story: Visit to Gebelein

We don't get out much, but an invitation to Gebelein, a site every bit as complex and remarkable as Hierakonpolis, was too good to pass up. It was a great adventure and we thank the Gebelein Archaeological Project for providing a fulsome tour. The cover photo, by Jim Rossiter, captures the HK team out on a ledge to view rock inscriptions. From front to back: Anna Pieri, Masahiro Baba, Peter Robinson, Renee Friedman, Lawrence Xu-Nan of Gebelein, Xavier Droux, Aaron de Souza, Liam McNamara, and head of the Gebelein mission, Wojtek Ejsmond, to whom we wish to express our gratitude for making our visit so memorable.



When the temperature is high and the pressure is low, using the well is the only way to go!!

Figuring Out Structure F

—Xavier Droux, Faculty of Oriental Studies, University of Oxford

One of the main aims of the 2016 season in the elite cemetery at HK6 was to complete the excavation of Structure F, the wooden structure built around the nearly intact Tomb 72. Although we had uncovered the treasures it contained two years ago, we still needed to place the tomb into its full architectural context. Considering the inconclusive results of last season's work in the eastern part of the structure, little did we expect to encounter such a high level of organic preservation in the west. Because so many posts survived, we can now tentatively reconstruct the general layout and see how it was modified over time (see below and page 17).

Structure F is a large rectilinear construction (c. 13 x 10m) involving an enclosure wall and an internal building. Since its discovery in 2013, we knew there were two building phases. This was clear from the two foundation trenches for the enclosure wall found side by side, but at different levels. The trench of the first phase was dug into the underlying dark brown silts (our chocolate layer), while that of phase II was shallower. Running more or less parallel to one another, the two trenches could be detected all around the eastern half of the structure.

This year, our excavations in the west revealed the actual posts still in place within these parallel trenches, as well as two additional rows of posts by the northwest corner. These additional rows, with posts surviving to over 50cm in height and remnants of reed matting still adhering, may have served to reinforce this corner against the prevailing north wind. A substantial post (P on map) marks the southern end of this reinforcement, while another large post (Q) probably marks its terminus in the north, although the connection between them has been destroyed by a large plundering pit at the corner itself. Now that all four sides of the enclosure have been uncovered, we can see that the structure

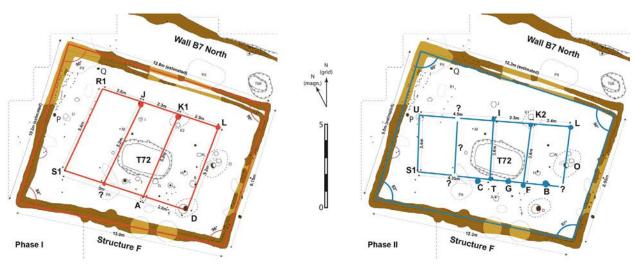


Fathy Said defining the posts of the reinforcement wall.

is only roughly rectangular, the west wall being somewhat longer than the east.

Figuring out the internal structure proved to be more challenging. Large wooden posts and postholes fill the interior, some dug deeper than others. This variation in level provides evidence for two phases of construction, much like the enclosure walls. Yet with so many posts and postholes present, we struggled to understand their arrangement. Luckily, the area to the north of Tomb 72 gave us a good starting point: four posts (L, K1, J, R1), placed on average 2.5m apart, made a line running parallel to the northern enclosure wall. To the south, another parallel row of four columns (D, A, S1) could be discerned, even though modern disturbance has obscured the evidence for one of them. These posts suggest a building measuring an impressive 7.4m by 5.2m. Various smaller posts found along the east and west sides may have helped to support a roof—if one ever existed.

This reconstruction worked well for the posts of the first phase, but making sense of the shallower phase II posts seemed impossible. We could see no evidence for a second structure on the same alignment. Then it dawned on us: we couldn't see it because it wasn't there!



Structure F: Plan in phase I.

Reconstructed plan for phase II.

It now seems likely that when the internal structure was rebuilt in phase II, its orientation was modified. The configuration of the shallower postholes indicates a shift of axis by about 12.5° toward the south. This shift brought the corners into alignment with the cardinal points, thus following the orientation of all of the other major structures so far uncovered in the cemetery. The preserved postholes of the north row (L, K2, I, U) being about 2.3m apart, this new structure may have been about 9.2m long. In the south, a parallel line (F, T, S1 plus others not surviving) can be proposed, making the structure about 3.6m wide. Columns B, G, and C may be later reinforcements or repairs. Notable is this structure's lack of alignment with the phase II enclosure presumably surrounding it. This is particularly intriguing as it calls to mind the divergent structural orientations in the later royal funerary enclosures (*shunets*) at Abydos.

Posts and postholes were not the only things to be found within Structure F. Along the northwest side, fragments of fine quality pottery appeared strewn on a distinctly hard surface, probably the original ground level. After laboriously cleaning and mending them, we could distinguish at least ten vessels: a large red-polished bowl, two black-topped jars, one fine cup, and six large, well made black-topped beakers with a distinctive burnishing, which suggests that they were made by the same potter. These vessels most likely originate from Tomb 72 and were tossed out in antiquity.

Excavations in the western sector also added to our already large collection of First Dynasty jar stands, some embellished with impressed or cut-out triangles. They may have been used for rituals undertaken in or around the internal structure in phase II. Preliminary analysis suggests there were at least ten of these large jar stands, many of which could be significantly mended (thanks to the efforts of Masahiro Baba, Lamia El-Hadidy and Peter Robinson), despite our initial convictions to the contrary.

Finds were not just confined to the interior. An intact deposit of two black-topped beakers and two red-polished



A pavement of sherds: the shattered pots from Tomb 72.



Beakers and bowls from the deposit outside Structure F.

saucers stacked together was uncovered just outside the west wall of Structure F. These were probably ritual offerings rather than grave goods. Fragments of similar saucers have been retrieved in other areas of HK6 and especially within Structure F, where at least five have traces of burning or soot on their interior, while several others had heavily eroded interiors. This evidence suggests they may have served as lamps or incense burners during the funeral rites.

Finally, after four years of exploration in and around Structure F, we feel we have more or less figured it out, and in the process gained remarkable insights into early funerary architecture, rituals, and re-use. Where to next?

Another Mystery

Excavating to the north of Structure F to uncover a bit more of Wall B7 North, we came across a most unexpected find: a large (38.5 x 13cm) oval object of plastered textile, its edges intact. The top side is painted red and decorated with thick white plaster in the centre, while the plain white plaster on the back



The mysterious painted plaster object.

bears the impression of textiles. Because of its fragile nature, it is unlikely to have come from too far away, but where? Comparable plaster objects, usually interpreted as model shields, all derive from graves (at Armant and Adaima). Does it then originate from a tomb somewhere in the rather barren looking area to the north? Alternatively, could it be a ritual offering? More intriguingly still, might

it once have been affixed as an ornament to Wall B7? Yes, it seems we have another mystery to solve!

Working Around the Edges at HK6

- Renée Friedman and Anna Pieri, Livorno

Structure F was the main focus at HK6 in 2016, but we also needed to address a few other unresolved issues, like: just how big is the Tomb 16 complex? For this, we used a two pronged approach. First, working in the area to the north of Tomb 16 and east of the dog-filled Tomb 48, we specifically wanted to see whether more animal burials would be present around the peripheries, paralleling the situation in the south. After two weeks of digging, we can now say the answer is a qualified no.

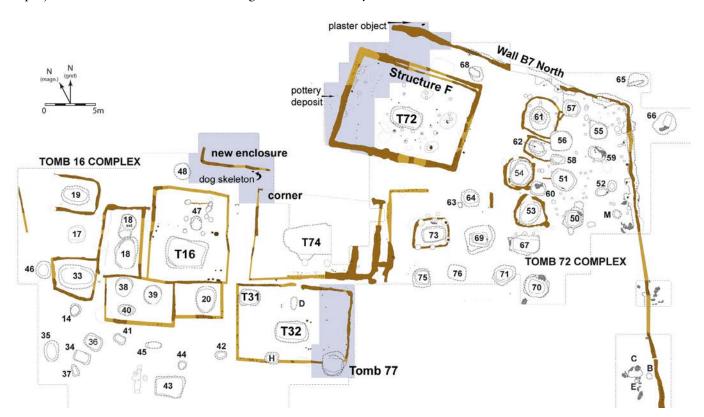
A partial skeleton of a dog, laid on a mat, was discovered in subsurface levels, but there was no evidence for a formal grave. The articulated upper torso and limbs of this unfortunate animal suggest that all four legs had been bound together when it was interred. Its head was missing, but whether it was buried that way is unclear. Study of the bones by Wim Van Neer and Beatrix De Cupere (Royal Belgian Institute of Natural Sciences, Brussels) shows that it was subadult (1–1.5 years of age), of medium size, and had no pathologies. It is the 52nd dog known so far from the HK6 cemetery.

No other animal bones or burials were discovered in this area. Instead, building on a trend that began last season, we found more post walls! In the southern part of the excavation zone we uncovered the northwest corner of the enclosure that surrounds Tomb 74, confirming the size we projected for it last season. Like the segment found in

2015, the corner exhibits the same distinctive construction technique of posts faced with a thick layer of plant material, matting, and plaster (see *Nekhen News* 27:6). Traces of red and white paint were observed on some fallen plaster fragments, but it is not clear whether they are related to this wall or to others in the vicinity.

In the northern part of this excavation area, the wall and corner of yet another enclosure were uncovered. Made of closely spaced wooden posts coated with white plaster, it had been partly burnt. The tomb or structure enclosed by this fence has not yet been identified, but almost certainly lies to the north, where there is a large depression made by looters at some point in the past. Mindful that we hadn't the time or the manpower to explore this big hole, we decided to try our luck on the east side of the Tomb 16 complex and tie up some loose ends there.

We began by investigating a long-ignored plundered tomb (Tomb 77) situated to the south-east of Tomb 32. Measuring 2.40m in diameter, it contained the highly disturbed remains of a robust man, aged between 35 and 50 years, who had a healed compress fracture on the front part of his skull (ouch!). Fragments of two large beakers were all that remained of his grave goods. Despite the sorry state of the tomb, its excavation revealed a remarkable



Map of the central part of HK6 with the areas investigated in 2016 shaded in grey.



Dog Number 52: partial remains found north of Tomb 16. cross-section view through the south wall of the enclosure around Tombs 31-32. This was quite a surprise, since we had assumed the wall to be 3m shorter! In fact, the southeast corner of the enclosure once ran directly above the tomb, and the eastern wall, after we put it in its proper place, could be traced in its entirety. Was the existence of this tomb no longer obvious when the enclosure was built? Or was the wall simply built too close? Hard to know for

sure, but overall the evidence suggests that Tombs 31-32



Right down the center: the enclosure wall cutting through Tomb 77.

and the fence surrounding them are later additions that were not initially part of the Tomb 16 complex.

Working in from both directions, it now appears that the Tomb 16 complex was originally more limited in size, but also more open to additional constructions. In other words, cemetery growth was more dynamic and less planned than previously assumed, leading ultimately to a densely built landscape of closely spaced enclosures—a veritable city of the dead.



Putting the Hierakonpolis C-ware on the Map

—Xavier Droux and Renée Friedman

White cross-lined (Petrie's C) ware—red polished pottery with white-painted decoration—is one of the most characteristic elements of early Predynastic (Naqada IB-IIA)

material culture. Complete vessels are best known from the Abydos region and Naqada, and their figural motifs and regional differences have been studied intensively. This focus on complete pots from these regions has led to a general perception that C-ware was rare at Hierakonpolis. Such assumptions can be deceiving. In fact, a review of the C-ware found over the years across the site shows that there were, originally, quite a number of vessels, although what is left of them is sadly often reduced to fragments.

Another piece of the puzzle: new C-ware fragment from north of Tomb 16.

Guy Brunton (1933) was the first to report C-ware at the site: three sherds with geometric and vegetal motifs, now in the Petrie Museum (UC 27471-3). Since we don't know where he found them, they provide little information.

However, sherds from more recent excavation reveal an interesting distribution (see page 16).

C-ware vessels have often been considered products

linked with the elite, and it is therefore not surprising that the majority of examples come from HK6. Readers of Nekhen News (21:19) will remember the so-called 'peripatetic pot' from Tomb 31, which is, to date, the only complete vessel of this type we have. Yet, more than 30 sherds have been collected in the elite cemetery, belonging to at least ten different vessels. Most bear decoration consisting of chevrons, wavy lines or dots, but at least three pots featured human or animal figures. Frag-

ments from one of these distinctive vessels were found to the north of Tomb 16 (Nekhen News 23:14), and this year we added a few more bits to the collection. As our work in the cemetery continues, we hope to be able to mend this vessel, but, as the experience of the peripatetic pot has shown, this can take time!

Across from HK6, cemeteries HK12 and HK13 each had at least one C-ware bowl, the fragments of which were found lying on the desert surface. No doubt also related to this elite context are the C-ware sherds collected at the so-called Red Ware kilns (HK59, HK39, and HK40) in the wadi. Here, fragments of bowls with finely painted chevron designs were found together with wasters—bloated and burnt, unsuccessfully fired pottery—indicating that C-ware was made on site and, more surprisingly, had been painted before firing.

Even more interesting is the presence of C-ware sherds in the settlement. Although only fragments from one bowl were recovered from the house at HK11 Operation G (see Nekhen News 12) and two or three bits from the trash mound at Test A, several fragments were excavated by Mike Hoffman at HK29, the burnt house. Amongst them is evidence for at least three different bowls, one of which is adorned with a delicate frond motif. When complete, it must have been stunning.



Once a beauty: Fragment of a C-ware bowl from HK29.



Odd animal on C-ware sherd from the brewery at HK24B.

Quite unexpected are the sherds from the brewery at HK24B (Nekhen News 19:25), one depicting an animal with strange-looking horns. While these could be intrusive from earlier settlement activity or trash disposal, they more broadly suggest Cware was not just for the elite. In fact, most surprising is the limited number of examples from the pillared hall at HK25 (just 3) and their complete absence in the ceremonial centre at HK29A. The refurbishment of the complex in Naqada IIIA may have swept away early material, but we would have expected just a few remnants.

Casting the net wider, we should not forget the seven pots excavated by Henri De Morgan at Mamariya, just 5km to the north. The variety of shapes and style exhibited by these complete examples mirror that found more fragmentarily at Hierakonpolis and together they suggest no shortage of C-ware in the region. So despite earlier assumptions, C-ware vessels were indeed produced, used, discarded and buried at Hierakonpolis. Now we just need to put together their pieces!

Let's Look at Lions

—Lyn Stagg, London

The remarkable objects from HK6 Tomb 72, uncovered in 2014 (see Nekhen News 26), all deserve a closer look, not least the pot with the incised lion. Not only is it almost unique for its vessel type, it is unique just for its lion! Today the lion is thought of as the 'king of the beasts', but can this interpretation be projected back into the Predynastic? Let's have a look.

Depictions of large cats are rare in the early Predynastic, and identifying the species intended is difficult. Most are schematic etchings of an isolated animal on pottery or palettes. Nevertheless, one potmark shows that the early Egyptians were well aware of the power of these big cats to take off heads!

The lion pot of Tomb 72, dating to Naqada IIB, is the earliest felid depiction known from Hierakonpolis, and both its size and its execution, before the pot was fired, make it unique. Its identification as a lion is based on similarities with quite convincing lions on an ivory ring from Naqada, and even more so with the creatures in the site's renowned Painted Tomb, where they are shown being hunted and controlled.

Putting aside suggestions regarding 'restoration' of its designs, the Painted Tomb can be dated to Naqada IIC, a time when indisputable lion imagery begins to appear. Growing in popularity, during Naqada III it soon seems as if lions are just about everywhere!



The lion pot from HK6 Tomb 72.

These lions can appear in many guises: 1) Being tamed by the 'Master of Beasts' in the Painted Tomb and on the Gebel el-Arak knife handle; 2) Being hunted, as shown in the Painted Tomb and on the Hunters Palette; 3) Attacking animals or humans, as on the Battlefield and Hierakonpolis Two-dog Palettes;

4) As a possible name or place name, as on the Cities Palette or the Coptos colossi; 5) Processing in rows on knife handles and other carved ivories; 6) Recumbent in front of a shrine on seals; 7) As freestanding sculptures on a monumental scale as at the temple complex at Coptos, or as smaller figures, usually called gaming pieces, principally from Abydos.

This by no means exhaustive list makes clear that most lion imagery, on the basis of context or material, was in the service of the elite. The small lion figurines, by far the largest evidential group, however, may represent an exception to this rule.



Ouch! Potmark from Naqada shows the power of big cats.

In 1984 Barbara Adams made a list of the then known lion figures as part of her study on the Coptos lions, describing nearly 100 Pre- and Early Dynastic examples, ranging in size from 1cm in length to over 66cm restored. The vast majority (n=61) originated from Up-

per Egypt, the Hierakonpolis Main Deposit contributing five (though she queries two), while from Abydos came 38 examples, 17 of which deriving from the subsidiary graves around the Royal Tombs.

Since that time, more lions have come to light, mainly from Early Dynastic cult sites at Tell Ibrahim Awad, where 10 small lion figures were found, and at Tell el-Farkha, which contributed two tiny cat-like figurines.

Objects in such contexts have generally been interpreted as votives, used in apotropaic, propitiatory, eucharistic (giving thanks), or passage rituals, but not necessarily by the highest elite. It is generally felt that only at the early temple at Nekhen, now reinterpreted



Lion finger ring from Naqada tomb 1480 (Ashmolean 1895.912) © Ashmolean Museum, University of Oxford.

as a place of royal appearance, could the symbolism of such objects be related directly to royal privilege and ritual.

In contrast, the lion figures found in graves have been overwhelmingly interpreted as gaming pieces. Other than the set of lion and rabbit figurines found together with gaming rods and balls in a hole within the cemetery at Ballas, the small ivory

lions of the Early Dynastic period have not been found in direct association with gaming. In fact, most were found singly with many showing heavy wear indicative of use, some drilled through to be worn as amulets. Perhaps taking on different meaning in the tomb, they may have signified 'favourite game player', 'brave' or even 'friend.'



Lion gaming piece (British Museum EA64093).

Alternatively, these small recumbent lions could have symbolised protection for the deceased, in the same way that large statues protected the temple. Further clues to their protector role appear on seals where lions with angled vertical lines issuing from their backs are often depicted in front of shrines. Perhaps representing the door bolt on the shrine door, these

enigmatic lines may mark the lion not just as general guardian, but as the embodiment of the door bolt itself.

The lion as a symbol is therefore quite ambiguous in this early period, with imagery on elite objects



Lion-sized locks: cylinder seal showing lion with door bolt on its back by a shrine (British Museum EA49018).

illustrating either the power of or power over this mighty beast, while other less exclusive items may relate to pleas for help and protection.

This wide range of meanings makes it difficult to interpret the lion pot found in Tomb 72. It might suggest the presence of a powerful ruler with the attributes of a lion, or one guarded by a lion, if not one who hunts lions or, at a stretch, is named 'Lion'.



Lions hunting on the Two-dog Palette from Hierakonpolis (Ashmolean 1896–1908 E3924) © Ashmolean Museum, University of Oxford.

Another Portion of Potatoes: Excavation at HK11C in 2016

—Masahiro Baba, Waseda University, Tokyo, Japan

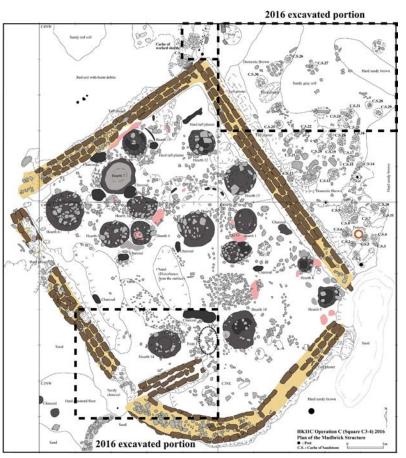
In March 2016, we returned to HK11C to complete the excavation of the industrial-scale food production facility at Operation C (a.k.a. Square C3–4). As our readers will know, in 2011 we discovered here a rectilinear structure built of hand-modelled bricks—some of the earliest mud bricks still in situ in Upper Egypt—and over the years we have gradually uncovered its floor, revealing 13 large hearths, each surrounded by vast amounts of bones and large fish

scales. Faunal analysis has shown the bones to be predominately from the less-fleshy parts of domestic cattle and Nile perch, and indicates that the preparation of meat was the main activity conducted in this 'factory' (see Nekhen News 26:22-3). After five slow but steady years at this intriguing facility, its investigation was almost complete: only two small areas remained to be probed: one inside and one out.

On the interior, the south corner still awaited final troweling and after removing about 20cm of debris, we identified the original floor, partly coated with hard plaster. On it was one final hearth, the 14th within the

structure. Like the others, this new hearth was about 90cm in diameter and composed of a shallow hole filled with ash and charcoal, and surrounded by large slabs of stone and potsherds. Around it, large numbers of bones were collected along with lithic tools, including a blade and an arrowhead. To the east, a concentration of pottery sherds and stones (Feature 1) also contained a substantial load of fish and livestock bones.

Nothing unexpected here, yet there was still one last surprise to come. While cleaning up for final mapping and photography, just a few centimeters below the floor, a segment of wall began to emerge. Built of three rows of handmade mud bricks, it was preserved for two courses in the west, but had been reduced to a thin layer of mud in the east. Its construction technique and position leave no doubt this stub is a remnant of the original south wall of the structure, which was later demolished and replaced by the curving wall when the building was enlarged. This indication of phases within the structure is important for determining the duration of its use-life.



Final plan of Operation C.

The final area in need of examination was outside the northeast corner. In 2012, investigations along the east side of the structure revealed more than 1200 small pieces of shaped sandstone (called 'potatoes') stored in 23 pit caches (Nekhen News 24:10–11). This potato field was always expected to extend further to the north and so it does. excavations Renewed uncovered another eight conical pits each filled with stones ranging in number from 23 to 93. Put together, 394 new potatoes in total were harvested this year.

In addition, we also investigated a small area near the north corner where, in 2011, we had found two large caches containing 93 worked

sherds and 122 sandstone pieces respectively. Re-clearance in this area yielded a further 82 worked sherds and 64 potatoes. Moreover, a line of wooden posts running northward from the corner was also revealed.

The east side of the structure was clearly a busy place, but why did the workers prefer this side? If, as we think, the potatoes were used to record deliveries of raw materials, such as big fish, water and fuel, all arriving from the east, then that side would have been the logical place for their registration and accounting. However, there may be an even simpler explanation: there was no other place to be. On the north, the space was restricted by a mound of ancient debris deriving from the



Detail of a potato pit.

Operation B brewery, on the west the two entrances into the structure would have left little free space, and the south side was no doubt full of smoke wafting in on the north wind!

Excavations at Operation C are now complete, but we still need to figure out where all the food was going. The faunal analysis has shown that, after preparation in the factory, the meat was consumed elsewhere. Considering the proximity of HK6, it was likely taken to the elite cemetery for use



A final surprise: a hidden wall revealed.

in rituals and feasting, but so far we can find no indication of where such activities might have taken place or where their refuse was dumped. Last season, test excavations at the north end of the cemetery revealed only an extensive layer of ash, but no bones or anything else for that matter! In the coming season, we intend to conduct a magnetometry survey on the surrounding terraces and hope that it will help us detect the location of this feasting area, and perhaps much more.



More Piercing Insights

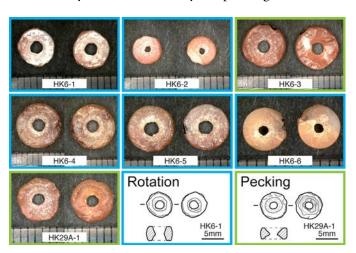
—Kazuyoshi Nagaya, Kanazawa University, Japan

Over the years, the elite cemetery at HK6 has yielded numerous carnelian beads from its tombs. The main production area for these beads is thought to have been the precinct surrounding the ceremonial courtyard at HK29A based on the huge number of flint micro-drills found there. But how did the ancient craftsmen work this material to achieve a constant supply for the elite?

In a previous article (*Nekhen News* 26:16–17), I demonstrated through microscopic observations and experimental drillings that the flint micro-drills were indeed capable of cutting through a number of different materials, including carnelian, the hardest stone the Predynastic craftsmen worked into beads.

Expanding on that topic, I now turn my attention from the tools to the final product—the carnelian beads themselves, and specifically their bore-holes. The surface appearance and different types of production scars visible in these tiny holes are actually store-houses of information on piercing technology. Using both macro-classification with my naked eyes on the ancient beads, and microscopic observation with SEM (scanning electron microscopy) on silicon casts, I have attempted to reconstruct the ancient techniques of manufacture.

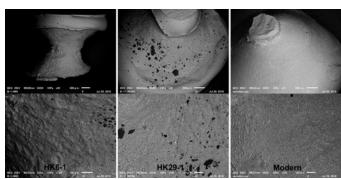
Seven carnelian beads—six from the elite cemetery (HK6-1-6) and one from the ceremonial centre (HK29A-1)—were selected for macro-classification. The holes in all of them have a biconical transverse section indicating that the beads were pierced from both sides with a conical-shaped tool, such as a flint micro-drill. Even with the naked eye, two distinct ways of piercing are obvious:



Carnelian beads from HK6 and HK29A examined for this study.



Kazu injecting silicon into the bead-holes to make the replicas.



SEM images of Hierakonpolis beads and the experimental sample.

rotation and pecking. Drilling the hole with rotation seems to have been the most common method, and on most of the samples traces of rotational polish remain (see samples HK6-1–2, 4–6). Piercing by pecking was less frequent, but certainly also existed. Two samples show tiny facets or 'negatives of removal' on one side around the hole (HK6-3 and HK29A-1). This is a sign that the second part of the piercing process was achieved through percussive impact. In the percussion method, a micro-drill, its pointed tip set within the half-drilled hollow, was hit with a stone hammer to 'punch' the hole through, producing a cone-shaped chip. Next, the sharp edges of this conical opening were blunted by pressure flaking and chipping.

Compared to the large amount of time and effort the rotation method must have required, pecking certainly had the advantage of being fast and far more comfortable for the craftsmen, but the physical appearance of the final product was far less attractive.

To gain further piercing insights, I decided to try SEM on casts of selected beads. By injecting silicon rubber into the bead holes I was able to obtain accurate reverse facsimiles of the surface information. So far, three casts—one each from HK6 and HK29A and an experimental piece I

drilled myself—have been photographed with SEM (JSM-6010LV) under low (x20-25) and high (x100-130) magnification. Under lower magnification, spiral traces produced by the drill rotations can be seen on all three samples. However, under higher magnification ferences in surface condition become

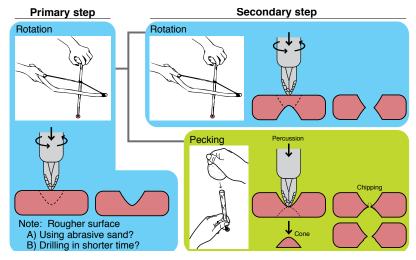
obvious. While the experimental piece has a very smooth appearance, the two ancient ones look rather rough. The disparity between them is probably due to a combination of time and technique.

In the experiment, it took me about 9 hours and 99,220 rotations with a bow drill to pierce a carnelian tablet 2.6mm thick. The surface of both the carnelian and the drill became extremely well-polished during the vast number of rotations. The rougher finish on the ancient samples suggests their piercing was completed in a shorter time than I was able to achieve. The most likely way to speed up the process is through the use of abrasives, like fine sand. The sharp micro-fragments of the abrasives, cutting into the material surface, can accelerate the drilling but also make the edges of the resulting hole rougher.

Bead piercing techniques at predynastic Hierakonpolis can therefore be summarized in two simple steps. First, one side of a bead blank was drilled to half its thickness by rotation, probably with the aid of abrasive sand to increase cutting power. In the next step there were two options: either turn over the bead and continue with rotation to complete the hole, or use pecking. The decision depended on what was most valued: perfection or time. The craftsmen at Hierakonpolis seem

to have placed a priority on the former.

These preliminary results allow us to formulate ideas about the ancient craftsmen's visions and decisions for their products. SEM observation on dozens of silicon replicas is yet to be completed, so I hope to be able provide further glimpses into the workshops of Predynastic Hierakonpolis soon.



Beads piercing techniques at Hierakonpolis summarized.

Twirling the Whorl

—Anne Drewsen, Copenhagen

They look unprepossessing—small pierced discs of pottery—but they are textile tools, spindle whorls, and they provide new insights into Predynastic society and industry at Hierakonpolis. For a long time, spindle whorls (and loom weights) were either not recognized or considered unimport-

ant tools for women's handicrafts. More recently, the Centre for Textile Research (CTR) at the University of Copenhagen has made a number of tests using experimental archaeology (i.e., very experienced spinners and weavers) to evaluate what information textile tools such as spindle whorls actually hold, and their findings are fascinating.

Prehistoric textile production has left few traces, spindle whorls being the most common. Originally inserted onto a wooden stick, these different sized discs provided the weight and motion necessary to

keep the thread taut during spinning. The thickness of the thread is equivalent to the quality of the end product: thick threads produce heavy textiles that can be used for tents or sail cloth; thin threads can be used for the finest of garments. The weight of the spindle whorl is the determining factor of the

thickness of the spun threads and ultimately of the kind of textile produced. It is therefore their weight that is of interest to researchers on ancient textiles, not their size. At Hierakonpolis, the smallest spindle whorl (24mm in diameter) weighs in at just 4 grams, and would have allowed the spinner to produce incredibly fine threads. The majority fall in a range from 9.5 to 15 grams (37 to 45mm in diameter) and would have produced threads of medium thickness.

Examination of the textiles preserved at Hierakonpolis indicates that at least by Naqada IIB textiles were standardised in fine, medium, and coarse qualities. Clearly, the spinning and weaving process was not a random exercise but was executed with the great knowledge and skill that can only come with experience.

This level of quality standardization hints at specialisation, but evidence for a textile industry at Hierakonpolis seemed



Selection of spindle whorls from the burnt house

at HK29.

Spinner on a tomb model from Beni Hassan, Middle Kingdom (Liverpool 55.82.4; courtesy of National Museums Liverpool, World Museum).

sparse. The meagre 12 spindle whorls recovered from the domestic structure at HK11 Operation G in conjunction with spun yarns and hanks of fibres suggested only limited household production. This was puzzling considering the large amounts of Predynastic textiles—including the

> shrouds for the two elephants at HK6—that have been found.

> Investigations during the 2016 season went some way toward solving this mystery, when I found the missing spindle whorls—ca 150 of them—among materials excavated at a number of localities, including the burnt house at HK29 and the ceremonial centre at HK29A. In proportion to the amount of textiles known, this is still not a large amount, but it certainly points to the textiles being produced on site.

At the start of the Naqada II period there was a change in how thread

was spun, making the production of more regular and thinner thread possible. This change is first documented at Hierakonpolis while contemporary textiles from Abydos were still made using the old method (see Nekhen News 13:13–14). The

> new spinning method was also faster, but the whole process would still have been very time consuming, and this is where considering the number of spindle whorls, and by extension the number of spinners, becomes important.

> Let's take for example the shroud enveloping the elephant in HK6 Tomb 23 (Nekhen News 15:9-12). With a weave of 20 x 11 threads per cm and estimated to cover 20m2, it would have required some 60km of thread to make. Experiments have shown that an experienced spinner can spin 58m of linen thread per hour, so a single person would have had to work 1071 hours just to produce the thread. When the weaving process is added, the shroud would have taken a single worker toiling 8 hours a day no less than 191 days—or more than 6 months! Since this is certainly not the only piece of textile from Hierakonpolis, and not the finest (that is 30 x 30 threads per cm), a fair number of persons must have been working in textile

production full time. It is therefore not surprising that the majority of the spindle whorls were found at the HK29A ceremonial centre, indicating that along with finely crafted lithics, stone vessels and semi-precious beads, fine textiles were being produced for the elite here.

The presence of textiles in both the workers cemetery HK43 (see *Nekhen News* 14:13) and the elite cemetery HK6 shows a familiarity with the product at all levels of society. In later periods, textiles were used to wrap bodies as well as grave goods not merely as protection against dust, but also against evil. Considering the efforts taken in its production and the large amounts present already in the Predynastic period, it seems very probable that, from early on, textile was imbued with a value beyond its practical use.



Close up on the shroud of the elephant from HK6 Tomb 23.



Going Round in Circles at HK43

—Dustin Peasley, The University of Memphis

Each year, excavations at HK6 deliver remarkable discoveries that continue to reveal the monumental scope of the architecture within this elite Predynastic cemetery. The scale and complexity of HK6 leave little doubt about the elevated social status of the individuals buried there, but it is the extraordinary spatial layout that first grabbed my attention. As seen throughout the historical periods of ancient Egypt, the placement of the deceased within a cemetery was not random; factors such as social rank and family association determined not only the wealth to be displayed within the burial, but also the likelihood of obtaining a prime location within the funerary landscape. As

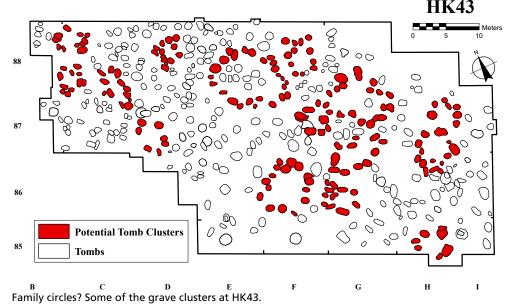
the interconnected complex of subsidiary graves surrounding Tomb 16 at HK6 suggests, this was most likely the case during the Predynastic period as well.

Familial relationships may also have influenced cemetery arrangement across Predynastic society. One of the most notable aspects of Hierakonpolis is the opportunity it provides to compare and contrast the burial practices of the rich and poor in the same place and at the same time, since there is not only the elite cemetery, but also the contemporaneous cemetery at HK43, where the non-elite people were interred.

As long-time Friends of Nekhen may remember, HK43 was excavated from 1996 to 2004, and yielded over 500 in-

dividuals from at least 452 graves dating from the Naqada IIB–IIC period (roughly 3650–3500 BC). Instigated as a salvage project, the exploration of this cemetery resulted in the discovery of early mummification practices as well as significant advances in our understanding of aspects of non-elite lifestyle, ranging from nutrition and health to societal expectations for burial (See *Nekhen News* vols. 8–18).

Over the course of the HK43 excavations, several patterns began to emerge suggesting that the spatial placement of the graves was anything but arbitrary.





The pottery set in an intact burial at HK43.

Throughout the contiguous area exposed (~1860m²), the graves appear to be arranged in a circular fashion, densely positioned around empty centers. Fragments of large domestic vessels—of types not known within the burials themselves—present in these central areas suggest they were reserved for funerary feasts or rituals, and that members of the same family were interred around them (*Nekhen News* 10:4–5). This pattern of being buried near those close to you, whether due to social or familial relationships, seems intriguingly similar to the situation at HK6.

To gather more information about these circular clusters and determine if they are in fact the result of family groupings, I joined the Hierakonpolis team to assist in the final analysis of the ceramics from HK43. Ancient looting and past excavations are some of the reasons we are forced to focus on ceramics to address this topic. As only 11% of the burials at HK43 were discovered intact, the full range of materials once present in each grave is lost to us. Luckily, ceramics were not the apple of the ancient looters' eye, although they did like to toss them out of their way to get to the more valuable items, breaking them into myriad pieces in the process. So while perhaps more distinctive items such as palettes or beads have gone, the pots and their fragments remain. From the intact and partially intact burials it appears that the graves typically only had 1 to 3 pots in a very limited range of shapes: mainly small black-topped jars, red-polished bowls and straw-tempered bottles or jars. It is the variations of this 'pottery set' that may allow us to determine if there were any similarities or differences, however minute, in the choice each 'family cluster' made with regards to their burial kit.

This is where the analysis becomes much more complex, as many of the vessels were broken into thousands of scattered sherds. Since the sherds often remained in relative proximity to the burial from which they derive, it should be possible to reconstruct, if not all, at least more of the original grave assemblages. To achieve this goal, together with



Getting it sorted: Dustin mending sherds from HK43.

members of the HK team (especially Tracy Gill), I spent several weeks sorting and mending the pottery in an attempt to add as many complete shapes as possible to the previously established corpus.

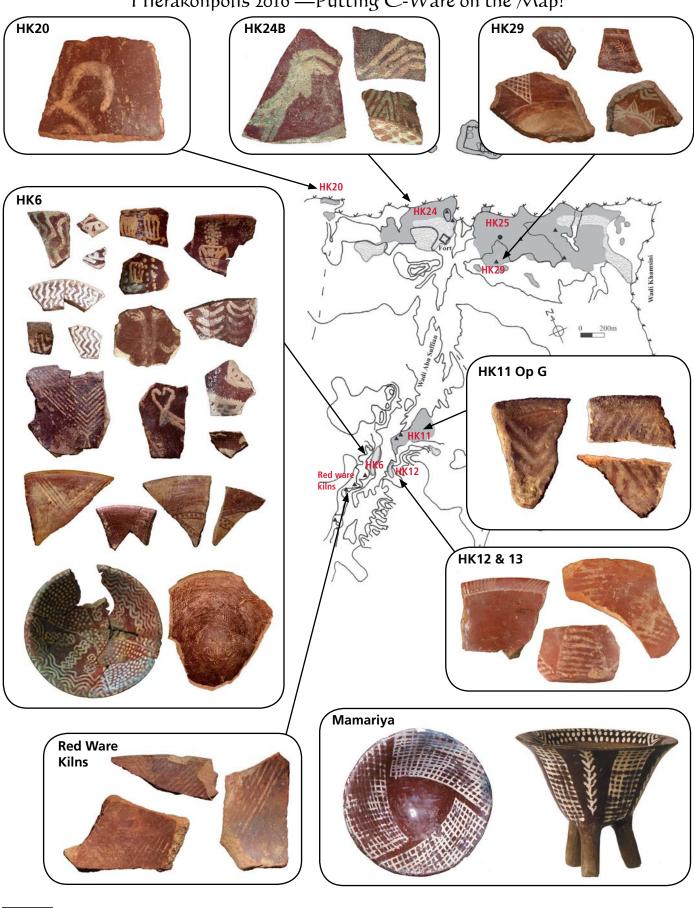
To say I was overwhelmed at the beginning of this study would be a massive understatement. But by focusing incrementally on one small area of the cemetery at a time, the analysis soon came to resemble an assembly line, as pottery collected from the surface was laid out for comparison with the sherds from the burials found below. Some pots began to mend quickly; but it seemed more often than not we spent hours trying to find that one joining sherd we knew was there, but always seemed just out of our grasp. Nevertheless, by the end of my season at HK, we were able to add 25 new or more complete pottery profiles to the HK43 corpus, with more (we hope) to be added next season.

With our success so far, I am confident that the future analysis of the ceramics will allow us to gain better understanding of the burial practices of this non-elite population. As work on the HK43 material continues, I hope to show through spatial patterning that the variations in the ceramic 'kits' were the result of deliberate choices made by family groups competing for the same modest resources at Predynastic Hierakonpolis.



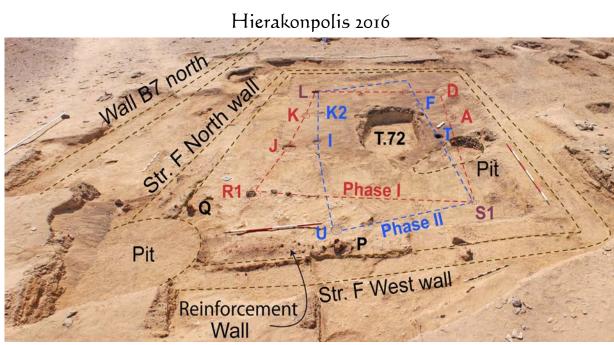
Bowl, bottle, jar: a typical 'pottery combo' from HK43.

Hierakonpolis 2016 —Putting C-Ware on the Map!



Vol. 28 2016

Hierakonpolis 2016



Connecting the dots in Structure F at HK6.



Lapis lazuli statuette, the head and body carved separately and pegged together. © Ashmolean Museum, University of Oxford.



Painted plaster from HK6.



Matting knots from Structure F.



First Dynasty jar stand from Structure F.



Fish factory finale at HK11C.



Another portion of potatoes.

Ashmolean Object in Focus: The Lapis Lazuli Lady

—Liam McNamara, Curator of Ancient Egypt and Sudan, Ashmolean Museum, and Director of the Griffith Institute, University of Oxford

This remarkable little statuette is carved from beautiful blue lapis lazuli. Egypt's closest known source for this semi-precious stone is Badakhshan in Afghanistan, some 3600km away, making it one of the most exotic and highly-prized materials used by the ancient Egyptians. In Dynastic times, it evoked the divine, the hair of gods being described as made of 'pure lapis lazuli'. This blue stone first became common in Egypt in the Predynastic period (Naqada IIC), when it was imported to create prestigious objects, including beads and inlays. The Hierakonpolis statuette is the largest piece of worked lapis lazuli to have survived from this early time.

The story of the statuette's discovery is almost as remarkable as the object itself. The body was discovered by

but 4 own Brillest right thro at feet 4.0 mm at hy 3 mm

Page from F.W. Green's excavation notebook, showing the body as discovered in 1898 © Dept. of Manuscripts and University Archives, Cambridge University Library.

J.E. Quibell in 1898 during excavations in the temple enclosure, beneath a mud brick wall south of the 'Main Deposit'. A drawing in F.W. Green's excavation notebook shows a small wooden peg at the neck for the attachment of the head, which incredibly was found eight years later, during further excavations in the same area by Harold Jones. While the stone used for the body has a mottled appearance (with white

and gold flecks of calcite and pyrite respectively), the head is of the more rare and 'pure' deep blue variety. Whether this difference was by design or the result of damage requiring a replacement head is not clear. Some even suggest the body was made outside Egypt, perhaps in the region of



Curled hair of a prisoner on the Battlefield Palette (Ashmolean AN1892.1171) © Ashmolean Museum, University of Oxford.

the Persian Gulf, and the head only added after its arrival in Egypt.

The figure's face is dominated by large eyes that are deeply recessed for inlay with another material. Her arms are bent at the elbows, the hands clasped, right over left, across the abdomen. Her nude body is quite

Object Factfile

Findspot: 'Main Deposit', Temple enclosure, Hierakonpolis

Materials: Lapis lazuli and wood

Height: 8.9cm

Date: c. 3300-3000 BC

Museum No.: AN1896-1908 E.1057 (body) and E.1057a (head)

Source: Egyptian Research Account, 1897–99 (body)

Presented by Harold Jones, 1906

(head)



summarily carved except for the pubic area, which is indicated by a series of small circular depressions. The legs, slightly bent at the knees, terminate in a straight edge just above the ankles. A drilled hole on the underside (also shown in Green's drawing) may have served to fasten the figure to a base or to attach separately-modelled feet. It has also been suggested that the figurine was meant to be the handle for a spoon.

Debate still rages about the figure's identity and origin. Quibell was the first to point out its 'non-Egyptian' appear-

ance, comparing it to marble Cycladic figurines dating to around 2500 BC, several hundred years later than its presumed date. The figure's short, tightly curled hair as well as the position of her hands and arms are unique among the statuettes found at Hierakonpolis (the majority carved in ivory) and find few parallels in early



The blue lady up close.

Egyptian art. Several ivory and bone statuettes originally in the collection of the Reverend William MacGregor depict women with their hands crossed in a similar gesture, but questions surround their authenticity. However, the similar curled hairstyle seen, for example, on the Battlefield Palette lends support to the suggestion that the statuette was carved in Egypt. Whatever the case, the object — whether fully finished or as a block of raw material — travelled a considerable distance before arriving at ancient Nekhen and provides valuable evidence of early Egypt's place in an increasingly interconnected world.

Egyptian Blue: Another First!

— Lorelei H. Corcoran, Professor and Director of the Institute of Egyptian Art & Archaeology, University of Memphis, TN

A small, alabaster bowl, from the "Main Deposit" excavated under the supervision of J.E. Quibell and F.W. Green in the 1898 season at Hierakonpolis, and in the collection of the Museum of Fine Arts, Boston (MFA 98.1011) for over 100 years since, has revealed another 'first' for the ancient city—the earliest documented example of the synthetic pigment called 'Egyptian blue' from Egypt or anywhere in the world. The discovery validates, yet again, the importance of the site and innovations being developed at this early time.

Interestingly, this finding was not as a result of new excavations, and not even from a first-hand examination

The use of this artificial pigment has previously been noted in Dynasty 1, but is popularly assigned to Dynasty 4 of the Old Kingdom, and it continued in use throughout Egyptian history (it is presently being documented on Romano-Egyptian mummy portraits). Because of its unique luminescent quality, it is actually still employed

today for security inks and bio-imaging. It is truly amaz-

ing to think that the earliest synthetic pigment made

Such an early date pushes back the first documented

occurrence of Egyptian blue, and the technology required

to produce it, to the dawn of pharaonic history.

NEX Cirills

Drawing of the bowl in Boston (MFA 98.1011) by Erika Feleg based on VIL image.

of the object, but as the product of scholarly research. The bowl caught my attention while I was investigating the use of color in Egyptian art. The rudimentary inscription on the bowl was described in a catalog entry in *The American Discovery of Ancient Egypt* (Los Angeles County Museum of Art, 1995:112) as being filled with a blue frit.

Since the bowl had been assigned to King Scorpion (ca. 3100 BCE) based on the scorpion incised in it, I calculated that this material might be the earliest known example of Egyptian blue, an artificial pigment composed of quartz, lime, copper and an alkali flux. At my request, the frit in the inscription was reanalyzed by the Scientific Research Laboratory of the MFA and positively identified as Egyptian blue. This was rewarding, but even more exciting, I realized there was, after all, no certain reason to assign the bowl to the reign of King Scorpion, especially since the lab's visible-induced luminescence (VIL) images of the bowl revealed additional symbols including a down-turned arm sign, usually vocalized as zehen. In fact, the shape of the bowl and the configuration and paleography of the hieroglyphic signs on it, which have potential parallels from Tomb U-j at Abydos and rock carvings at Gebel Tjauti, all point to a date at least 150 years earlier. I would now date the bowl to approximately 3250 BCE (Naqada IIIA1).



Blue too? Inscription on another bowl from the Main Deposit (Petrie Museum UC14953).

by human hands (and so far first documented at this early date at Hierakonpolis!) continues to be useful to the present day.

For more details, see my in-depth article: Lorelei H. Corcoran, "The Color Blue as an 'Animator' in Ancient Egyptian Art," in Rachael B. Goldman, ed., *Essays in Global Color History: Interpreting the Ancient Spectrum* (Gorgias Press, NJ, 2016), pp. 59–82.



Not so blue: Lorelei Corcoran discovers another first!

'Happy Clappers': New Ivory Wands from Ancient Nekhen

— Liam McNamara, Curator of Ancient Egypt and Sudan, Ashmolean Museum, University of Oxford and Renée Friedman, Director, Hierakonpolis Expedition

We were reluctant when inhabitants of the village came to us with pieces of ivory they said had been found on the spoil heap on the Kom, the floodplain town of ancient Nekhen, but after cleaning and consolidation by conservators, Richard Jaeschke and Ahmed Saad, we were frankly amazed. These muddy fragments were parts of so-called wands, or clappers! Unfortunately, none were complete, but there is evidence for at least five individual wands in the collection. Two have the animal heads typical of other Early Dynastic examples, one depicting a lion with a cross-hatched pattern on its muzzle, and the other possibly a sheep or mythical creature. A separate fragment with incised cross-hatching may be the head of another lion, especially since clappers are usually found in pairs. An end piece, with a blunt cut rectangular tip and incised designs, could also be reconstructed. Further fragments come from the mid-sections of other wands, two of which have incised decoration.

This spectacular find led us to investigate possible parallels for these fascinating objects. It has been suggested that such wands were used in certain rituals, especially those accompanied by music and dance, where they were held in the hands and struck against one another. Wands terminating in gazelle heads, for example, are depicted in the hands of dancers in a Fifth Dynasty tomb at Deshasheh, while hieroglyphs representing wands with gazelle heads appear in the Pyramid Texts from the Sixth Dynasty onwards. Wands in this style continued in use until the Twelfth Dynasty, after which time clappers carved to represent human hands came into fashion.

Yet, the Early Dynastic wands with their carved animal heads may have served as the prototypes for another type of decorated wand produced during the Middle Kingdom: the so-called 'birthing tusks', the ends of which are often decorated with incised animal heads. These objects typically feature late Predynastic-Early Dynastic motifs, such as the 'master of animals', long-necked serpopards, and winged griffins. The reappearance of this imagery in the Middle Kingdom suggests revived interest in earlier forms and practices (i.e., archaism), which included the use of animal-headed wands.

Curved objects probably used as clappers already appear in the Predynastic period, and are shown held as a pair by figures on Decorated ware vessels. Bent wooden objects recovered from graves of the Badarian period may be actual examples of these instruments, although they are often described as throw sticks. The ivory wand with carved hippopotami along the upper edge discovered in Structure 07 of the elite cemetery HK6 may also be a remnant of a set of actual clappers. It was found together with another wand, but that one was unfortunately very poorly preserved (*Nekhen News* 19: 16).

The earliest clearly dated wand with a carved animal head (probably representing a dog) comes from the tomb of King Djer at Abydos (early First Dynasty). Another complete ivory wand from his tomb has a bulbous end, which may be an animal head, but the published photograph is unclear. Thereafter wands seem to grow in popularity, but are still quite rare at this time.



Fragments of clappers recently recovered from Nekhen.



Pair of clappers from the Main Deposit at Nekhen (Petrie Museum UC27613 and UC27623).

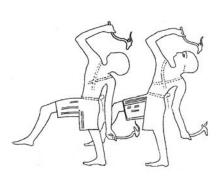
They are known mainly from First Dynasty tombs Abydos more (1 example), Gizeh (1 example), Abu Roash (7 wands) and Helwan (24 wands). Several others were purchased on the antiquities market and are therefore of uncertain provenance, but some reported to originate



The ivory wand from HK6 Structure 07.

from Maadi and the early cemetery at Tura. Ranging in length from 10 to 23 cm and on average 1.0 cm thick, each clapper is carved at one end with an animal head, but determining the identity of the creature intended is not always easy. Species include gazelle, ibex, lion (the new one from Nekhen being the first indisputable example), dog(?), and perhaps monkey or young sheep, but the most frequently depicted is a creature tentatively identified as a hare based on its prominent ears. Most, but not all, feature a delicately incised collar at the neck, from which hang down triangular bows or streamers. There is also one pair carved with bearded human heads, but it is unprovenanced.

One pair of animal-headed wands was also known from the 'Main Deposit' found by Quibell and Green in the temple



Dancers with clappers in an Old Kingdom tomb at Deshasheh (after Petrie, Deshasheh, London 1898, pl. xii).

enclosure at Nekhen. They have now been reconstructed from fragments once distributed between Petrie Museum and the Ashmolean now they (so Petrie UC27613 and UC27623 - theAshmolean pieces were transferred to London in 2006).

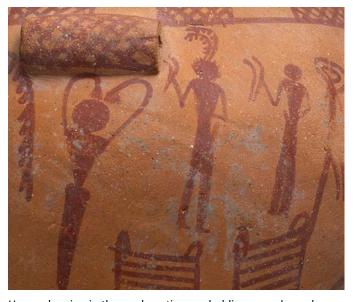
Examination

each part of this pair suggests they were carved from a single lower canine tooth of a hippopotamus which was then split in two. The remains of the tusk's natural pulp cavity on the inner surface may have served to amplify the sound produced when the two halves were struck together. The one surviving head is similar to the smaller head in the new group from Nekhen, but what it represents is still unclear.

These were the only wands known from temple the context until discoveries recent the Kom. However, as a result of our research, two fragments further have recently been recognized among the ivories in the Ashmolean Museum. They almost certainly form another pair

(AN1896-1908 E.5226 and E.5227), although sadly their heads are missing. Several other curved fragments (some with incised decoration, including chevrons, dots, and cross-hatching, as well as representations of animals in low relief) from the 'Main Deposit' in the Ashmolean collection could also be parts of wands, but this tantalizing prospect requires further study.

Opening up several new lines of inquiry, the recently conserved fragments from the Kom are extremely important examples of wands, not only because of their quantity and diversity, but also because they originally had a precise archaeological context. It is very unfortunate that their exact find spot is now unclear. Nevertheless, they represent a significant increase in the number of clappers known from the Early Dynastic period and provide further glimpses of the sights and sounds that may have accompanied the ritual activities undertaken at early Nekhen.



Happy clapping in the predynastic: men holding curved wands on a Decorated jar (British Museum EA35502).

Matriarchs, Red Leather and Polka-Dots: More Leather from HK27C

—Lucy Skinner, London, and Cory Rogge, Museum of Fine Arts, Houston

The excavations in the Nubian C-Group cemetery at HK27C produced a lot of leather (see *Nekhen News* 27:19–21), more than I could finish processing last season. So in 2016 I returned with Cory Rogge, an analytical scientist from the Museum of Fine Arts Houston, to finish the assessment of the leatherwork, double-check a few samples, and resolve some outstanding queries.

While working through my list, I decided to make another detailed inspection of the material from Tomb 36. This revealed something quite remarkable. We already knew that the owner was a mature woman (over 50 years old) with tattooed skin (see *Nekhen News* 26:28), who was buried with large quantities of leather. Now in fragments, much of her leather was originally composed of swatches carefully stitched together and wrapped around her lower body in what appears to have been a skirt. Moreover, we also knew she was wearing a cut-work leather cap from the impressions of the piercings visible on the skin of her ear and skull.

In her attire, body markings and age, the woman in Tomb 36 is very similar to the famous tattooed lady from Tomb 9. The only major difference between them seemed to be that the pierced leather loincloth present in Tomb 9 was lacking in Tomb 36, or so we thought.

This season, while re-examining the leather skirt from Tomb 36, we noticed traces of what at first glance appeared to be the remains of tree roots or insect activity. Yet, on closer inspection these bore the distinctive signature of cut-work leather! Consulting the excavation notes we found that this fragment had been collected near the groin, leaving little doubt that these vestiges were the impressions of a pierced leather loincloth worn under the skirt.

Cut-work leather items were found exclusively in Tombs 9 and 36, suggesting that these carefully made caps and loincloths were not common. While both ladies had patch-work leather skirts, like most of the women in the cemetery, there is no strong evidence that either of them had footwear or wore anything on their upper bodies. Small fragments of leather with black fur still attached were found in both graves, in the area near the waist. These might be all that remains of a pouch or bag suspended from their waistbands. It certainly seems more than a mere coincidence that two of the most elderly women in the cemetery were the only ones attired in this particular manner (as well as tattooed). Quite likely, these garments were an indicator of status and both women held special positions in their community, perhaps as matriarchs.

The colourful leather of the patch-work skirts belonging to these women was also of interest and I wanted to learn more. This was Cory's job. To assist with this task, she had brought a portable X-ray fluorescence spectrometer (Bruker Tracer III–V+ handheld energy dispersive XRF) capable of elemental analysis for determining certain



Impressions of a pierced leather loincloth on the interior surface of the skirt from HK27C Tomb 36.



Detail of the cut-work leather loincloth from Tomb 9.



Brown knots and red knots: the sash from Tomb 48 at HK27C.



Lucy takes a second look at the C-Group leather.

colourants and additives to the leather. In addition, she packed a portable Fourier transform infrared (FTIR) spectrometer unit (Agilent Exoscan 4100) to help detect skin preparation and tanning methods.

One of the most interesting outcomes of the elemental analysis thus far is the suggestion that there was a lot more red-coloured leather than we previously thought. XRF analysis revealed that, in general, the red fragments are high in iron, which in this case likely derives from the presence of red ochre (hematite, iron[III] oxide) used to stain the

leather red. In contrast, the cream-toned fragments have a lower level of iron, which is as one would expect since they were not deliberately coloured. However, the brown leather represents a more complex issue. Some fragments that appear brown have very high levels of iron, while others have very low levels. Analysis of the red and brown knots of leather from Tomb 48, which almost certainly come from different ends of the same sash or belt, showed very similar iron levels despite their visible difference in colour. The results suggest that the brown knots (and many other brown

leather fragments analysed) were originally stained with red ochre, but have become discoloured either through wear or, more probably, because of variations in preservation conditions within the grave.

Cory's analysis also allowed us to appreciate a detail that might easily have been overlooked. Amongst the limited number of leather fragments preserved from Tomb 37 was one piece with a small round appliqué stitched on with a thick leather thong. At first sight this appeared similar to the patch repairing a small hole in the loincloth from Tomb 54, but beneath it there was no hole! Rather, the applique was meant as an embellishment. Its analysis revealed a very different elemental signature from that of the under-

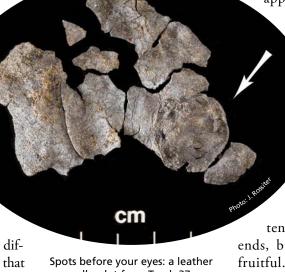
> lying leather. Lower iron levels in the appliqué suggest that it may have

originally been lighter in colour than the leather below.

> In other words, although there is now no discernable difference, it was once a lighter 'polkadot' applied on a red background, the original decorative effect having been masked by the deterioration of the leather.

This season's work was intended simply to tie up some loose ends, but turned out to be far more fruitful. We can now begin to restore some colour to the sepia-tinted world

of the C-Group and start to appreciate some of the nuances of their wardrobe choices. These exciting discoveries show, yet again, that taking a second look is always worth the effort.



polka-dot from Tomb 37.

More Nekhen Nubians: A Tale of Two Sites

—Aaron de Souza, Macquarie University, Sydney, Australia

Back in 2001 test excavations were conducted at two Pan-Grave cemeteries, HK47 and HK21A (see *Nekhen News* 13). The limited scope of those early investigations belies the significance of these sites, as they are two of only a handful of Pan-Grave cemeteries still extant and accessible. Almost all others have been lost to urban expansion or are now under Lake Nasser. While working on my PhD (just completed) about the pottery of the Pan-Grave culture these sites were of great interest to me, and in 2016 I was given the opportunity to study their pottery assemblages in detail.

Some of you may ask: what is this 'Pan-Grave culture'? This a good question, but one not so easily answered. As far as we can tell, the Pan-Grave was a nomadic or seminomadic culture (a loaded term in itself!) that can be archaeologically detected in Egypt and Nubia over a period spanning from the late Middle Kingdom up to the early 18th Dynasty. Its origins are obscure, but its people appear to have come from somewhere in the Eastern Desert, although evidence for this is minimal at present. Its name comes from the shallow 'pan-shaped' graves that were discovered by Petrie in 1898 in conjunction with the distinctive material culture, consisting above all of black-topped and incised pottery, by which it can be identified. However, as their graves can also be deep and rectangular, this moniker is a bit of a misnomer, and just one of the many concerns that still need to be addressed when it comes to understanding the Pan-Grave.

The Pan-Grave people have long been linked to the Medjay of Egyptian texts, but this connection is questionable. This association led to the long-standing belief that



Selection of decorated Pan-Grave pottery from HK47.

Pan-Grave soldiers served as mercenaries fighting on the side of the Theban rulers against the Hyksos, but this is another assumption now under scrutiny.

Perhaps the biggest question about the Pan-Grave culture is: where did it go? It seems to disappear from the archaeological record in Egypt in the early 18th Dynasty. It has long been assumed this was the result of 'Egyptianisation', i.e., their material culture became so heavily influenced by Egypt that it ceased to be recognisably different. Yet, my own research has shown that this is not the case; Pan-Grave material culture remained distinct and easily detectable into the early 18th Dynasty in both Upper Egypt and Lower Nubia. I'm currently exploring the possibility that Pan-Grave communities were deliberately moved out of Egypt by the



Pan-Grave pottery selection from HK21A.



My favourite: a Pan-Grave bowl with an undulating rim from HK47. Is this evidence of Egyptian influence?

Egyptian government, perhaps to support their efforts in restabilising Nubia at the beginning of the New Kingdom. This remains a theory, but obviously there are still many issues surrounding this enigmatic culture, so I jumped at

chance to gather new information from Hierakonpolis, and especially from the pottery. This turned out to be more interesting than you might think.

The focus of my PhD was to define the Pan-Grave ceramic tradition, and to identify regional variation and chronological developments. Most existing studies give the impression that Pan-Grave pottery is quite homogeneous, and in the broadest sense, this is true. Fairly consistent and easy to recognise, it is handmade, comprised almost exclusively of open bowl forms,

very often with a black top and black interior, and is decorated with simple linear incised decoration. Despite its overall similarity, there are important variations within this ceramic tradition. One result of my research was to distinguish at least five regional variants, defined by differences in surface treatment, black-top technique, and decoration. These regional groups were used to identify at least two chronological phases for Pan-Grave pottery. These new discoveries are helping to clarify various outstanding issues.

Coming to Hierakonpolis already sensitized to detail, I was amazed by just how different the two cemeteries are from each other, despite being less than 2km apart. The variation in Pan-Grave pottery is more clearly evident between localities HK47 and HK21A than in any other area I've studied. HK47 yielded the greater quantity and the pottery was better preserved. There was a broad variety in terms of quality, size, shape, and decoration, with pottery ranging from fine and burnished to coarse and utilitarian. Less pottery was found at HK21A and it was also less well preserved, but on the whole it was noticeably finer, more carefully finished, and also more consistent in quality. From a purely qualitative perspective, the pottery from HK47 shares more in common with pottery from Lower Nubia, in being thickwalled, soft, and slightly coarser in texture. By contrast, the pottery from HK21A is finer, harder and feels more like pottery from sites in Middle Egypt.

My initial thought was that there was a chronological difference between the two cemeteries since the sites I studied in Middle Egypt are (mostly) later in date (late Second Intermediate Period) than those further south. However, the Egyptian pottery from both HK sites threw a spanner into the proverbial works. As is usually the case, Egyptian pot-

tery is often the best indicator of date at any given site. There isn't a lot of Egyptian pottery from either locality, but what does survive suggests that both are roughly contemporaneous. The Egyptian evidence points to a date in the late Middle Kingdom (i.e. the 13th Dynasty), but more accurate dating is impossible given the limited data at present.

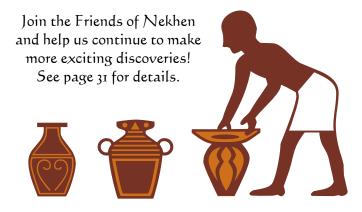
This apparent contemporaneity makes the differences between the sites all the more fascinating. How can it be explained? Is there really a chronological difference and are we being misled by the



Aaron at work drawing Pan-Grave pottery.

minimal data? Is it evidence of sub-cultures within the broader Pan-Grave cultural entity? Were the two cemeteries used by different family groups or clans living in the area at the same time, each with its own distinct style and perhaps coming from different places?

These are complicated questions and there is of course only one way to find the answers. Renewed excavations at HK47 and HK21A are planned for the 2017 season, thanks to the Michelle McLean Travelling Scholarship for Egyptology from Macquarie University, Sydney. I'm very excited to be able to gather new data on this mysterious culture of which I have grown so fond. Considering the remarkable amount of information that was retrieved during preliminary testing all those years ago, I think we are in for a season of fantastic discoveries. Can't wait!



Yet More Tattoos!

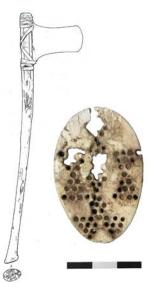
- Renée Friedman, Director, Hierakonpolis Expedition

Yes, there are more tattoos, but this time in a most unexpected place (I mean geographically). While sorting through the copious amounts of animal hair retrieved in 2001 from hide-lined Burial 12 in the Pan-Grave cemetery HK47A (see *Nekhen News* 13:23), out popped pieces of pale papery material, recognizable as human skin. On some of them were vague spots, which in the past would have been dismissed as dirt or fungus, but now with our handy infrared camera we can see them for what they really are: tattoos! These are the first tattoos attested for the Pan-Grave culture and are especially interesting when compared to the better known examples of the nearly contemporaneous C-Group.

While the tattoos of both cultures may be considered part of a general Nubian tradition that depended on patterns of dots (as opposed to figural designs) to convey meaning, this is where the similarity seems to end. The still limited data reveal significant differences in design, application method and ownership.

To date, permanent body marking as practiced by the C-Group appears limited to women. In the C-Group cemetery at HK27C, tattoos were observed on three older ladies (*Nekhen News* 26:28), at least two of whom were further distinguished by specific articles of attire (see page 22). The tattoos present on them and the four other known examples (a woman from Kubban in Nubia and three presumably Nubian women from the court of the 11th Dynasty king Nebhepetre Mentuhotep found at Deir el Bahari), while also applied to the arms and upper chest, were concentrated most heavily on the lower abdomen and were probably not often on public view.

In contrast, the Pan-Grave tattoos belonged to a young man, 18 to 23 years of age. Unfortunately his burial was badly disturbed so we cannot tell how many tattoos he may have had, but amongst the quantity of skin recovered, the two large pieces bearing clear markings can be placed on his shoulder and upper chest. On them, the pattern of dotted triangles stands in contrast to the dotted diamonds favoured by the C-Group. These diamonds, usually composed of four evenly spaced dots per row and often arranged in a checker-board pattern, were



Decorative plaque for an axe and hypothetical reconstruction (British Museum EA63196).

apparently applied with a multi-pronged implement. The dots making up the triangular shapes on the Pan-Grave man, on the other hand, must have been applied individually with a single needle.

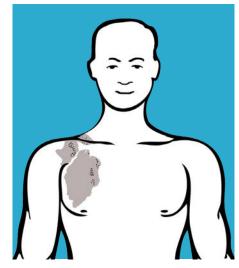
While the diamond patterns of the C-Group tattoos are also found incised on their distinctive pottery and figurines, no exact parallels for the triangles are readily apparent on the items of Pan-Grave material culture, except one. Strikingly similar is the pattern on a few oval bone plaques decorated with dotted triangles in-filled with black gum. Although rare, they seem to be specific to the Pan-Grave



Tattoos on the shoulder (back and front) of the Pan-Grave man buried in Burial 12 at HK47.

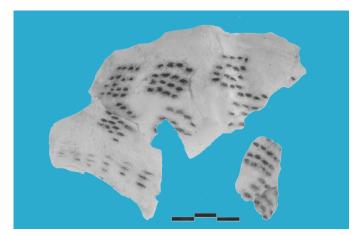


Tattoos on the chest.



Proudly displayed: reconstructed location of the tattoos.

culture and have been interpreted as embellishments for the ends of axe handles. Was the dotted triangle a mark of bravery or power, making one strong as a battle axe? Or did such ornamentation imbue the axe with life force? It would be wonderful to be able to make such a connection, but if the tattooed man in Burial 12 ever owned an axe, we will never know, since the grave was so disturbed. Nevertheless, the robbers left behind much, even if in fragmentary condition, by which we can reconstruct the appearance of this man: necklaces of beads made of faience, ostrich egg-shell, and Red Sea shells; mother of pearl armlets; a leather kilt with linen lining; masses of dark hair in tight ringlets; one perfectly mummified foot (size 43); and, of course, his marvellous tattoos.



Dotted diamond tattoos, typical of the C-Group (HK27C Tomb 9).



Pioneer of Egyptian Rock Art Research: The Tragic Life of Hans Alexander Winkler

—Fred Hardtke, Macquarie University, Sydney, Australia

A cacophony of percussion and flute opened the performance, easing into a steady rhythm, announcing the start of the Zar ritual. With staring eyes, heavy with kohl, the medium called upon the spirits to enter her body. Seated amongst the tiny audience I cast my mind back to the past week spent in the Western Desert, where I had seen instances of rock art images, in sunken relief, filled with a white sheen that became magical in the clarity of the desert afternoon. Though the rock art was four or five millennia in age, the white colouring was precisely 69 years old at the time. It had been applied to enhance the photographic potential by a man who is arguably the father of Egyptian rock art—Hans Alexander Winkler. Only much later did I realize that I had retraced some of his footsteps, for he came to Egypt as an anthropologist to study possession magic (such as the Zar ritual) before concentrating on his seminal research on the region's rock art. It comes as no surprise to me that his interest in magic and the other-worldly ultimately also attracted him to the images etched on rocks.

It was explained to Winkler by a local: "The Zar comes from the Sudan, from the Barabra, in other words, the Nubians. Zar spread in the country only after the coming of the Europeans, and it began to ride the daughters of the Arabs". Winkler goes on to explain that: "Each spirit has its own tune: When the tune is played it answers through the mouth of the possessed and demands something for the afflicted victim..." It is apparent from Winkler's approach to rock art that he drew very much on his interest in the anthropology of cult and ritual.



Hans Winkler and wife Hayastan (from Horst, 1995. *Bausteine zur Tübinger Universitätsgeschichte* 7: fig. 1).

Winkler's work is a key resource when studying the petroglyphs at Hierakonpolis. The location of these drawings, within the Nile Valley and in proximity to archaeological localities, makes them in many ways unique. Winkler was one of the few researchers to have spent a significant amount of time researching within the Valley. Traversing it from the Qena Bend to Aswan (but, as far as we know, not stopping at Hierakonpolis), he recorded rock art that has much in common with the motifs at Hierakonpolis, much of which is no longer extant.

Born in Bremerhaven, Germany, on February 14, 1900, Winkler was educated at Tübingen University and received his promotion on the basis of a thesis "On the Nature and Origin of Some Muhammedan Magic Characters" in 1925. Three years later he was appointed assistant at the Oriental Seminar at Tübingen, a position he lost in 1933 when the newly installed National Socialists became aware of his former membership in the German Communist Party.

In the spring of 1932 Winkler travelled to Egypt for the first time, spending two months in Naj' al-Kīmān in Upper Egypt, magical researching beliefs. There, he came across a spirit medium named 'Abd al-Radi who was periodically possessed by the ghost of his uncle and with whom he forged a longstanding friendship. In his possessed state the medium was able to describe circumstances in Winkler's life and predict future events—even Winkler's discovery of rock art. Winkler writes in his notes: "On March 11 (1934), I visited 'Abd al-Radi shortly before my depar-

ture the next day on my desert trip. The seer promised me a beautiful find—three rock walls, in the corner of which, crowded together would be pictures and inscriptions, somewhere to the north of the desert road from Qift to the Red Sea." Winkler reports that on the following day he discovered a site as prophesised.

Over the years, Winkler made several trips to Upper Egypt. In 1936 he published Egyptian Folklore and The Riding Spirits of the Dead, followed in 1938–39 by his major studies of Egyptian rock drawings, the initial results of a project which had been funded by Sir Robert Mond under the auspices of the Egypt Exploration Society in London. This study took him on long forays along the Nile Valley,





Rock art parallels: Winkler's work (above) provides the closest parallel to the elephant discovered at Hierakonpolis in 2012 (below). Both share the distinctive one-up/one-down ears and chevron body decoration. This suggests that both come from the same cultural tradition, despite the fact that about 260km separate them, as Winkler's elephant is at a site west of the Kharga Oasis (Winkler photograph courtesy of the Egypt Exploration Society, London).

into the Eastern and Western Deserts, and as far as the Uweinat region on the Libyan border.

With the advent of the Second World War things changed for the worse and Winkler's life became full of ironies. Despite his black-listing, he was employed as the German cultural attaché in Tehran from 1939 to 1941. Following the invasion of Iran by the British and Soviets, he was transferred to the German Afrika Korps. Thereafter former colleagues, with whom he had traversed the deserts in search of rock art, became his enemies.

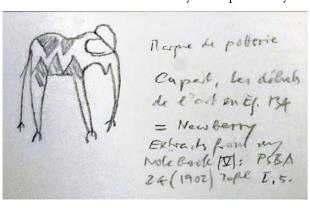
In the end, it was not Winkler's destiny to complete his publication of rock art. He returned to Germany when his son, Heiko, deserted the army. In mitigation, Winkler himself enlisted and was transferred to the eastern front. Whilst on leave in November 1944 he read his final contribution to academia (a paper on German cultural history) to his wife, in the cellar of their home during an air raid. This would be their last meeting—Winkler fell defending the

town of Toruń against the Soviets in January 1945.

Winkler's life was tragic and short, but he left behind a lasting legacy in the form of photographs, field notes, and personal correspondence now held by the Egypt Exploration Society (EES). I had the good fortune to consult this archive last year as part of my research into the rock art of the Hi-

erakonpolis region and benefited greatly from his observations on amazing scenes and magical places, many of which have since been disturbed or completely destroyed. For his heroic efforts, I am deeply grateful.

I wish to express special thanks to Carl Graves of the EES who greatly facilitated my visit to the archive and looked after my every need.



Page from Winkler's notebook.

TT110 Epigraphy & Research Field School Visits

—JJ Shirley and Will Schenck, Directors of the TT110 Epigraphy and Research Field School

The Epigraphy and Research Field School (run by the authors with the assistance of Yaser Mahmoud, Sayed Mamdouh, and Hazem Shareed) trains its carefully selected Egyptian students in epigraphic recording and research methodology. The program utilizes for this purpose Theban Tomb 110, which belonged to the royal butler and royal herald Djehuty, who served under both Hatshepsut and Thutmose III.

Every season, as part of the program, we like to take our students on a field trip that will prove both interesting and informative for the epigraphy work in TT110. In 2016 we visited the site of Hierakonpolis specifically to see the New Kingdom tombs and learn from the epigraphic drawings done of them in 1998–2001, many by our own Will Schenck.

So, on Friday March 18 we got up even earlier than usual, gathered the students (almost all of whom were wearing their new field school t-shirts as instructed), and hit the road! Not too many pit stops (and remarkably no wrong turns) later we arrived at our destination, where we were warmly welcomed into the dig house with tea and cookies. This proved an opportunity to review drawings Will had made so many years before, giving the students a useful introduction not only to the decoration but also to some of the epigraphic difficulties of the original work. We then made our way into the desert and began our ascent of the Burg el Hamam (Pigeon Hill) to view the tomb of Hormose.

Hormose is one of the last decorated tombs of the New Kingdom, dating to the reign of Ramesses XI, and was painted by artists who were based in Thebes. The tomb has been severely damaged and blackened over time with much of the plaster falling away. The epigraphy program undertaken by Will thus had to tackle many of the same difficulties our students were finding in TT110. Will's famed '5

steps' of epigraphy grew out of the recording method he developed to copy Hormose. The students had a field day examining the walls and critiquing Will's drawings accompanied by much hilarity but also awe. That the mutilated walls could still yield detailed and coherent scenes to the dedicated epigrapher was a lesson for us all.

A quick visit to the tomb of Hierakonpolis' Djehuty (early 18th Dynasty) gave the students insights into the recording of fugitive paint and sunken relief. The tomb's carved stela, reminiscent of those they had just recorded in TT110, really caught the students' attention. They were especially taken by the even smaller size of the hieroglyphs and probably greatly relieved that what they thought had been difficult in our Djehuty (TT110) could have been much worse.

All too soon the tour was over and, after the mandatory group photo, we headed back to the dig house for a picnic lunch before making our way back to Luxor (with just a brief detour at the Fort). At 5pm an exhausted but contented field school group returned home, knowing only too well that we all had to be back at work first thing Saturday morning.

It was truly a wonderful day and rewarding experience for students and teachers alike. We are very grateful to Renée, her team, and the Edfu inspectors for sacrificing their day off to share with us some of the site's hidden treasures.

The TT110 Epigraphy and Research Field School is financed through the generous support of the American Research Center in Egypt via an Antiquities Endowment Fund (AEF) grant made possible by USAID. For more information about the TT110 ERFS, see our blog at: tt110erfs.blogspot.com.eg/p/home.html



Group photo of the TT110 ERFS team on Pigeon Hill.



Enjoying the tour in the tomb of Hormose.

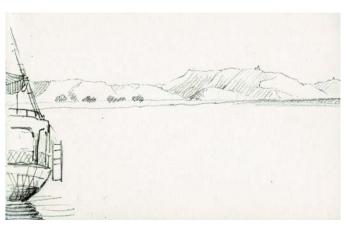
A Letter Home

- Renée Friedman, Director, Hierakonpolis Expedition

In 1998, Mr John Green, the youngest son of the famous excavator of Hierakonpolis, Fredrick William (F.W.) Green, made a gift of his father's field diaries, which have proved to be a treasure trove of information and observations (see Nekhen News 10:15-16; 11:24-25). Sadly John Green has since passed away, but his wife Sheila still keeps an eye out for things that might be useful for our research. Recently she presented us with an unassuming plastic bag of odds and ends as she put it. Within was far more than that: along with a little notebook with F.W. Green's sketches of Nilotic scenes were his personal copies of *Hierakonpolis I* and *II*! And if that wasn't exciting enough, tucked inside one of these volumes was a letter from 1898 addressed to Fred's mother, written on his behalf by Somers Clarke, as it seems he was just too busy uncovering the "extraordinary" things we would later come to know as the Main Deposit! This remarkable eye-witness report helps us to understand the timeline of these momentous discoveries and provides a rare snapshot of life on that amazing dig.

El Kab, Basselieh Dear Mrs Green, Feb 27, 1898

You will like to have an eye witness's report of Fred, who is now here and has been with us for some few days. He came direct from the desert after but four or five days in Cairo and looks in splendid condition. Brown, plump and well looking. We cannot in our quiet place offer any adventure but I think a change from the never ending camel is rather acceptable and, where our excavations are going on, we have some work of extreme interest. We are now unearthing a very ancient temple and from the foundations there come forth all manner of things, some of extraordinary value to Egyptologists. We have found



View across the Nile from Hierakonpolis from F.W. Green's sketch-book.

a hawk's head, life size, of gold and beautifully modelled. A bronze statue, 6'6" high, alabaster vases, all sorts of treasures. There are yet hundreds of things in the ground and Fred is busy all day tenderly uncovering them from the place in which they have laid for 3 or 4000 years at the least or that may be 5000.

We have had deplorable cold weather—the last three months have been the coldest that have been known within the memory of man. The thermometer has often been below freezing. The crops are, in some cases, almost destroyed and want and hunger stare the poor people in the face. It is a sad business and I suppose the government must come to the rescue. Now, since four days the weather has changed. It is summer. The sun is a power, the air is warm and everything looks beautiful; also the flies have promptly come to torment us.

With kind remembrances to your husband, Believe me, yours sincerely, Somers Clarke

El Kal. Bassaliel. Tef 27. 1898 Dear Tur green you will like to have an eye witnesses report of Fred, when in Two here & has been with us for Some few days . We came direct pour the desert after but four or Sine days in Cano a looks in splender Condition. Brown plump I will liking . We cannot in our quan place offer any adventure. but I knik a change from the never awding carrel is rather acceptable and where our or carshour an joing as we have some work of

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The letter.

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.

In return for your contribution 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.

Help the Hierakonpolis Expedition to continue its important work. Your contribution (tax-deductible in the USA) 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.

Ways to Contribute

I would like to help the Hierakonpolis Expedition to explore and conserve the site of Hierakonpolis, ancient Nekhen. In return for my contribution (tax-deductible in the USA), I will receive the annual newsletter, the *Nekhen News*.

The contribution category I prefer is:

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 This is a renewal for the 2017 season. (If you have already renewed, thank you!)

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The back-dirt dump at HK6: Let's make this mountain into a mole-hill!

Time to Dump the Dump!

You know the old archaeological adage—wherever you put your back dirt, you'll have to move it? Well, it's true. We've been circling the back dirt pile for several years, hoping it might move itself, but for some reason it hasn't. It is the last impediment to joining up the tomb complexes with the Pillared hall precinct at HK6, making one contiguous excavated area. If we are ever going to work out how it all fits together, it has to go, and now is the time. It's a big job, but one that will also provide much needed employment for the community at this time of economic hardship in Egypt. It won't be cheap, so we are asking for just a little extra to help us put the back dirt behind us. Thanks!!

Special contribution for Dumping the Dump	4
\$/£Æ	

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Highlights of 2016



A harvest of new potatoes at HK11C (page 10).



Colourful leather of the C-Group recovered (page 22).



Pondering Pan-Grave pottery (page 24).



Of pots and posts at HK6 (page 4).



Looking at lions (page 8).



Wondrous wands (page 20).



From the new sketch-book of F.W. Green (page 30).