International Conference
Origin of the State. Predynastic and Early Dynastic Egypt
(Cracow, Poland: 28th August – 1st September 2002)

Abstracts of Papers

Krzysztof M. CIAŁOWICZ, Marek CHŁODNICKI & Stan HENDRICKX (eds.)

Cracow 2002

Contents

Participants

Renata ABŁAMOWICZ
Muzeum Śląskie Katowice
al. W. Korfantego 3
40-005 Katowice
archeo@muzeumslaskie.art.pl

Ali Mohammed Ibrahim AMRIA
The Supreme Council of Antiquities,
Mansura Inspectorate
Mansura
Egypt

Masahiro BABA
1-14-17 Kannon
Kawasaki-ku, Kawasaki-shi
Kanagawa-ken 210-0831
Japan
QYP13226@nifty.ne.jp

Tine BAGH
Carsten Niebuhr Institute, University of
Copenhagen
Snorresgade 17-19
DK-2300 København S
Denmark
bagh@hum.ku.dk

Galina BELOVA
Center for Egyptological Studies of the
Russian Academy of Sciences
117574 Proezd Odoevskogo 3-3-372
Moscow
Russia
cesras@online.ru

Stijn BIELEN
Egyptian Department
Royal Museums for Art and History
Jubelpark 10
B-1040 Brussels
Belgium
stijn.bielen@belgacom.net

Eliot BRAUN
Israel Antiquities Authority
P.O.B. 586
Jerusalem, 91004
Israel
febraun@netvision.net.il
eliot@israntique.org.il

Nathalie BUCHEZ
2, Rue de Motte
F-80290 Fresnay-au-Vall
France
nathalie.buchez@wanadoo.fr

Marcelo CAMPAGNO
Av. Rivadavia 5547 3F
C1424CEK Buenos Aires
Argentina
mcampagno@ciudad.com.ar

Marek CHŁODNICKI
Muzeum Archeologiczne
ul. Wodna 27
61-781 Poznań
Poland
mchlod@man.poznan.pl

Krzysztof M. CIAŁOWICZ
Instytut Archeologii, Uniwersytet
Jagielloński
ul. Gołębia 11
31-007 Kraków
Poland
kmcialowicz@interia.pl

Andrzej ĆWIEK
Muzeum Archeologiczne
ul. Wodna 27
61-781 Poznań
Poland

Joanna DĘBOWSKA
Instytut Archeologii, Uniwersytet
Jagielloński
ul. Gołębia 11
31-007 Kraków
Poland
joanna_d@poczta.onet.pl

J.P.DESSEL
Department of History, University of
Tennessee
6th Floor Dunford Hall

915 Volunteer Boulevard
Knoxville, TN 37996
USA
jdessel@utk.edu

Salem EL-BAGHDADI
The Supreme Council of Antiquities,
Mansura Inspectorate
Mansura
Egypt

Nagib Mohammed EL-SAID NUR
The Supreme Council of Antiquities,
Mansura Inspectorate
Mansura
Egypt

Dina FALTINGS
Beethovenstrasse 56
69121 Heidelberg
BRD
DFaltings@aol.com

Renée FRIEDMAN
Dept. of Ancient Egypt and Sudan,
British Museum
London WC1B 3DG
England
renee.f@virgin.net

Bolesław GINTER
Instytut Archeologii, Uniwersytet
Jagielloński
ul. Gołębia 11
31-007 Kraków
Poland
ginter@argo.hist.uj.edu.pl

Ram GOPHNA
Institute of Archaeology, Tel Aviv
University
Tel Aviv 6978
Israel
gophna@post.tau.ac.il

Gwenola GRAFF
29, rue Briçonnet
F-37000 Tours
France
gwenola.graff@wanadoo.fr

Ulrich HARTUNG
c/o German Institute of Archaeology
31, Sh. Abu el-Feda, Zamalek
11211 Cairo
Egypt
uhartung@soficom.com.eg

Stan HENDRICKX
Sint-Jansstraat 44
B-3118 Werchter
Belgium
s.hendrickx@pandora.be

Tomasz HERBICH
Instytut Archeologii i Etnologii PAN
Al. Solidarności 105
00-140 Warszawa
Poland
herbich@archeolog.iaepan.edu.pl

Alejandro JIMÉNEZ SERRANO
Calle Santo Reino no. 7, 7° D
E-23001 Jaén
Spain
alejandrojjs@yahoo.es

Maciej JÓRDECZKA
Instytut Archeologii i Etnologii PAN
ul. Zwierzyniecka 20
60-814 Poznań
Poland

Mariusz JUCHA
Instytut Archeologii, Uniwersytet
Jagiellonski
ul. Gołębia 11
31.007 Kraków
Poland
jucha@argo.hist.uj.edu.pl

Jacek KABACIŃSKI
Instytut Archeologii i Etnologii PAN
ul. Zwierzyniecka 20
60-814 Poznań
Poland
kabay@man.poznan.pl

Michał KOBUSIEWICZ
Instytut Archeologii i Etnologii PAN
ul. Zwierzyniecka 20

60-814 Poznań
Poland
mkobus@man.poznan.pl

Janusz K. KOZŁOWSKI
Instytut Archeologii, Uniwersytet Jagielloński
ul. Gołębia 11
31-007 Kraków
Poland
kozlowsk@argo.hist.uj.edu.pl

Christiana KÖHLER
Australian Center for Egyptology, Macquarie University
Sydney, N.S.W. 2109
Australia
ckoehler@pip.elm.mq.edu.au

Karla KROEPER
Ägyptisches Museum
Schlossstrasse 70
D-14059 Berlin
BRD
kkroeper@hotmail.com

Alexei KROL
123308 Khoroshevskoe shosse
9-2-66 Moscow
Russia
alexikrol@yahoo.com

Lech KRZYŻANIAK
Muzeum Archeologiczne
ul. Wodna 27
61-781 Poznań
Poland
lechk@man.poznan.pl

Lucyna KUBIAK-MARTENS
BIAX Consult
Roetersstraat 8hs
N-1018nWC Amsterdam
Netherlands
kubiak@biax.nl

Agnieszka MĄCZYŃSKA
Muzeum Archeologiczne
ul. Wodna 27
61-781 Poznań
Poland
agamacz@man.poznan.pl

Beatrix MIDANT-REYNES
Centre d'Anthropologie des Sociétés Rurales, Université Paul Sabatier
56 rue du Taur
F-31000 Toulouse
France
midant@cict.fr

Karol MYŚLIWIEC
Zakład Archeologii Śródziemnomorskiej PAN
ul. Nowy Świat 72
Warszawa
Poland

Edyta M. NOWAK
Instytut Archeologii, Uniwersytet Jagielloński
ul. Gołębia 11
31-007 Kraków
Poland
edyta_nowak@interia.pl

Diana Craig PATCH
Dept. of Egyptian Art, The Metropolitan Museum of Art
1000 Fifth Ave.
New York NY 10028
U.S.A.
patrom@aol.com

Maciej PAWLIKOWSKI
Instytut Mineralogii, Petrografii i Geochemii, Akademia Górniczo-Hutnicza
Al. Mickiewicza 30
30-059 Kraków
Poland
mpawlik@uci.agh.edu.pl

Kathryn PIQUETTE
Institute of Archaeology, University College London
31-34 Gordon Square
London WC1H 0PY
England
tcrnkep@ucl.ac.uk

Ilona REGULSKI
Egyptian Department
Royal Museums for Art and History
Jubelpark 10
B-1040 Brussels
Belgium
ilona_regulski@yahoo.com

Heiko RIEMER
Forschungstelle Afrika, Institut für Ur- und Frühgeschichte, Universität zu Köln
Jennerstrasse 8
D-50823 Köln
BRD
Heiko.Riemer@uni-koeln.de

Joanne ROWLAND
Institute of Archaeology, University College London
31-34 Gordon Square
London WC1H 0PY
England
joannerowland@hotmail.com

Peter SCHÖNFELD
Forschungstelle Afrika, Institut für Ur- und Frühgeschichte, Universität zu Köln
Jennerstrasse 8
D-50823 Köln
BRD

Jane SMYTHE
Australian Center for Egyptology, Macquarie University
Sydney, N.S.W. 2109
Australia
smythejane@hotmail.com

Karin SOWADA
The Nicholson Museum, University of Sydney
Sydney, N.S.W 2006
Australia
ksowada@zeta.org.au

Joachim ŚLIWA
Instytut Archeologii, Uniwersytet Jagielloński
ul. Gołębia 11
31-007 Kraków
Poland
jsliwa@argo.hist.uj.edu.pl

Izumi TAKAMIYA
The School of Literature, Arts & Cultural Studies, Kinki University
228-3 Shinkamikosaka, Higashiosaka-shi
Osaka-fu, 577-0813
Japan
izumi@fiveminutes.co.jp

Edwin VAN DEN BRINK
Israel Antiquities Authority
P.O.B. 586
Jerusalem, 91004
Israel
edwin@israntique.org.il

Joris VAN WETERING
Groningsestraat 19
N-2587 RJ Den Haag
Netherlands
jflvwetering@yahoo.co.uk

Pierre VERMEERSCH
Laboratorium voor Prehistorie
Redingenstraat 16bis
B-3000 Leuven
Belgium
pierre.vermeersch@geo.kuleuven.ac.be

Martin ZIERMANN
Rathelbeckstrasse 374
D-40627 Düsseldorf
BRD
Bauforschung@nexgo.de
MartinZiermann@cs.com

Les restes d'animaux à caractère symbolique (?) d'après les études à Tell el-Farkha (Egypte)

Renata ABŁAMOWICZ

Muzeum Śląskie Katowice, Katowice (Poland)

L'étude concerne les restes d'animaux qui témoignent des coutumes et rites religieux pratiqués par les habitants de l'emplacement dans la période entre environ 3500 - 2700 avant notre ère. On considère comme fouilles à ce caractère les restes d'animaux retrouvés dans des tombes humaines (tell F) ainsi que les découvertes isolées provenant des hameaux (tell W, tell C).

Aux environs des tombes, on a trouvé des restes d'animaux dans la terre couvrant les fosses, auprès des squelettes humaines, à côté et à l'intérieur des ustensiles (qui faisaient partie de l'équipement du défunt). Le cochon était l'espèce la plus fréquente (constituant 97% d'os retrouvés); à part cela on a identifié des fragments séparés de bovins, ainsi que des restes de mouton, de chèvre, de chien et de lièvre. On a distingué aussi des débris de poissons, d'oiseaux, de reptiles et des coquilles des mollusques d'eau douce.

Evidemment, le caractère des restes d'animaux découverts n'est pas toujours évident ni tout à fait compréhensible. Certains os peuvent être liés aux dons (il s'agit de la nourriture symbolique offerte au défunt), d'autres viennent probablement des repas funéraires célébrés auprès de la tombe. Dans certaines circonstances, les restes d'animaux reflétaient peut-être le statut matériel et social du mort.

Le rôle "symbolique" des animaux est confirmé par les découvertes dans les tells central (C) et oriental (W). Ainsi, le premier cas révèle l'existence d'une fosse pour les chiens près de laquelle on avait déposé aussi les os d'une antilope. Les os d'un aurochs (ou d'une grande bête à cornes), ordonnés de manière atypique, proviennent du tell W; on les a identifiés dans l'enceinte des murs de l'édifice.

Experimental Studies on the Firing Methods of the Black-topped Pottery in Predynastic Egypt

Masahiro BABA & Masanori SAITO

Institute of Egyptology, Waseda University, Tokyo (Japan)

One of the most accomplished and sophisticated wares in ancient Egypt is the black-topped pottery that was mainly manufactured during the Amratian (Naqada I) and Gerzean (Naqada II) Periods (4000-3000 BC). This pottery has the distinctive feature of having a polished red body with black on the rim and on the inside. The greatest concern on the black-topped pottery is the chemistry used to produce the black coloring and the firing method, which have engendered much discussion and debate over the years. Based on the scientific investigations, we came to the conclusion that the black color is due to a carbon adsorption caused by the organic materials and the firing under reducing circumstances. The firing method of the black-topped pottery is, however, still in controversy. Hypotheses are generally divided into two interpretations. One is the firing in which the red of the body and the black of the rim are produced simultaneously. The other is the two-step process in which the red-hot vessel is removed from the hearth and placed immediately rim down into organic materials. Although primitive firing methods might have been used by ancient potters, most of the previous experimental firings have been carried out in electric kilns. The purpose of this paper is, therefore, to reproduce black-topped pottery in the primitive way, and to limit the assumptions of its firing method.

Five firings were carried out; 1) bonfire, 2) bonfire in pit, 3) mud-covered bonfire, 4) updraught kiln, 5) two-step production. 1) ~ 4) were operated as one-step processes in which the vessels were placed upside down into the bed of the chaff before firing. The sample pots were made of clay with small amounts of fine sand and organic temper. The surfaces of the samples were coated with the red slip (ferric oxide), and polished with a pebble when half dry.

1) Bonfire: at first, a shallow hole about 10cm in depth was prepared in the ground, and filled with chaff. Samples were placed on the chaff, around which firewood for fuel was set at some distances. After firing, firewood was gradually moved nearer to the samples in order to avoid a fast rise in temperature. The maximum temperature was reached between 700~800°C. Although the carbon adsorption occurred, black stains were observed to remain on the whole outside of the samples. Thus, the bonfire did not easily produce the complete black-topped pottery.

2) Bonfire in pit: a pit (1.5m square and 35cm in depth) was dug in the ground, in the bottom of which firewood and chaff were laid down. Samples placed on the chaff were covered with straw and firewood. Once the firewood was set on fire, the temperature rose rapidly, after 5 minutes it reached 800°C and was kept at that temperature for 10 minutes. The result was the same as with the bonfire method.

3) Mud-covered bonfire: this method of firing is still widely practiced in Eastern Asia, the so-called Unnan style. The samples were placed on a bed of chaff, around which firewood and straw were leaned, and were entirely covered with a layer of mud.

After 85 minutes from ignition, the temperature inside reached 950°C, then after 170 minutes it reduced to 200°C. As the mud-cover was broken after it had cooled down, the firewood turned out to be charred and the chaff had not been burnt off. The samples were adequately fired, around the mouth of which the carbon adsorption was also achieved. Moreover, the silvery luster between the red and black zone was observed as the same as the ancient black-topped pottery.

4) Updraught kiln: the kiln used in this experiment was a simple one, the interior of which was partitioned by a grid radiating from a central pillar to make a hearth and a firing chamber. The chaff was laid on the fireproof plates set on the grid, and the samples were placed in the chaff. The temperature in the kiln was increased gradually to prevent damage to the samples. 215 minutes after ignition, 800°C was reached, after that, 650~800°C was kept for 60 minutes. The highest temperature, 870°C, was recorded at 220 minutes after the kiln was set on fire. The result was that the samples were baked very well, and the firing itself was proved to be successful. The carbon adsorption was, however, not observed in most samples, because the chaff had been reduced to ashes.

5) Two-step production: at first, the samples were baked in a bonfire. The temperature rose rapidly after ignition, and reached 740°C the highest temperature in about 45 minutes. When the original carbon in the samples was burnt out, the red-hot samples were removed from the hearth and put into the hole filled with chaff. The carbon adsorption was attained and on the rim of the samples.

The summary of the results are as follows; owing to the difficulty of controlling the fire, the bonfire, and the bonfire in the pit, were proved not to be suitable for the production of the black-topped pottery. The updraught kiln was also unsuitable, because of the organic material for the carbon adsorption being entirely burnt out by the upward flames. On the other hand, we succeeded in reproducing the black-topped pottery by using the two-step production method. However, it is highly probable that this method can be applied to smaller pottery, but not to larger ones. The reason for this assumption is that it is thought to be difficult to remove the large pottery from the hearth. Of our experimental firings, the mud-covered bonfire was the most successful method. Its operation was so easy that once the fire was set, there was no need to do some treatment during the firing. Additionally, it needed less fuel than in the bonfires and the updraught kiln. Evidence of the mud-covered bonfire has not yet been found on predynasatic sites in Egypt, but it may be due to the property of the mud-cover being broken when opening. On the contrary, the absence of obvious kilns from this era might suggest the existence of the mud-covered bonfire. Moreover, from the negative result of the updraught kiln, it might be assumed that the primitive firing methods of the black-topped pottery were gradually vanished as the new technique of the updraught kiln was introduced into Egypt.

First Dynasty Jewellery and Amulets
Finds from the Naqada Tomb, Comparisons and Interpretation

Tine BAGH

Carsten Niebuhr Institute, Copenhagen (Denmark)

The finds from the niched mastaba in Naqada from the time of King Aha (here: the Naqada tomb), are currently under investigation for a final publication by Jochem Kahl, Eva Engel, Susanne Petschel and Tine Bagh (Cf. J. Kahl et al. 2001). De Morgan excavated the tomb in 1897 and it was subsequently investigated by L. Borchardt in 1891 and J. Garstang in 1904. The position of this type of grand tomb and the identity of the tomb owner have always puzzled us and this new study is bringing light to an important collection of material from the crucial period of the beginning of the 1st dynasty.

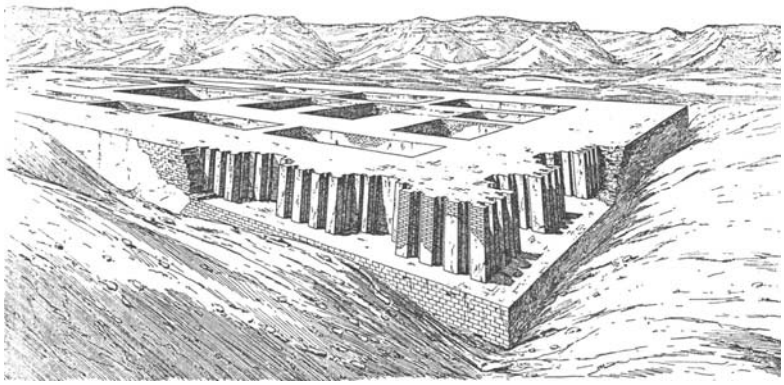


Fig. 1: The Naqada Tomb

The Naqada tomb contained objects for personal adornment such as bead necklaces including small labels with the number of beads for each necklace and different kinds of tiny bracelets of bone. Parallels for these bracelets occur in other tombs of the period and their small size would pose the question whether they were actually worn on the arm or possibly bearing some symbolic meaning as tomb equipment.

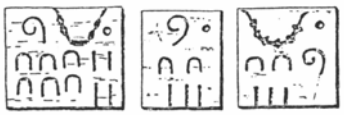


Fig. 2: Bone labels with number of beads from the Naqada Tomb.

15 fish amulets of bone, each 5-7cm long, were also among the grave goods. These can be divided into two main types being *tilapiae* with its characteristic high and flat body and mullets with a long slim and more rounded body and both types are pierced through the mouth and to a little below it. Part of a fish, probably a mullet, was found in the tomb of Aha at Abydos and the offerings from the temple at Hierakonpolis included a small tilapia, but otherwise the Naqada fish are unique. In later times, i.e. in the Middle Kingdom, fish pendants are known as hair/plait pendants and as such they may have had a protective function. The connection between the tilapiae and the

concept rebirth is well known and at least from the Old Kingdom, mullets are also associated with the cycle of life. Some finds from the tomb are thus unique others have parallels from contemporary tombs in Abydos and Saqqara.

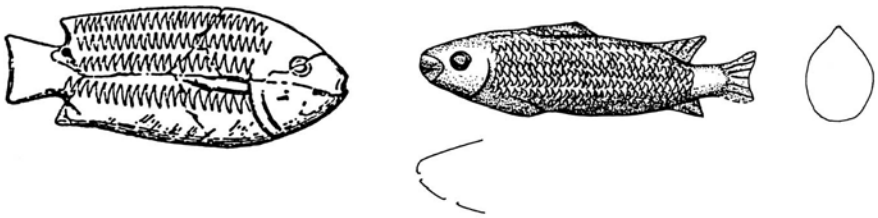


Fig. 3: Example of a. Tilapiae, b. Mullet from the Naqada Tomb.

The size of the tomb together with the tomb equipment as for example one gold bead and vessels of precious imported material such as obsidian definitely points towards a royal burial and the main theory according to the inscribed material from the tomb is that it belonged to Queen Neith-Hotep. The burnt bones from the burial chamber was analysed and seemed to be from a male person, so the question can not yet be determined with certainty.

Bibliography

KAHL, J.; BAGH, T.; ENGEL, E.-M. & PETSCHEL, S., Die Funde aus dem 'Menesgrab' in Naqada: ein Zwischenbericht. *MDAIK,* 57 (2001): 171-186.

KAHL, J. & ENGEL, E.-M., *Vergraben, verbrannt, verkannt und vergessen. Funde aus dem "Menesgrab"*. Münster, 2001.

The Unified Egyptian State. The Outlook from the East

Galina A. BELOVA

Center for Egyptological Studies of the Russian Academy of Sciences, Moskou (Russia)

The excavations of the temple complex at Tell Ibrahim Awad help fill some of the gaps in the history of the rise of the Egyptian kingdom and not only confirm Seidlmayer's opinions on this subject but also allow us to develop some of his statements. A complex pattern of interactions was taking place on the southern and northern boarders of Egypt before and throughout the reign of the 1st Dynasty kings. In the beginning of this period the frontier zone along the coast of Sinai up into southern Canaan was populated by a mix of Egyptian and native inhabitants and peppered with settlements and trade points. This pattern ends with the close of the 1st Dynasty. Similar changes took place in the south. These developments on the northern and southern borders of the Pre/Protodynastic Egyptian State were connected with major changes within Egypt itself, which were particularly manifest in important centers such as Abydos, Hierakonpolis, Elephantine, where we see fortified towns replacing scattered settlements. No doubt this is related to the establishment of clear borders and the need to enforce them. The erection of fortresses and the control of foreign trade is intimately connected with the unification of the Egyptian state and coincides with an aggressive program of temple-building. The latter structures were under the protection of local deities and celebrated the cult of the king who was both the singular expression of the state's unity and the embodiment of its will to power.

Additionally, offerings to the cult of the king may have provided a focal point for the national economy as far back as the Early Dynastic period. Hence, the objectives of the first Egyptians kings included establishing and securing the borders of the State, laying claim to frontier territories and managing the economic, political and religious integration of the whole country.

It seems very likely that the temples in the border areas were erected as part of one single project both as a result of and a statement regarding the unification of Egypt

To sum up, Tell Ibrahim Awad is of great significance both in terms of religion and policy. Perhaps the conjectures and ideas given above will be confirmed in the course of the further excavations and clarify the uncertain picture which we have of the appearance of the unified kingdom in Egypt.

The Funerary Objects from the Early Dynastic Royal Tombs at Abydos in the Royal Museums of Art and History in Brussels

Stijn BIELEN

Royal Museums of Art and History, Brussels (Belgium)

Introduction

In the Egyptian collection of the Royal Museums of Art and History (RMAH) in Brussels is preserved an enormous amount of objects from the royal tombs of the first and second dynasties at Umm el-Qaab (Abydos, Upper Egypt). These artefacts consist in the first place of an outrageous mass of fragmentary stone vessels, estimated at more than 50.000 individual fragments. Furthermore there are about 400 fragments of decorative stone vessels and 510 objects belonging to other categories (pottery vessels, bone and ivory objects, flint artefacts, seals, seal impressions …). An important number of these bear hieroglyphic inscriptions. Indubitably, we are dealing here with the largest collection of archaeological material from these tombs outside Egypt.

These objects have reached the museum in Brussels in several ways. A number of remarkable pieces was bought in 1904 in Paris when the collection of Emile Amélineau (who excavated the royal tombs in 1895-1898) was sold by auction. Another series of objects originates from the excavations which W.M.F. Petrie carried out in 1899-1901 on behalf of the Egypt Exploration Fund. The RMAH subscribed to this undertaking as Petrie was used to present important collections of objects to the institutions who supported him financially. The museum apparently received a much greater share than it would have been entitled to considering the money invested in the Egypt Exploration Society. This is probably due to the excellent relationship between Petrie and Jean Capart, in those days keeper of the Egyptian section of the RMAH.

Although excavated a hundred years ago, the material in Brussels has never been adequately studied. Because of the renewed interest in this type of material displayed by several museums with collections of the same provenance en because of the currently undertaken re-excavation of the site by the German Archaeological Institute, conditions for such a research project were considered particularly favourable.

Objectives

The main objective of this project is the complete recording and analysis of the objects from the royal tombs preserved in de RMAH. This should result in a published catalogue.

The study of the funerary equipment will not only allow more insight in the original contents of the royal tombs, but also in the chronological development of particular types of objects throughout the Early Dynastic Period. For several types of objects, information will be obtained regarding their function and fabrication. This is especially the case for the stone vessels, the manufacturing of which is still largely unknown. Because of its sheer quantity, the material preserved in Brussels certainly allows for a new and much more rigorous approach of these technological aspects.

Methodology

Concerning the stone vessel fragments, the pieces will be sorted according to the type of stone and characteristic shape elements. The next step will be looking for matching pieces and reconstructing as many complete vessel profiles as possible. This will allow the development of a typological system and the identification of the minimal number of vessels represented.

The complete vessel profiles, the small objects and the decorative stone vessels will be catalogued in a computerized data bank. In order to assure a complete documentation, drawings and technical descriptions will be included for each object. The larger majority will also be documented photographically.

The final goal of this research project will consist of the global treatment of al information gained. Relevant data regarding objects from the Abydos royal tombs in other museum collections and from the German excavations at Umm el-Qaab will be included in this study and compared with the results obtained on the Brussels material.

Egypt and the Southern Levant:
Shifting Patterns of Relationships during Dynasty 0

Eliot BRAUN

Israel Antiquities Authority, Jerusalem (Israel)

The archaeological record of the southern Mediterranean Littoral in Israel (from approximately south of Tel Aviv) and the Gaza Strip, and its adjacent piedmont plateau (the biblical Shephelah) has, especially in the last decade, yielded much evidence for interaction between the indigenous peoples and denizens of the Nile Valley during the second half of the 4th millennium BCE (chrono-cultural periods known as Early Bronze I in the southern Levant and Naqada II-III in Egypt).

Recent major salvage excavations at Tel Lod, at the northern reaches of the region under discussion, have introduced evidence for a large settlement dating to Late EB I and Early EB II (Dynasty 1 in Egypt). While the material culture of EB Lod is overwhelmingly local in nature, several occupation levels have, nevertheless, yielded a sizable quantity of artifacts imported from the Nile Valley. To date they represent many scores of objects that include 8 *serekh* bearing ceramic vessels, the largest single assemblage found to date at any one site outside Egypt. In addition, petrographic analyses indicate that Tel Lod has also yielded a substantial, but equally small element of ceramic objects of Egyptianizing morphology produced locally, somewhere in the southern Levant. Thus, while the pottery assemblage of EB Lod clearly indicates the site was primarily occupied by indigenous peoples, it does indicate an unusually high degree of interaction with the contemporary material culture of the Nile Valley.

This paper attempts to analyze the Egyptian and Egyptianized material in light of the specific archaeological contexts from which they derive at Tel Lod, offering additional details of material that is still under study.

Study of a Ceramic Ensemble from the End of the Naqada Period and its Socio Economic Context

Nathalie BUCHEZ

Institut National de Recherches Archéologiques Préventives
UMR 8555 - Centre d'Anthropologie, Toulouse (France)

From 1997 onwards, the excavations of the settlement at Adaïma (Upper Egypt, 8 km south of Esna), have concentrated on a sector for which already during the 1989 survey the existence of a Naqada III occupation had been suspected. The sector is localised on an ancient alluvial terrace overlooking the present alluvial plain.

The entire Naqada sequence is represented on this terrace, but the residual material representing the periods anterior to the end of the Predynastic period differ in importance according to the excavated sector. In this manner, a particularly homogeneous ceramic ensemble, comporting only 2 % of Naqada II material, has been recovered from an area in which the structures where the least touched by successive disturbances.

The study of the material found in a 10 m by 10 m square within this area allowed, for the first time in Upper Egypt, to distinguish the characteristics of a domestic ceramic ensemble belonging to the end of the predynastic period. Characteristic chronological indicators such as seal impressions and fragments of cylindrical jars, allowed to attribute this phase of occupation to the Naqada IIIB-IIIC1 period.

The principal techno-morphological categories represented are (in order of importance):

Nile silt fabrics with coarse organic temper (Petrie's Rough ware)

smoothed surface

- bread moulds
- different types of simple convex and concave shapes
- necked shapes
- large storage jars or vessels serving for domestic or workshop purposes

dark red slip

- a small ensemble consisting of different types of simple shapes

Fine and medium fine marl fabrics (Marl ware)

smoothed surface

- open shapes with or without lip rim, also represented among the types with polished surface
- restricted shapes with lip rim extending from the vessel wall
- a few types of cylindrical jars (Wavy handled)
- necked shapes

polished surface, bright red to orange

- open shapes with or without lip rim
- restricted shapes with lip rim extending from the vessel wall

beige slip

- a small ensemble consisting of different types of simple and complex (necked) shapes

Limestone tempered fabrics dominated by bioclastics (fabric with nummilites or fossils)

Fabrics with fine or medium fine organic temper and coarse mineral inclusions

Shale tempered fabrics

smoothed or lightly polished surface

- simple shapes (cooking pots)

dark red slip (fabric with inclusion of fossils)

- plates

Fine Nile silt fabrics

smoothed brown

- a few necked types (wine jars)

The study of this ceramic ensemble allows the following socio-economic conclusions:

- An important diversity of productions can be observed, but at the same time there are well-defined techno-morphological series. The cooking vessels make up a functional group which can be used as an indicator of socio-economic changes to which it is probably more sensible than any other ceramic category. At the beginning of the Naqada II period, a single series of cooking vessels, made from shale tempered ware, has been distinguished. It was made in large amounts (40 % of the material) but not standardised and probably produced at household level. Towards the end of the predynastic period, vessels in shale tempered ware become very rare (1 %), but there appears another category, made from nummulithic tempered fabric, which shows recurring morphological characteristics (standardised *chaîne opératoire*) and a quality of surface treatment indicating that these vessels were produced beyond the household level. During the Naqada IIIB-IIIC1 period the settlement of Adaïma seems to be part of an economic system in which the importance of the household production seems minor. Local craftsmanship or specialised workshops have by then taken over.
- Nevertheless, the provincial character of the settlement is illustrated by the fact that it only marginally participates in some supply systems. The large jars which have been identified at other sites as wine jars are only very exceptionally represented both at the Naqada IIIB-IIIC1 settlement as at the subsequent Naqada IIIC2-IIID cemetery.
- It is generally accepted that there is a major break in the ceramic technology and shapes at the end of the Naqada IIID period, which coincides with the onset of the 3rd dynasty, which is often also considered the limit between the Early Dynastic period and the Old Kingdom. The study of the material from Adaïma shows that the first changes which will lead to the typical Old Kingdom ceramics already occur during the Naqada IIIB-IIIC1 period as documented by the ensemble under discussion.

  * The fine ware fabric with dark red polished surface which is still attested during the early stage of the Naqada III period, is gradually replaced by the fine ceramics with bright red polished surface, which is the most characteristic Old Kingdom technological group, of which the Maidum bowls are part.

  * One can also observe an increase in the number of functionally specialised types of pottery, which is a consequence of changes in the preparation manner of certain

types of food. This is obvious for the large storage jars or vessels for the preparation of food (crushing, kneading, brewing) and the bread moulds.
The distribution of the different functional categories over the Naqada IIIB-IIIC1 section of the settlement at Adaïma shows the existence of sectors with different activities for which a higher percentage of bread moulds occurs at two spots of the site. In these areas, the bread moulds represent 60 % of the ceramics found. A few thick rims in coarse organic tempered Nile silt (Rough ware), which could be considered bread moulds, already occur from the beginning of the Naqada II period onwards as well at the settlement as at the cemetery. But it is nevertheless impossible to distinguish pottery which is explicitly designated for the production of bread. The production of such pottery was at that moment either very limited and/or completely integrated in a non-standardised household level. Bread moulds were most certainly not the traditional manner for making bread. For the end of the predynastic period, large amounts of specialised pottery were discovered, both at the settlement and the cemetery. Pottery for the fabrication of bread came first, followed a little later by vessels for the production of beer (Naqada IIIC2-IIID). This indicates an increase in scale of the production which can be related to the workshop economy that must have developed at settlements of secondary importance such as Adaïma.

- The most ancient sign marks recognised at Adaïma come from a vessel found in a Naqada IIIA1 tomb. From that moment on, the vessels no longer show images with ideological meaning as it was the case during the Naqada I and II periods. The indications are no longer part of the ideology but of the economy. The signs occur on different techno-morphological and functional categories of the Naqada IIIB-IIIC1 ensemble under discussion. They can be found on jars, which can circulate with their foodstuffs, but also on fine marl-ware bowls, certain cooking pots and bread moulds. The example of the external marks on bread moulds seems to indicate that at least part of these signs are part of an annotation system because it considers more or less complex associations of tracings that seem to follow a certain logic. For 50 % of the examples, one or two parallel vertical lines are associated to one, two or three perpendicularly crossing lines. These units of 2 to 5 lines can also be found as graffiti on other ceramic categories and could be part of a counting system (?).

All in all, the points which have been discussed through the study of the ceramic material of the Naqada IIIB-IIIC period indicate the changes which mark the process of the emergence of the centralised state.

In the Beginning was the War
Conflict and the Emergence of the Egyptian State

Marcelo CAMPAGNO

University of Buenos Aires (Argentina)

The ensemble of evidence about conflicts during the time of the emergence of the Egyptian State (weapons, remains of "defensive" walls, iconographic representations) has recently grown as a consequence of the discoveries at Gebel Tjauti (Darnell 2002). These finds allow to reconsider the question of the relation between war and the emergence and initial consolidation of the State. That relation – from our point of view – implies not just a matter of coinciding events. The conflict is, in theoretical terms, a constitutive of the process of emerging practices which are based on the monopoly of force.

Over the last decades, different reasons have been suggested for those conflicts. Firstly, conflicts between nomadic herdsmen and sedentary peasants have been proposed (Monnet-Saleh 1986). However, this hypothesis is very little plausible: all we know about the economic basis of the pre-State communities provides an image in which agriculture and cattle-breeding are complementary strategies, and nothing allows us to think of different and antagonistic groups.

Secondly, it has been suggested that the conflicts might have emerged because of a high demographic pressure in a circumscribed territory (Bard & Carneiro 1989). However, there were large areas in Middle Egypt, with a low population number, which might have been a suitable space for the increasing southern population. Thus, the demographic constrictions required by this hypothesis cannot be recognised.

And lastly, the conflicts might have started as a consequence of the attempts of the Upper Egyptian communities to monopolise goods from exchange networks (Trigger 1983). This proposal remains interesting, if it is considered in terms of exotic prestige goods, which were required by local chiefdom elite for manifesting their social difference from the other members of their communities. Considering that an important proportion of those prestige goods had to be buried with their possessors when they died, the demand for such goods might have been considerable. During the epoch immediately preceding the emergence of the State, a relative increase in the offer of such goods (but not enough to supply adequately all of the elite) might have encouraged the demand and, at the same time, have caused a competition that might have generated warlike incidents. And the necessity to keep the defeated under control – so as to prohibit their demand of goods – might have forged a mode of domination not known until then.

Taking into account, on the other hand, that the leaders emerging from these conflicts soon acquired a status of warriors linked to the gods, it seems possible that the continuity of the conflicts did not remain restraint to a way of obtaining prestige goods. It can also be considered the confirmation of the leader as a divine warrior, as a Horus, imposing order in the place of chaos.

Bibliography

BARD, K.A. & CARNEIRO, R.L., 1989. Patterns of Predynastic Settlement Location, Social Evolution and the Circumscription Theory. *CRIPEL*, 11: 15-23.

DARNELL, J.C., with the assistance of DARNELL, D. and contributions by DARNELL, D.; FRIEDMAN, R.F. & HENDRICKX, S., 2002. *Theban Desert Road Survey in the Egyptian Western Desert, Volume 1: Gebel Tjauti Rock Inscriptions 1-45 and Wadi el-Hôl Rock Inscriptions 1-45*. Chicago.

MONNET-SALEH, J., 1986. Interprétation globale des documents concernant l'unification de l'Egypte. *BIFAO*, 86: 227-238.

TRIGGER, B.G., 1983. The Rise of Egyptian Civilization. [in:] TRIGGER, B.G.; KEMP, B.J.; O'CONNOR, D. & LLOYD, A.B., *Ancient Egypt: A Social History*: 1-70. Cambridge.

Excavations at the Central Kom of Tell el-Farkha, 1990-2002

Marek CHŁODNICKI

Muzeum Archeologiczne, Poznań (Poland)

Four trial trenches were delineated on the central kom. The first of these was situated on the kom's southern slope, in an area which had been partly damaged by *sebakhim* and sand extraction. The second trench was also located in the southern section of the kom, where geophysical surveying had revealed the presence of anomalies with a distinctive magnetic signature. A sondage of the same size was located between the central and western koms. The fourth trench was marked out on the northern slope of the central kom. The site's general stratigraphy was confirmed in all of these sondages, though stratigraphic sequences vary between individual trenches and not all settlement phases are represented in each trench. The last two trenches were located in an area directly related to an alluvial zone. The settlement only extended this far during the phase attributable to the Lower Egyptian culture, riverside middens being the only features encountered here in later periods.

At the top of the hill, in a place where in 1990 the Italian mission had excavated, was located the fifth and biggest trench. Our excavations there include levels of phases 4-6 of the settlement. Remains of phase 7 were mostly excavated by the Italians.

Phase 1. Settlements traces dating from this phase were recorded in all of the sondages. In the trenches the evidence of settlement is limited to small pits and postholes, rarely remains of shelters. In the areas close to the alluvial zone they are separated from the overlying strata by a distinct horizon of virtually sterile silt. Evidence of the Lower Egyptian culture settlement is best represented in trenches on the southern slope of the kom. Here, *gezira* sands occur at a much higher level. An earlier phase in these trenches is denoted by oval pits, sometimes lined with silt. A complete vessel was found among the pottery sherds with zig-zag decoration. The upper layers within this phase yielded evidence of a network of furrows and small pits.

Phase 2. There was no evidence for this phase on the northern slope of the tell. No mudbrick buildings were recorded in this level. The most notable feature comprised a round shelter of *c*. 3.5 m in diameter, which had been sunk to a depth of 40–50 cm, and had a hearth inside. A storage pit of about 1 m in diameter, and sunk to a similar depth, was found alongside the shelter. Lower Egyptian pottery is still present in the archaeological record of these features, though Naqada material also starts to make its appearance.

Phase 3. Rubbish dump layers probably begin to accumulate during this phase on the northern slope of the tell (these continue to build up until phase 6). These deposits are about 2 m thick and contain large amounts of pottery and, in particular, debris from thick-walled vessels. No constructions appeared here until phase 6. This part of the site was probably under greatest threat from flooding, thus no permanent buildings were raised here. On the southern slope a rubble deposit consisting of D-shaped bricks was located. During this phase mud brick buildings were raised for the first time.

Phase 4. The best-preserved building is located in the southern slope and dates from this phase. Its outline was recorded during the geophysical survey. A hearth, evidenced by the presence of an ash layer, was found inside this room, as were four complete, small vessels and several stone hammers. Another construction dating from this period is the relict wall revealed in the NW corner. The further extent of this wall is visible on the geomagnetic map of this area. Exploration of the trench on the top of kom C revealed a compact group of architectural features consisting of a number of small rooms surrounding two courtyards. In the rooms and the courtyards more than 50 stoves and fireplaces of different shape and constructions were found.

Phase 5. During this phase the southern portion of the central kom was probably no longer heavily build up. The only available evidence comes in the form of cuts and levelling layers present in the site's topmost strata. On the top of the kom a large utility site with a spacious courtyard, kiln complex and a large silo was recognised.

Phase 6-7. This phase is probably represented in the trench on the northern slope by a wall consolidating the sides of the kom and by a kind of wall or steps, made partly of mudbrick and partly of compacted silt - possibly the only remnants of riverbank reinforcements or a landing. On the top of the hill only fragments of relic walls and numerous traces of hearths and silo’s were recorded.

Tell el-Farkha 2001-2002. Excavations at the Western Kom.

Krzysztof M. CIAŁOWICZ

Instytut Archeologii, Uniwersytet Jagielloński, Kraków (Poland)

During the first seasons (1998-2000) our work on the Western Kom at Tell el-Farkha concentrated on the centre of the kom. In 2001, work on the Western Kom was concentrated on the area adjoining the already explored part to the north and west. A total surface of 505 m^2 was opened for excavations. The choice of so big an area for exploration was a result of the previous seasons of research, when important architectural structures had been discovered which extend in these directions.

In 2001 the investigations on the Western Kom concentrated on the latest periods of settlement, that is, phases 5 and 4 of the Tell el-Farkha stratigraphy. Phase 4 is dated to the Naqada IIIa2 and IIIb (IIIA1-IIIB) period, while phase 5, identified in the highest layers, features an assemblage typical of the transition from Naqada IIIb to IIIc1 (late IIIB-IIIC1), that is, the time of dynasty 0 and the beginning of dynasty 1.

A small deposit of figurines and vessels made of faience, clay and stone was discovered just below the surface. Of special interest are the images of baboons and a representation of a prostrate, naked man. Another clay figurine found nearby represents a standing man, longhaired and bearded, and also naked. The style of execution of the latter figurine indicates its predynastic origins. Another group deserving emphasis is a set of five egg- or barrel-shaped clay rattles with engraved decoration.

The deposit was found within the massive walls of a relatively small room that was part of a building of considerable size (at least 25 by 15 m). The structure even continues to the west and south beyond the area explored in 2001. The mudbrick wall survives to a height of over 2 m. The said structure is made up of a series of rooms, which agglutinated over a certain period of time in response to apparently growing needs or were rebuild and further developed after natural disasters with cataclysmic consequences. One such event may have been a fairly mild earthquake, which resulted in the collapse of walls of a part of the rooms lying southeast and northwest of the area where the figurine deposit was discovered. The clearly collapsed debris covered many items, including big storage vessels, thin-walled red bowls and cosmetic palettes of greywacke.

In 2002 the investigations on the Western Kom concentrated on the middle period of settlement, that is, phase 3. This can be connected with the end of the Naqada II period and the beginning of Naqada III. More precisely probably Naqada IId2/IIIa1 – beginning of Naqada IIIa2(?) or the end of IID2 – beginning of IIIA1(?).

This year our main efforts were concentrated on the so-called naqadian residence. During the 2000 season we discovered a 2,5-m wide brick wall crossing the area excavated that season from SW to NE. The remaining part of this big building was hidden beneath the western part of the tell. This season we reached the level of the building. Its main part was covered by a thick layer of Nile silt (from a few to 20 cm thick) and a layer of black and white ashes. This evidently shows that the building was

burned at a certain moment and afterwards flooded by the Nile. The big walls continue also in the area excavated in 2002, dividing the building into many rooms. The rooms are narrow and long. In the southern we found two ovens with pots standing in them. The remains of many other architectural constructions were found on the west, north and south from the mentioned building. This part of the settlement was probably also destroyed by the earthquake.

Sealings from Tell el-Farkha

Andrzej ĆWIEK

Muzeum Archeologiczne, Poznań (Poland)

Although the sealings found during the recent Polish excavations at Tell el-Farkha, are few in number, they nevertheless provide some evidence for both the chronological position and the interpretation of the structures found at the site. The palaeographic characteristics find close parallels in the material from other sites. A title *Smsj B3* (?), occurring on one of the sealings, may represent one of the earliest records of the god Ba of Mendes. A short survey of the inscriptions and representations reveals the importance of the ram-god in the Proto- and Early Dynastic periods. An Upper Egyptian origin of the god of Mendes is suggested.

Recent Discoveries in the Necropolis of Tell el-Farkha

Joanna DĘBOWSKA

Instytut Archeologii, Uniwersytet Jagielloński, Kraków (Poland)

Excavations at the necropolis of Tell el Farkha have been carried out for two field seasons in 2001 and 2002. There is no doubt that the site – dated to Early Dynastic period – is related to the nearby settlement.

Examination of the cemetery yielded various untypical features when compared to contemporaneous cemeteries. Important differences have been observed in the burial architecture (from simple pits to complicated two-chamber-brick-constructions), as well as in the character and wealth of offering goods and the position of the bodies of the deceased. Although some of the graves were robbed in antiquity, many relevant analyses were successfully conducted. Their preliminary results will be the subject discussed in my paper. Nevertheless answers for the most intriguing questions concerning the horizontal distribution of the unearthed graves and the puzzling stratrigraphy of the whole cemetery are at present still beyond reach.

Colonialism, Commerce and the Initial Unification of the Egyptian State: Egypto-Canaanite Relations in the Fourth Millennium

J.P. DESSEL

Department of History, University of Tennessee, Knoxville (USA)

Egypt and the southern Levant share a long and deeply intertwined history beginning in the Neolithic Period and continuing to the present. However, it is in the mid-fourth millennium BCE (the Developed Chalcolithic through Early Bronze I in the southern Levant and the Naqada I-III in Egypt) when intersocietal relations between them reach a formative stage with profound results. While there are few textual references to the nature of this contact, over the last 15 years there has been a tremendous amount of archaeological data which speak directly to this issue. Substantial quantities of Egyptian ceramics, serekhs and small finds have been found throughout the southern Levant dating to the Early Bronze I and an increasing amount of Canaanite pottery has been excavated in both Upper and Lower Egypt.

These new archaeological data demand a thorough reexamination of the two traditional models developed to explain the nature of Egypto-Canaanite relations. The "Conquest Model" holds that Egypt conquered and controlled the southern Levant in the Early Bronze I through military enterprise. The opposing view contends that the Egypto-Canaanite relationship is purely economic, based on commerce and trade. These static models of politically dynamic times are somewhat simplistic and fail to fully account for the vicissitudes in this relationship over time. Nor do these models distinguish the important differences between Egypt's relationship with coastal Lebanon and Syria as opposed to the southern Levant, differences which the Egyptians themselves clearly recognized.

A review of the evidence from the Halif Terrace in southern Canaan indicates a very different interpretation of Egypto-Canaanite relations. Based on the recent archaeological finds, the Egyptian presence in Canaan can be divided into three separate but dependent phases of interaction. Each of which is motivated by different needs and expectations that are reflected in the types and quantities of materials found.

One of the earliest and sustained periods of Egyptian contact with Canaan is in the Chalcolithic period, which corresponds to the Naqada I and early Naqada II (Naqada IIa-b). This consists of Egyptian prestige goods reaching Canaan and perhaps the transfer of Canaanite technological and stylistic traditions to Egypt and contact is neither regular nor well established. This low level of interaction continues into the Early Bronze IA.

The intensification in the Egyptian presence seen at the Halif Terrace in the Early Bronze IB is also found throughout southern Canaan. There is a dramatic increase in the local production of Egyptian pottery in the Early Bronze IB. A concomitant increase is not as obvious regarding the imported pottery. Unlike the Chalcolithic and Early Bronze IA, the Egyptian material found in this period is almost exclusively ceramic, with a marked absence of prestige items.

Careful attention to the type, quantities and contexts of the Egyptian materials in Canaan suggest that neither commerce nor conquest are viable explanations of the Egyptian presence in Canaan. Egypt's interest in Canaan can be more usefully understood as a logistical exercise designed to express the organizational capabilities of a political state undergoing unification. It is the new royal ideology of unification and the symbolism of expansion and control that are the driving forces behind the establishment of Egyptian communities in Canaan in the Early Bronze I. Cast in this light, the Egyptian expedition to Canaan can be considered as an important component in the process state formation in late fourth millennium Egypt.

The Late Predynastic – Early Dynastic Cemeteries of Minshat Ezzat and Tell el-Samarah (el-Dakahliya Governorate), Northeastern Delta

Salem G. EL-BAGHDADI & Nagib Mohammed EL-SAID NUR

Supreme Council of Antiquities, Mansura Inspectorate (Egypt)

The El Dakahliya governorate located in the Northeastern Delta includes many important Late Predynastic and Early Dynastic cemeteries. The excavations presented were carried out by Salem el-Baghdadi as field director, under the supervision of Naguib Mohamed el-Sayed Nour, director general for the SCA in the Dakahliya governorate.

Minshat Ezzat

The site of Minshat Ezzat is situated about 15 km. east of el-Simbillâwein and about 20 km. southwest of Mendes, which was already an important place during late prehistoric times. The cemetery of Minshat Ezzat is at present situated within the cultivated land.

Seasons of excavation work of the SCA at Minshat Ezzat started in September 1998 and continued until June 2002.

The excavations revealed a settlement to the east of the cemeteries. At the latter, 20 poor Greco-Roman graves were discovered. They were build from mud-bricks and at the second stratum, intermingled with 102 graves dating back to the late predynastic and Early Dynastic periods. The excavated parts of the site consist of two areas of half an Egyptian feddan (2100 m²) each. The tombs have been dug into the ground up to the level of the Gezira sand. Often they were lined with slabs of mud.

The tombs contained pottery and an important amount of stone vessels, made among others from alabaster schist and porphyric rock. Furthermore there were flint knives, stone bracelets and necklaces.

Some of the fine pottery jars bear signs of the fish symbol. Amongst the unearthed objects a cylindrical bead has an hieroglyphic inscription reading *smr-sk3. smr.s Hr* that might represent the owner's title.

In one tomb a beautiful flint knife (48cm. long) was found, inscribed with the serekh of Den, the fourth or fifth king of the 1st Dynasty.

However, the masterpiece from the cemetery was an important decorated palette, the first in many years to be found in situ (el-Baghdadi 1999). It was broken into five parts, but repaired it looks almost complete.

Some of the objects from Minshat Ezzat are at present on display in the Cairo Museum.

Tell el-Samarah

Tell el-Samarah is situated one km. to the west of el-Samarah village and about 40km. southeast of El-Mansoura City. The distance from the Minshat Ezzat cemetery is about 20km.

Excavation seasons have been undertaken between 1998 and 2002. They revealed a Late Predynastic – Early Dynastic cemetery and settlement. 75 graves were excavated in

the southeast side of the tell. As at Minshat Ezzat, the tombs were often lined with slabs of mud. The excavated area covered two feddans (8400 m²).

Five Early Dynastic graves were found inside houses of the settlement.

Bibliography

EL-BAGHDADI, S.G., 1999. La palette décorée de Minshat Ezzat (delta). *Archéo-Nil,* 9: 9-11.

An Early Egyptian City at Tell es-Sakhan near Gaza

Dina FALTINGS

Heidelberg (Germany)

The excavations in the Egyptian settlement of Tell es-Sakan have finally revealed the origin of the Egyptian artefacts found all over late EB I Palestine. The town is contemporary with En Besor, but much bigger and surrounded by a city-wall, which is the earliest Egyptian town wall, datable with certainty. It shows three consequent building-phases, correlating with 3 strata of occupation.

In the settlement different kinds of walls were found, most of them typical Egyptian in layout and building technique and belonging to domestic structures. Trench A was partially used as a kind of industrial area, shown by thick deposits of ashes and many hearths and fireplaces.

Around 90% of the pottery is that of a typical Egyptian settlement of that period (late EB Ib) with only ca. 10% of local Canaanean material, mainly hole-mouth jars. Of the whole ceramic set about ¼ is made up of imported Egyptian wine-jars. The majority of the remaining Egyptian material consists mainly of Egyptian shapes produced with local clay but Egyptian techniques (e.g. bread-moulds or so-called lotiform bowls).

Also Serekhs and seal-impressions as well as other finds show us that Tell es-Sakan is a major Egyptian centre of this period.

Excavations at Hierakonpolis

Renée FRIEDMAN

Dept. of Ancient Egypt and Sudan, British Museum, London (England)

Since 1996, Predynastic research at Hierakonpolis has focused on three discrete localities: 1) the cemetery of the elite population at HK6, excavated under the direction of Barbara Adams; 2) the cemetery of the working class population at HK43, excavated under the direction of Renee Friedman; and 3) the domestic occupation at HK11, excavated by Ethan Watrall. The three localities are roughly contemporary, with remains spanning from Naqada IC -IIB and into Naqada IIC, and excavations and analyses by a range of specialists have produced a range of complementary information.

Located in the Great Wadi that bisects the site, Locality HK11 makes up one of the largest concentrations of Predynastic cultural activity at Hierakonpolis. The locality itself covers an excess of $68{,}000^2$ m and is made up of several distinct zones of cultural activity. In 2000 and 2001, excavations undertaken by Ethan Watrall uncovered a large domestic compound with a variety of storage pits and other features bounded by a well-preserved fence composed of wood posts and mud-coated reed matting.

Based on detailed excavation following visible strata, six discreet episodes were identified within approximately 30 to 60cm of deposition and these combine to form an overall picture of a relatively continuous cycle of habitation spanning from the Naqada IC to IIB period, with later incidents of trash disposal in the Naqada IIC period. This is the first time within the desert portion of Hierakonpolis that the stratification and phases of a house structure has been so clearly defined. Although detailed analysis of the variety of materials recovered is still in progress, preliminary observations indicate that the stratified remains of the HK11 structure bridge a period of significant technological and social change in Predynastic society. The work so far suggests that the transition from Naqada IC to IIA was one of profound importance.

The stratified sample revealed how the ceramic inventory and production methods changed over time from home-made production of cooking wares in a range of shale and pottery/grog tempered fabrics to the mass production of straw tempered domestic pots by specialists. A similar transition has also been observed within the evidence of textile manufacture at HK11 and other localities.

Hierakonpolis is one of the few sites at which widely separated and distinct cemeteries for the different segments of society have been found. Investigation of the HK43 cemetery in conjunction with the on-going excavations under the direction of Barbara Adams at elite cemetery HK6, located in the great Wadi provides a unique opportunity to study the remains of individuals of different social status dating to the same time period and all from the same site.

Five seasons of excavation at Locality HK43 has resulted in the excavation of 260 graves representing nearly 300 individuals. Almost all are robust individuals with extensive muscle attachments, buried mat lined pits with very few, if any, grave goods, suggesting that this cemetery is that of the working class inhabitants of ancient Hierakonpolis in the Naqada IIa-c period. The high level of organic preservation at

HK43 has revealed, among other things, evidence for early mummification and other ritual practices, which involve the laceration of the neck area. .

To date we have found seven individuals with injuries to the 1st-2nd cervical vertebrae always delivered from the front, including in 2 cases which provide evidence of full decapitation. Given the general status of the inhabitants of the cemetery, it is unlikely that human sacrifice to honor a more elite burial is the reason for these injuries. More likely, it is to be associated with a funerary ritual of real or ritual dismemberment and then the re articulation or re"creation" of body. This is especially suggested by Burial 85, the intact burial of a young woman, whose neck was cut, and then this area and the hands were padded with thick layers of textile. To date, three wrapped burials have been discovered, all of which belonged to women. Unlike the other grave goods, there is no evidence of the reuse of old household material and it would appear that these textiles were specifically produced for this purpose. In addition, there is evidence for the removal and wrapping of internal organs and before returning them to body.

The elite cemetery at HK6 is located in the Great Wadi, 2km from HK43. Barbara Adams' excavations here have revealed a number of graves of comparable to those at HK43 and also afford a view of artistic and architectural developments at this formative time.

The wealth of these elite burials is evident in from objects still to be found within these highly plundered graves, which include exotic materials like obsidian and fine ceramics. Five ceramic masks, curved to fit over the human head, suggest that ritual interest in the head took on a different form here than in HK43. In addition the size of the graves differentiates the two cemeteries. Tomb 23, partially uncovered 2000, is possibly the largest grave of the Naqada IIb period known. It was surrounded by a large, rectangular, wooden post and matting fence enclosure that presages the architecture later constructed in mud brick and may be the earliest evidence of a funerary enclosure in Egypt. The enclosure also produced the earliest Predynastic human stone sculpture. Although badly and deliberately fragmented, the well-carved nose and reconstructed ear of this limestone statue was recovered and mending pieces suggest it was a near lifesize seated statue.

The prevalence of animal burials at HK6 also serves to differentiate the cemeteries and suggests that wealth was expressed at Hierakonpolis is ways perhaps not known or not noticed at other sites.

A Comment on Possible Relations between Early Bronze Age III Southern Canaan and Old Kingdom Egypt.

Ram GOPHNA

Tel Aviv University (Israel)

In contrast to the flourishing fortified settlement system in southern Israel during EB III and the very existence of two ports in that region (Ashkelon and Tell es-Sakan), there is still no direct archaeological evidence for firm contacts between this region and Old Kingdom Egypt.

An attempt will be made to suggest at least a partial explanation to this perplexing situation.

Les peintures sur vases Nagada I-II. Nouvelle approche sémiologique

Gwenola GRAFF

Tours (France)

L'iconographie des vases nagadiens peints a fait l'objet d'un travail de thèse, soutenue en juin 2002 à l'université de Paris-Sorbonne.

Ce travail porte sur un ensemble de 470 vases datés de 3900 à 3200 av. J.-C.. Ce laps de temps correspond aux deux premières phases de la culture nagadienne, d'après le nom du site éponyme de Haute-Egypte, Nagada. Cette culture est caractéristique du sud du pays.

Les vases sont ornés d'un décor figuratif, blanc sur fond rouge pour la première période (Nagada I ou Amratien) et rouge sur fond beige pour la seconde (Nagada II ou Gerzéen). Les objets ont été vus dans des collections (au Louvre, à Saint-Germain-en-Laye, à l'université de Strasbourg et aux Musées Royaux d'Art et d'Histoire de Bruxelles) et surtout recueillis d'après les publications disponibles. En fonction des vases publiés ou accessibles, l'étude repose donc sur un corpus de 470 objets.

Depuis la fin du XIX ème siècle, date de la découverte de cette culture antérieure à la civilisation pharaonique, l'interprétation de ces décors pose problème: on a voulu en faire une lecture anecdotique, retraçant la mise en place du pouvoir royal centralisé et/ou l'institution de la religion funéraire telle qu'on la connaît aux époques ultérieures. L'image reste rétive à ce type de lecture. Aussi une nouvelle tentative d'approche du problème iconographique était-elle nécessaire, qui mette à profit les acquis de la sémiologie de l'image fixe.

En retranscrivant la double articulation du langage saussurienne au niveau du langage pictographique, on a défini un découpage en éléments simples. Ces éléments ont été classés en grands ordres: les humains, les animaux , les végétaux, la navigation, les armes et les pièges, les peaux animales, les éléments géographiques et les éléments non identifiés malheureusement nombreux. Chaque élément a été identifié le plus précisément possible,

Un deuxième stade présente les combinaisons d'éléments simples. Intervient ici la notion de mise en relation. Ceci a permis, dans un premier temps, de dégager des groupes d'éléments caractéristiques de l'une ou de l'autre des phases de Nagada, ou de la transition entre les deux. Certains éléments marqueurs de Nagada II ne sont jamais mis en présence de signes caractéristiques de Nagada I, et vice versa. Certaines règles d'associations ou exclusion systématique apparaissent.

Les analyses s'achèvent par un chapitre consacré aux scènes. On recense et définit ainsi les scènes de chasse/pêche, les scènes de navigation, les scènes rituelles, les scènes à peaux animales, les scènes animales, les scènes végétales. Certaines scènes sont plus propres à une période qu'à une autre.

On constate ainsi que les Egyptiens ne rendent absolument pas compte dans ces peintures de leur univers quotidien. Le choix des représentations animales ne correspond pas à la consommation.

La troisième partie reprend et développe les résultats acquis par l'analyse. Pour commencer, on a cherché à appréhender de quelle manière les éléments se répartissent selon les catégories de classement nagadiennes et non plus en leur plaquant une grille de lecture contemporaine. Il semble que les Nagadiens aient réparti les animaux en fonction de leur biotope, nilotique ou steppique.

Des représentations graphiques ont été données, qui permettent de visualiser les principales règles d'association et d'exclusion des éléments de Nagada II. Il s'agit d'une projection des points donnés par les présences et les absences sur des axes, déterminés par l'analyse factorielle des comparaisons. Un graphique général montre une répartition en deux couples ou dyades très fortement opposés. Les éléments constitutifs sont l'addax et la femme d'une part, un arbre semi-circulaire (la fameuse plante nagadienne) et une peau animale tendue sur des bâtons croisés d'autre part.

Le fonctionnement de ces décors n'est donc pas linéaire, comme un déroulé dans le temps, mais simultané et à densité variable; la zone focale est constituée par les dominantes, environnée par des signes neutres, avec des signes mineurs en nombre variable sur la périphérie. L'image qui vient à l'esprit est celle d'une nébuleuse.

Une question qui découle de la découverte des couples phares opposés dans la peinture nagadienne porte sur le choix des éléments, la raison de la complémentarité des uns et de l'opposition des autres. On en vient à examiner les vestiges archéologiques nagadiens concernant certains de ces éléments des dyades et à remonter à certains grands mythes pharaoniques qui mettent en scène l'arbre et la femme, la peau animale et le renouvellement de la vie.

Le dénominateur commun entre tous ces éléments apparaît: la femme bien sûr, mais aussi la peau animale, la nébride, l'arbre sont des matrices permettant la régénération du mort.

En franchissant le hiatus de deux siècles entre la disparition de la peinture sur vases et l'apparition de l'écriture, on a tenté un parallèle entre les structures de la peinture nagadienne et les structures syntaxiques de la langue de l'Ancien-Empire, telle qu'elle est connue par l'écriture. La structuration mentale est continue. Ceci ne signifie pas que la peinture nagadienne est une écriture, mais un système graphique préliminaire, nécessaire à son apparition. La différence ne réside pas dans la nature mais dans le degré de complexité et les possibilités d'expression.

La contribution de la peinture nagadienne consiste plus dans l'élaboration d'une proto-syntaxe que dans la transmission d'un catalogue de signes.

Alors que les vases peints atteignent leur plus haut degrè de développement et de complexité à Nagada II c-d, ils disparaissent à Nagada III. L'image passe sur d'autres supports (palettes à fard, têtes de massue, manches de couteau, ...) durant les deux siècles qui la séparent de l'apparition de l'écrit.

Cette approche sémiologique de l'iconographie des vases peints nagadiens, la première du genre, a permis de comprendre en partie le fonctionnement interne de l'image, mais aussi de dégager une préoccupation majeure dans la pensée pharaonique déjà présente à l'époque nagadienne: le thème du renouvellement de la vie. Tous les éléments dégagés dans la synthèse contribuent à redonner magiquement vie au défunt.

New Investigations in the Predynastic Settlement at Maadi

Ulrich HARTUNG

Deutsches Archäologisches Institut, Kairo (Egypt)

Since 1999, the German Institute of Archaeology at Cairo undertook three excavtion campaigns in cooperation with the Supreme Council of Antiquities in the western part of the predynastic settlement of Maadi. This area was formerly occupied by a wireless station and not accessible for archaeologists until the 80's, and it is nowadays in danger to be destroyed by modern building activities.

Several trial trenches were excavated to get an impression of the archaeological situation in this part of the site, and a semi-subterranean, oval shaped stone structure was cleaned, excavated by F.A. Badawy already in the 80s. During drillings, undertaken to check the extension and thickness of cultural layers within the whole area, a subterranean cave-like building with stone lined entrance corridor was discovered, which can be seen as a link between the oval stone building and four other subterranean structures known from the older excavations further to the east at Maadi. As such structures have no parallels elsewhere in Egypt but are well-known in Chalcolithic Southern Palestine (subterranean dwellings) and EB IA Northern Palestine (oval shaped stone building) questions concerning the interconnections between Lower Egypt and Palestine as well as their chronology are a matter for discussion.

A small Second Dynasty Cemetery at Elkab

Stan HENDRICKX

Provinciale Hogeschool Limburg, Hasselt (Belgium)

During two excavation campaigns in January – March 1999 and January – March 2000, a small, largely intact 2nd dynasty cemetery was excavated on the southern slope of the hill on which the main rock necropolis of Elkab is situated.

Three circular groups of tombs have been recognised, each of them originally probably arranged around a large boulder of stone. As the whole surface of each of the tomb areas was covered with sandstone slabs of different sizes, the three groups were identified as structures (I-III). Their diameter varies between 18 and 20 m. About 35 tombs have been excavated and although a small part of the site has not been excavated and it is also most likely that the erosion on the slope made a number of tombs disappear, it is to be accepted that the cemetery originally was also limited to the area investigated. The majority of the tombs belonged to children, although some adults were present. The tombs show no intended orientation and they seem mainly to have been laid out according to the possibilities of the environment. Often advantage had been taken of natural cracks or faults in the bedrock for arranging tombs. Unworked slabs of sandstone were regularly used for lining the tombs.

The richest tombs were found in structure I. The main tomb of the this structure, at the foot of the central boulder, originally contained a large pottery coffin, fragments of which were found scattered all over the surface, and which were the main reason for investigating the area. Some tombs contained stone vases, others also a number of trinkets (such as faience beads and bone bracelets). Structure II, of which only half was excavated, was much affected by erosion. It still produced a dozen undisturbed burials, all of infants, some possibly stillborn.

Remarkably, a considerable amount of Early Dynastic pottery fragments were found, dispersed all over the area. The study of the pottery was particularly rewarding. The large amount of sub-surface material found is nearly completely homogeneous, which is quite remarkable considering the intensive use of the area in more recent periods. Since this pottery obviously did not belong to the original equipment of the tombs, it is to be accepted that an important number of vessels, among which beer jars and bread moulds, but also rough model vessels, were placed on the surface, around or in the vicinity of the tombs.

The Magnetic Survey at Tell el-Farkha

Tomasz HERBICH

Instytut Archeologii i Etnologii PAN, Warszawa (Poland)

In 1998-2000, a geophysical survey was completed for the whole site of Tell el-Farkha. The survey revealed distinctive settlement traces.

The fluxgate gradiometer FM36 (by Geoscan Research) was used. The test survey was in a grid of 0,5 x 0,5 m, the final survey in a grid of 0,25 x 0,5 m. Apparent traces of buildings from the latest settlement phases - the closest to the surface (Early Dynastic, Old Kingdom) are well visible on the magnetic map. The traces were registered on the central kom and the eastern kom. The survey revealed the general disposition of buildings. Traces of the buildings start disappearing towards the north, which is a result of the increasing thickness of deposits covering the remains of the settlement. The survey shows that the settlement stretches southwards under the modern village of Ghazala.

The survey has already been verified in preliminary manner by excavations. For example a distinctive, negative linear anomaly turned out to correspond to a mudbrick wall located under the surface and a positive anomalies correspond to concentrations of ashes, potsherds or an isolated big pot. The research brought to attention the outlines of walls forming rectangular rooms, particularly in the southern part of the central kom. Some evident anomalies may be interpreted as remains of furnaces.

The nature of a number of rectangular anomalies on the eastern kom was not clear until the 2001 season. During the excavations they were verified as grave chambers. Thanks to the survey, it was possible to define the distribution of architectural remains and the area occupied by the cemetery.

The Name of Elephantine in the Late Predynastic period

Alejandro JIMENEZ-SERRANO

Jaén (Spain)

In the present communication, the author will discuss one of the numerous designs that have appeared in some labels of the tomb U-j at Umm el-Qaab and in other sites of Upper Egypt. This design, which shows an elephant surmounting a mountain, has been interpreted as an early reference of Abydos. However, parallels with Old Kingdom references of Elephantine suggest that this design referred to Elephantine instead of Abydos.

Stone Implements from Tell el-Farkha

Maciej JORDECZKA

Instytut Archeologii i Etnologii PAN, Poznań (Poland)

More than 2000 stone objects were found during the excavation conducted on the site of Tell el-Farkha during the last four seasons. Although 50% of the discovered material consists of small fragments of damaged tools, flakes, waste products and nodules of raw material, the number of artifacts is still considerable.

Quern stones. This category of tool was quite numerously represented. Unfortunately, most of the quern stones only survive as damaged fragments, which were frequently reworked to make smaller items of a different function (e.g. grinders, hammerstones, etc.). This is particularly true of the large, flat querns. The preservation of the smaller querns is better. Several complete examples were found along with numerous fragments which allowed the original size and shape of the stone to be determined. In both instances they were made of either sandstone or quartz. This tool category shows very little variation in shape over time.

Grinders. Three types of this tool occur at Tell el-Farkha. The first, and most common, is the polyhedral grinder. This is characterised by its small size and by its, generally, very regular shape. Most of them are made of quartz or fine-grained sandstone. In some instances they were also used as hammerstones. Flat grinders constitute a separate category. They are, on the whole, much larger than the polyhedral grinders. The third type of grinder was that used in combination with cosmetic palettes. These grinders are much smaller and usually longer. Traces of use in the form of delicate scratches and smoothing can mainly be seen on the edges and ends of these tools, though sometimes their flat, middle surface was also used. Quartz pebbles and chert concretions were most often selected for this type of grinder.

Hammerstones. This very large category can be subdivided into three basic tool types: round hammerstones of very regular shape, polyhedral hammerstones, which are characterised by a fairly regular, geometric form (often almost hexagonal) and hammerstones of irregular shape. The last group is the most numerous group of these tools. Heavy hammers comprise a separate class.

Retouching tools. Retouching by either the striking or pressure technique required the use of appropriate retouching tools. These were usually made of small, flat pebbles (tools made of organic materials could also be used) with a striking edge. These artefacts may also have been used for abrasion, hence feint traces of scratches and pitting appear on the middle section of some tools.

Cosmetic palettes. So far, a dozen implements of this type have been found at Tell el-Farkha. All of the palettes were manufactured from the same type of raw material, namely greywacke. Palettes were given geometrical and rectangular shapes, which is typical for the Nagada III period. Very exceptionally they had zoomorphic shapes.

Stone vessels. So far this category of artifacts is been scantily represented at Tell el-Farkha. Apart from one complete example from grave no 2, only a few small fragments of stone vessels were found during the last fifth excavation seasons.

Drills. Quartz drills, that were discovered during the last season of excavations, constitute a very remarkable category of artifacts. Clearly defined traces of deep, circular scratches and grooves are visible on these tools. They were most probably used for drilling holes in a hard raw materials, such as stone.

Tell el-Farkha 2001-2002. The Pottery from the Tombs

Mariusz JUCHA

Instytut Archeologii, Uniwersytet Jagielloński, Kraków (Poland)

The site of Tell el-Farkha, situated in the Eastern Nile Delta, has been excavated by the Polish archaeological expedition since 1998. Until 2000 the work was mainly concentrated on the Western and Central Kom, where settlement remains were discovered. As the result of these work, the chronology of the site was established and divided into 7 main occupation phases dating from the Predynastic – Lower Egyptian Culture until the beginning of the Old Kingdom (IVth ? Dynasty).

Since 2001, apart from excavations on both Koms mentioned above, work was also started on the Eastern Kom, where three tombs were discovered and completely explored. During the following season of 2002, the next three tombs were also completely investigated. The chronological position of all these tombs spans a period of time contemporary with the end of the period of state formation in Egypt and the beginning of its existence as an organised state after the unification.

In this paper I will focus on the pottery found in the tombs discovered during the years 2001 and 2002. Among the pottery vessels found in these tombs the following groups can be distinguished.

* Jars which have their ovoid shape in common, but which however show differences both in size and shape.
* Large, broad storage jars with a single rope band pattern situated above shoulders.
* Tall wine jars with three modelled rope bands situated above and below the shoulder, as well as above the base.
* Jars of different shapes and sizes, which have as common characteristic a decoration with lightly impressed half-bows around the shoulder.
* Small squat jars.
* Small drop-shaped jars.
* Bag shaped jars.
* Cylindrical jars with decoration located beneath the rim. There are only a few examples, which mostly differ in size .
* Cylindrical jars without decoration.
* Trays.
* Different types of rough ware .
* Red coated and burnished bowls.
* Bowls with a flat base and slightly concave walls, decorated with knobs composed into two rows; one row near the base and the second near the middle of the height of the pot.
* Vessels with a flat base and straight convergent walls.

Lithic Industry at Tell el-Farkha (Eastern Delta)

Jacek KABACIŃSKI

Instytut Archeologii i Etnologii PAN, Poznań (Poland)

The Polish excavations at Tell el-Farkha yielded a rich lithic assemblage, related to the Predynastic and Early Dynastic settlement discovered at the site. The lithics have been analyzed within the six settlement phases that have been distinguished at the site. They are first synchronized with the Nagada Culture and than with the early stage of the Egyptian state (ca. 3400 – 2700 BC).

Some major changes in lithic production strategies as well as in lithic typology are observed within the industry. Two of them seem to be the most important since they reflect basic changes in the social organization. First there was the shift from lithic production on site or in the immediate neighbourhood to standardized production in workshops located outside the site itself. The second change, which is related to the first one, consisted of the large-scale production of standardized chert sickle inserts. Both events are recorded at Tell el-Farkha around 3200-3150/3100 BC and are observed until the end of the human occupation of the settlement at the site. Another important event, which at the same time reflects the interregional contacts of that local society, was the appearance of obsidian already in the early stage of the settlement.

On the Origins of Memphis - The New Excavations in the Early Dynastic Necropolis at Helwan

E. Christiana KÖHLER

Macquarie University, Sydney (Australia)

Introduction

Although the archaeological site to the south of Ma'assara, which is today better known as Helwan / Ezbet el-Walda, was already explored during the 1930s by the Swede H. Larsen this vast Early Dynastic necropolis was the focus of most intensive archaeological investigation by the Egyptian archaeologist Z. Saad between 1942 and 1954. Over at least 12 seasons of excavations he uncovered more than 10.000 graves which he dated to the First and Second Dynasty. Apart from less substantial archaeological activities during the 1960s and 70s by the Egyptian Antiquities Organisation the site remained largely unexplored until 1997 when the Australian Center for Egyptology at Macquarie University in Sydney resumed excavations under the directorship of E. Christiana Köhler. This new work has been carried out over five seasons thus far and has not only confirmed the importance of this site for the history and material culture of the Early Dynastic Period in general and the region of Memphis in particular, but it has also demonstrated the urgency of archaeological excavation as Helwan's significant remains are threatened by the urban sprawl of modern Cairo.

Summary of research activities since 1997

The project's original aim was to re-excavate select tombs previously uncovered by Saad in order to clarify outstanding issues pertaining to their architecture, construction and chronology. Such work was successfully carried out in the first season of 1997/98 when one of the famous stone tombs (40.H.3 in Saad's publications and Op.1/1 in the new project's designation) as well as a typical representative of a subterranean chamber tomb (Saad 25.H.4, new: Op.2/1) were excavated in the north-western part of the site. Both tomb structures and the areas surrounding them, including minor graves, were excavated, mapped and precisely dated to Naqada IIIC/D with the assistance of ceramic material from nearby spoil heaps of Saad's work. This material also indicated that this part of the site was continuously in use at least until the Middle Kingdom.

During the first and the following seasons another large subterranean tomb, identified as one of Saad's storage tombs (Op.3/1; the Saad number is unknown), was excavated and cleared of its contents. It contained a total of almost 800 ceramic vessels, human long bones of 27 adults and 9 juveniles as well as a number of stone vessels. Importantly, a large number of pottery vessels were still labeled with Saad's tomb numbers and can now be re-assigned to their original provenance, i.e. a number of tombs excavated during Saad's 9^{th} and 11^{th} season. This material now enables us to not only date particular grave assemblages but also to determine the date of the earliest ancient occupation of the site, which currently goes back to Naqada IIIA.

The last four seasons of excavation in 1998-2002 particularly focused on an area which was previously un-excavated and which forced us to modify the project's objective as this area is currently threatened by the expansion of a modern village. This section is designated Operation 4 and has proved most productive for a number of reasons.

An important aim of the exploration of Operation 4, which covers an area of approximately 150 x 100 metres, is to establish a precise chronology of the graves and to consequently investigate the area's spatial development. Forty out of an estimated number of up to 200 graves have thus far been excavated; the majority of which dating Naqada IIIC/D, although also uncontexted earlier material (early Chalcolithic and Naqada IIIA) has been recovered in the fill of these tombs. The tombs' size, contents and preservation vary considerably and although most were found to be plundered since early antiquity, many still provided very well preserved grave assemblages, which allow for a slowly unfolding social hierarchy of graves in this part of the cemetery. A wide spectrum of ivory objects, clay sealings, stone vessels, and other small finds as well as large amounts of well-contexted ceramics provide valuable insights into the nature and chronology of the graves, the latter of which is especially significant for the further definition of Naqada IIID, in particular pertaining to its characteristics, subphases and possible ending. Of special interest was the recent discovery of three well preserved Early Dynastic funerary stelae at the bottom of a robbers' shaft leading to the subterranean burial chamber of an early Naqada IIID tomb (Op.4/19), which add to the already existing corpus of 34 Helwan stelae.

Parallel to the excavation on-site, the collection of finds from Saad's excavations is currently under study in the Egyptian Museum in Cairo. Stored in 158 wooden crates in the basement of this museum the more than 6000 objects further contribute to the primary data collection of material from Helwan. Among these are all known Helwan stelae, select pottery vessels, jewellery, metal tools and vessels, stone tools and vessels, cylinder seals, textiles and ivory objects, many of which have already been recorded.

The new work at Helwan, apart from providing and detailing valuable information about this largest of sites in the Memphite area in general, has especially shed new light on the chronology and origins of the city of Memphis during the Early Dynastic period. There is now substantial evidence in support of the foundation of this urban centre in Naqada IIIA and Mortensen's suggestion that the region of Memphis has to be regarded one of the most crucial for the understanding of the formation of the early state in Egypt.

Select Bibliography

ADEEB, H., 1991. Excavations of the Egyptian Antiquities Organization at Ezbet Kamel Sedqi in Helwan. *Journal of the Ancient Middle Eastern Society,* 2.8: 10-18

EL-BANNA, E., 1990. Une nécropole inédite d'époque Archaïque découvertée près de Hélouan, au Sud du Caire. *GM,* 117/118: 7-54

JEFFREYS, D. & TAVARES, A., 1994. The Historic Landscape of Early Dynastic Memphis. *MDAIK,* 50: 143-173

KÖHLER, E.C., 1998. Excavations at Helwan - New Insights into Early Dynastic Stone Masonry. *BACE,* 9: 65-72

KÖHLER, E.C., 1999. Re-assessment of a Cylinder Seal from Helwan. *GM*, 168: 49-56

KÖHLER, E.C., 2000. Excavations in the Early Dynastic Cemetery at Helwan. A Preliminary Report of the 1998/99 and 1999/2000 Seasons. *BACE,* 11: 83-92

KÖHLER, E.C., with contributions by BIRRELL, M.; CASEY, I.; HIKADE, T.; SMYTHE, J. & ST.CLAIR, B., (in press) *Excavations in the Early Dynastic Cemetery at Helwan I. The Excavation Season 1997/98*, SAGA Band 24. Heidelberg.

KÖHLER, E.C. & VAN DEN BRINK, E.C.M., 2002. Wine Jars with Incised *Serekh*-Signs from Helwan Recently Retrieved from the Cairo Museum. *GM,* 187: 59-81

KÖHLER, E.C. & SMYTHE, J., (in press) Early Dynastic Pottery from Helwan – Establishing a Ceramic Corpus of the Naqada III Period. *Cahiers de la Céramique Egyptienne,* 7

KÖHLER, E.C. & BIRRELL, M. with a contribution by JONES, J. (forthcoming), *The Early Dynastic Funerary Stelae from Helwan.*

LARSEN, H., 1940a. Tomb Six at Maassara, an Egyptian Second Dynasty Tomb. *Acta Archaeologica,* 11: 103-124

LARSEN, H., 1940b. Three Shaft Tombs at Maassara, Egypt. *Acta Archaeologica*, 11: 161-206

MORTENSEN, B., 1991. Change in the Settlement Pattern and Population in the Beginning of the Historical Period. *Ägypten und Levante,* 2: 11-37

SAAD, Z.Y., 1947. *Royal Excavations at Saqqara and Helwan (1941-1945).* Suppl. ASAE, vol.3: 1-25

SAAD, Z.Y., 1951. *Royal Excavations at Helwan (1945-1947).* Suppl. ASAE, vol .14:1-52

SAAD, Z.Y., 1957. *Ceiling Stelae in Second Dynasty Tombs.* Suppl. ASAE, vol .21.

SAAD, Z.Y., 1969. *The Excavations at Helwan: Art and Civilization of the 1st and 2nd Egyptian Dynasties.* Oklahoma.

WILKINSON, T., 1996. A Re-examination of the Early Dynastic Necropolis at Helwan. *MDAIK,* 52: 337-354

WILKINSON, T., 1999. *Early Dynastic Egypt.* London – New York.

WOOD, W., 1987. The Archaic Stone Tombs of Helwan. *JEA,* 73: 59-70.

Aspects of the Analysis of a Cemetery

Karla KROEPER

Ägyptisches Museum, Berlin (Germany)

After having excavated the cemetery of Minshat Abu Omar from 1978-1990, a wealth of material remained to be analysed. The advantage of having excavated most of the cemetery, in contrast with other sites investigated in the past and at present, where mostly parts of cemeteries were excavated, is obvious. Another advantage at MAO is that anthropologists where present throughout the excavations and first analysis were made on the spot. This again stands in contrast to many excavations where anthropologists were/are not present or only occasionally present, an estimate of the sex or age being made by none professionals.

Sample taking was able to be undertaken under controlled conditions so that material for analysis, for example animal bones, plant remains and C 14 samples are available and can be used for analysis and research pertaining to various aspect of the cemetery population.

Some of the negative aspects in the analysis and evaluation of MAO cemetery, be it statistical or social, lies in the geological and geographical position of the site. The human remains and the other samples have been affected by rising and sinking Nile floods and groundwater; the gezira hill, although seeming to consist of dry gravels and sand, contains a very high amount of salts and humidity.

This presentation will try to evaluate the realistic possibilities and limits of the analyses of the MAO cemetery.

The Heb-Sed and the Emergence of the Egyptian State

Alexei KROL

Center for Egyptological Studies of the Russian Academy of Sciences, Moskou (Russia)

The origins and meaning of the Sed-festival became from the very beginning the subject of the scholar's egyptology studies.

On the turn of the XXth century, under the influence of the ideas expressed by Frazer in his "Golden bough", the concept of Heb-Sed was understood as a survival of a custom from previous times. It would have implied the ritual killing of the tribe ruler, as it was already formulated a long time ago by W.M.F. Petrie. This scholar believed that during the pharaonic period this "fierce custom" was transformed into a ritual of rejuvenation, the renewal of the vital forces of the ruling king. At present this concept is in a way an axiom among Egyptologists.

However, our own research concerning the Sed-festival allow us to conclude that this "classical" scheme was not universal for all periods of ancient Egyptian history. The Heb-Sed underwent very substantial changes over the three thousand years of its existence. The meaning of its rituals were changing parallel to the evolution of the Egyptian society and state.

We believe that the Sed-festival appeared on the very outset of the Dynastic history of Egypt, during the period of the gradual penetration of the Naqada culture towards the North. Than the festival was celebrated every time after the suppression of the Northern petty realms in order to strengthen the king's victory over the enemies encroaching upon the unity of Upper and Lower Egypt.

The analysis of the co-called "monuments of Unification" and the monuments dated to the time of the kings Den and Khasekhem could confirm our interpretation.

The problem which is directly linked to the theme presented in the paper concerns the manner in which the unification of Egypt took place. There are two main schemes of this process in the present day Egyptology:

"militaristic" (W. Kaiser, T. von der Way, W. Helck, etc.)

"peaceful" (E.C. Köhler, D. Wildung, etc.)

In our opinion the first scheme seems to be more confirmed by the evidence and could be proved by historical parallels. Before the advance of the Naqada culture, the Delta belonged to a cultural tradition which was very different from that of Southern Egypt. The populations of these regions which are very distant from each other and who most probably also differed by their anthropological types, presumably could not understand each other's languages. Under these conditions it seems very unlikely that the local élite freely abdicated from its power and the control over the trade routes coming from the Near East.

Plant Remains from Tell el-Farkha in the Eastern Nile Delta (Seasons 2001 and 2002 – Preliminary Results)

Lucy KUBIAK-MARTENS

BIAX Consult, Onderzoeksbureau voor Biologische Archeologie en Landschapsreconstructie, Zaandam (Netherlands)

Archaeobotanical results based on nearly 300 samples recovered from the pre- and early dynastic settlement and the cemetery site at Tell el-Farkha are presented.

During the excavations in 2001 and 2002 botanical samples were collected from diverse archaeological contexts, including hearths, fireplaces, grain storage unit (silos), contents of the storage/'cooking' vessels and jars/vessels deposited in the grave chambers. The samples range in volume from c. 0.5 litres to 35 litres. Dry-sieving of all soil samples was carried out in the field laboratory using sieves with hole diameters of 1.0 and 0.5 mm. Plant material was present in c. 75% of the analysed samples. All plant remains are preserved in charred condition.

Barley (*Hordeum vulgare*) and emmer wheat (*Triticum dicoccum*) are the main crop plants. Barley grains were found in almost all samples. The hulled variety of (probably) both two-rowed barley (*Hordeum vulgare* subsp. *distichum*) and six-rowed barley (*Hordeum vulgare* subsp. *vulgare*) were recorded. The emmer wheat evidence consists mainly of chaff remains, including spiklet forks and glume bases, and only a low number of grains.

Only small numbers of cultivated pulses were found. These were represented by lentil (*Lens culinaris*) and probably pea (*Pisum sativum*). Whether two additional pulses, bitter vetch (*Vicia ervilia*) and grass pea (*Lathyrus sativus*) were grown as human food or as animal fodder is unsubstantial.

The arable weed flora included *Lolium* spp. (probably *temulentum* and other species), *Vicia* spp, *Rumex* sp. and *Eleocharis* sp. A large number of *Lolium* spp. grains, suggest that these grasses might have been grown as animal fodder. The presence of *Acacia* seeds might suggest the use of *Acacia* pods for tanning.

A number of charred fragments of parenchymatous tissue were examined under the scanning electron microscope. Three categories of tuber and/or rhizome tissue were determined: *Cyperus* sp., cattail (*Typha* sp.) and bulrush (*Scirpus* sp). Charcoal samples were collected but have not yet been identified according to species.

The recovery and analysis of botanical remains at Tell el-Farkha are an important source for a better understanding of the site economy and daily (and hereafter) life of its inhabitants. They are of great assistance in answering a range of specific questions. For example, what can we say about the subsistence and diet at Tell el-Farkha during the formative period of the first Egyptian state ? Is there a difference between the samples recovered from settlement and cemetery in plant composition ? Can we trace the changes in cereal production and processing through time ?

The Pottery Tradition at Tell el-Farkha

Agnieszka MĄCZYŃSKA

Muzeum Archeologiczne, Poznań (Poland)

The excavations carried out at Tell el-Farkha between 1998 and 2002 by the Polish archaeological expedition have shown the existence of seven occupation phases which date from the Lower Egyptian culture to the Early Old Kingdom. For each of the phases, a large assemblage including pottery, flint, stone and bone artefacts has been discovered. Additionally, each phase is characterised by different architectural levels. Among the finds recorded during the fieldwork, pottery is the only one found in very large quantities. Because it is the most easily available artefact to archaeologist, we had to examine thousands of sherds every year. Thanks to the continuous occupation of the site, we are able to study the pottery tradition and all changes it underwent. Taking in consideration the different characteristics of pottery such as fabric type, surface treatment, mode of production, vessel form or decoration pattern we have distinguished different stages of the development in the production of pottery at Tell el-Farkha. This study provides us with very important information concerning the activities of societies in the past. The study of the pottery tradition, together with the results of the investigation of other types of objects and archaeological features helps us to understand a small part of the daily life in the settlement from the Predynastic period up unto the Early Old Kingdom.

Kom el-Khilgan

Béatrix MIDANT-REYNES

Centre d'Anthropologie des Sociétés Rurales, Université Paul Sabatier, Toulouse (France)

A team led by Béatrix Midant-Reynes (CNRS), supported by the Anthropological Centre of Toulouse (UMR 8555 of CNRS) and the IFAO and financed by the Midi-Pyrénées Region and the IFAO, undertook a first excavation season at the site of Kom el-Khilgan, located south-east of el-Samara, 40 km from Mansoura. Two main periods of activity were identified. A protodynastic sequence (Naqada III), exclusively represented by funerary structures, occupies the lower strata of the gezira, between 1 m and 1.20m below the surface. The Hyksos period is thereafter represented by a thick brown occupation layer overlying the gezira, with a relatively long occupation sequence. A final period of occupation is represented by simple inhumations and pittings.

Recent Discoveries of Early Old Kingdom Structures in West Saqqara

Karol MYŚLIWIEC

Zakład Archeologii Śródziemnomorskiej PAN, Warszawa (Poland)

The Polish-Egyptian archaeological mission excavating west of the Djoser pyramid has recently discovered remains of early IIIrd Dynasty structures and artifacts, as well as traces of an earlier necropolis nearby the pyramid's enclosure wall. Blue faience tiles, fragments of a stela with the Horus name of Netjerykhet (Djoser), as well as a ritual harpoon dating possibly from the early IIIrd Dynasty and re-used in the times of the VIth, inspire some reflections on the importance and development of Saqqara in the times of the Old Kingdom.

Egyptian Predynastic Ivories decorated with Anthropomorphic Motifs

Edyta Maria NOWAK

Instytut Archeologii, Uniwersytet Jagielloński, Kraków (Poland)

The wide variety of objects in bone and ivory seems to be characteristic of the Predynastic period. The following five categories of ivories decorated with anthropomorphic motifs can be distinguished: figures, tusks, tags, combs and pins.

In the presented paper the last mentioned four categories will be taken into consideration as they represent relatively homogeneous groups, characterised by their internal integrity. Moreover, all these categories, are exclusively represented in the Nagadian assemblages and do not continue into later epochs of Egyptian history, with the exception of pins which occur again in Roman times.

The presented conclusions are based on the study of twenty seven tusks, twenty one tags, six combs and one pin surmounted by a human head or the upper part of a human body. Stylistic analyses and a detailed examination of the archaeological context of excavated specimens revealed the common dating for the majority of tusks, tags and combs. Considering this, it seems probable that at the turn of the Nagada I and Nagada II periods, the decoration of ivories and miscellaneous artefacts in other materials with anthropomorphic figures became remarkably popular. At the same time a great variety of objects share the common, highly geometrized and schematic manner of representing the human form.

It will be the purpose of this paper to determine the chronological position of the discussed categories, typological parallels, stylistic analogies with Predynastic figurative art and the contemporary archaeological assemblages of adjacent territories. The usage of these objects is still open to discussion so the latest hypotheses and theories concerning their possible meaning will be presented as well.

Regional Settlement Patterns as Indicators of Cultural Change in the Predynastic Period

Diana Craig PATCH

The Metropolitan Museum of Art, New York (U.S.A.)

Since Robert McCormick Adam's survey of Mesopotamia's Diyala plain in the late 1950's, Near Eastern and Egyptian archaeologists have acknowledged that the region surrounding a major ancient settlement is a significant source for information on how the settlement functioned and evolved. By 1980, however, Egyptologists had not yet applied regional survey of settlement patterns in the study of zones surrounding significant ancient Egyptian towns and cities. They did continue to use ancient Egyptian sources to enhance their understanding of the relationship between various localities and the hinterlands that surrounded those settlements.

In the early 1980's, I was investigating the rise of the state in Egypt, addressing the concept, already accepted in anthropology, that as a culture approached state-level society, it had to develop, by necessity, a hierarchical organizational structure in order to grow and survive. It had been demonstrated in the Near East that this hierarchical structure was reflected in a culture's settlement pattern. I intended to prove that if an archaeologist analyzed a regional settlement pattern, the evolution of the culture towards a state-level society could be traced. At that time, I hypothesized that if a state-level society had emerged by the Early Dynastic Period, a systematic regional survey would reveal a significant change in settlement pattern could be documented. I was drawn to the site of Abydos because of its widely recognized significance in the Early Dynastic Period, and its location in one of several areas where Predynastic material had already been documented.

During six months in 1983, as Field Director of the then University of Pennsylvania/Yale University Expedition to Abydos, I directed a team in identifying Predynastic, Early Dynastic, and Old Kingdom sites in the region around the site of Abydos, dating surface collections, and estimating size and length of occupations for each location. The area under study extended from Nag' ed Der in the north to Nag' Hammadi in the south, a zone some 40 km. in length. The focus of the work was in the low desert primarily where it abutted the floodplain in a zone about 300 m. wide. Earlier archeologists' work had indicated that most early sites occurred in this zone. Sampling strategy, however, included other sections of low desert. Both sides of the river were included to understand how a large region was exploited, one that covered three quarters of the Eighth or Thinite nome's area.

The results of this research provided the basis for my dissertation, which was released in 1991, and although not formally published, it is gratifying to see that other researchers have accepted its contents and conclusions. Those conclusions covered a number of topics, but the I have chosen to focus upon is the change in Abydos-Thinis regional settlement pattern that I documented between Naqada Ic-Naqada IIb and Naqada IIc-IId (then still known as Naqada IIc-d2) periods. At the time, I concluded that the significant alteration in the regional settlement pattern documented by the survey indicated that the culture of the mid-Naqada Period must have undergone crucial change in its organization.

In this paper, I will consider the data that archaeologists have collected in the subsequent twelve years since my work in the Abydos-Thinis region, reviewing those new results in light of the conclusion I drew from the settlement pattern study. Can we now better explain my observation about regional settlement patterns in the Naqada Period with data from other cultural data of the time ?

Results of the Preliminary Mineralogical Investigation at Tell el-Farkha, Nile Delta, Egypt

Maciej PAWLIKOWSKI

Instytut Mineralogii, Petrografii i Geochemii, Akademia Górniczo-Hutnicza, Kraków (Poland)

Two types of investigations were carried out. The first one, a field survey, covered the entire territory of the site as well as the surrounding area. The work included drilling, sampling, and the preparation of geological profiles and cross sections. The second one consisted of laboratory work which was carried out at the University of Mining and Metallurgy in Cracow, using among others the following methods:

* polarising light microscopy
* digital microscopy
* scanning electron microscopy
* x-ray diffractometry.

Drilling holes as well as observation of the natural geological outcrops confirmed that site is localised on top of a sandy gezira. The yellowish sands contain skeletons of *Helicigona* molluscs, confirming relatively dry climatic conditions during the sedimentation of the gezira's sands.

The localisation of the archaeological site at the upper part of the sandy gezira presents a unique opportunity for the determination of Nile oscillations during the last 10.000 years. Monotonous grey Nile silts interfere with the sandy gezira sediments. This situation helps to investigate the reconstruction of climatic changes and also to improve our understanding of human activity.

Field observations showed that the walls of the discovered buildings dating to different periods were constructed using various types of dried bricks (tab. 1). Mineralogical examination of these bricks documents their differing mineral and grain size composition.

The **oldest Naqada bricks (A1)** are grey in colour. Their form is elongated and they show a cylinder-like shape. They are mainly composed of pure grey Nile silt. They did not contain an organic admixture or grains of burned clay but only traces of charcoal.

Slightly **younger bricks (A2),** representing most probably the younger Nagada culture, have the shape which is normal for bricks. They show a light-greyish colour and are composed of Nile silt, but with the addition of a "tempering material" consisting of fragments of burned clay, traces of charcoal and organic matter.

Early dynastic bricks (B) have the normal brick shape but they are of poor quality. They are yellowish in colour, due to the mixture of Nile silt with grains of yellowish gezira sand.

Dynastic bricks (C) are also of the normal brick shape but of a completely different mineral and grain size composition. They are slightly brownish in colour due to admixture of fragments of burned silt as well as fragments of pottery. Under the microscope one can see in the bricks fragments of plants, bones and charcoal. The examination suggests that the top part of the sediments of the site were used for many destroyed bricks of type C.

Table 1 - Results of the mineralogical examination (volumetric %) of dried bricks from structures at Tell el-Farkha.

Mineral component	Brick A1	Brick B	Brick C
Clay minerals *	81.9	71.3	69.8
Quartz	16.1	25.1	20.4
K-feldspars	0.7	0.6	0.6
Plagioclase	0.6	0.7	0.6
Fragments of sedimentary rocks	0.1	0.0	0.1
Calcite	0.0	0.0	1.5
Organic substance	0.6	2.3	7.8
Heavy minerals	0.0	0.0	0.1
	100.0	100.0	100.0

clay minerals* - natural and burned together

The results presented here show that various raw materials and technologies for the production of dried bricks were used at various historical periods. The dates confirm also that mineralogical investigations allow to determine the historical sequence of monuments as well as to establish the correlation of building phase belonging to the same age. The use of the proposed method of mineralogical investigation of dried bricks should also be possible for solving similar problems at other archaeological sites.

With video projection (10 minutes)

Reasons for the Neolithic - Early Dynastic Transition in Egypt. Geological and Climatic Evidence

Maciej PAWLIKOWSKI

Instytut Mineralogii, Petrografii i Geochemii, Akademia Górniczo-Hutnicza, Kraków (Poland)

Nearly 25 years of geological and mineralogical investigation at various archaeological sites in Egypt gives the opportunity to discuss geological and climatic phenomena observed in sediments which represent the transition from the Neolithic period into the Early Dynastic.

Hierakonpolis

There are no sediments deposited by water at this area which document higher water levels for the Nile during the period between 5200 and 4900 years B.P. The architectural remains discovered were build with the use of dried bricks and are localised at the low floodplain of the Nile (Hofmann, personal communication). This documents a very low level of the Nile and the absence of Nile floods, which would have been able to destroy walls, constructed of dried bricks.

Armant

The geology of site MA 26/86 documents not only the occupation of places localised at the flood zone but also the presence of eolian sediments interfering with Neolithic anthropogenic sediments. This situation suggests a generally dry climate and a very low level of the river. These phenomena due to the absence of floods of Nile are observed between 5190 and 4910 ± 50 y. B.P.

Deir el-Bahari

Most of the sediments representing the transition between Neolithic and Early Dynastic were in this area destroyed by archaeological excavations. Traces of eolian sediments are observed at the zone of transition between the desert and the floodplain.

El-Tarif

The mastabas of El-Tarif are build of dried bricks and localised at the flood zone of the Nile. This localisation confirms that there were no floods of the Nile at the time of the construction of the mastabas. If this would not have been the case, the walls of tombs constructed with dried silt bricks would have been completely destroyed by water. Moreover, sediments filling up the mastabas confirm that during and after their construction climatic conditions were very dry. Proposed dates are around 5100 B.P.

Qasr el-Sagha

Here, the dry climate phase is localised between white silt sands (WSS) and brownish sands (BS), which are dynastic. The proposed date for the dry phase is 5070 ±

110 B.P. This sedimentary brake and the presence of human occupation at the flood zone documents a very low level of the Moeris Lake. Moreover, these dry climatic conditions are confirmed by the presence of thin, powder-like eolian sediments covering Neolithic sites. One can add that the effects of dryness are weaker at Qasr el-Sagha than in Upper Egypt.

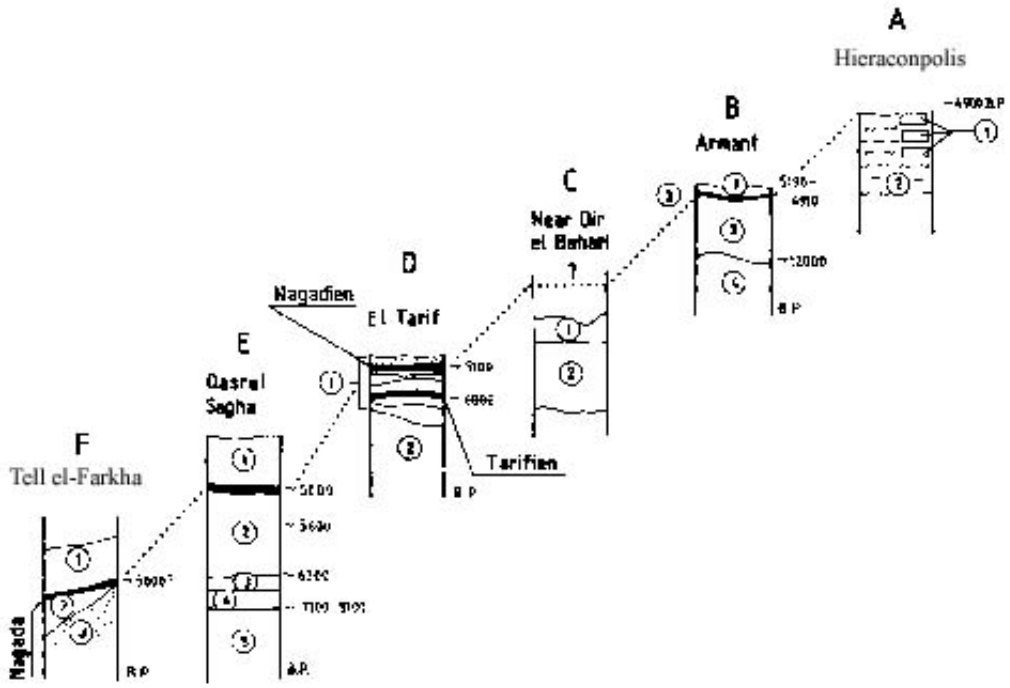
Tell el-Farkha

The geology of the site documents a low level of Nile at the same time as at the other sites described. This hydrological situation (i.e. a very low Nile) was the reason for the human occupation of a not very high sandy gezira. Up to now there are not C^{14} dates of this phase but the position of these phenomena are well seen in geological profiles of the site and are localised exactly between the layers of the Nagada culture and of the Dynastic ones.

Conclusions

Geological profiles of sediments in Upper Egypt (Hierakonpolis, Armant, Deir el-Bahari, el- Tarif), profiles of area of Qasr el-Sagha (Fayum region) as well as profiles of Tell el-Farkha (Delta) document a short very dry phase of the climate between about 5200 and 5000 B.C. During this phase the floods of Nile did not exist or were very small and rare. Geological and mineralogical observations are confirmed by human activity (constructions built with the use of dried bricks) at the flood zone of the Nile.

The dry phase endangered the functioning of agriculture and thus the life of the inhabitants of the Nile valley. Most probably these very dry climatic conditions forced people to irrigate their fields. Collective works on irrigation, the construction of canals etc. pushed the Late Neolithic society to a better organisation of irrigation works and as a consequence to a reorganisation of the way of living. The documented climatic phenomena were the most important reasons of social changes leading to the transition from the Neolithic way of living into the much better developed Early Dynastic society.



A - Hierakonpolis. 1- wall of temple build of dried bricks, 2- grey silt of Nile (not divided)
B - Armant-Site 23/86. 1- eolian and stream sediments, 2- archaeological layers, 3- pediment, 4- Sahaba Formation (grey silts)
C - Deir el Bahari. Youngest eolian sediments destroyed. 1- pediment, 2- Sahaba Formation (reddish silts)
D – el-Tarif. 1- complex of eolian sediments containing archaeological layers
E - Qasr el-Sagha. 1- brownish sands (dynastic), sedimentary break in the presence of archaeological layers, 2- complex of white silty sands, 3- grey silts, 4- grey diatomites, 5-diatomites.
F - Tell el Farkha. 1- brownish silts (dynastic), 2- grey Nile silts, 3- Pleistocene gezira sand.

Representing the Human Body on Late Predynastic – Early Dynastic Labels

Kathryn PIQUETTE

Institute of Archaeology, University College London, London (England)

This paper discusses how early Egyptians conceptualised the human body and articulated it in material form on a series of Late Predynastic and Early Dynastic bone, ivory and wooden labels.

Presumably attached to funerary equipment in royal and high status tombs in Upper and Lower Egypt, the labels are inscribed with a range of signs and motifs. Among these images are a variety of figures apparently representing human bodies and body parts. Patterns in their composition and form demonstrate that at this early date Egyptian artisans already adhered to a particular style of depiction, rendering visual representation of the human body within the perimeters of specific conventions.

The study of the human form can contribute to our understanding of the way the Egyptians saw the body, whether as a unified whole or as separate parts comprising a whole (Meskell 1999: 14-117). I explore how body images are composed and manipulated, and what can be understood from the position of the limbs and the twisting of the body as shown on the labels. The paper discusses how and why the body was broken down into particular components and it attempts to ask what the fragmentation of the body or unification of body parts might tell us about Egyptian concepts of body and self. This study also examines the joining of body parts with inanimate objects, a representational device characteristic of this early Egyptian art.

Moreover, through an examination of the iconography of the body, it may be possible to relate representations of the human form to social concerns, particularly notions of identity including ethnicity, sexual orientation, gender, age, occupation, rank, status, etc.

In the course of this paper I demonstrate the value of going beyond a descriptive categorical account of early Egyptian material culture to consider alternative and innovative approaches to the study of human representation in the Late Predynastic-Early Dynastic Periods. By applying these approaches, it may be possible to identify relationships between material representation of the human body and developing beliefs and attitudes which characterised early Egyptian concepts of the body.

Bibliography

MESKELL, L, 1999. *Archaeologies of Social Life.* Oxford: Blackwell Publishers.

Early Dynastic Palaeography

Ilona REGULSKI

Royal Museums of Art and History, Brussels (Belgium)

The relatively poor state of preservation of a lot of Early Dynastic inscribed objects together with unusual forms of signs are the main reasons for different readings and interpretations. When deciphering unclear inscriptions, a lot of these problems could be reduced through an easier access to parallel/similar inscriptions and -based on this- the compilation of a palaeography.

The investigation of writing from the formal point of view is the prime domain of the epigrapher and the palaeographer. In the broader research of ancient Egyptian writing, palaeography takes an important place. Not only describes it a form evolution of separate signs; it also contributes to a better knowledge of early writing in general.

For the Early Dynastic period, only a little amount of inscriptions were studied palaeographically. Already in 1927 Hilda Petrie offered a tabulation of signs pertinent to the text material from the 1st and 2nd dynasty (Petrie 1927). Although the available amount of Early Dynastic inscriptions has increased tremendously, this is still the largest published collection of early hieroglyphic forms. Again in 1939, Emery published an abstract of signs found among the inscribed material coming from tomb S3357 in Saqqara (Emery 1939: 83-112). Although both studies used original material, which is one of the most important requirements when compiling a palaeography, they were limited in the available material, consequently outdated and therefore subject to updating and extension.

In 1985, Michele Germon Riley finished a palaeographic study at the Sorbonne based on signs of the 0th until the 2nd dynasty (Germon Riley 1985). In total, 2000 inscriptions were considered. Apart from the fact that this work stayed unpublished, the study would be unreliable because the signs were extracted from published drawing in secondary literature only.[1] Although some published drawings and pictures can be very usable for palaeographic study, one should be aware of the great risk that the use of second-hand drawings carries with it. Drawings and pictures in older publications and excavations reports frequently seemed to be schematic or inaccurate and often we are only dealing with reconstructions.

For the earliest hieratic, we can refer to the work by Hans Goedicke (1988). However, his main point of attention lays in the Old Kingdom.[2]

Also little clusters of Early Dynastic material have been treated palaeographical before. This applies for example to the hieratic used for annotations on vessels found by Edel in the tombs at Qubbet el-Hawa at Aswan (Edel 1970) and on the Ceiling Stelae, most of them excavated by Saad at Helwan (Saad 1957) with a few examples from Saqqara and Abusir (Kahl 1997). Using palaeographic criteria, Kahl was able to propose a more specific date for these stelae.

While each of these publications offered a tabulation of the hieratic signs pertinent to the text material concerned, a synopsis of the palaeographical development during

[1] Jochem Kahl, pers. comm.

[2] For example, he mentions the important group of ink inscriptions that were found under the Djoser pyramid; however does not use them in his palaeography.

this period is difficult at best. The few existing studies are therefore to be updated and extended.

The main goal of the PhD presented here is to compile an **extensive** palaeography, based on **original** objects in order to clear uncertainties and provide a useable amount of parallels material.

Extensive:

This palaeography reflects writing done over almost a millennium. It considers all inscribed objects from the 0th until the 3rd dynasty (~3400-2575 BC.). The largest group of relevant material consists of seal impressions, distributed over long distances from Middle or Upper Egypt to their find-spots in the Delta and beyond. It concerns for example also ink inscriptions and engravings on stone and clay vessels as well as wooden and ivory labels (Emery 1954: pl. 102; Emery 1958: pls. 38, 76, 83, 107; Petrie 1900: pls. VIII,A8; X,1-7; XVII,26; XIX, XXXII, XLII; Petrie 1901: pls. XII, XXV; Petrie 1902: pls. I-III). Although not yet written on, papyrus was known from the first dynasty onwards, as demonstrated by a blank roll found in the tomb of Hemaka in Saqqara (Emery 1938: 41). Inscriptions that cannot be designated as "writing", for example potmarks as far as they cannot be read, as well as objects whose date within the above-mentioned period is doubtful, will not be dealt with. Particularities caused by the differences of these writing materials and the execution of writing on them, could determine the significant karakter of sign-forms.

The oldest sources of writing preserved in ancient Egypt are the inscriptions on ivory tags and pottery from the tomb U-j in Abydos (Dreyer 1998). Chronologically, this recently published material is followed by ink inscriptions on clay vessels (Petrie 1900: pls. I-III; Petrie 1913: pls. XXXI 65, 67; Saad 1947: 112, fig. 12; Kaplony 1958: 54. They name a king "Horus Sechen/Ka (?)" in addition to a rudimentary identification of the vessel's contents. The goods contained in the vessel have been identified as oil deliveries from Upper en Lower Egypt (Helck 1984: 777; Kaiser 1964: 92; Kaplony 1963: 293).

There is no indication that the earliest writing had truly literary aims in the sense of communication, and even less of „creative writing". However, the typical features of the script are fully applied, including an apparent cursiveness by ink inscriptions, although there is no attested development leading to it. The range of signs is limited, but shows considerable variety, probably an indication that no rigid standards had evolved by this time.

Original:

It was mainly in the first half of the 19th century that museums acquired their largest number of objects. In exchange for funding excavations, archaeological finds were distributed among the concerned museums. A lot of Early Dynastic collections were almost completely formed trough subscriptions to excavations on important sites as Abydos and Saqqara. This scattering of objects throughout the world, is probably the main reason why an extensive palaeography, based on originals was never aimed for.

Original tracings from as much inscriptions as possible will be made. However, tracking down their present depository appeared to be a difficult undertaking. Although a lot of objects could be re-discovered from the literature, "excavation" in museum storerooms and basements in order to find more of them will also be part of this research. Furthermore, not all of the retrieved material will be accessible. Therefore, good pictures and in some cases reliable drawings will be used in addition to this.

Bibliography

DREYER, G., 1998. *Umm el-Qaab I, Das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse.* ÄV 86. Mainz.

EDEL, E., 1970. *Die Felsengräber der Qubbet el-Hawa bei Assuan, II: Die althieratischen Topfaufschriften, 1: Die Topaufschriften aus den Grabungsjahren 1960, 1961, 1962, 1963 and 1965; 2: Text*. Wiesbaden.

EMERY, W.B., 1938. *The Tomb of Hemaka.* Excavations at Saqqara. Cairo.

EMERY, W.B., 1939. *Hor-Aha*, Excavations at Saqqara 1937-1938. Cairo.

EMERY, W.B., 1954. *Great Tombs of the First Dynasty II.* EES 46 - Excavations at Sakkara. London.

EMERY, W.B., 1958. *Great Tombs of the First Dynasty III.* EES 47 - Excavations at Sakkara. London.

GOEDICKE, H., 1988. *Old Hieratic Palaeography*. Baltimore.

HELCK, W., 1984. Sechen. [in:] HELCK, W. & OTTO, E. (eds.), *LdA,* V: 777-778. Wiesbaden.

KAHL, J., 1997. Zur Datierung der frühen Grabplatten mit Opfertischszene. *SAK,* 24: 137-145.

KAISER, W., 1964. Einige Bemerkungen zur ägyptischen Frühzeit. III. Die Reichseinigung *ZAS,* 91: 86-125.

KAPLONY, P., 1958. Sechs Königsnamen der I. Dynastie in neuer Deutung. *Orientalia Suecana,* 7: 54-69.

KAPLONY, P., 1963. *Die Inschriften der ägyptischen Frühzeit*, I-III. ÄA8. Wiesbaden.

PETRIE, H., 1927. *Egyptian Hieroglyphs of the First and Second Dynasties*. London.

PETRIE, W.M.F., 1900. *The Royal Tombs of the First Dynasty. 1900. Part I.* EEF 18. London.

PETRIE, W.M.F., 1901. *The Royal Tombs of the Earliest Dynasties. 1901. Part II.* EEF 21. London.

PETRIE, W.M.F., 1902. *Abydos. Part I. 1902.* EEF 22. London.

PETRIE, W.M.F., 1913. *Tarkhan I and Memphis V.* BSAE & ERA 23. London.

RILEY, M.G., 1985. *Paléographie des signes hieroglyphiques sous les deux premières dynasties égyptienne* (Thèse de doctorat de IIIème cycle (inédite). Paris: Université de Paris IV-Sorbonne.

SAAD, Z.Y., *Royal Excavations at Saqqara and Helwan (1941-1945).* CASAE 3. Le Caire, 1947

SAAD, Z.Y., 1957. *Ceiling Stelae in Second Dynasty Tombs from the Excavations at Helwan.* CASAE 21. Cairo.

News about the Clayton Rings:
Long distance Desert Travellers during Egypt's Predynastic

Heiko RIEMER

Heinrich Barth Institut, Köln (Germany)

In the 2000 volume of the *Sahara* journal we summarised the evidence regarding a nearly unknown ancient pottery type which is distributed over a large area of the Eastern Sahara (Riemer & Kuper 2000). Amongst the artefacts are standardised rings open at both ends, and perforated disks. They are discovered and excavated during the Cologne's B.O.S. and ACACIA expeditions in the early eighties and the late nineties. Potmarks and radiocarbon dates suggested a Late Predynastic or Early Dynastic age. Parallels were already known from a site which was discovered by P.A. Clayton during his desert expedition in 1930-31 east of Gebel Kamil in Egypt's Southwest (Clayton 1937). As a descriptive term was still lacking and in honour of this great geographer, we named this type of pottery "Clayton rings". In the mean time, older publications were studied, and more information gathered, as thus throwing some light on the distribution and dating of this pottery. Further research by the ACACIA mission has completed our picture of its distribution, potmarks, and fabrics.

Although we have no clue as to the purpose of the Clayton rings, the climatic and environmental conditions of the desert during this period would point to it being used by long distance desert travellers.

Bibliography

CLAYTON, P.A., 1937. The South-Western Desert Survey Expedition 1930-1931. *Bulletin de la Société Royale de Geographie d'Egypte* 19,3: 241-265.

RIEMER, H. & KUPER, R., 2000. "Clayton rings": enigmatic ancient pottery in the Eastern Sahara. *Sahara,* 12: 91-100, pl. G-I.

The Application of Mortuary Data to the Problem of Social Transformation in the Delta from the Terminal Predynastic to the Early Dynastic Period

Joanne M. ROWLAND

Institute of Archaeology, University College London, London (England)

Four cemetery sites in the east Delta are being examined with the aim of utilising mortuary data to contribute towards our understanding of the nature of social transition between the Terminal Predynastic and Early Dynastic periods. The mortuary data is being collated from Kafr Hassan Dawood, Kufr Nigm, Minshat Abu Omar, and Tell Ibrahim Awad; sites which preliminary observations indicate will offer a good temporal scope across the transitional period, and represent a diversity of types of social organisation and differentiation.

From a literature survey of both Nile Valley burial trends, and the wider sphere of mortuary archaeology, I am taking the premise that mortuary differentiation can be interpreted as being reflective of social differentiation and change within social organisation. I am further concerned with the degree to which this differentiation might have been present within a community, and importantly, what kinds of social development and expression it might reflect. It is important to consider this in parallel with temporal change.

This paper examines key types of data accessible from the cemetery sites under investigation. This information is derived essentially from evidence for grave construction/architecture, grave contents (quantity and type of objects), and body position and treatment. Issues of social differentiation as inferred by the spatial distribution and clustering of graves are also under consideration. A discussion follows of analytical methods that might be appropriate for investigating changes of both a temporal and spatial nature, and approaches that might be applicable at both an intra- and inter-site level. The applicability of both quantitative statistical tests and Geographical Information Systems (GIS) to cemetery data is also discussed, to show how these two applications can be used both to examine the data from different angles and complement each other.

Pottery from the New Excavations at the Cemetery Site of Helwan

Jane SMYTHE

Macquarie University, Sydney (Australia)

The Macquarie University excavations at the cemetery site of Helwan have yielded five years of very successful findings. It is becoming evident that this cemetery site was in use over substantial phases of Egyptian history. Importantly the cemetery was in use during the pre-and early dynastic periods, most notably though, we have what appears to be the highest density of burials for this time anywhere in Egypt. Over the past five years the project, led by Dr E. Christiana Köhler, has been able to combine not only a thorough archaeological investigation of the cemetery but the systematic recording of artefacts previously excavated by the Egyptian Archaeologist Zaki Y. Saad.

It is well known that Zaki Saad managed to excavate 10,258 tombs during his twelve seasons of activity at Helwan from 1942 to 1954. Many of the most outstanding pieces that he had recovered were originally housed in the local inspectorate at Ezbet el-Walda. In 1967, some 158 boxes containing these finds were transported to the Egyptian Museum for safety where they stayed, all but forgotten until 1997. Each object has so far survived in excellent condition accompanied with an inventory providing description, object number and most importantly the tomb number from Saad's original excavations. These museum pieces, although of high significance, are only a portion of what Saad recovered during his twelve seasons of activity at Helwan.

From Macquarie University's first season we have been involved with the clearing of what has become known as a "storage tomb" from Saad's original excavation seasons. The tomb, Operation 3 Tomb 1 (Op.3/1) had been excavated by Saad and used to store objects not thought at the time important enough to be housed at, what would have been an increasingly crowded inspectorate. Not surprisingly, the bulk of what was stored in this tomb was pottery, although broken stone vessels and some non-diagnostic skeletal remains were also present. By our second season we were able to completely recover all the objects stored within the tomb and fully record the tomb itself.

Saad applied a system of painting on the pottery the tomb and season number from which it had originally come. Therefore we are able to determine that pots stored in Op.3/1 come from seasons nine and eleven of his work. The tomb itself is not published by Saad and therefore could have been excavated by him some time between his sixth season and possibly his ninth. It is interesting to note however that a complete collection of pottery from seasons nine and eleven were not represented within this storage tomb, suggesting that possibly a second storage tomb might contain the remainder. The pottery from this storage tomb is still in the process of being reconstructed and recorded; yet it would not be an exaggeration to suggest that this sample alone could be in excess of 1000 pots alone. The pottery types that make up the sample represent well known forms ranging from the so-called "beer" and "wine" jars, cylindrical jars, round shouldered jars with restricted base or so-called "hes" jars, ovoid and squat shaped jars and bowls.

Unfortunately, only less than half the pots from Op.3/1 now carry these numbers. As Saad published neither of these seasons in any detail the numbers will play an important role in the reconstruction of tomb assemblages. The pottery that has surviving Saad numbers are being reunited with objects now housed in the Egyptian Museum to form tomb assemblages. As a result we not only get a more complete view of a particular tomb's content, but we will also be able to fit a more secure date to many of these objects. Work done during the first season in the Cairo Museum on the objects from the boxes quickly provided a link between an ivory clapper and two pottery vessels, which originally came from the tomb 1294.H.9 (tomb no. 1294. Helwan. from Saad's season 9) and can be now securely dated to the Naqada IIIC2 period. Since the first season we have continued to reunite objects from the Museum with their pottery counterparts forming well-dated tomb assemblages.

The use of pottery proportion indexes in order to place the "wine" jars in chronological/typological sequence has met with some success. My studies show that both Petrie's sequences and the pottery indexes match in all cases. As for dating of the other types, particularly the so-called "beer" jars; Petrie's sequences are less reliable. The range within some of the assemblages is narrow enough at times to be accepted although there are still cases where the dating extends the time range too far. Forming a reliable sequence for the "beer" jar is an objective for further study as is the possible addition to the sequence of a cylindrical jar that is of a kind that shows further degradation beyond the known Naqada IIIC2 type.

The sample of pottery types that we have from Op. 3/1 span a considerable period of early Egyptian history. These range from a cylindrical 'net painted' vessel of the predynastic period, Naqada IIIA2 through to an elongated storage jar or 'wine' jar of the type found in the tomb of Peribsen of the 2nd Dynasty. Whether Saad was aware or not, he has provided us with a neat sample of pottery types with few gaps in the chronological development from this period. Pottery from excavations that have taken place in other areas of the site over the last couple of years have provided dates as late as the fourth dynasty. It is hoped that the work being done with the pottery sample from Helwan will help refine a workable typological sequence and fabric vocabulary for the Naqada III period from the Memphite region.

Bibliography

HENDRICKX, S., 1999. La chronologie de la préhistoire tardive et des débuts de l'histoire de l'Egypte. *Archéo-Nil,* 9: 13-107.

KÖHLER, E.C., with contributions by BIRRELL, M.; CASEY, I.; HIKADE, T.; SMYTHE, J. & ST.CLAIR, B., (in press) *Excavations in the Early Dynastic Cemetery at Helwan I. The Excavation Season 1997/98*, SAGA Band 24. Heidelberg.

KÖHLER, E.C. & SMYTHE, J., (in press) Early Dynastic Pottery from Helwan – Establishing a Ceramic Corpus of the Naqada III Period. *Cahiers de la Céramique Egyptienne,* 7

SAAD, Z.Y., 1947. *Royal Excavations at Saqqara and Helwan (1941-1945).* Suppl. ASAE, vol.3.

SAAD, Z.Y., 1951. *Royal Excavations at Helwan (1945-1947).* Suppl. ASAE, vol .14.

WILKINSON, T., 1996. A Re-examination of the Early Dynastic Necropolis at Helwan. *MDAIK,* 52: 337-354

WOOD, W., 1987. The Archaic Stone Tombs of Helwan. *JEA,* 73: 59-70.

Egypt in the Levant during the Early Dynastic Period/Early Bronze Age II

Karin SOWADA

The Nicholson Museum, University of Sydney, Sydney (Australia)

The major shift in Egypt's relationship with the southern Levant that occurs from the EB Ib to the EB II is linked to the development of the 'Byblos run' up the coast to ship coniferous timbers in large quantities for elite consumption at the beginning of the Early Dynastic Period. In addition, the commencement of viticulture in Egypt during this time may have lessened the need for its procurement networks in southern Canaan. Growing assertiveness on the part of local elites may have also played a part in the changing political dynamics of the region.

Egypt's relationship with its north eastern neighbours in the Early Dynastic Period/EBA II was in all likelihood multi-faceted, embracing product exchange, diplomatic ties and sporadic military skirmishes. Although southern Canaan remains important, particularly for the probable acquisition of copper from the Wadi Feinan, archaeological evidence reveals that the geographical focus of Egyptian commodity acquisition broadens north, to the Galilee and the region of northern Canaan/Mt Hermon. The coastal area around Byblos also becomes a key source of large –scale coniferous timber imports. These exchange patterns are linked to changing demands for products, more efficient transportation mechanisms and the shifting political climate of the southern Levant in the EBA II.

Development of Specialization in the Nile Valley during the 4th Millennium B.C.

Izumi H. TAKAMIYA

Kinki University, Osaka (Japan)

The development of specialization in relation to progress of complex societies is one of the major topics in current archaeological discussions. The subject has been mentioned also in a number of works on the Predynastic period in the Nile valley, but a general view of the development has not been obtained yet. This presentation is an attempt to review previous studies and provided a working hypothesis for understanding the nature and characteristics of the development of specialization in the Nile valley during the 4th millennium B.C.

According to recent studies, there are a wide variety of types of specialization, which can be classified and described multidimansionally in terms of, for example, intensity (part-time or full-time), relationship between the producers and the consumers (independent or attached), kind of products (utilitarian goods or wealth), scale of production (household production, workshop, or large factory).

Scholars have also suggested several models of development process of specialization: a commercial model, an adaptationist model, and a political model. E. Brumfiel and T.K. Earle, who proposed the last model, argued that in the political model, local rulers play an important role in organizing specialization and exchange, and that political elites consciously and strategically employ specialization and exchange to create and maintain social inequality, and to strengthen political coalition.

The development process of specialization in the Nile valley may be deduced from analyses of production sites, as well as of products themselves. Excavations of the settlement at Hierakonpolis uncovered several production sites, which provided important information about specialized production systems during the Naqada period. Pottery kilns accompanied with relating structures and debris were studies by R. Friedman. A temple workshop at HK29A, its products and by-products were analyzed by D. Holmes. A brewery was identified at HK24A by J. Geller. B. Ginter, J.K. Kozlowski and M. Pawlikowski, on the other hand, analyzed lithic artifacts from settlements and frint mines in the Thebes-Armant area, and proposed a long-term development process of specialization. Products themselves often yield clues to identify specialized production when they show a high level of manufacturing technology and/or standardization, which are generally believed to be markers of specialization.

The specialization of lithic production was inferred from analyses of production sites in the Thebes-Armant area and Hierakonpolis, as well as of artifacts such as utilitarian blades and elaborately worked bifacial knives. Ginter and his colleagues suggested that some kinds of blades were manufactured in workshops near the mine, and only the products were taken to settlements during the early Naqada II, at the same time when Holmes inferred from lithic themselves the emergence of a specialized system in the blade production. A “temple work-shop” in Hierakonpolis indicates the existence of attached full-time specialists for lithic production during the Naqada IIb-d period. Ripple-flaking knives, usually dated to the late Naqada II - early Naqada III, are

believed to have been manufactured by a limited number of specialists because of their sophisticated and time-consuming technique.

The specialization of pottery production was assumed on the basis of data from kiln sites excavated in Hierakonpolis and of artifacts including untempered polished wares and "Decorated pottery" vessels. Friedman suggested that untempered polished wares in the Naqada I – early II period was produced by specialists. Many scholars have supposed that pottery vessels decorated with characteristic boat motifs, dated to the Naqada IIc-d period, were manufactured in the small number of workshops, because of their extraordinarily uniform styles of decorations.

Although archaeological research for specialization has tended to focus on craft specialization, specialization occurred in categories other than craft production. For example, Geller identified a specialized production system of brewing in the settlement of Hierakonpolis. The specialization appears to have emerged in exchange systems during the Naqada III period when long-distance trade networks were established between Naqada societies and those in Lower Nubia and in Palestine. The introduction of a writing system during the Naqada III period may indicate the existence of specialists for administration.

On the basis of the published samples mentioned above, though they are quite limited in the number and qualities, a general process of the development of specialization may be supposed as follows. During the Naqada I period or even much earlier, specialization on a part-time level emerged in production of lithic and pottery, as well as of some other kinds. In the early Naqada II period, full-time specialists are firstly identified archaeologically in the lithic production attached to a temple in Hierakonpolis. Then, in the middle Naqada II period, specialists producing "Decorated pottery" vessels and ripple-flaking knives were organized probably on a full-time base. It is worthwhile to note that the items manufactured by the full-time specialists were luxury goods, which could be used for political purposes and controlled by elites of the time. It seems that specialized systems characterized by mass-production were introduced around the threshold of the Naqada III period, when remarkable standardization appeared in pottery vessels and long-distance trade networks enabled to distribute a large amount of pottery vessels to the areas outside the Nile valley.

The most distinct characteristics of the development of specialization in the Nile valley is, therefore, that the attached specialization of luxury goods developed at first, probably in some large centers such as Hierakonpolis and Naqada, and, that, then, the specialization accompanied by mass-production emerged later. It means that a development process of the political model corresponds to the case in the Nile valley, at least in the first stage. The attached specialization further developed during the Naqada III period, as was indicated by large-scale trade networks, a writing system, and elaborate relief decorations on palettes and knife handles. A relatively low population density and a slow pace of urbanization in the Nile valley may have affected the characteristics.

Since evidences of specialization are still limited, further information should be required to testify this working hypothesis.

Inter-site Variability of Late Early Bronze I Sites with Egyptian Affiliations. A further Update and Re-assessment.

Edwin C.M. VAN DEN BRINK

Israel Antiquities Authority, Jerusalem (Israel)

In a 1998 contribution to the Proceedings of the 7th International Congress of Egyptologists the author tentatively suggested a 3-tier hierarchy of interaction for Late Early Bronze I sites in the southern Levant with Egyptian affiliations (van den Brink 1998). This division was based primarly, though not exclusively, on ratios of locally produced, EBI pottery as compared to late Protodynastic/Early First Dynasty Egyptian imports and locally produced imitations thereof.

This paper presents an update of additional information relevant to the subject, with a brief review of new discoveries and publications. The author suggests that this hierarchical division is indeed of value in discussing late 4th through early 3rd millennium BC interrelations between the southern Levant and Egypt.

Bibliography

VAN DEN BRINK, E.C.M., 1998. Late Protodynastic-Early First Dynasty Egyptian Finds in Late Early Bronze Age I Canaan: An Update. [in:] C.J. EYRE (ed.), *Proceedings of the 7th. International Congress of Egyptologists. Cambridge, 3-9 September 1995*. Orientalia Lovaniensia Analecta 82. Leuven, Uitgeverij Peters: 215-225.

The Royal Cemetery of the Early Dynastic Period at Saqqara and the Second Dynasty Royal Tombs

Joris VAN WETERING

Egyptian Cultural Heritage Organisation

The recent discoveries of Second dynasty tombs near the Step Pyramid complex has renewed the interest in the counterpart of Abydos Umm el-Qa'ab; the Royal Cemetery of the Early Dynastic period at Saqqara. A discussion on the general development of this Royal Cemetery, both from an architectural as well as a spatial point of view, during the first 3 dynasties, is given with a focus on the Royal Tomb complexes of the Second dynasty.

Several structures dating to the First, Second and Third dynasties are known in Saqqara, some are royal, while most mastaba tombs are of a non-royal character. The focus will be on the royal monuments, although non-royal monuments are also discussed, to indicate the different architectural aspects of royal and non-royal development in funerary architecture.

To date three confirmed and one possible royal tombs of the Second dynasty are known at Saqqara, as well as several underground structures that may or may not have been constructed during the Second dynasty. The monuments attributed to Hetep.sekhem.wy and Ny.netjer, both located under the Fifth dynasty pyramid complex of king Unas, will discussed in detail. As well as the tomb recently discovered by the Dutch mission, about 200 m. to the south of the Ny.netjer complex and the new discoveries made by the Polish mission west of the Third dynasty Step Pyramid complex of king Netjery.khet Djoser are discussed in more detail. Through these monuments and the associated finds, certain suggestions are presented about the Second dynasty, a period still not yet well understood. After the discussion on Second dynasty Royal Tomb complexes, a brief outline on the architectural development of Royal Tomb complexes during the Early Dynastic period at both Saqqara and Abydos Umm el-Qa'ab will be presented.

Abadiya 2, a Naqada I Site near Danfiq, Upper Egypt

Pierre M. VERMEERSCH & Stan HENDRICKX,

Katholieke Universiteit Leuven, Leuven (Belgium)

The Belgian Middle Egypt Prehistoric Project of Leuven University excavated in 2001 parts of a predynastic site at El Abadiya, near Danfiq, Upper Egypt. Only small test surfaces, less than 30 m² have been excavated. The predynastic remains are incorporated in a very loose grey sandy deposit of about 0.5 m thick, rich in charcoal and ashes. The different excavated localities have produced high amounts of flint artefacts, potsherds, charcoal en bone. In order to differentiate the material according to the elevation we have subdivided it into three successive "layers", the upper, the middle, and the lower. No structures were identified.

Flint artefacts comprise in decreasing order of importance burins, endscrapers and bifacial axes. The raw material is of local origin. Technology is mainly hard hammer debitage, producing large rather thin flakes from cores, mostly with a single platform. Such an assemblage is similar to that collected at the nearby El Khattara sites (Holmes 1989: 201).

Pottery consists of sherds from black–topped, red-polished and rough ware. Rough ware cooking vessels are very well represented. Among the characteristic types are a number of (large) black-topped beakers. Lip rims are completely absent. The best comparisons are to be found among the ceramics from the Naqada IA-IB period.

Among the faunal remains are shells, fishes, reptiles, birds, wild mammals such as ass, hippo, dorcas gazelle, hartebeest and hare, but also domestic animals such as dog, cattle, pig and ovicaprids.

^{14}C dates on short living seeds provided two dates suggesting an occupation between 3630 and 3980 cal BC, confirming an attribution to the Naqada I period.

Bibliography

HOLMES, D.L., 1989. *The Predynastic Lithic Industries of Upper Egypt. A comparative Study of the Lithic Traditions of Badari, Naqada and Hierakonpolis.* BAR 469. Oxford.