



NEKHEN NEWS

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Mohamed Ibrahim with fresh finds from HK6.

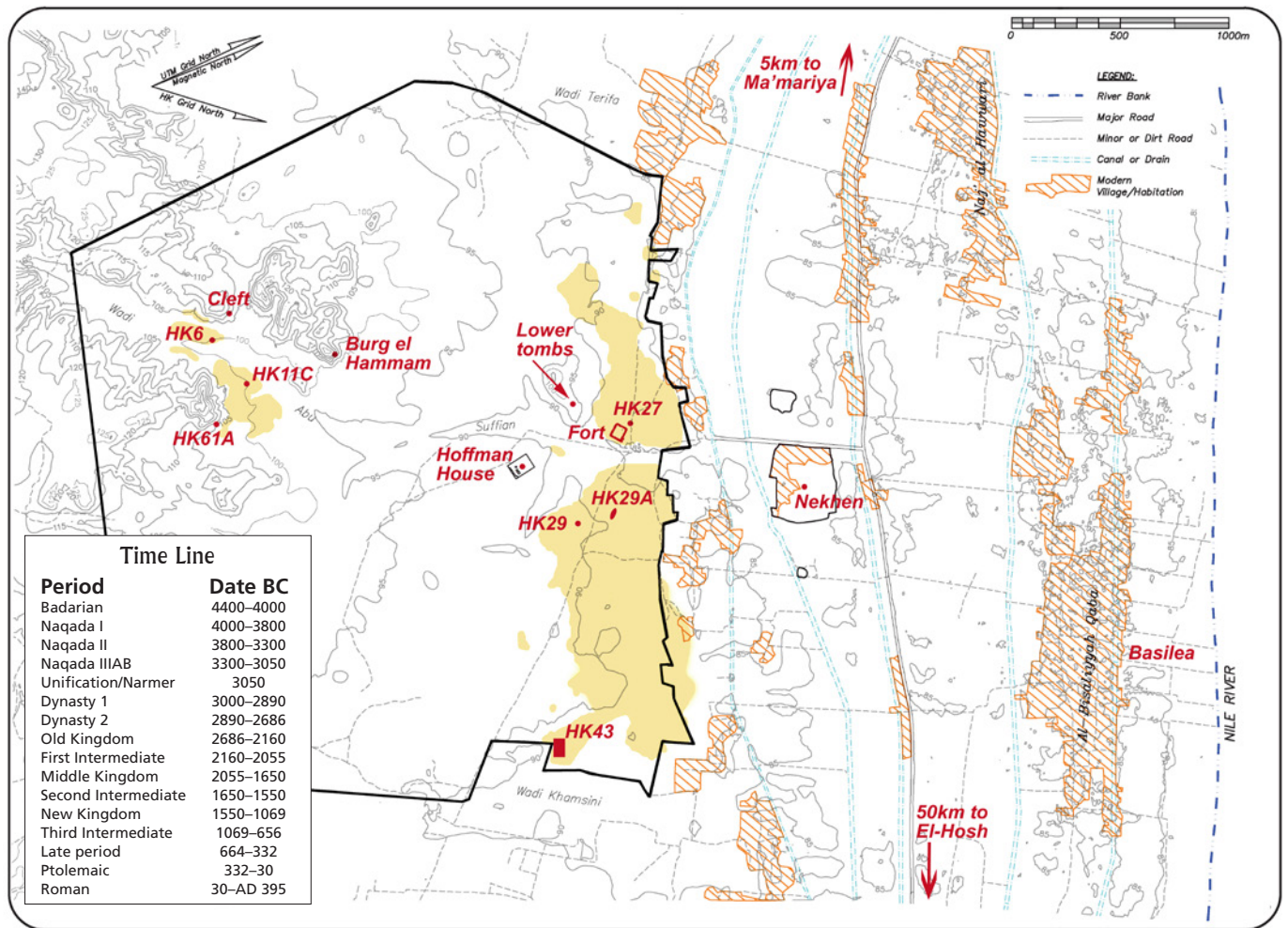
New Discoveries for a New Decade

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A Little Bit of Everywhere: Hierakonpolis in 2020



Thank you so much!

A heart-felt thank you to all our Friends of Nekhen for your continuing support during these trying times. We are especially grateful to Tom & Linda Heagy and Bonnie Sampsell, whose generous support is deeply appreciated; Geoff Phillipson, David Aid, Grier Merwin, Patricia Perry, Crennan Ray, Dagmar Bird, Mel & Joann Hunt, Fred Botha, Richard Fazzini, Mark Gajewski, Matthew J. Adams, Leanna Gaskins, Tracy Gill, Richard Grant, Rose Halsall, Annie Haward, Alan Lloyd, Eileen Nash, Hans Øvlisen, Ulla Søhuus, Lyn Stagg, Joe Smolik, Johannes Jeppesen and Patricia Jayne. For their kind support, we also give thanks to John & Sue Robinson, Andrew & Elizabeth Beeston, Dave Counsell, Cindy Farrington, Angie Gillespie, Susan Hollis, Roz Park, Jennifer Quinn, Birgit Schoer, Tinne & Preben Mogensen and Helen Lowell.

With sadness we mark the passing of long-time Friend, Pamela Carr-Taylor, and we are deeply touched by her generous legacy, which will help us continue our work.

We are also grateful to Larry Berman of MFA Boston for help in figuring out the figurines, and Peter Lacovara and Susan Tower Hollis for sharing their archival images. Support from the Cotsen Institute of Archaeology, UCLA, allowed Jeffrey Newman to undertake his metals research. Keita Takenouchi's study was funded by a Grant-in-Aid for Young Scientists from the Japan Society for the Promotion of Science.

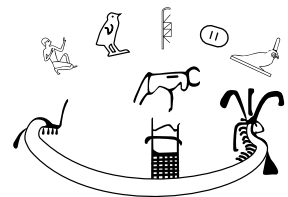
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Housekeeping

—Renée Friedman, Director, Hierakonpolis Expedition

In this most extraordinary and difficult of years we count ourselves as very fortunate to have been able to undertake our field season and get safely home as scheduled. Kicking off the delayed 2019 campaign in mid-November, we finished it up (perhaps inauspiciously) in the midst of a howling sandstorm, just in time, on March 14, 2020. While certain restrictions on our permits meant that we could not do everything we would have liked, it did give us the opportunity to concentrate on some long-overdue housekeeping. Rather than being onerous chores, they took us on a voyage of discovery all over the site, as we explored new areas and reinvestigated old ones. In fact, practically no locality was left untouched. As a result, we have adopted a more or less geographical (rather than chronological) arrangement for this volume, as if one were visiting the site, starting near the edge of the cultivation and moving into the desert and beyond.

First amongst our housekeeping tasks was to give the decorated dynastic tombs a much needed refresh, with a little help from our friends in Edfu (pages 4–5). Next, we turned to fortifying the Fort (pages 5–8), an activity that not only provided a worrisome crack with some essential support, but also revealed perhaps the last surviving evidence to show that the monument had been white plastered both inside and out. It must have been stunning!

While these conservation measures were on-going, we then addressed our (rather long) to-do list. As those of you who have visited the site well know, pottery is our most numerous find-category, so it's no surprise that we started there. Reviewing the ceramic assemblages from the burnt house at HK29 (pages 13–16) and tending to the mending at HK6 (pages 22–24) was labour-intensive work, but the valuable insights achieved, and the forgotten treasures recovered, made the effort all worthwhile. Of particular interest were the many and diverse marks found on the pottery, which remain enigmatic but remarkable nonetheless.

Next in find frequency probably comes bones (though in truth we haven't counted). Well-studied, our sizable assemblages from the HK6 and HK43 cemeteries can now be contrasted and compared with other previously 'orphaned' finds to produce meaningful results. Using this resource, analysis of the limited number of human remains collected over the years from the Fort Cemetery has shown that even a little bit can tell a large story when placed in the proper context (pages 9–10).

Context is also proving important in the study of the hard stone vessels from the ceremonial centre at HK29A (pages 11–12). Long neglected and highly fragmented (though still quite attractive), the collection was given its



Living up the Lower Tombs: Repainting the gates of Horemkhawef and Nyankhpepy.

first close examination in February, revealing further evidence for the type and nature of cultic and industrial activities taking place at this locality. Another industry that got some attention this year is metallurgy. Scientific analysis has brought into focus previously vague indications for copper working at the site, with some exciting implications and avenues for future research (pages 17–18).

Fortunately, we were not limited to just a review of our back-catalogue. We also ventured forth to HK6 to undertake further excavations at the north edge (pages 19–21). As always, the results continue to intrigue, and prove the amazing ceramic hippopotamus found in 2017 was certainly not alone. While out at HK6, the rock shelter bearing the inscriptions of New Kingdom visitors was also re-investigated and one of its more controversial markings scrutinized (pages 27–29).

Rounding off this volume is a guest article by former team member, Fred Hardtke, which fills us in on a newly discovered petroglyph at El-Hosh with implications for some of our own (pages 30), and the Ashmolean Object in Focus, featuring the Scorpion mace-head (pages 24–26). Unfortunately, due to Covid 19 restrictions, the Painted Tomb project had to be suspended, but we look forward to restarting it (and so many other things) in the very near future.

For their assistance and support during our season we thank the General Director of Aswan and Nubia Antiquities Zone, Abdelmoneim Said Mahmoud and the Director of the Edfu Inspectorate, Osama Ismael, as well as our most helpful site inspectors Mohamed Arafat Abu Ahmed, Mahmoud Selim Ahmed Riyad, Doha Fouad Ismael, Hoda Sayid Ibrahim and Wala'a Rekaby Ali. 🙏

Tomb Touch-up

—Renée Friedman

When the current expedition returned to the site way back in 1996 (see *Nekhen News* 8), one of the first things we did was put up metal gates to secure the dynastic rock cut tombs that still retained decoration. These are situated in two hills about 1km apart. In the ridge behind the Fort are the so-called Lower tombs of Itjefy/Nyankhpepy (Dynasty 6-Middle Kingdom) and Horemkhawef (Second Intermediate Period). Further back in the desert, in the Burg el-Hammam, are the tombs of Djehuty (18th Dynasty) and Hormose (20th Dynasty). Each one, in its own way, contains important historical, artistic, religious and textual information well worthy of protection. Over the years that have passed since their construction, the gates have served this purpose well. Equipped with high security bicycle locks, they have thwarted unlawful attempts at entry and the mesh screens have kept the bats and birds at bay. However, to keep them working at their best, after nearly a quarter of a century, it was time for a little touch-up.

This season we concentrated mainly on the tombs of Nyankhpepy and Horemkhawef, where prolonged exposure to sun, sand and wind had frankly left the paintwork on the gates looking a bit scruffy and the screens definitely worse for wear. A major refreshment was called for and that's what they got. First, all the metal work was sanded down, coated with an anti-rust primer coat and then painted in a smart beige tone that blends in nicely with the surrounding landscape. Next, heavy gauge mesh screening was rolled out and laboriously tied on. Brand new locks were also supplied, but the enhancements didn't end there. With the help of the team from the Edfu Temple Conservation Department composed of Mohamed (Prince) Bedawi Magazy, Abdel



Wala'a seeing to the ceiling in Horemkhawef.

Setar Sayed Hussein, Hatem Anwar Ahmed and Wala'a Rekaby Ali, we also addressed other issues. In the tomb of Horemkhawef, gaps in the damaged and eroding stone walls were filled, and the gate footing of both tombs were inspected and reinforced.

Not all of their efforts were driven solely by functional concerns—a little beauty treatment was also thrown in at no extra charge. The splendid ceiling in the tomb of Horemkhawef got a first class facial, and all wasps' nests, both old and new, were removed to reveal its full glory.

Up at the Burg el-Hammam, the tomb of Djehuty also got some attention. Here, crumbling gaps in the north wall were expertly patched to inhibit further deterioration and facilitate future monitoring. In addition, the bright white



Hatem addressing the stela of Djehuty and the final colour-matched results.



Prince and Abdel Setar reinforcing the gates for extra security.



Slice through 3D model with a new view on Horemkhawef's ceiling.



A little help from our friends: The Edfu Temple conservation team.

adhesive filler used to repair Djehuty's famous stela in 2000 was re-tinted to colour match the surrounding stone, enhancing the aesthetic appeal of this beautifully carved inscription.

Time did not allow us to address the major undertaking that will be the face-lift of Hormose' tomb (next year's task), but while all the others were looking so rejuvenated, it seemed the perfect time to refresh the photographic record. Thanks to the efforts of Luigi Prada, a detailed sweep was made across all of the tombs, enabling us to try out some new

structure-through-motion technology. Initial results from the tomb of Horemhawef, compiled by Paul Wordsworth, now allow us to view the cramped chamber in different ways and gain a better appreciation of its condition and its quirks. These models are already revealing hidden details and will be an invaluable record for future research.

Maintenance now complete on three out of the four, we have every confidence that the gates will continue to keep these tombs safe and sound for the foreseeable future and hopefully beyond. 🏛️

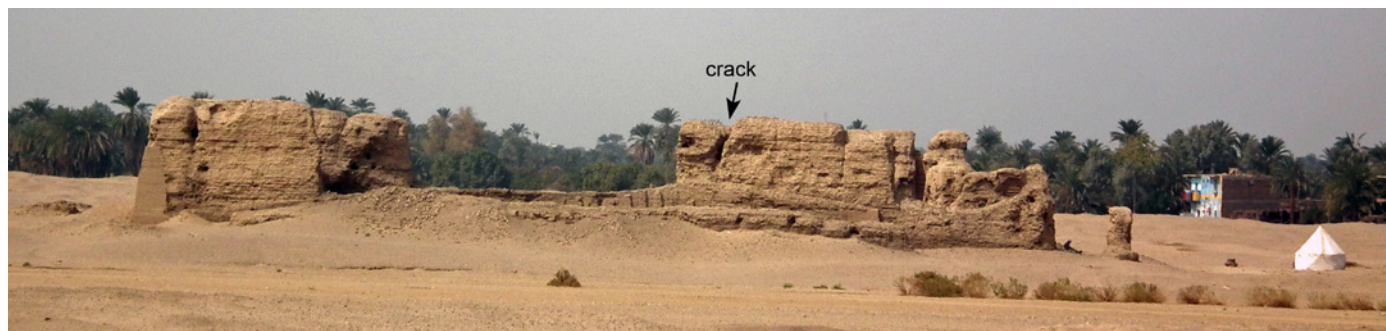


Fort Report: View from the Southern Flank

—Richard Jaeschke, Archaeological Conservator, UK, and Renée Friedman

It has been an area of concern for some time, and this season we finally turned our attention to it: the southern wall of the mudbrick ceremonial Enclosure of King Khasekhemwy, better known as the Fort. On the exterior façade, the south wall retains the best preserved of the original pilasters, the niched brick work that once graced all sides of the monument. On the other hand, the interior face of this southern wall, buffeted by the north wind and subjected to other insults, has not

survived quite so well. The wind has taken its toll on the middle of the wall's span, but spared segments to the west and east, which are still (nearly) full-standing despite the collapse and corbelling of their lower masonry. This condition is not entirely due to the weather, but rather reflects weaknesses inherent in the two-phase construction of the Fort, which were exacerbated by the excavation of Predynastic burials by John Garstang beside and beneath its walls in 1905 (see page 9).



The south face of the Fort and the area of interest in 2020.





South face interior: The crack and south corridor at the start of the campaign.


Over and above these general issues, a source of particular anxiety is a large crack that has developed through the upper wall in the eastern segment, which has been on our radar from the start. As our loyal Friends will remember, the Enclosure was the focus of a major conservation project by the Hierakonpolis Expedition from 2004–2010, when the areas most critical for its survival were stabilized and strengthened. Time and funds did not

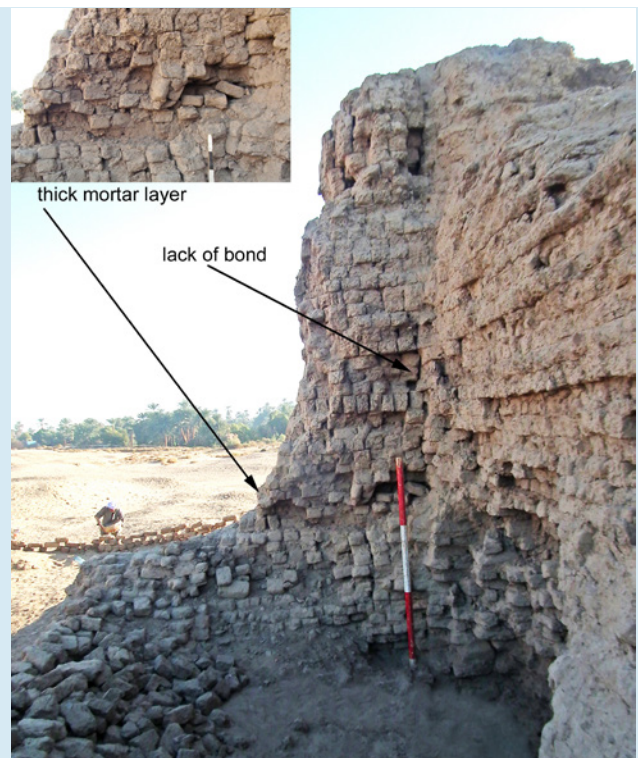
allow us to address the crack at that time, but over the subsequent years, we have kept an eye on it and the adjacent gateway area. While not in imminent danger of collapse, evidence of accelerating deterioration indicated that it was now time for action.

In preparation for this endeavour, we revived the brick making machine, and in December 2019 our skilled

Fort Faults: Southern Corridor

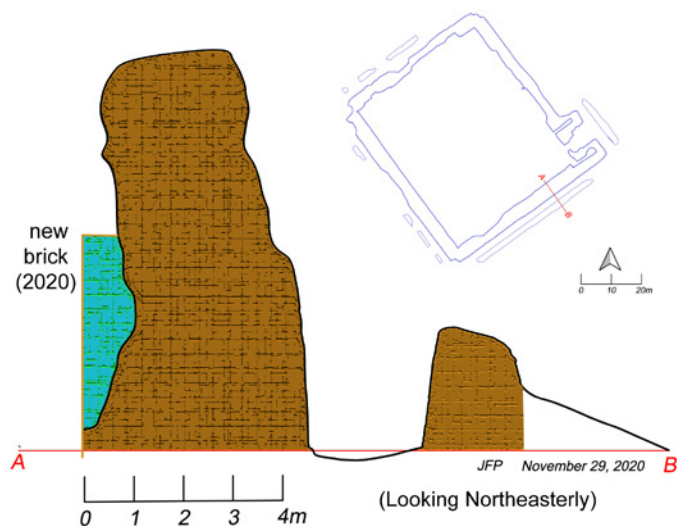
The crack was our major challenge, but between times we also took the opportunity to tend to the crumbling masonry in the corridor south of the entrance. Here, the walls were in poor condition for a variety of reasons, the most interesting being an apparent flaw in the ancient first phase construction. Evident now that the facing has fallen away, a very thick layer of mortar and bricks placed in various irregular positions runs at about 1 meter above ground level all along the south wall and around to the east. This suggests that when the walls had reached this height the first Fort builders encountered a problem. It is likely that subsidence in the sandy soil on the south side of the structure was the culprit, necessitating special measures to re-establish a level platform before building could continue. However, it is not at all clear how well these efforts worked in the end.

An especially thick and funky layer visible in the east end wall, coupled with an apparent lack of bonding at the corner, may indicate a wall collapse that was corrected only in the second phase of construction. Could these structural issues be the reason the first Fort was abandoned and plans changed when the walls were only just over 2m high? It is an intriguing possibility and one that might well suggest that we are not the first to be repairing the Fort. 



Something funky at the Fort: A thick mortar layer and lack of corner bond in the east wall of the south corridor suggest the builders had a serious problem.





Section through the south wall showing the brick bracing built in 2020.

workmen cranked out 1000s of new bricks. These were made to the specifications devised in previous seasons to match the ancient bricks in strength and texture as much as possible. Each one was also marked with our refurbished brick stamp so that the ancient and modern masonry can be easily distinguished in future.

To undertake the mission, we also reassembled the old team. Conservator Richard Jaeschke returned to supervise the stabilization, while professional mason Abdullah Nour reprised his role as master bricklayer with the assistance of Mohamed Musellah in the latter parts of the project. Our campaign at the Fort began on January 29 and finished as best it could in the midst of a raging sandstorm on March 12, 2020.

The troops rallied and supplies secured, we set off to confront the south wall. Here, the masonry of the interior lower wall had fallen away in some places up to a meter in depth and many fallen bricks lay slumped at its foot. Removal of the debris and replacement of the missing masonry was done incrementally, one small 2–2.5m area at a time, so as not to destabilize the wall. If no original bricks were found still in place, due to pitting or earlier tomb excavations, then the foundations were reinforced with good quality soil that was dampened and compacted to make it hard and firm. Once dry, new bricks were laid on this new foundation following the line of the ancient wall. As in previous seasons, the aim was to add support to areas of potential collapse—we were not attempting to rebuild the monument, only keep it standing by creating a brace. In areas where there are overhanging bricks this bracing is of crucial importance for preventing further disintegration and collapse through corbelling.



Going up in the shadow of the crack – one brick at a time.



Bracing the breach: As high as we could get in a sandstorm.



It's a Total Whitewash

In 2012 (*Nekhen News* 24: 21–22) Engineer and Egyptologist Angela LaLoggia calculated the time and labour it would have taken to construct the Fort. She estimated that *ideally* the Enclosure could have been fully completed in 719 days (2.5 years), based on a crew of under 200 men working full time for 8 days in their 10 day week/ 36 weeks a year. Her calculations included 49 days for 3 crews to apply the mud render and whitewash to the exterior of the monument.



At least he tried: Finger marks at the junction of the whitewashed wall and original floor show some attempt to clean up the drips and splatter.

We now need to update this project manager report to factor in the interior décor discovered this season. While the inner faces of the walls lack the pilasters and cover a lesser expanse, this is still not a small area to paint. And if it came with the added stipulation that the workmen had to clean up after themselves, I think we can easily add *ideally* another 49 days (2 months) to the schedule. As for time possibly spent tending to repairs—our own experience shows—that is incalculable!!



Quite a surprise: Ancient whitewash on the interior wall. Richard Jaeschke investigates.

Archival records show the area along the south wall had been intensively dug over by Garstang, so we were quite surprised to find a section he seems to have missed. During clearance of the fallen bricks just below the crack, we discovered a small segment (c. 1.20m) of intact masonry that preserved the original interior façade still coated with ancient whitewash, as well as a very small and perhaps last surviving part of the original floor. Miraculously also present were the prints of the ancient workman who had tried to wipe away the dripping paint from the junction of the wall and floor with his fingers. This discovery shows for the first time that the Fort was painted white in and out. On the exterior, notable amounts of plaster survive at the base of the south and east walls



New bricks for an old Fort.

and in isolated pockets elsewhere. Fully coated in white, it must have been a dazzling sight!

Over the course of the season, 14 meters along the base of the south wall were reinforced with 8 to 16 courses of brick as needed to promote overall strength and act as a lateral brace for the higher masonry immediately around the crack. Here a span of 4.5m was built up to a maximum height of 4.5m (42 courses).

The howling wind on the last day precluded further progress. In all, over 10,000 bricks were laid. We still have some way to go, but we can report that the 2020 campaign at the Fort was a resounding success: the reinforcements now provide the necessary support to stabilize the breach and the southern flank has been secured.

Before the Fort: Gleanings from the Fort Cemetery at HK27

—Anna Pieri, Livorno, Italy

Before the Second Dynasty king Khasekhemwy selected the commanding spot near the edge of the cultivation to build his Enclosure (the Fort), the area was a major Predynastic burial ground. In the late Naqada II period, as habitation moved onto the floodplain, this cemetery began to develop, and during the Naqada III period it grew to cover an area of approximately 15 hectares, servicing the general population. By the time Khasekhemwy arrived, the graves it contained may have been forgotten, but they didn't remain so. The massive monument he constructed has acted like a beacon in modern times leading to their discovery and excavation. Already in 1886, when Petrie first visited the site, the so-called Fort Cemetery was being ravaged by looters and in subsequent years, it would prove irresistible to numerous archaeologists. James Quibell (1898) and Henri de Morgan (1907) made investigations in the general HK27 area, while John Garstang (1905) and Ambrose Lansing (1934) mounted major campaigns in and around the Fort itself. Between them, over 300 graves were at least noted, and these archival records show that many were still intact, with bodies in good condition. Thus it is much to be regretted that the current whereabouts of the skeletal assemblages are unclear. Evidence uncovered by the current expedition suggests that the bones were either tossed to one side or left in a grave (though not necessarily the one they came from). In those early days, interest in physical anthropology was still quite limited and the value of osteological remains to tell us about life at Hierakonpolis during the changing times of the late Predynastic was unappreciated.



Fort Cemetery KHS78-6: An intact Naqada III tomb discovered inside the Fort by Walter Fairservis.

Fortunately, some information can still be salvaged from this once teaming cemetery.

In 1978 Walter Fairservis excavated inside the Fort and uncovered seven graves, most apparently the highly fragmented remnants of Garstang's work, but one (KHS78-6) was fully intact and surrounded by 18 pots dating it to Naqada IIIA1. In 1980, pieces of a unique incised ceramic coffin, observed on the surface to the west of the Fort, led Mike Hoffman to excavate what he called Tomb 1. Although heavily disturbed, bones from several individuals were recovered. Finally, in 1999, while testing magnetometry results around the Fort, we re-discovered, amongst others, a tomb from Lansing's work containing a complete skull with a potsherd marked 103 (see *Nekhen News* 11:16). All of these human remains were saved for future study.

This season, I took the opportunity to analyse these accessible skeletons. Admittedly not a huge collection, they still have a tale to tell. From the 11 graves, I was able to determine a minimum number of 24 individuals: 8 sub-adults and 16 adults, of which 3 were male and 7 female. The rest were not sufficiently preserved to make a determination. Only nine adults could be aged: six were 35–50 years of age at time of death, and three were aged 20–35 years. The seven children ranged between the ages of 3 and 8 years. As this assemblage is only a minimal part of the entire cemetery, it cannot be considered representative of general mortality trends. Instead it might be viewed as a highly random selection. But even in this small collection several pathologies could be observed. Concentrated on four of the older individuals (all female), they include



Fort Cemetery in 1905: Garstang's excavations along the Fort's south wall. The beginnings of the crack are visible to the left. (University of Liverpool Garstang Archive H108).

osteoarthritis (not surprising), but also a few healed fractures.

The most interesting observations came from the teeth. In general, dental wear was quite marked with high degrees of attrition, sometimes differing between the two sides. This might be a reflection of chewing habits or the influence of the relatively high number of pathological conditions that could be observed.

Dental pathologies were present in nine of the 14 adults with preserved teeth. Four individuals (2 males and 2 females) exhibited at least one carious lesion, with a total of six teeth affected. Four suffered from multiple abscesses, and in one case up to five teeth were involved (ouch!). Antemortem tooth loss (AMTL) was especially common: eight individuals had lost one or more teeth before death, with one older woman missing almost all of her molars and premolars (n=13). This condition is generally age-dependent, so it is not surprising that AMTL was most frequent among the older adults, but it was not limited to them.

These dental pathologies are particularly interesting when compared with the other cemetery populations at Hierakonpolis. In 2017 we studied the dental assemblages from the elite HK6 necropolis and the non-elite burial ground at HK43, both dating to the Naqada II period, and observed that the prevalence of dental disease was similar in both (see *Nekhen News* 29: 11–12). This is not the case at the Fort Cemetery, and the differences are rather striking.

Individuals	HK6		HK43		Fort Cemetery	
	Number	%	Number	%	Number	%
Caries	12/79	15%	52/196	27%	4/19	21%
Abscesses	5/56	9%	14/164	8.5%	3/14	21.5%
AMTL	4/56	7%	13/164	7.9%	8/14	57%

Teeth	HK6		HK43		Fort Cemetery	
	Number	%	Number	%	Number	%
Caries	16/852	1.9%	92/3176	2.8%	6/207	2.8%
Abscesses	15/622	2.4%	24/3147	0.8%	11/184	5.9%
AMTL	14/622	2.2%	52/3159	1.6%	26/266	9.7%

Counting the number of afflicted individuals and calculating prevalence against all individuals with preserved teeth or jaws, it appears that the percentage of those affected by dental pathologies is notably higher in the Fort Cemetery. Although caries are roughly the same at all three sites, abscesses and antemortem tooth loss are more than twice as prevalent at the Fort. Comparisons based on counting observable teeth/jaw positions show the same stark difference in frequency.

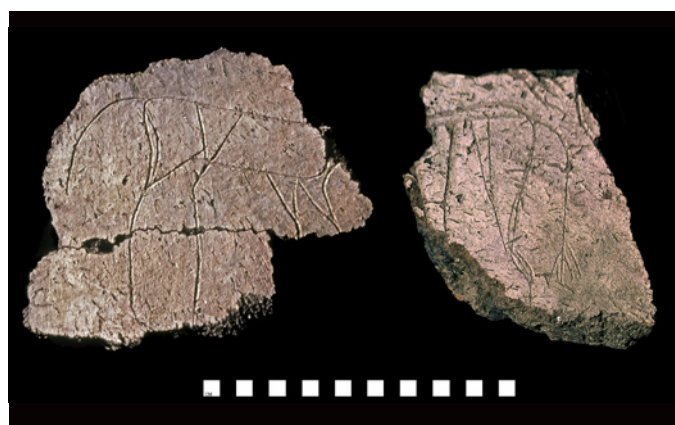
Such a small sample can only be suggestive, but what it does imply is that the population buried at the Fort Cemetery in Naqada III had a different method of subsistence than those buried at HK6 and HK43 in Naqada II. Many changes begin to appear with the onset of the state



Tell-tale teeth: Skull from Fort Cemetery Tomb 103 showing heavy dental wear, abscesses and antemortem tooth loss.

formation process in the Naqada III period. There are new developments in artistic styles, iconography, and writing as well as alterations in lifestyle with the move into more nucleated mudbrick settlements on the floodplain. New additions to the pottery corpus, such as bread moulds, also suggest changes in food technology, which could potentially impact dental health.

The comparable frequencies of carious lesions amongst all the cemetery populations might indicate similar access to carbohydrate-rich food. Yet, the higher prevalence of other dental pathologies at the Fort Cemetery seems to indicate a pervasive shift in food preparation and diet that affected oral hygiene. Our limited evidence suggests these changes mainly affected females, but a much larger sample will be needed to reveal the full impact on those living during the significant cultural and social transformations taking place at this critical time in Egyptian history. 🍂



Fragments of the incised coffin from Fort Cemetery Tomb 1 (1980).

Special Stones from a Special Place: Stone Vessels at HK29A

—Keita Takenouchi, Tokai University, Japan

In addition to the abundant bones of sacrificial animals, the plethora of flint attesting to the manufacture of fine tools and beads, and the accumulations of ritual pottery revealed by the excavations at the ceremonial centre at HK29A (see *Nekhen News* 15: 4–5), there is a collection of hard-stone vessel fragments unmatched in quantity and diversity in any other part of the desert site. Preliminary analysis of this material was undertaken in February 2020, first to identify the stone type and vessel shape, and then to determine date by comparison with complete vessels from other sites and the characteristics of the manufacturing technique. Due to time constraints (only 4 days!), I concentrated mainly on larger diagnostic pieces from a limited range of stone types. During my brief stay, I was able to study (in order of abundance) the fragments of andesite porphyry, basalt, grey limestone, travertine (including ‘banded alabaster’ and calcite), granite, anorthosite gneiss, pegmatic diorite, limestone breccia and metagreywacke. These make up about two-thirds of the total collection of 176 samples. Still to be examined are pieces of dolomite, white limestone, serpentinite and a variety of black and white speckled stones. While this work is still in its preliminary stages, some interesting observations are already emerging.

Stone vessels from a range of time periods are present. The earliest are probably the basalt jars in the typical long, slender shapes associated with the Lower Egyptian site of Ma’adi, where they were most likely produced. All have vestiges on the interior of the rough horizontal drilling also known from Ma’adi, further suggesting that these vessels

had been imported into Hierakonpolis during the Naqada I–IIB period (the time span of the Ma’adi site). Whether they reflect the earliest phase of activity at the ceremonial centre or are heirlooms remains unknown.

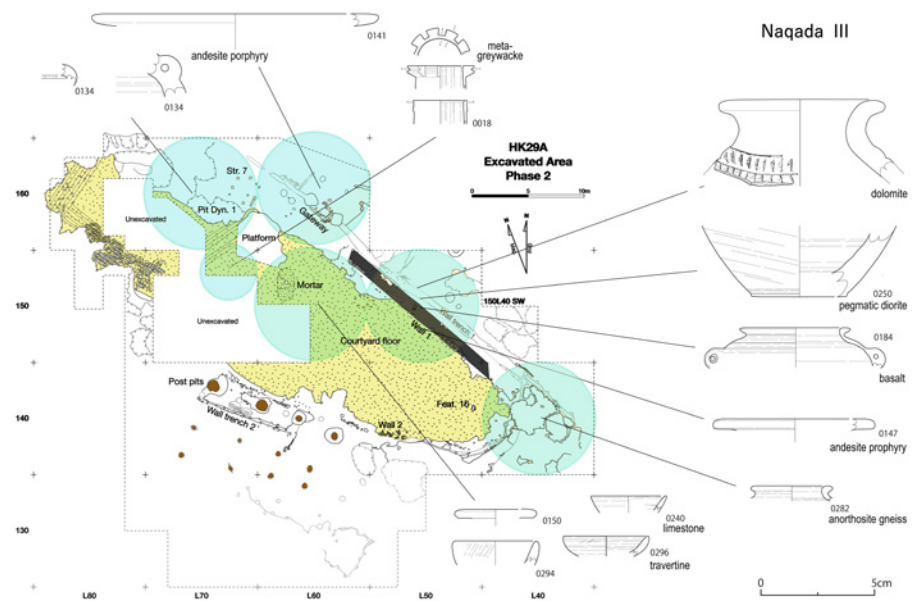
So far, only a few shapes in grey limestone and a globular vase of basalt with tubular handles can likely be placed in the Naqada IICD period. Happily, the evidence for dating becomes clearer in Naqada III—early First Dynasty. Although the refurbishment of the complex in Naqada IIIA resulted in the scattering of earlier materials, stone vessel fragments from this later phase all clustered on the north side and particularly around the so-called platform.

Notable are the fragments of black and white andesite porphyry (ledge rim, tubular handle and thick rounded body) coming from a large globular jar. With walls up to 3cm thick, it may well have had the impressive dimensions of the vessel from the Main Deposit at Nekhen now in Manchester, which boasts a diameter 61.5cm and a height of 56.5cm. Jars of this size are rare and occur only in the elite contexts of temple deposits and the Abydos Royal Tombs (cf. tombs of Den and Semerkhet). Diagnostic pieces from two other, somewhat smaller, vessels of the same attractive stone are also present at HK29A.

The high quality of the stone ware from this phase at HK29A is also exemplified by the remarkable cylindrical jar with walls just 4mm thick, carved with intricate projections around the rim. It is made of metagreywacke and is the only



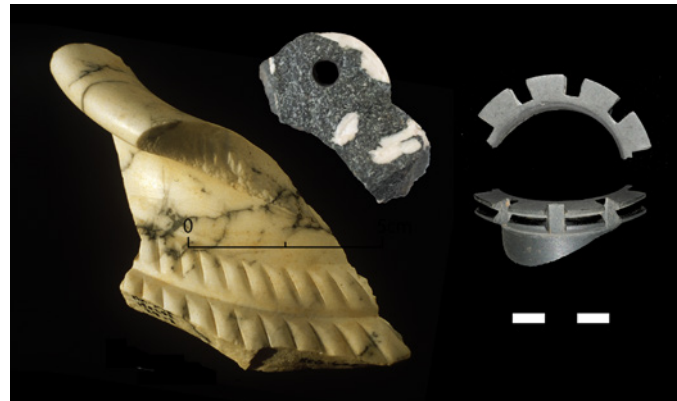
Fragment of a basalt vessel with rough drill marks and a crescent drill from HK29A.



Distribution of stone vessels at HK29A in Naqada III and early First Dynasty.



Large stone jar from the Main Deposit in the Manchester Museum (1776). Height: 56.5cm. Diameter: 61.5cm.



Royal quality stone carving at HK29A: Dolomite jar with cord design, handle of large andesite porphyry jar and Fancy vessel of metagreywacke.

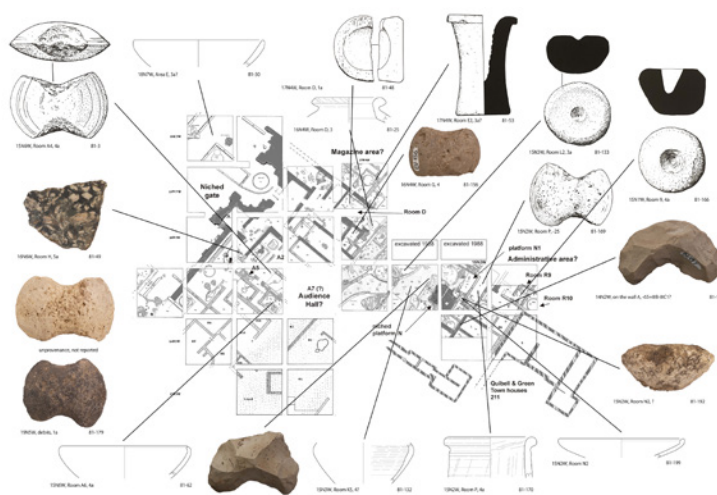
example of this material in the assemblage. The exterior surface is finely polished and just traces of vertical smoothing remain on the interior. This piece was manufactured with the exquisite skill and care only seen on the so-called Fancy vessels, which derive almost exclusively from the Abydos Royal Tombs. Similarly, a once sizable dolomite jar with corded design at the neck from the north side of the courtyard likely originated from the best of the royal workshops.

Less impressive but no less interesting, in the same area were a number of travertine and limestone bowls that appear somewhat smaller than examples from cemeteries. In size and shape they are in fact quite similar to bowls found in the Main Deposit and at other early provincial shrines, such as Tell el-Farkha. In contrast to the more elaborate cultic vessel, these small bowls may have functioned as votive offerings.

How many of these fine stone vases were made at the site is unclear, but a number of crescent drills and a large amount of chips and chunks of andesite porphyry, granite and limestone suggest that these stones (at least) were being crafted in the nearby workshops. The full range of materials potentially being brought to the site for manufacture remains to be determined, especially as the large stone assemblage from the adjacent HK29B still awaits examination (my next trip planned!).

HK29A was not the only place stone vessels were being produced in the Early Dynastic period at Hierakonpolis.

Excavations by Walter Fairservis in the palace at Nekhen uncovered remnants of vase making, some of which I was also able to examine during my visit. Most of the material came from the late First and Second Dynasty layers and, for the most part, their shapes accord with that date (although one large travertine jar may be a high status heirloom). Most were of travertine and appear little different from that known from contemporaneous tombs. Several crescent and figure-eight drills were also found within the complex along with some unfinished vessels (see also *Nekhen News* 27: 14–15). These tended to cluster near the back of the structure, in an area that has been considered possibly administrative.



Distribution of stone vessel and stone working tools in the palace at Nekhen during the late First Dynasty and Second Dynasty.

This location, deep within the palace, may indicate royal control of stone-working activities, a situation paralleled within the palace at Buto at around the same time.

At both the ceremonial centre and the palace, royal patronage of the stone workers can be presumed. Thus, it is interesting to note differences in their respective assemblages that are not only chronological, but also functional. The stone ware from the palace seems to address daily life concerns, while at HK29A the stone vessels appear to have featured more in ritual display and as votive offerings, especially in the Naqada III phase. Of course, these are just preliminary observations on this bounty of material and, as is so often the case at Hierakonpolis, further research may well show that the situation is far more complex. 🔑

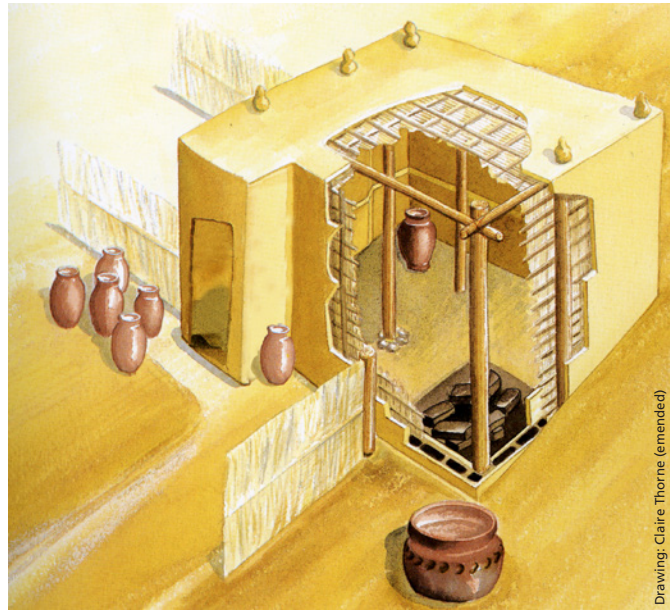
The Potter's House at HK29: A Comparative Reassessment

—Grazia Di Pietro, Hierakonpolis Expedition

Known as the potter's or burnt house, the rectangular semi-subterranean structure excavated by Michael Hoffman at Locality HK29 in 1978–79 still represents one of the few Predynastic domestic structures ever found situated within a compound indicative of the owner's craft. Indeed, the nearby kiln, overfired ceramic fragments, and mounds of potsherds all suggest that large quantities of pottery were being produced in the immediate vicinity during the early Naqada II period.

Over the years since its discovery, archaeological investigations have uncovered other domestic and industrial establishments in different sectors of Hierakonpolis. These have provided data that can be compared and contrasted with the finds from HK29, allowing for interpretations made in the early days of research to be reassessed. For example, the black residue observed on vat pieces from HK29 is now familiar from the breweries at HK24 and HK11C, making it likely that, in addition to pottery, beer or porridge was prepared at this workshop (see *Nekhen News* 20: 19). In addition, recent re-examinations of the painted C-ware sherds and spindle whorls (see *Nekhen News* 28: 8, 13, 16) suggest this locality is richer and more multi-functional than originally imagined.

In order to achieve a better understanding of the various activities once carried out by the people who lived and worked at HK29, as part of our housekeeping campaign during the 2019–20 season, we took another look



Reconstruction of the potter's house at HK29.

Drawing: Claire Thorne (emended)

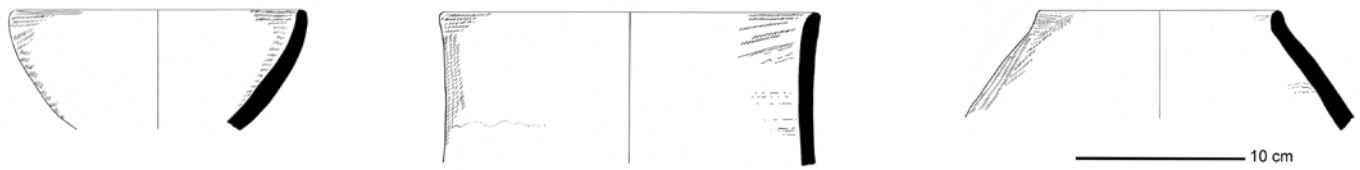
at the range of material retained from the 1978–79 excavations. In particular, we were interested in the ceramic collection, which includes a 10% random sample of the sorted rim types from three of the eight excavation units (Sq. –20L10, –20L20 and –30L10) and the full sample from within the 'burnt house' itself (Sq. –17L13), as well as other notable finds, such as sherds with decoration, signs of reworking and potmarks (see below). This material amounts to roughly 1,900 fragments—not an insignificant number, but still quite limited compared to the quantity of potsherds unearthed during the excavations, which totalled 357,866!

When Mike Hoffman and Michael Berger undertook the first analysis of this material, settlement ceramics were uncharted territory. Following in their footsteps, we now know much more. Thus, the first task was to record the pottery to modern standards so that accurate comparison could be made with other localities, and in the process we uncovered some forgotten treasures (see below).

For the purpose of comparison, two roughly coeval assemblages were selected: the ceramic collection from Levels 8–5 of the 1984 stratigraphic sondage at Nekhen in Square 10N5W, deriving predominantly from domestic activities (see *Nekhen News* 24: 13–14), and the material from Operation B at HK11C, the industrial complex in the



Plan of the portion of HK29 excavated in 1978–1979.



Fine ware	HK29			HK29 "Potter's House"			Nekhen			HK11C		
	Sq. -20L10, -20L20 and -30L10			Sq. -17L13			Sq. 10N5W, SS Lv 8-5			Operation B		
	N	%	%	N	%	%	N	%	%	N	%	%
Bowls	202	63.13		134	53.82		10	50.00		80	36.36	
Beakers	69	21.56		55	22.09		3	15.00		98	44.55	
Jars	45	14.06		60	24.10		6	30.00		40	18.18	
Other	4	1.25		0	0.00		1	5.00		2	0.91	
Total	320	100.00		249	100.00		20	100.00		220	100.00	

Proportions of fine ware bowls, beakers and jars in the comparable assemblages at Hierakonpolis (based on rim sherd count).



Rough ware	HK29			HK29 "Potter's House"			Nekhen			HK11C		
	Sq. -20L10, -20L20 and -30L10			Sq. -17L13			Sq. 10N5W, SS Lv 8-5			Operation B		
	N	%	%	N	%	%	N	%	%	N	%	%
Modelled rim jars	2892	70.85		1356	66.24		23	40.35		684	61.57	
Direct rim bowls	550	13.47		226	11.04		11	19.30		32	2.88	
Vats	63	1.54		131	6.40		0	0.00		185	16.65	
Other	577	14.14		334	16.32		23	40.35		210	18.90	
Total	4082	100.00		2047	100.00		57	100.00		1111	100.00	

Proportions of Rough ware bowls, jars and vats in comparable assemblages from Hierakonpolis (based on rim sherd count).

Wadi Abu Suffian where pottery and beer were being produced (see *Nekhen News* 21: 23–24).

The fine ware assemblage from HK29 (i.e., pottery made of untempered Nile silt with red, black or black-topped polished surfaces) includes a variety of mid-sized bowls, beakers and jars, presumably connected with the serving of food and drink and short-term storage. Vessels belonging to these broad shape categories are common in all Predynastic settlements; however, if we examine their proportions within the various assemblages considered here, some interesting similarities and differences emerge.

At HK29, bowls account for more than 50% of the fine ware assemblage, while beakers and jars are present in smaller amounts (21.56–22.09% and 14.06–24.10%, respectively in the analysed squares). In this regard, the HK29 assemblage in general, and especially the 100%

collection from within the actual house, is quite similar to that from Levels 8–5 at Nekhen, where bowls account for 50% and beakers and jars for 15% and 30% each. By contrast, within the fine wares from HK11C Operation B, beakers predominate (44.55%), while bowls (36.36%) and jars (18.18%) are less frequent. The similarities in the shape frequencies at HK29 and Nekhen may indicate that both assemblages reflect analogous activities, thus confirming previous suggestions that the fine ware at HK29 mainly addressed the everyday needs of the 'potter and his family'. This, however, does not exclude the possibility that some could also have been employed in other activities, such as food/beverage preparation that likely took place on a scale that transcended domestic necessities. The data from HK11C suggest that beakers in particular may have been involved in such larger scale operations.




Taking Note at HK29

—Renée Friedman

Further highlighting the diversity of the activities potentially taking place in and around the burnt house at HK29 are the number of post-firing 'potmarks' recovered during the 1978-79 excavations. More than 60 examples were found, all showing incisions applied to the surface after the pot had been fired, and thus presumably by the user rather than the maker (for potters' marks, see page 23). These incised marks appear on all types of pottery, but fine slipped and polished wares were especially favoured.

Most fragments now preserve only a series of lines, making it impossible to distinguish the full design or determine how many individual pots were involved. However, 'pieces' might be the more accurate description because, although generally called 'potmarks', such post-firing marks are actually not that common on pots, at least not in mortuary contexts at Hierakonpolis.

In the working class cemetery at HK43, of the roughly 400 whole and reconstructed pots, only eight have potmarks. At HK6, a similar handful of post-firing marks is known (n=7), amongst them a red polished bowl incised on the interior rim with an image of the goddess Bat (see *Nekhen News* 17: 14-15 and next page). The same motif is not difficult to perceive on a piece re-found at HK29 (see next page), although, in this case it is clear that it was the sherd and not the original bowl that was incised. This is likely the situation for several of the more interesting marks from HK29. Among the designs we can see ostrich, gazelle, an hour-glass shape incised on both sides, as well as compositions of varying intricacy.

Incised sherds or 'ostraca' are known sporadically from other localities such as HK29A, HK25 and HK11C (see *Nekhen News* 25: 13-14). Their exact purpose or function remains unclear, but one can presume they were intended to communicate or record some form of information. Interestingly, at HK29 these marked sherds appear to cluster in the more lived-in areas of the site, immediately around the burnt house itself and the associated structures to the east (Sq. -20L10, -20R0). Their frequency in this domestic/workshop compound suggests they were more than just idle doodles. Clearly, the practice was not limited to elite contexts, and it seems that scratching a note was as much a part of everyday life then as it is today. 



Selection of post-firing 'potmarks' on pieces from HK29.




'Ostracon' from HK29 incised on both sides.

It is mainly the straw tempered 'Rough ware' that may better reflect the crafts of the potter or, more generally, the artisans working at HK29. Three types of vessels were thought to represent the products of the workshop based on their frequency or evident similarity in manufacture. These include modelled rim jars (representing 66.24-70.85% of the Rough ware assemblage), bowls with simple rims (11.04-13.47%) and large storage jars or vats (6.40%). From the subsequent excavations at various breweries, the vats are now known to be associated with

food preparation and their sherds often reused in kiln construction. With this connection in mind, it is interesting to compare the percentages of all three types with HK11C Operation B. There, modelled rim jars and vats are also present in significant numbers (61.57% and 16.65% respectively). Considered to have been manufactured at the local kiln, they were used mainly to make and hold the beer produced at the same installation. However, of note is the difference in the prevalence of bowls. At HK29 it is much higher, possibly indicating a greater diversity in


the ceramic repertoire produced in this workshop, or more focus on food consumption than at the industrial establishment in HK11C. The assemblage from Nekhen contrasts with both of these localities; there is no evidence for vats, and the frequency of jars (40.35%) is far lower, while the incidence of serving bowls (19.30%) is much higher, which seems to be typical in domestic contexts.

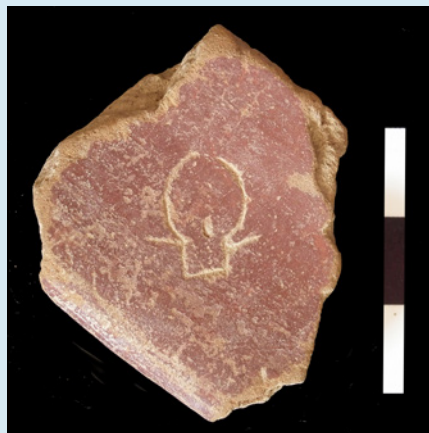
In general, the impression gleaned from these preliminary comparisons suggests that the pottery from HK29 stands midway between two extremes; one exemplified by a seemingly domestic collection from Nekhen, and the other

by a predominantly industrial assemblage from Operation B at HK11C. This is perhaps not surprising considering that the site includes both a house and a kiln. Overall, the HK29 ceramics bear witness to a variety of activities being carried out, some connected with pottery production, others possibly associated with beer preparation and storage, while still others may relate to food and drink consumption. Although these were common pursuits in Predynastic times, the way in which domestic and craft activities are combined appears unique and highlights—once again—the complex socio-economic organisation of ancient Hierakonpolis. 

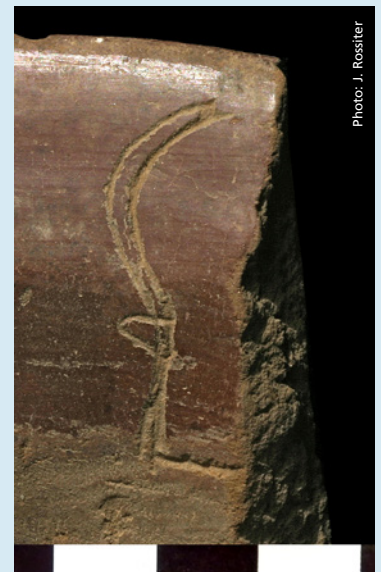
Bat-marks

—Renée Friedman

The bovine deity we call *Bat* is one of, if not, the earliest of the gods we can identify from Ancient Egypt. Some of her first and more illustrious appearances occur at Hierakonpolis. These include the incised potmark at HK6 (Tomb 16); on an ostracon from HK29; on the rim of a large andesite porphyry jar in the Main Deposit; and, of course, on the Narmer Palette. To this list of early sightings we are pleased to add the newly rediscovered sherd from HK29 as well as a pair of elegant Bat motifs applied before firing to a fragmentary cylindrical beaker from HK6. Clearly a popular figure at Hierakonpolis, Bat is still a lady of mystery. To learn more about her (and others), we recommend the latest comprehensive discussion in the new book by Susan Tower Hollis, *Five Egyptian Goddesses: their Possible Beginnings, Actions and Relationships in the Third Millennium BCE*. Bloomsbury, London, 2020. 



Bat rediscovered on a sherd from HK29.



Bat on the bowl from HK6 Tomb 16.



Bat on the Narmer Palette reverse.



Ostracon from HK29A.



New Bat motifs on a beaker from HK6.



Main Deposit jar rim: Bat reconstructed (Petrie Museum UC16245).

Seeing Green at Hierakonpolis: Copper and Copper-Related Industries at HK11C

—Jeffrey Newman, Dept of Near Eastern Languages and Culture, University of California, Los Angeles, USA

Today, the ubiquity of metal in our daily lives sometimes dulls our appreciation of the miraculous and labor-intensive processes needed to produce it. Intensifications in trade, pyrotechnics, human labor and organization are all required to make a finished, metallic object. In the process, aspects ranging from the search for mineral wealth, to the tools needed to extract and transform the ore and then distribute the final product, connect places and people that otherwise occupy differing spheres.

In Ancient Egypt, metal and related mineral-based materials, such as pigments, faience and glazes, were derived from natural resources located outside the Nile Valley proper. As social competition and elite consumption intensified during the Naqada II–III period, these mineral-based industries became more and more in-demand, necessarily expanding the focus of early elite-centers like Hierakonpolis beyond their borders and into the surrounding deserts. Metallurgical technology served not only a practical purpose (better weapons and tools), but also an ideological purpose. Metals were another prestige material used for consumption at the highest levels. These included the raw ore itself, such as malachite (copper carbonate), the most common type of green pigment associated with the greywacke palettes, as well as intensively finished items of jewelry, weaponry, ritual vessels, functional tools and model ones, to name a few. By the Early Dynastic period, there even is textual evidence for the creation of royal statuary in copper, anticipating the

famous statues of Pepi I found at Hierakonpolis by Quibell (see *Nekhen News* 18: 27–28).

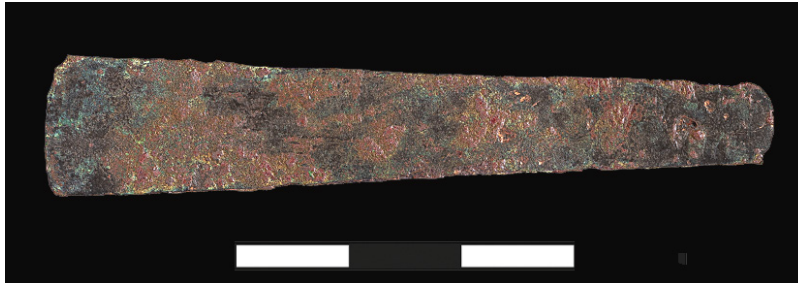
Over the many seasons of exploration at Hierakonpolis, tantalizing evidence of this vital industry has been encountered, but never fully synthesized into the broader historical narrative of the site. In search of this story, I joined the expedition in February 2020, and was fortunate to have some of the latest technology to aid my inquiries. A portable X-Ray Fluorescence (pXRF) machine was made available to me through the courtesy of the Cotsen Institute of Archeology at UCLA. The pXRF is a handheld computer that is capable of releasing a small amount of X-ray energy at an object. By carefully measuring how this energy is reflected, the pXRF can determine the rough elemental composition of an object without causing damage. It is especially useful in identifying and analyzing the composition of mineral-based products, giving insights into production techniques and possibly even source areas.

With this powerful new technology in hand, I set out to better define the metallurgical industry at Hierakonpolis. The earliest traces come from HK11C, now well known for its large scale brewing and food preparation installations, which were active during the early Naqada II period (see *Nekhen News* 26: 20–23; 30: 22–23). However, back in 2003, at the very beginning of investigations there, a small stratigraphic sondage revealed intriguing indications that there were other heat-based industries present in the area.



Coming up with copper: Indications of metal working from the HK11C sondage.

The pXRF analysis of several chunks of slag exhibiting inclusions of green corroded copper provides the clearest evidence that small scale copper production was also being practiced. Slag can be defined as the waste



Copper adze from HK6 Tomb 111.

matter that separates from unrefined copper, either ore or rough ingots, during the smelting and casting process. A crude pottery vessel with slag-like residue adhering to the interior may even be some sort of crucible. Associated finds of malachite ore and a few strips of pure copper wire may also suggest that smelting and forging were being undertaken simultaneously in this area. Exposure in the 2 x 3m and 1.5m deep sondage was limited, so the full context has yet to be revealed.

In addition to the metallurgical debris, excavation of the sondage also recovered a quartz hammer stone with bits of both green and red pigments still wedged into the divots worn from pounding. Analysis by pXRF confirmed the green as a copper-rich powder, most likely malachite, and the red as iron oxide. Since iron oxide was not directly involved in the smelting of copper, this hammer stone was perhaps used in the preparation of pigments. That these two industries overlap at this locality seems intuitive, especially since they both require access to similar technologies and trade networks.

In the broader setting of HK11C, most of the industrial installations so far discovered share a common feature: they require intense and sustained heat. In that sense, the area can be thought of as a center of pyrotechnic production, perhaps concentrated in such a way as to simplify the procurement and transportation of the

immense amounts of fuel such an industrial zone would have required. Its close association with the elite cemetery at HK 6 may further suggest that in Naqada II, well before the unified pharaonic state, funerary endow-

ments were already nodes of production and labor organization as they would continue to be, in differing forms, for thousands of years.

The importation of ore and minerals for specialized craft production also implies that early centers like Hierakonpolis relied to some degree on interactions with desert communities, whose knowledge of source areas would have undoubtedly been useful, if not critical. New technologies like the pXRF allow us to ‘peer into’ the metals themselves, giving insight into their chemical composition. It is within this makeup that certain trace elements or even ratios of elements can indicate the origins of raw materials and provide a better understanding of where the early rulers of Hierakonpolis focused their economic attention. These data can also give us a window onto the development of metallurgical techniques in their incipient stages.

My first visit to Hierakonpolis was brief, but the information obtained shows immense avenues for further research into the organization of metallurgy in Predynastic Egypt. In fact, it has already revealed what may be the earliest indications of copper production yet found in Upper Egypt.

Further exploration has the potential to shed light on many aspects of this important industry and I look forward to seeing green again when we get the green light to return in the very near future. 🍷

Happy Zapping

Another highlight of my stay was the analysis of the copper adze blade from HK6 Tomb 111 (see *Nekhen News* 30: 4–6). Dating to Naqada IIIA2 (Dynasty 0), this tomb comes from the time when Egypt was becoming more interconnected, both politically and economically. Zapped with the pXRF, analysis determined the blade to be 99% pure copper. Due to its inherent softness, pure copper makes a rather disappointing utilitarian tool. It is only when it is alloyed with other metals, such as arsenic or tin (making bronze), that it becomes a strong and reusable finished product. This, combined with its diminutive size (6 x 2cm), may suggest that it was a model or symbolic tool. Often found in sets, model tools are common in elite tombs in the Early Dynastic and Old Kingdom. This example from Tomb 111 may be an early version of this tradition and is indicative of the increasing access and use of metal during this most formative time. 🍷

El	%	+/- [*2]
Mn	0.009	0.004
Fe	0.108	0.006
Co	0.006	0.003
Ni	0.062	0.007
Cu	99.523	0.176
As	0.212	0.011
Se	0.030	0.004
Pb	0.045	0.009

The pXRF reading on the copper adze blade from Tomb 111.

HK6: Life on the Edge

—Masahiro Baba, Waseda University, Japan, and Renée Friedman

Between the various tasks that kept us busy this season, we were fortunate to carve out ten days at the end of February 2020 for just a little excavation at the north end of the elite cemetery at HK6. As our readers will recall, in late 2017 exploration in this sector revealed not only Tomb 111, a brick-lined tomb of Naqada IIIA2 date and

a fabulous ivory knife handle (see *Nekhen News* 30), but also, just north of it, something even more remarkable. There we discovered that the northern tip of the wadi terrace had been artificially smoothed to an even slope, at the top of which stood an amazing ceramic statue of a hippopotamus c. 1.5m long! This, together with the early Naqada II pottery found all round it, suggested that this location was a special place from the early days of the cemetery. This season, in hopes of finding out more (and more pieces of the hippo), we resumed investigations along the north edge of the slope in an area measuring approximately 7 x 7m.

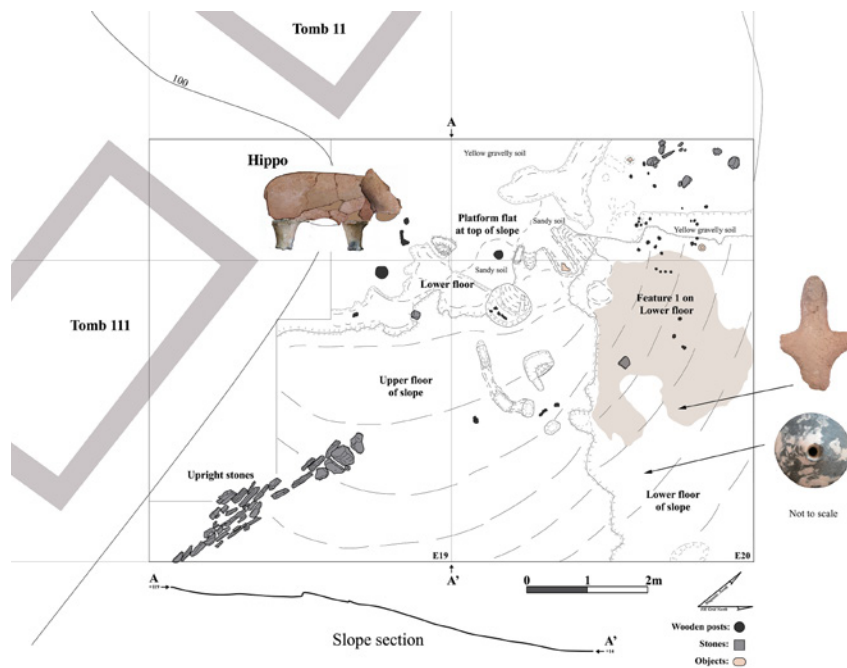
Stripping away the surface sand, we first encountered a layer of reddish gravelly soil, which contained fragments of mudbricks, matting and wood that no doubt derive from the construction of the Naqada III tombs. To the south, a row of upright stones also appears to be associated with (or reused by) these tombs, and served to retain the soil when the slope was intentionally filled in and the terrace extended to provide more room for the construction of Tomb 111.

Below this reddish soil, the compact surface along the edge was exposed. The slope had been modified at least once, since two different phases could be observed. The surface of the lower layer had clearly been carefully smoothed and its top flattened. The upper surface had a steeper slope and was present only on the east side.

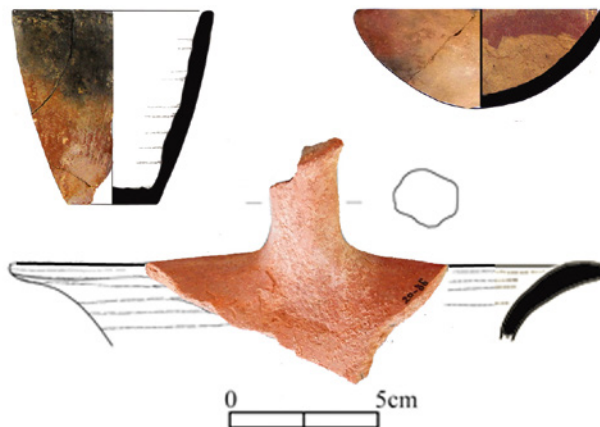
Cut into both of these surfaces were postholes, some still containing the wooden posts. Two large ones (c. 20cm in diameter) were discovered on the flattened top and several smaller examples were located along the upper slope. These features suggest some sort of above-ground structures were present, but neither size nor layout could be determined.

Postholes were not the only thing we found. On the north side, cascading down the lower surface, was a concentration of artifacts, which we call Feature 1. The objects and pottery it contained revealed further evidence for the special activities taking place here.

The pottery assemblage was dominated by small red-polished bowls (10–15cm in diameter; most were 11cm) and black-topped beakers, these two shapes accounting for 80% of all rim sherds. As observed in the previous season, the majority of the small bowls show signs of abrasion on the interior as well as traces of soot, suggesting they were used as lamps or incense burners. The black-topped beakers, also of small size (7–12cm in diameter), exhibited use-wear on the exterior and may have been used for drinking. Only a few sherds from large straw



Excavations at the north edge of HK6 in 2020.



Party pots? Bowls for lamps, cups for drinking and a rare handled bowl.



Discoïd mace-head: Only the second complete example so far known from HK6.

Figurines. The largest, made of straw tempered clay, preserves remnants of a bird-like head and the upper part of a male torso with arms broken off. A similar, but less well preserved male torso recovered in the area in 2017 may have



Parallel perforations: Figurine from Naqada grave 1802 with pierced hand (Ashmolean AN1895.821).

tempered bowls and shale tempered hole-mouth jars were noted, and may have been employed for food preparation or serving. In addition, there was a fragment of a larger red-polished bowl with an applied 'basket' handle—an appendage very rarely observed in the Predynastic corpus. All can be dated within the Naqada I to early Naqada II period.

Further confirming the early date of this deposit was a complete discoïd mace-head of black and white stone (probably diorite or gabbro), typical of the time. Remarkably, although numerous mace-heads have been found in HK6, this is only the second complete example ever recovered there. The other comes from Tomb 3 on the southern side of the cemetery and is almost identical in shape and stone type.

The most intriguing finds, without doubt, were the fragments of clay figurines.



Clay figurine fragments from the edge: Additions to a growing corpus.

been made as its companion. Of the other figurines found this year... well, we have only their arms—but they are still most informative!

One is probably the left arm of a straw tempered figurine, whose other arm (or one very similar) was found during excavations around nearby Tomb 11 in 1985. Both have a circular perforation near the round ends, presumably to allow something to be inserted. We have not been able to identify the likely body amongst various possible fragments, but a male figurine from Naqada grave 1802 (Naqada IIA), now in the Ashmolean (AN1895.821), with a similarly pierced hand, may give some idea of its original form.

Created from finer Nile silt, a small tapering piece coated in red slip and painted with a white band may be the hand from another male (?) figurine, of which fragments, including parts of the torso and legs, have been collected here over the years. White painted details at the wrist and hips suggest it was a fine piece, but reconstructing its appearance remains a challenge.

The true star of the show this year, however, is the curving right arm of a fine red clay figurine, which terminates in a delicate hand with separately modeled thumb and fingers delineated by incision. The miniature details of this hand are not only enchanting, but also quite rare and, as some sleuthing has revealed, may be a regionally distinctive trait (see page 21).

The time available for excavations was short; nevertheless, we were able to gather more information about the activities in this part of the cemetery (although no more hippo). Thanks to the accumulating data, we can now reassess some of the many weird and wonderful objects found by Tomb 11 in the 1980s and situate them in their proper, if unexpected, context (more on this next time). Clearly the hippo was not alone. The slope probably delimited the sacred space of the elite cemetery in the Naqada II period, and at this prominent point, ritual and ceremonies were conducted of which the various statues, figurines, drinking cups and lamps are illuminating remnants. 🐘

A Show of Hands

—Renée Friedman

In line with what we have come to expect, this year's excavations again revealed more of those bits and pieces rarely preserved at any other sites. To ears and noses, we can now add hands, or at least one hand, from a clay figurine with detailed fingers and thumb from the north end of HK6. Hands in general on clay figurines are not that common, either due to the original (armless) design or subsequent loss. Where preserved, most arms simply taper to a point, the fragment with the white band at the wrist found this season being a good illustration of this sort of treatment.

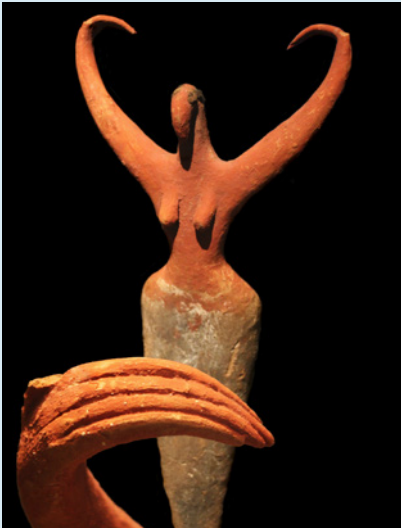
Only very rarely was the trouble taken to model hands and delineate fingers. The most famous examples are the two elegant female statuettes, now in Brooklyn, discovered by Henri de Morgan in the cemetery of the nearby site of El-Ma'mariya (4.5km north of HK). Both have raised arms that terminate in carefully modelled incurving hands with projecting thumbs and delicate fingers indicated by incision.

To my knowledge, no other excavated clay figurines feature such hands. The larger corpus of purchased pieces provides



A fashioning of fingers: The arm with modelled hand from HK6 north, viewed from all sides.

be a modern town located 1.5km east of Hierakonpolis (see page 2 map). It is the place where several items clearly from Hierakonpolis were obtained in the 1900s. Notably, two of the Boston figurines portray males, a relatively rare occurrence within the overall Predynastic corpus, but as we have seen over the years, is not so uncommon at Hierakonpolis. So far, of the ten sufficiently preserved clay figurines we have discovered (based on presence of penis sheath or lack of breasts), seven are male. More interestingly, all three of the Boston figurines appear to have modelled hands. The details on the female figure, whose hands are raised above her head, are hard to make out from the photos, but the



The lovely lady from El-Ma'mariya and detail of her elegant modelled hands (Brooklyn Museum 07.447.505).



A helping hand: Figurine from Basileia with modelled fingers and thumb similar to our HK6 piece (Boston 04.1804).



Male statuette acquired at Basileia with graceful turned out hands, now in Boston (04.1802).

only a few more credible examples. Questions of authenticity abound when it comes to Predynastic figurines. Particularly dubious are a series of nearly identical female statuettes housed in several museums, all with claw-like hands and roughly scored fingers (but no thumbs). While perhaps based on an ancient original, their prevalence (the British Museum alone holds over a dozen), their clay type, lack of paint, and, perhaps most suspiciously, that all still have hands, are amongst many reasons for serious doubt.

Less questionable and far more intriguing are three figurines in the Boston Museum of Fine Arts (04.1802-1804). They were purchased by Albert Lythgoe in 1904 and are reported to come from Basileia (or Bisaliyyah), which just happens to

stubs of the fingers on the gracefully out-turned hands of the better preserved male statuette are clear. Although only one hand survives on the other male figurine, its modelling and separated thumb bear a remarkable resemblance to our arm from HK6. While we can't say for sure that these figurines come from the elite cemetery, we are happy to welcome them back into the Hierakonpolis family.

Putting together all the evidence at hand, from Brooklyn, Boston and HK6, raises the question: could the careful modelling of fingers and thumbs be a speciality of the Hierakonpolis region? While it seems quite likely to me, for now it is probably best to wait for another show of hands. 🖱️

Of Mends and Marks: HK6 Mend-a-thon

—Renée Friedman

In 1999, the team led by Barbara Adams discovered Tomb 16, one of, and so far the earliest of, the main tombs in the central part of the HK6 cemetery. Adjacent to it was the smaller Tomb 18. In and around both of them was an enormous quantity of potsherds. From this mass, Barbara was able to piece together various vessels, but her premature death prevented more comprehensive treatment. In 2005, Stan Hendrickx took over the task, and instigated the first mending marathon to get to grips with the assemblage. Sherds covered every horizontal surface the house had to offer, but in the end resolved into 117 different vessels of late Naqada I–early Naqada II date. These included a variety of black-topped beakers and jars as well as red polished and white cross-line bowls. The quantity and quality were notable, but even more remarkable was that over half of the collection was composed of straw tempered Rough ware—a fabric type not common in graves of this period—and that all were modelled rim jars with medium high shoulders tapering to a flat (or flattish) base. Stan was able to reconstruct 30 of these jars, while the base count suggested that at least another 36 were present (see *Nekhen News* 17: 13–15).

Subsequent excavation of the Tomb 16 complex (*Nekhen News* 21: 4–9) revealed many more pieces of these distinctive modelled rim jars, and it was clear that one day we would have to attempt another major refit. That



Mending in progress. Grazia putting together the pieces.

day came in February 2020, when we embarked on the ultimate mend-a-thon. On hand to assist were Grazia Di Pietro (master joiner), Richard Jaeschke and Xavier Droux (master menders), and Jane Smythe and Ashraf el-Harb (master illustrators). This intensive effort resulted in the identification of not only more jars but, more importantly, more of the jars we already had. Of the 78 vessels in total we were able to distinguish, 50 could be reconstructed rim to base, and of these, 28 were refitted to sufficient completeness to determine capacity/volume (the old fashioned way: with sand and measuring cup!).

The jars come in two sizes. The large ones have a height of 29–32cm (majority 30–31cm), and a maximum diameter of 20–23cm (majority 21–22cm). Filled to the rim, capacity ranges generally from 5000 to 6000ml, with just three taller



Photos: J. Rossiter and X. Droux

Selection of modelled rim jars from HK6 Tombs 16 and 18. Big ones and little ones and many with marks.

and fatter examples holding more (6900ml), and five shorter and narrower ones holding slightly less (4600ml). The smaller versions (n=7) were 25.5–27cm in height, with a maximum diameter of 17.5–19cm, and held 2500 to 3200ml, so almost exactly half the amount of the larger ones. Rim diameter ranges from 12–15cm regardless of jar size.

While it is unlikely that these jars were filled to the rim, the volume calculations give some idea of what was considered an appropriate measure of what, for a variety of circumstantial and scientific reasons (see *Nekhen News* 31:3), we can be fairly confident was beer.

As fragments mended across the area, initially it was difficult to find any criteria for assigning the vessels to either Tomb 16 or Tomb 18; however, close scrutiny during the recent mending revealed matting adhesions and possible stains from contents only on jars coming (for the most part) from the fill of Tomb 18. As a result, at least 22 jars can now be attributed to that tomb, so perhaps 3–4 for each of the adults buried within it, which seems typical in other tombs. Regardless of origin, all of the jars show similar methods of manufacture indicating they were the output of a single workshop. Among the larger pots, minor variations suggest more than one potter was responsible, while the small versions all appear to have been made by the same person.

Given their overall similarity and apparent standardization, it is surprising to see both the frequency and the variety of marks that were applied to them. Always placed on the shoulder just below the rim, these marks were made with a fingertip, fingernail or stick while the clay was still wet and thus presumably by the potter. While previously only 25 marked jars had been observed, the 2020 intensive refit has now revealed an impressive 55 bear marks (17 from Tomb 18 and 38 from Tomb 16), and of the remaining 23, only

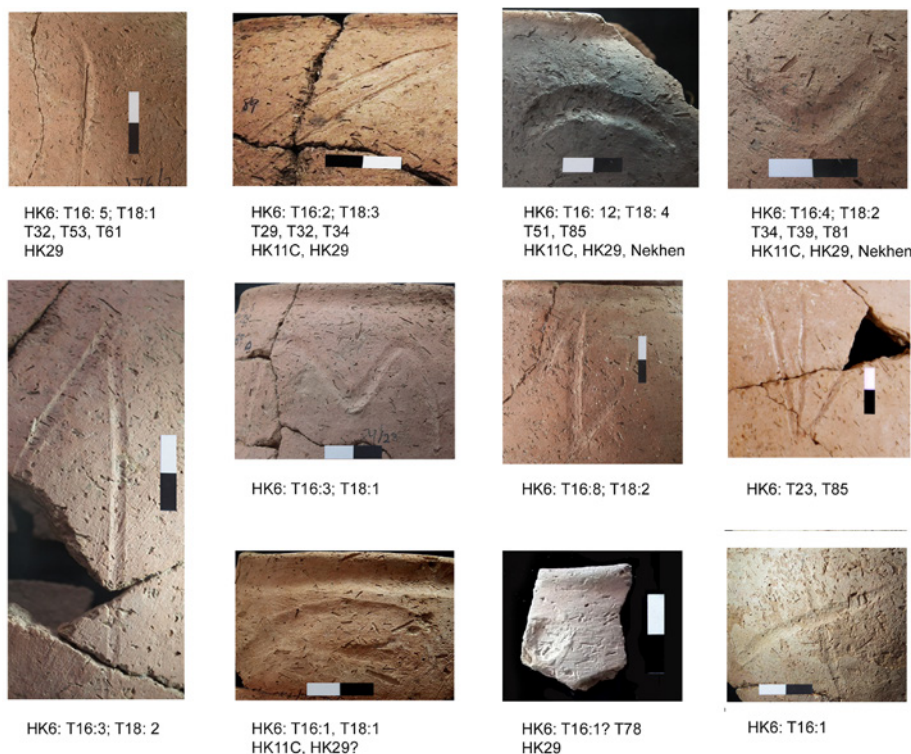
half were complete enough to confirm they were truly unmarked. One mark per pot was the rule, with the exception of a single small jar that had two, but the second mark was clearly a later addition, made when the clay was nearly leather-hard.

Ten basic motifs have been observed. These involve: a single stroke, placed vertically or diagonally; double strokes, usually on a diagonal, but also horizontal and vertical; crossed strokes; a vertical stroke with a diagonal coming off the top; Z signs; wavy Ms; upward and downward crescents; a downward crescent with a horizontal stroke below; and a thumb print. Some were more popular than others: Z signs appear on 10 examples, and downward crescents are present on 13. Some are quite small and discrete, just 3cm across, while others can be up to 8cm long. Yet, it is unclear how much some of them (especially small crescents) were really meant to be seen in the final product, as a thick layer of self-slip obscures many of them.

Making sense of these marks is not easy. They do not appear to correlate with either size or capacity. Only the wavy Ms occur exclusively on small vessels; however, these small jars can also be marked with crescents or Z signs or not marked at all. Since all of the small ones seem to have been made by the same potter, it is unlikely that the motifs were meant as signatures (10 different potters seems excessive anyway). Whether they relate to the donor or owner, intended content, or future destination (among many other possibilities) remains a question not just for our jars,

but for all vessels with pre-firing potmarks in early Egypt. Whatever the case, at Hierakonpolis at least, the lack of marks on any other Rough ware shapes suggests a strong relationship with beer.

This connection is further strengthened by the presence of similar marks at HK11C and HK29, localities where both beer and pottery were being made. The full range of motifs at those sites



Gallery of pre-firing 'potters' marks' from Hierakonpolis: Their distribution at various localities and prevalence in HK6 Tomb 16 and Tomb 18.

is harder to reconstruct owing to the fragmentary nature of the finds, but crescents and slashes seem to dominate, although the thumb indent is also not uncommon at HK29. Marked sherds also occur at the ceremonial centre at HK29A—beer being part of any festivity—but the motifs have not yet been fully collated. Crescent-marked jar sherds have also been retrieved from level 3-4 of the sondage in Square 10N5W at Nekhen (Naqada IICD), suggesting some distribution into the domestic sphere. On the other hand, neither beer jars nor potters' marks were observed at the non-elite cemetery at HK43, but whether this is a reflection of accessibility or preference is unknown.

Perhaps future analysis can determine whether these marks indicate the strength, flavour or brewer of the beer these jars held. But why mark some and not others? And why so many with so many different marks in Tombs 16 and 18? This remains unclear; however, it is interesting to note that outside of these two tombs the frequency of marked jars and the diversity of the markings on them diminish. In other tombs in and around the Tomb 16

complex usually only half of the more modest number ($n=2-4$) of beer jars are marked. Only slashes or crescents have so far been observed, but a new trident sign comes into use a bit later. As the jars in Tomb 16 appear to reflect the very beginning of the Rough ware/brewing industry, perhaps the many marks can be attributed to early exuberance and experimentation that was tempered with age.

In early publications of other sites the distinction between pre- and post-firing marks was not made and the pot type they appeared on was rarely mentioned. Thus it is hard to know whether these marks are a peculiarity of Hierakonpolis. Nevertheless, our marks appear to be the earliest examples of a type of 'non-textual marking system' that will continue to be employed on selected pot shapes in the Early Dynastic and Old Kingdom, when they often seem to denote productions for special purposes. Whether these later pre-firing marks share the same inspiration or motivation as those on the beer jars at Hierakonpolis remains to be seen. Indeed, much more can be said about these enigmatic marks, but for now, we can only add a mark of our own—that of the Question. 🍷

Ashmolean Object in Focus: The Scorpion Mace-head

—Liam McNamara, Lisa and Bernard Selz Curator for Ancient Egypt and Sudan, Ashmolean Museum, University of Oxford

About five times the size of a functional mace-head, the Scorpion mace-head is the largest of the oversized, decorated examples discovered by Quibell and Green in the 'Main Deposit' in 1897–98. It was found in several pieces and later reconstructed with the surviving fragments set in plaster to suggest the original size and shape. The limestone appears harder than that of the smaller Narmer mace-head (see *Nekhen News* 31: 10–11) and the surface is better preserved, but it is marked by the growth of black manganese dendrites—thin, branching crystals of mineral oxide. A small fragment from the base suggests a diameter of about 7cm for the longitudinal hole drilled through the centre. This was presumably fitted with a large handle to enable the mace-head to stand upright as a symbol of royal power and domination.

The surviving fragments are intricately carved in low raised relief. The largest figure preserved is depicted wearing the White Crown of Upper Egypt, a short, sleeveless tunic with a clasp near the shoulder, and a bull's tail suspended from a belt around his waist. Unlike King Narmer, who is shown similarly dressed on his palette, this figure is beardless. He is wielding a hoe and is apparently performing the ceremonial cutting of a waterway on which he is standing with bare feet. Two attendants face him: one holds a basket to collect the dug-up soil, while the other (dressed in a costume similar to

Object Factfile

Findspot: 'Main Deposit', Temple enclosure, Hierakonpolis

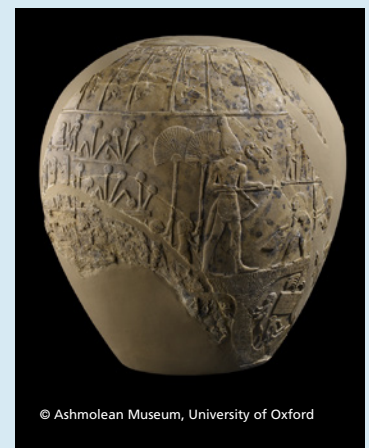
Material: Limestone

Height: 31.5cm (restored)

Date: c. 3100 BC

Museum No.: AN1896–1908 E.3632

Source: Egyptian Research Account 1897–99



© Ashmolean Museum, University of Oxford

that worn by the figure labelled *tt* on the Narmer Palette) presents a broom-like arrangement, possibly of corn heads.

Below, bearded men wearing short hairstyles and penis sheaths, or tassels suspended from belts, work on a branch channel of the horizontal watercourse. Several of their hands, legs and feet are represented as if submerged in the canal waters.

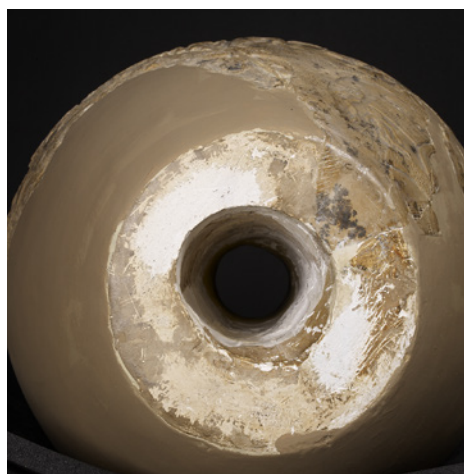
To the right, there is a palm tree within an enclosure and the prow of a boat possibly sailing along the water. Remnants of two post-and-matting structures with domed tops are present below and to the left of the watercourse. These are possibly *pr-nw* shrines, traditionally associated with the Delta site of Buto. Traces of other boats and structures are visible in the degraded area further to the left.



The scenes on the Scorpion mace-head. (© Ashmolean Museum, University of Oxford).

Following behind the king are two small fan-bearers, while in front of him are two signs that have been the subject of much discussion: a seven-petalled rosette and a scorpion with a short projection on its underside. The rosette has been variously interpreted as denoting an aspect of kingship, a symbol of rank or territory, or as a phonogram with the reading *hr* (used in the writing of Horus). The probable origins of this motif in early Mesopotamia suggest it could be another example of the exotic images (like the serpopard) that were briefly adopted by the rulers of the incipient Egyptian state.

The ideology and iconography of late Predynastic kingship typically identified the king with the dominant forces of nature, and the scorpion could therefore be an expression of royal power: the unpredictable, venomous sting of an attacking arachnid. The small peg projecting from the scorpion's body suggests it is an emblem or standard. The sockets or holes observed in numerous scorpion models from the Main Deposit, as well as the travertine examples from HK6 (*Nekhen News* 18: 11–13), would have allowed them to be mounted on poles or stands in a similar way. No other site has produced such a significant concentration of scorpion images, and the mace-head further reflects the special relationship



The central perforation as preserved at the base. (© Ashmolean Museum, University of Oxford).

between this creature and Hierakonpolis.

For most scholars, the rosette and scorpion identify the figure as 'King Scorpion', although this interpretation is not universally accepted. Many have noted the stylistic similarities between the mace-head and several objects from King Narmer's reign, suggesting that he and Scorpion were either the same person or close contemporaries,

and that such objects could even have been carved by the same sculptor. It seems most likely that King Scorpion (or 'Scorpion II' to distinguish him from the so-called 'Scorpion I', owner of Tomb U-j at Abydos) was the immediate predecessor of Narmer. A recent study by Thomas Heagy suggests he may have been the last local ruler of the proto-state based at Hierakonpolis and a client-king of the increasingly dominant polity based at Abydos.

The other scenes on the mace-head are arranged in horizontal registers, a compositional device used later to convey order, in contrast to the orchestrated 'chaos' of battle and

hunting scenes on other early objects like the Two-Dog palette (see *Nekhen News* 30: 33–34). Preceding the king, but on their own ground line, are two standard bearers, as present on the Narmer mace-head and palette. Usually four in number, there are possible traces of the heel and part of another carrying pole preserved further to the right. Some have proposed that these details could be the toes and knee of another larger figure—perhaps the king—but this does not seem to fit the available space.

Behind the fan-bearers accompanying the king, there are two registers of papyrus clumps. In line with the



Photograph from the original excavation report, showing the fragmentary state of the mace-head as discovered.

upper row are at least two wrapped figures, possibly females, in carrying chairs with a male attendant holding a flat baton following behind. Below are at least four females with waist-length braided hair, their arms in front of their faces and their forward legs raised as if dancing. They wear short skirts, but are bare-chested. All of these figures appear to be facing away from the king, suggesting they are part of a separate scene perhaps oriented towards another large figure of the ruler, now lost. However, the order of the scenes on such a cylindrical object could be misleading and they may plausibly be part of one large scene wrapping all around the mace-head.

Around the top of the object is a row of standards (seven as preserved) atop tall poles, from each of which hangs a lapwing bird suspended by a rope around its neck. The lapwing was later used to symbolise subject people. The standards include a row of hills, the Seth animal (twice), the symbol of the god Min, and a jackal. These face in the same direction as the king below, but they did not continue around the object's entire circumference. Another, unlocated fragment from the top shows parts of at least three standards orientated in the opposite direction, one of which is topped by a falcon on a crescent. Hanging down from all three are bows, perhaps already representing the traditional enemies of Egypt.

Only about one-third of the original surface of the mace-head is preserved—the rest was not recovered, despite a wide search. What the missing sections might have depicted has been the subject of much speculation. Some have suggested that another representation of the king (perhaps wearing the

Red Crown of Lower Egypt) was included, and there is certainly room in the missing part for at least one, if not two, more large figures. A small, 'floating' fragment preserving two petals of another rosette might belong to one of these, but the placement is not certain and it could equally be associated with a royal attendant like the sandal bearer present on Narmer's palette and mace-head.

Interpretations of the surviving scenes are also conjectural, ranging from a foundation ceremony related to agriculture, the celebration of a royal jubilee, or the opening of a waterway between the Nile and a religious sanctuary. The combination of the White Crown, the lapwing birds and the papyrus plants has suggested to some that the scene records a victory over the north, and for many commentators the action takes place in Lower Egypt. While it could possibly record a specific historical episode, the primary purpose of monuments like this may instead have been to commemorate earlier 'mythical' events, or to portray ritualised royal activities and achievements that the incumbent king was expected to re-enact in order to fulfil his role.

The fragmentary state of the Scorpion mace-head compared to other objects in the Main Deposit—particularly those from the reign of Narmer—is quite striking. Was it already damaged before being deposited, or deliberately smashed in order to render it practically and symbolically useless? Alternatively, perhaps the surviving section was retained precisely because it preserved the image of one of Egypt's earliest rulers, a relic of the state's most distant past. In light of all of these questions and more, this magnificent mace-head will surely remain one of the most frequently discussed, yet frustratingly enigmatic, of the objects found at Hierakonpolis. †



Selected scorpions: Detail of the mace-head and figurines from the Main Deposit and HK6.

Inscriptions in a Desert Cleft

—Vivian Davies, University of Oxford

As one approaches the HK6 elite cemetery on the modern road, in the wadi cliffs on the right-hand side is a deep rock cleft forming a natural rock shelter. A dramatic feature in the landscape, especially in the morning light, it was visited, notably in the 18th Dynasty, by a number of local officials who left their names and titles. First mentioned in a brief report by Lansing on the work of the expedition from the New York Metropolitan Museum of Art in 1935, this group of inscriptions has subsequently received intermittent attention, but never a close treatment.

Arranged horizontally (with one exception), the inscriptions are incised into the south wall of the cleft, on a long narrow panel about 2m above the current ground level. The panel itself is relatively smooth, but the rock face all around it has been deeply eroded away by wind and water. The majority of the inscriptions are written in hieroglyphs, some including hieratic forms, and are for the most part readily legible, though several have suffered damage and are now incomplete. In at least one area, a name has been almost entirely and deliberately excised. Made at different times and by different hands, framing lines have been added to some, serving to demarcate and emphasise them.

To help locate the inscriptions, they are (arbitrarily) organized here into four vertical groups, A-D, and numbered in sequence, reading from top to bottom and right to left.

Groups A and B

1. 'Scribe Menkheper'.
2. 'Horus of Nekhen'.
3. 'Scribe Tjesu'. In framing box.



The desert cleft near HK6: A distinctive feature in the landscape.

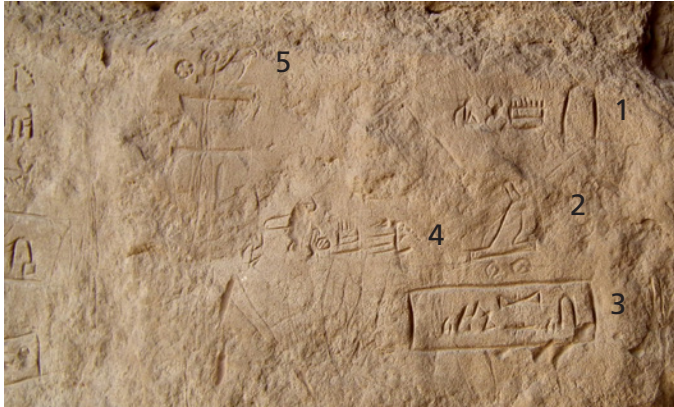
4. 'Wab-priest, Menkheper'.
5. 'Horus of Nekhen, Lord of Heaven, Servant (?) [...]'. Vertically arranged, carved in sunk relief, name eroded, possibly excised.

Group C

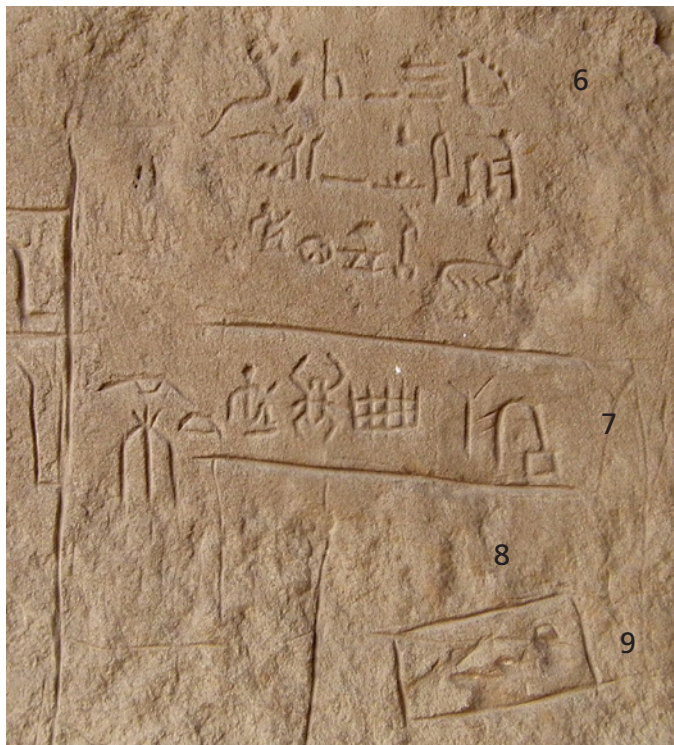
6. 'Wab-priest of Isis, Scribe, skilled with his fingers, Ka(em)wast'. Arranged in three lines.
7. 'Scribe Menkheper, father (?) of Ahmose'. Framing lines above and below.



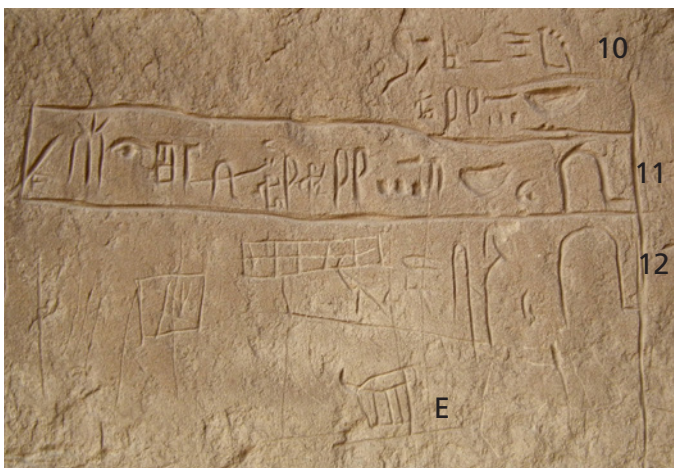
Marking the visits of 18th Dynasty officials: Panel inside the cleft with groups of inscriptions indicated.



Inscription Groups A and B.



Inscription Group C.



Inscription Group D and ambiguous motif E.

- 8. Remnants of inscription deliberately effaced.
- 9. Frame enclosing unclear inscription, signs damaged. Possibly a modern addition.

Group D

- 10. ‘Wab-priest of Isis, Nebseny’. Arranged in two lines.
- 11. ‘Scribe Nebseny, father of Scribe of the temple, Ahmose’. In framing box.
- 12. ‘Scribe, User’.

Datable on palaeographic and other grounds to the early–mid 18th Dynasty, the inscriptions mark visits to the cleft by scribes and priests serving in the cults of the major deities of Hierakonpolis, namely Horus of Nekhen and Isis. Their names, except for ‘Tjesu’, are commonplace for the period; nevertheless, some of these officials can perhaps be linked to activity at the Burg el-Hammam, the hill housing the New Kingdom tombs. Situated just over 500m to the north, the main terrace of decorated tombs on the Burg coincides in date with the named officials. In fact, a ‘Scribe of the temple, Ahmose’ (as in inscription 11) is known as the owner of one of these tombs. Although poorly preserved, its roof having collapsed, reliefs showing Ahmose adoring the sun survive on the entrance jambs. Whether Ahmose himself was among the visitors to the cleft is unknown, but it is interesting to see his father, Nebseny, identify and distinguish himself from others of the same name by referencing his son rather than his own father (so also perhaps Menkheper in inscription 7).

Though small in number, the inscriptions add valuably to the site’s prosopographical corpus and to the growing network of known functions and relations. Further research into these individuals and their connection with other activities in the area will form part of the on-going epigraphic documentation of the Hierakonpolis-Elkab region. 📖



Scribe of the temple Ahmose on the jamb of his tomb on the Burg el-Hammam.

Early Visitors Revisited

—Renée Friedman and Thomas C. Heagy

The 18th Dynasty officials were not the only visitors to the cleft. Fallen stones around the exterior incised with deep grooves, notched rows, sandal outlines and scenes of dogs in chase, all bear witness to a long-standing interest in this desert feature. Whether this was due to its own special attributes or its relationship with the HK6 cemetery and those buried there (or a bit of both) remains an intriguing question.

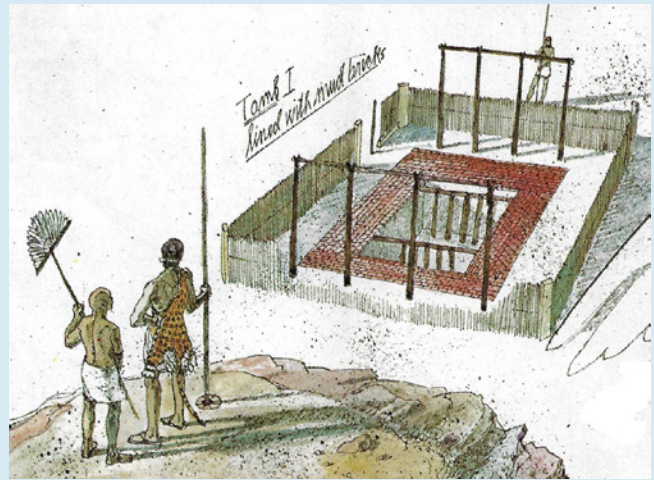
In addition, various lines and patterns on the inscribed panel on the cleft's interior indicate activity here both earlier and later. The smoothing of the soft stone surface by the New Kingdom officials before incising their names, coupled with erosion over the centuries, make it difficult to make sense of these scattered marks. However, amongst these generally light scratches, one graffito stands out and has been the subject of much speculation. This is the rectilinear motif isolated in the lower left (E), which has been interpreted by some as a Protodynastic royal name in a *serekh*.

Mike Hoffman wanted to read it as the name of King Scorpion and connect it with the massive Tomb 1, located directly adjacent in the HK6 cemetery. He further sought to strengthen the association by suggesting that a cupule on the top of the cleft hill held the surveying rod when the architects laid out that tomb. It is certainly a romantic idea, but proof is lacking. Barbara Adams more cautiously described the motif as an anonymous *serekh* with a bull above it, while Alejandro Jimenez Serrano rejects that, identifying it instead as an early representation of a *pr-wr* shrine, incorporating the features of an elephant, including its tusks, tail, and legs for posts. All of these proposals can only be considered speculative, and the identity of the motif remains enigmatic.

But is it of Protodynastic vintage at all? In size, line weight and quality of preservation, it is comparable




Detail of (E), an enigma.



Hoffman's romantic reconstruction of the cupule on top of the cleft hill as a holder for a surveying rod (from *Science* 83 vol 4.8: 46).

with the New Kingdom inscription above and around it. Measuring just 5cm across, one might have thought that, had one of Hierakonpolis' early rulers wished to place his name in this spot, he would have made something a bit grander and more elaborate. We know from other rock art locations that earlier inscriptions were generally respected, so it is unlikely that accompanying signs or images have been removed leaving only this sole ambiguous motif. While what it was meant to be is still far from clear, viewed within its context and surroundings, its identification as an early *serekh* or any other Protodynastic device seems increasingly unlikely. King Scorpion may have left his mark on the site, but this probably isn't it.

This graffito is only one in a long list of inscriptions that have been either incorrectly ascribed to King Scorpion or attributed to him without sufficient evidence. Ten other inscriptions are known, incised or painted on pottery, stone vessels, ivory, a palette, and a large ceremonial mace-head (see page 24), hailing from Upper and Lower Egypt as well as the Southern Levant. Additional possible evidence of his existence is a very small statuette in Munich's Museum of Egyptian Art, which might bear his *serekh*, and a rock carving at Gebel Sheikh Suleiman in Upper Nubia, which might record a military campaign by him in that region. All are problematic, and the existence of this king has long been disputed. Even the famous Scorpion mace-head is attributed by some scholars to Narmer instead. A recent assessment of the evidence suggests that if Scorpion did exist, he was probably the last of the line of regional kings of Hierakonpolis, ruling at the same time or slightly earlier than Narmer. Read all about it and form your own opinion: Thomas C. Heagy, *Scorpion II: A New Theory*. *Archéo-Nil* 30 (2020): 97–122. 

The Case of the Boats with Bulls: From HK to El-Hosh

—Fred Hardtke, Macquarie University, Sydney, Australia

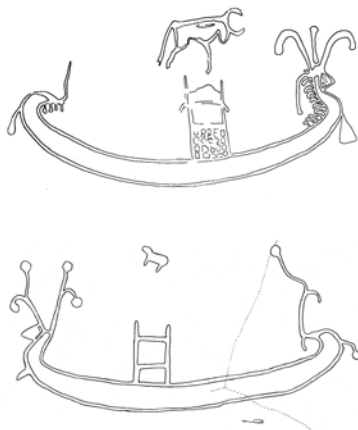
Readers of the *Nekhen News* will have certainly noticed the elegant logo of the Friends of Nekhen, which graces the cover's top left corner. Some might even recognise the stylised boat with the charging bull above it as one of the petroglyphs at Locality HK61A. The combination of bull above boat was previously thought to be a motif unique to Hierakonpolis, but a recent discovery at the site of El-Hosh, situated to the south of Edfu, indicates a broader reach.

Locality HK61A is a well-known concentration of rock art located on the north side of the prominent HK11 hill, which was first recorded in 1982 by Michael Berger. On opposing walls of a naturally cleft boulder are three in-curved sickle-shaped boats with elaborate ornamentation fore and aft. Two of the boats have animals carved above them. Above the better preserved boat of the logo is a bull facing the prow, with head lowered in a charging position. The second boat is more eroded, but is also accompanied by a quadruped, likely a bull, as a detailed examination in 2009 revealed (see *Nekhen News* 21: 26–27). It too is placed above the cabin facing in the direction of the decorated prow.

Bulls and boats in a more general association are also known from the site. At rock art locality 10-17, further back in the desert, a flat expanse of exposed sandstone features large scale depictions of a boat, donkey and bull. The bull is depicted with crescent horns in charging mode similar to HK61A, but it is not above the boat. Instead, it faces it from a distance (see *Nekhen News* 22: 12–14). Petroglyphs of boats in the company of bulls are also known from the Eastern Desert in Wadi Barramiya and Wadi Mineh, the Theban Desert and Nubia. None of these, however, places the bull above the boat cabins in the formalised, emblematic fashion we see at Hierakonpolis and, as we discovered, now at El-Hosh.

Having concluded the rock art survey at Hierakonpolis,

I now direct the Belgian-Australian expedition to El-Hosh, a site with rock art spanning from the Late Palaeolithic to modern times, with a sizable proportion datable to the Predynastic. It lies approximately 50km south of Hierakonpolis and is also on the west bank. During our 2019 season there, a striking example of a boat and bull combination was found. The




Boats with bulls at HK61A.



The newly discovered boat with bull at El-Hosh.

petroglyph in question adorns the top of a large, prominent boulder in an area replete with Predynastic rock art and strewn with potsherds of similar date, indicating significant activity here at this time. The boat itself comprises a sickle-shaped hull with one extremity higher, slightly wider and a little more bulbous than the other. A series of long oars run along the bottom edge. On deck appear to be three individual structures of slightly varying height. They abut each other in an arrangement that calls to mind the boats depicted in the Hierakonpolis Painted tomb. Above these cabins is the bull. While this basic sickle-shaped example at El-Hosh is less ornate than those at HK61A, the bull is in the same position and seems associated with the boat for symbolic purposes. Orientated with its head slightly lowered as if charging, it also faces the prow.

The presence of this boat with a bull, 50km south of Hierakonpolis, raises interesting questions. While the boats at HK61A were likely produced by the same hand, the similarity of the composition at El-Hosh suggests the boat-bull motif was not simply the choice of a single maker at Hierakonpolis, but had a broader meaning that transcended the site. What might that meaning be?

Bulls have generally been seen as symbols of power and control over natural chaos, with greater relevance in the imagery of the living than the dead. In this milieu, boats too have been interpreted as representations of powerful, controlling forces, serving as proxies for human agency. Rock art depictions of animals tied to boats, and thereby under their control, can be cited as supporting evidence. Thus, the boat-bull combination may bring together and reinforce these two significant vectors of power. Consistent with the producers' belief system, the act of making such petroglyphs possibly enabled access to some of this powerful force. 

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:

- Regular (\$25/£17/€25)
- Sponsor (\$250/£150/€250)
- Patron (\$500/£250/€500)
- Sustaining (\$1000/£500/€1000)
- This is a renewal for the 2020–2021 season.
(If you have already renewed, thank you!)

Make your GBP £ cheques / US \$ checks payable to (we are unable to accept cheques in Euros):

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Mail to:
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 c/o Department of Antiquities
 Ashmolean Museum
 University of Oxford
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 Oxford OX1 2PH
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 500 Fifth Avenue, 32nd Floor
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 Specify preference as:
 'Hierakonpolis Expedition,
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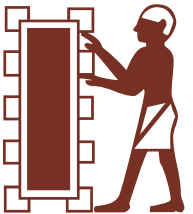
To pay by credit card, Paypal or bank transfer, visit our web page at www.hierakonpolis-online.org.



Support the Fort

The changing climate (both meteorological and political) has taken its toll on this beloved monument. Our ability to continue excavations is directly linked to its condition. We need to get it braced for the future. Please help us support the Fort. Thanks! 🏰

Special contribution for
Fixing the Fort Further



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 Prefer to receive the *Nekhen News* as a PDF file?
 Let us know at: friendsofnekhen@yahoo.com



Highlights of 2020



Facing south at the Fort and onward into the breach (pages 5–6).



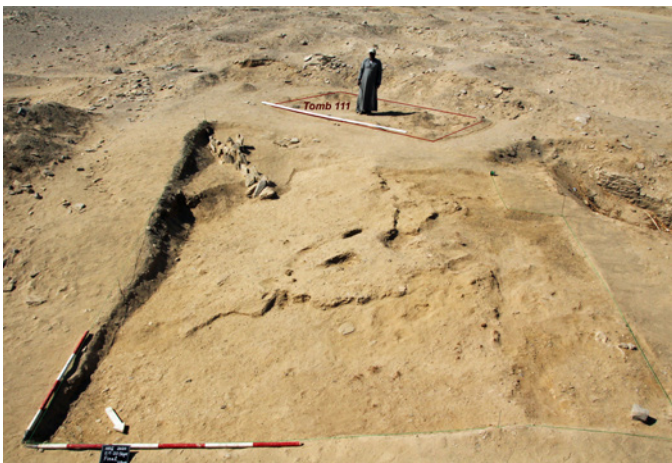
Fort supplies at the ready.



A show of hands (page 21).



Remarkable marks (pages 15–16 , 22–24).



Hitting the slopes at HK6 (pages 19–20).



A little help from our Edfu friends (pages 4–5).

