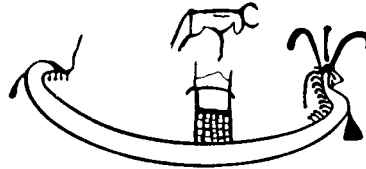


NEKHEN NEWS

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1988-89 FIELD SEASON BEGINS

It was early October when the first contingent of the 1988-89 Hierakonpolis Expedition staff arrived in Cairo. After a ten-day stay negotiating and making arrangements for construction activities on our field center, Dr. Hoffman returned to the States to open "The First Egyptians" show in Denver, leaving Associate ESA Director Mr. James O. Mills once again in charge of the expedition as Acting Director.

Mr. Mills' primary objective is to help transform our walled compound into a functioning field center. He is being assisted by Mr. Jesse T. ("Tom") Cox of Greenwood, South Carolina, a civil engineer with extensive experience in water systems. Mr. Cox is helping ensure that we have a good and reliable supply of drinking water piped underground from our well, which was built by our chief staff geologist, Dr. Hany Hamrroush. Mr. Cox is also designing and implementing an environmentally sound waste disposal system to minimize our impact on the fragile desert ecosystem.

Mr. Mills and Mr. Cox were joined in November by Mrs. Barbara Adams, Curator of the Petrie Museum, University College London. Mrs. Adams is now hard at work "sticking" pottery from Tomb-11 at site HK-6. The tomb dates to the end of the Predynastic (ca. 3200-3100 B.C.) and was one of the royal graves of the kings of Hierakonpolis. Mrs. Adams' analysis and illustration of the pottery and small finds will enable us to publish the tomb fully in our upcoming monograph series.

Changing of the guard occurs in December, with Mrs. Adams, Mr. Cox, and Mr. Mills bidding adieu to Egypt for the season, and a new shift taking over. Ms. Renee Friedman, our legendary ceramicist who is currently completing her PhD at Berkeley, arrives on December 12 to finish analysis of the ceramics from site HK-64. Last year Renee discovered a unique rock painting at that site but her work was interrupted by illness. She is now recovered and eagerly returning to her tasks.

Ms. Friedman will be joined in late December by Mr. Jeremy Geller, who is completing his doctorate at Washington University in St. Louis. Jeremy will be studying what he believes to be a Predynastic brewery which he partially excavated last season.

Finally, Dr. Hoffman will arrive on January 12 to resume direction of the expedition. His objectives include work on a fascinating area within the Gerzean temple complex at HK-29. Joining Dr. Hoffman is Mr. Joseph Majer of San Francisco, an archaeologist and experienced construction contractor, who will take over the work on our expedition center begun by Mr. Mills and Mr. Cox. Throughout the field season, Dr. Hany Hamrroush will be advising on geological problems and conducting his own research on the Holocene and Pleistocene environment of the region. He will be joined by our old friend Prof. Nabil el Hadidi, director of the Herbarium at Cairo University, who is preparing a section on the flora of our region for our upcoming monograph series. Look for future reports on our expeditions' finds in upcoming issues of **Nekhen News**.



Tom Cox and crew at the water-pipe trench leading from the well to the walled compound.

FRIENDS OF NEKHEN VISIT HIERAKONPOLIS

by Elizabeth W. Cassell, MS, MA

Elizabeth Cassell, a fellow Friend of Nekhen is with the Medical College of Wisconsin. She was part of the study-tour group that visited Hierakonpolis in January of 1988, organized and led by Carter Lupton of the Milwaukee Public Museum.

In January 1988 a group of eighteen Americans, members of the Friends of Nekhen, visited the Hierakonpolis site. We'd come to expect contrasts — and ironies — in Egypt where centuries, indeed millennia, of people loved life so fiercely that they created a worship of the dead.

We had spent a day walking through Luxor, craning our necks up to the magnificent stone monuments of the pharaohs, intended to endure forever like the sun. Now we were in the town of Nekhen, the center of archaeological study at Hierakonpolis. Donkeys and cattle were tethered near the mudbrick homes. A few children scampered around. The villagers who worked around the site met our eyes and smiled their welcome. We were standing in the spot where in 1897 the famous palette of Narmer had been found by Quibell and Green. The incredible piece that records the unification of the two lands of upper and lower Egypt had come from this jumble of sand and stones.

As Michael Hoffman and Walter Fairservis greeted our little band, I found myself thinking of the wonderful line from the Star Trek spoof: "Irony sure is ironic sometimes." We were privileged to be in the presence of these distinguished scientists, and they were quite sincerely

thanking us for coming and for our relatively small contributions to their efforts.

After a short introduction to some of the other researchers, we left the village area and walked out into the barren desert, so undifferentiated to my uneducated eyes. The only feature I saw was the stark contrast of green on the band of arable land near the river. Nonetheless our two distinguished guides directed us to stay behind them so we wouldn't trample the dig sites. They began to talk — both of them great wavers of arms and hands. Their intellectual excitement translated into physical movement. Half caved-in holes and piles of debris were in fact the remnants of ancient homes, hearths, and public buildings.

We traveled farther out into the desert where the ground was covered with sherds. We walked, apologetically, on millions of pieces of Predynastic pottery. Grinning engagingly, Dr. Hoffman related his own intention as a serious young archæologist just out of graduate school to follow rigorous archæological principles and, above all, never to step on the evidence. The evidence here was so abundant that traditional archæological methods depending on different strata of remains had yielded to a statistical approach. The field workers collected thousands of sherds within a defined area, categorized them, and counted them. Using a specially designed system, the scientists are able to study the ratio of sherd styles to date the site. Evidence compiled suggests that this site had been continuously populated for thousands of years before the First Dynasty of pharaohs. No invasions of peoples from other areas accounts for the culture that could erect the pyramids and guarantee peace for its people for centuries. Egypt of the pharaohs was a home-grown product.

I looked back across the sand to some children walking from their village, their galabiyas flapping in the wind. Their lives seem linked in fundamental ways to the lives of the people who lived in that valley 5000 years ago. Their houses are made of sun-dried bricks, just like the ancient mud fort of Khasekhemui where we found some shade to eat our box lunches. They cool water in clay pots, the same color and shape as the remains of those we were stepping on. They tend the animals, cut fodder, and splash in the Nile as their ancestors must have. They laugh and seem to love life, however hard it may be.

As the sun ebbed into the distant horizon and we prepared to leave the site, we saw the wall of the new compound rising on a slight elevation overlooking all the half-excavated foundations of ancient houses. Soon the visiting archæologists, biologists, artists, and surveyors will have an on-site place to live and work. I had known so little about their work that morning. Now, at the end of the day I felt great pride in being a part of this work. Ironically, supporting this work even in a small way as a member of the Egyptian Studies Association seemed a very significant act.



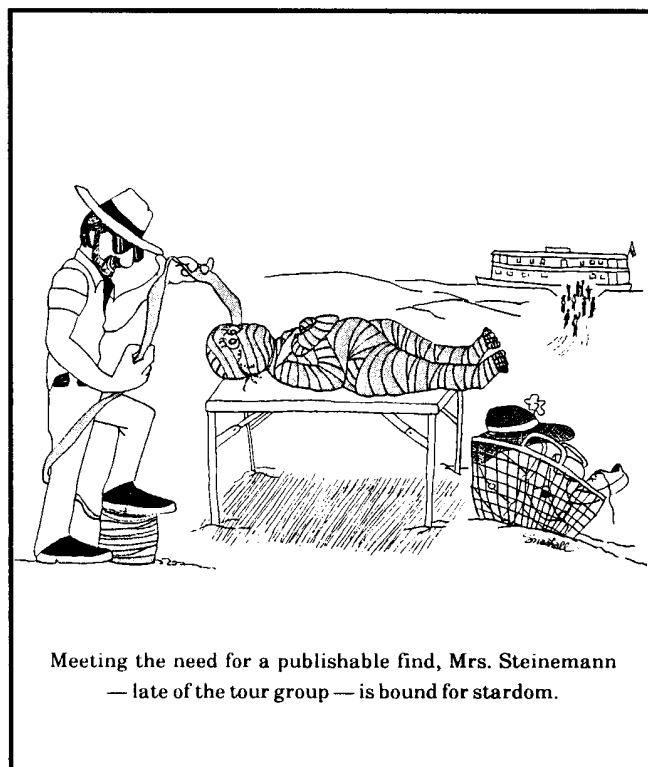
INAUGURAL MEETING OF THE ESA ADVISORY BOARD

On Friday, November 11, 1988, the Egyptian Studies Association's newly organized advisory board held its premier meeting at the corporate offices of Louisiana Land and Exploration, Inc. in New Orleans. The meeting was hosted by advisory board president Leighton Steward, Chief Executive Officer of LL&E. Mr. Steward also hosted a lunch for our members at the Petroleum Club overlooking the historic city of New Orleans.

Attending the meeting, in addition to Mr. Steward, were Mr. and Mrs. Olan Mills II, Dr. W. Benson Harer Jr., Mrs. Marion Becker Clough, Prof. James A. Morris, Mr. Albert J. Weatherhead III, Ms. Liza Morris, and Prof. Michael Allen Hoffman. Three other board members — the Honorable Robert E. McNair, Prof. Marshall Clagett, and Mr. Donald Russell Jr. — were unable to attend this gathering due to prior commitments.

The board heard presentations and conferred on a spectrum of ESA projects: the Hierakonpolis Expedition Center, research objectives of the 1988-1990 seasons, status of "The First Egyptians" Exhibition, the nascent Bioanthropology Program in cooperation with Cairo University, our membership drive, future museum and study-tour plans, and the planned *First Egyptians Documentary Film Series*.

We would like to thank all our board members for their valuable input and we look forward to welcoming them to our second meeting in April at Hilton Head, South Carolina.



Meeting the need for a publishable find, Mrs. Steinemann — late of the tour group — is bound for stardom.

"THE FIRST EGYPTIANS" — OR HOW TOSPY GREW AND GREW

by Karin L. Willoughby

Curator of Natural Sciences
McKissick Museum, University of South Carolina

I met Michael Hoffman in the winter of 1985-86. The possibility of a small photographic exhibit based on recent research in Egypt had been suggested to me by McKissick's director, George Terry. At the time, I had only a long hallway available for temporary exhibits, since the main gallery contained a permanent display of geological specimens. Little was I to know that within two and a half years, the discoveries from Hierakonpolis would not only take over all my gallery space, but also my office! As I showed Michael around the geology gallery, I suggested that a few artifacts would help tremendously in interpreting his and his team's work for our non-scientific audience. From that modest beginning, Michael and I began meeting regularly to develop a small exhibition — quickly transmogrified to a regional traveling exhibition, which required a grant proposal to the National Endowment for the Humanities.

The search for possible venues began, along with the search for artifacts to be included in the exhibition. The probable inclusion of several wonderful artifacts from the Petrie Museum (University College London), through Barbara Adams, and from the Royal Ontario Museum, through Nicholas Millet, upgraded the exhibition to national status. With a quick and generous commitment from the Milwaukee Public Museum to the project through Carter Lupton, the idea of a national

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traveling show was established. Our biggest problem was exhibition space that would meet the standards of our lending institutions. Although George Terry was not completely sure where this would all end (and neither were we), he expedited a higher priority within the University for renovation of the geology gallery. The Earth Sciences and Resources Institute and the McKissick Museum would co-sponsor "The First Egyptians." We were on our way.

By December 1986, Michael and I had dragooned what seemed like half of the University's resources into participating in this project. President Holderman had offered his firm commitment; a 300-page grant proposal had been written; and Michael and I were best of friends as we talked, ate, fought, and thought about this project. Phone calls at midnight were not unknown!

Then came the waiting — would we get the grant? In too deep to turn back, we continued upgrading the available artifacts and completing the list of possible host institutions. Oh, and Mike went to Egypt for the season and I continued to manage the collections and regular small exhibitions in the geology (now natural sciences) gallery. We received word in June; not only was the grant awarded, we were given every penny we had requested — nearly \$300,000.

Then the work really began. In nine months, we had to complete a catalogue, a poster, various information brochures, and a teacher's guide; prepare the University exhibit on Hierakonpolis for the SC State Fair; train docents to give special museum tours; supervise the content of the introductory slide and tape show; oversee the renovation of the natural sciences gallery; complete our regular work load — and, oh yes, write, design, and install the exhibition. And since no one in South Carolina had ever produced a national show of this caliber before, we were learning every step of the way.

In July 1986, we welcomed Elizabeth Stanton as the third member of our key team — the only person at USC

on the project full-time. Among many other qualifications for her new job as exhibition coordinator and registrar was her promise that she wouldn't get sick for the next year. Considering that McKissick was without heat the entire winter of 1987-88, while the new climate control system was being installed in time for "The First Egyptians," Elizabeth kept her promise much better than did her colleagues. Michael returned from Egypt with a mild case of King Tut's Curse (that's when you don't die, but you wish you did) and I went to bed with bronchitis for five days in February. Many of our support staff also fell ill at critical moments in the project, but we all forged on.

Other problems and broken promises kept our lives exciting and reinforced our growing conclusion that this exhibition had the Mummy's Curse for not including a mummy in the show. Working on the premise that when a string breaks you tie a knot and go on, each crisis was met somehow — complimenting, begging, threatening, blackmailing, and bakseish. "By the skin of our teeth" became modus operandi. Meetings with designers, carpenters, graphic artists, model makers, artifact mount makers, education resource advisors, and videotape producers plus phone calls to Egypt, London, Toronto, and all our venues helped the months slip away. Finally the artifacts began to arrive. Being able to see and handle these 5000-year old objects was a bigger thrill for those of us at McKissick than the actual opening of the exhibition. By the time the show opened, we were too tired to be thrilled by anything much.

As April 8, 1988, approached, the already fierce pace of production and installation was redoubled. For two weeks before the April 5 members' reception, most of the museum staff plus Michael and his staff worked day and night to finish and install the exhibition. Where were we Easter weekend and the holiday Monday after it? We were in the gallery, painting, fixing, cleaning, hanging and placing cases, models, text panels and artifacts. By



Elizabeth Stanton oversees McKissick staff members transporting crates of exhibition artifacts.

eight o'clock Monday night we were finished with the show, except for the plants which were due to arrive on Tuesday morning. It was time for celebration on a job completed. It was also time for the real test: Would our visitors enjoy the show? Would they absorb the information available? Would they tell their friends? Over 630 people came to the pre-opening reception. And the pace never slowed. All in all, 45,000 people came to see "The First Egyptians" at McKissick Museum. We had a hit!

After ten weeks, "The First Egyptians" was packed up and shipped to Milwaukee where Elizabeth, Michael, and I all worked hard with Carter Lupton and his colleagues to install the exhibition in a new configuration for a differently shaped gallery. Sigh of relief! All of the artifacts made the journey safely. While the Mummy's Curse continued to plague our text panels, our shipping arrangements, and anything else that could go wrong, we racked up another successful venue. Meanwhile, Elizabeth accepted the position as McKissick's registrar and Karen Klein, who had been assistant curator for "The First Egyptians," took over the unenviable position of exhibition coordinator and registrar. Karen and Elizabeth packed the show at Milwaukee and Karen traveled on to Denver to unpack for a double venue at the Denver Museum of Natural History.

But there is no rest for the weary; new design elements requested by the Smithsonian must be created; bids must be sent out for a shipper for the rest of the venues; and plans must be made to set up the exhibition at the Los Angeles County Museum of Natural History. But it is worth it. McKissick Museum is now known on a national and international basis. The discoveries at Hierakonpolis have already been seen by over 100,000 people and well over a million people will see them before the exhibition closes in 1990. And Michael and I think that gray hairs make us look more distinguished.

NEW LIGHT ON A MOST ANCIENT YEAST

by *Jeremy R. Geller*

Mr. Geller is part of our Hierakonpolis Expedition staff, and is currently working on his doctorate at Washington University in St. Louis, Missouri.

Early in 1988 I set to work at Hierakonpolis with the objective of answering some questions concerning Predynastic pottery production through excavation of two sites near the desert margin that bore surface indications of concentrated heating. Excavation at Hk-25D (platform site) yielded six fired circles surrounded by collars of puddled mud and sherds on a silt platform. There was little doubt that it was the remnant of a kiln or oven, although I was disturbed by the scarcity of some key indicators of pottery kilns such as "wasters" (over-fired pottery).

Hoping for better luck I turned to nearby Hk-24A (vat site), attracted by upright fragments of blackened, thick pottery visible on the desert surface, apparently *in situ* and arranged in a circle of about half-a-meter in diameter. I supposed these enigmatic circles to be structural elements of a kiln. Excavation yielded four upright, conical, vat-like vessels, supported by mud and sherds and surrounded by midden, including remnants of wood fuel used to heat the contents. A vitreous black residue clung to the interior of the vats, tapering from a centimeter thick at the top until it disappeared 20 to 30 cm from the bottom. Although this was clearly a fascinating site, unlike any other yet found at Hierakonpolis, it was certainly not the kiln I had been seeking. But if this was not a pottery kiln, what was it? Suddenly I realized that my doctoral research had, unexpectedly, taken a new direction.



Photograph of vat site Hk-24A showing the black residue in the vats (view to the southwest, February 1988).

From the start I realized that the key to understanding Hk-24A was the mysterious black residue. The solution to the puzzle of the site's original function began to unfold when I noticed the resemblance of these vat-like features to the so-called "grain-parching kilns" excavated at Mahasna and Abydos around the turn of the century. Parching facilitates threshing, grinding, and storage of grain — especially of the husked variety of emmer wheat recovered from the vats at Hk-24A, both loose and embedded in the residue. Emmer wheat was also noted in Abydos kilns by their excavator, T. E. Peet.

Ever since Peet's excavation of the so-called "Osireion" kiln at Abydos, his explanation that the structure was used for parching grain has stood. My own research, however, indicates there are reasons for questioning the accepted view because parching might be better accomplished in a flat rather than conical oven. Moreover, parching would not explain the black residue.

The efforts of Dr. Yordan Popov, a Bulgarian chemist friend at the Egyptian Ferrosilicon Company in Edfu, provided some insight into the residue's composition and organic origin, leading to an interpretive breakthrough. An extract was prepared from the black residue and indicated — on the basis of its brandy-like odor — that the organic component is incompletely carbonized sugar from the cooking or fermenting of fruit or cereal. Virtually the same material was recovered from the so-called grain-parching kilns at Abydos. The preliminary evidence at Hk-24A therefore suggests that the vats were probably used for malting or brewing a wheat-based beer. The installations at Mahasna and Abydos, as well as the newly discovered ones at Hierakonpolis, are breweries — not grain-parching kilns as had been maintained for over seventy years.

Petrie identified beer dregs in a jar from a Predynastic grave, so brewing clearly dates to prehistoric times. Brewing is mentioned or depicted in Egypt as early as the Third Dynasty and generously attested by the Fifth Dynasty. Ethnographic and historical accounts of beer-making in Egypt agree closely with the ancient depictions. Traditional brewing involves adding broken-up, lightly baked cereal loaves and malt to water. The Predynastic brewers probably relied upon airborne yeast. The mixture is heated at various points during malting and brewing and left to ferment. Malting is known to produce some residue. Beer made this way resembles gruel unless decanted and strained.


Brewing and baking were often depicted together, as they share basic processing steps and baking loaves was necessary for beer-making. This provides a clue to the function of Hk-25D (the platform site), which contained very few indicators of pottery production but which might well have been a complex of small bread ovens conveniently situated for use at nearby breweries.


Now that we have learned to identify the telltale signs of ancient brewing — vats and residue, it is clear that the practice was widespread at Hierakonpolis. Evidence of brewing has even been spotted at a huge pottery kiln next to the vat site, raising the possibility that it was tied to the other early Predynastic industries in our


region. One can imagine Predynastic potters, after a hot day at the kilns, slipping next door for a cool brew!

The identification of a Predynastic brewery is unprecedented. Beer apparently was a commodity of some importance in ancient Egypt as, for example, a common invocation listed "bread and beer, beef and fowl, alabaster and linen, and all things good . . ." The implications of the new find at Hierakonpolis for my original research agenda emphasizing pottery production are all positive, as beer and pottery raise parallel archaeological and anthropological questions relating to Predynastic belief, economy, and polity. Both require that fuel and special resources be produced and imply a fair degree of specialization to process and redistribute in quantity. Both have homely or utilitarian aspects as well as luxury aspects. And lest we forget, the Predynastic Egyptians required pottery jars in which to store their beer!

NEKHEN NEWS UPDATES

 CATALOGUE REVIEW — For all who ordered the *Catalogue of the "First Egyptians" Exhibition*, we hope you've enjoyed reading it from cover to cover. Our first printing sold like hotcakes so we've ordered more! For those of you who can't visit "**The First Egyptians**" Exhibition, you may still get a peek into Egypt on the brink of history through the essays, maps, charts, color and black/white photos, and descriptive information all included in the catalogue.

 RECORD-BREAKING crowds follow "**The First Egyptians**" Exhibition. Over 45,000 people visited the show in Columbia, South Carolina. It then traveled to the Milwaukee Public Museum where it again received rave reviews, and it is now being exhibited at the Denver Museum of Natural History. Those of you in the Los Angeles area keep your calendars clear for mid-April — the pre-opening festivities are sure to be something you won't want to miss!

 1988 WAS THE YEAR for national and international symposia and talks. In August, the *International Conference on Egyptian Settlement Patterns* (Boston) was attended by Dr. Hoffman, who presented a paper, and Mr. Jeremy Geller. In October, Poznan, Poland, was the site of the *International Symposium on Environmental Changes and Human Culture in the Nile Basin and Northern Africa Until the Second Millennium BC*, which was attended by Mr. James O. Mills, Dr. Hany Hamrrouch, Mrs. Barbara Adams, and Dr. Diane Holmes as authors or co-authors of papers. Here in the States, Dr. Hoffman spoke to the Explorers Club in Columbia (SC), the Spartanburg Arts Association (SC), the American Research Center in Egypt's SCAL branch in Los Angeles, and the Egyptian Studies Society of the Denver Museum of Natural History in Denver. The lecture year ended in November with Dr. Hoffman speaking to the Egyptian Exploration Society in London.

THE FIRST EGYPTIANS

CATALOGUES NOW AVAILABLE

A valuable resource for both the novice and professional, this catalogue contains three informative essays concerning Egypt on the brink of history around 3100 BC. The 120-page catalogue also contains maps, charts, descriptive information, and 16 color and 92 black/white photographs of the artifacts in "The First Egyptians" exhibition, which is traveling nationally through 1990.

Each catalogue sells for only ~~\$19.95~~ \$14.00
 (Special rate for members of Friends of Nekhen/Egyptian Studies Association)
 plus postage and handling

Send requests to:

Dr. Michael A. Hoffman
 Earth Sciences and Resources Institute
 University of South Carolina
 Columbia, SC 29208 USA

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THE EGYPTIAN STUDIES ASSOCIATION

I would like to help the Hierakonpolis Expedition by joining **The Egyptian Studies Association**. In return for my tax deductible contribution, I understand that I will receive a membership certificate and card, badge, and **NEKHEN NEWS**, and that I will be entitled to travel discounts with expedition tours and reduced rates on expedition publications and Egyptian archæological slide sets.

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INSIDE: A Most Ancient Yeast

Preparation of bread and beer (Ti's tomb, Saqqara, Old Kingdom). From Duby *et al.* (1977): *Food: The Gift of Osiris, Vol. 2* (New York, Academic Press).

THE EGYPTIAN STUDIES ASSOCIATION

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"THE FIRST EGYPTIANS" EXHIBITION:

Los Angeles County Museum of Natural History
April 22 — July 29, 1989

Witte Museum, San Antonio
September 7 — November 5, 1989

National Museum of Natural History
at the Smithsonian, Washington DC
November 20, 1989 — April 1, 1990