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Predynastic and Early Dynastic Egypt. Origin of the State
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Communications

A Preliminary Report on the Excavations of the Old Kingdom-Late Predynastic Strata of Mendes (1999-2005)

Matthew ADAMS (Pennsylvania State University, Philadelphia)

This paper reports on the excavation of several units containing stratified material from the end of the Old Kingdom into the Late Predynastic levels. This work has been conducted under the auspices of the Pennsylvania State University and under the direction of the project leader, Donald B. Redford. In 1999 the decision was made to begin work in unit AJ-A with the intent of excavating as deep as possible in order to expose a significant stratigraphic section of the tell. The location of the unit was strategically chosen by Professor Redford on the edge of the mounded succession of remains of the provincial temple that date back to at least as early as the end of the Old Kingdom. Work on the temple mound had exposed a destruction of the Old Kingdom temple and indicated the opportunity to be had in excavating on the slope of the temple mound.

The work in unit AJ-A was started with the intention of acquiring a stratigraphic profile of the site from the 6th Dynasty remains at the surface down to the local water table. By the end of 2001 we had excavated through 6 building phases and reached architecture dating to the 1st Dynasty. At that time we initiated a small auguring project to discover where the water table lay in this area, for we expected to encounter it very soon based on the experiences of other excavations in the Nile Delta. Much to our surprise and excitement, the 1st Dynasty architecture reached in 2001 had more than five metres of dry excavatable earth beneath it. The auguring also revealed that we would not have to dig that deep anyway because the cultural terminus is somewhere around 1.5m ASL, that is, 4.5m below our 1st Dynasty architecture. As we continued excavation there over the next four years we opened two adjacent units. Our excavations thus far have revealed six major building phases covering the first six dynasties. With the 2004 excavation season finished, we have completed work on the phase 6 building dating to the 1st Dynasty. It is clear that based on inscriptional (seal impressions) and ceramic evidence that we are on the cusp of the period of state formation (Naqada IIIb/c). At the time of the submission of this abstract, we are preparing for the 2005 season, which will take place in May and June. Our plans for the area are to finish some detailed work on the 1st Dynasty structure and then remove it. By the time I deliver this paper, there will be new data pertaining to the Late Predynastic.

When taken together, the non-Mendesian material from the Delta excavated thus far that in any way adds information to the Predynastic Period through to the end of the Old Kingdom is patchy and disunified through time and is biased away from

habitation and historical data. Town sites have been given little attention. Those that have been excavated are historically minor and have little temporal coverage, and most of our data on the period in question has come from mortuary contexts. Mendes offers a unique excavation scenario as it is the only town of political significance thus far excavated from the period in question to provide archaeological uninterrupted stratification from the prehistoric period through to the 6th Dynasty.

The gap in our early history and archaeology, then, is clear. What circumstances have led to this archaeological gap? With regards the Nile Delta, the problems are unique. There are two basic reasons why archaeology in general in the Delta (and excavations of the Predynastic/Early Dynastic transition in particular) has been limited until recently. The first is that it was thought that many of the early settlements in the Nile Delta were buried under several metres of alluvium over the last several thousand years, and that work to excavate them (if one could find them in the first place) would be cost prohibitive and yield few results for the enormous amount of labour involved. It is becoming clearer with every season that many early towns were constructed on natural levees, where silt would not have been deposited. The second reason is that the sites not covered by alluvium were presumed to be well below both later habitation and the water table itself. The Buto expedition encountered the water table during excavations of the early town and was able to artificially reduce the local water table with the support of a generous grant by Volkswagen. As a result, the Buto team has made many exciting discoveries relating to the Early Dynastic and Predynastic town, setting a milestone for the archaeology of the Pre- and Early Dynastic Delta. The water table, indeed, is a problem. However, local water tables exist at varying levels depending on local geography and water use. Where the excavation of Archaic Buto depended on significant grants to conduct its excavations, other sites may be able to excavate in the traditional terrestrial archaeology manner. Such is the case at Mendes.

The Pennsylvania State University Expedition to Mendes has the fortunate circumstance of a low water table at the site, and early remains that have been protected from the effects of the Nile flood by cultural deposition above them. Thus, we have in Field AJ a seven metre uninterrupted stratified sequence that spans from the 6th Dynasty back into Prehistoric times with all cultural remains well above the water table. Our exposure thus far totals approximately 100 square metres. This paper will report on the 1999-2005 seasons.

Parameters of Statehood in Predynastic Egypt

Branislav ANDELKOVIC (University of Belgrade, Belgrade)

How can we recognise the state?, is the primary issue in this paper that considers the precise delineation between chiefdom and state level society in Predynastic Egypt. Although it is difficult to define the concept of state briefly and in a manner completely acceptable to most scholars, there is, nevertheless, a broadly shared understanding about what constitutes its basic features.

Essential elements of the state are: monopoly of the means of violence, territoriality, sovereignty, bureaucracy/administrative apparatus with implied authority and legitimacy, "citizenship" (subjection of the individual to bureaucracy-authority), and taxation. If these, the most important parameters of statehood are present, then the presence of the state itself, as a particular form of socio-political organisation is unambiguous.

In instances of pre-modern states it is very important to perceive parameters of statehood in terms and standards appropriate to their own times. Such an approach is particularly difficult because parameters of statehood are identified mostly through the archaeological record. In the case of Egypt, most of the parameters of statehood noted above can be detected directly or indirectly along the evolutionary trajectory of the Upper Egyptian Naqada culture.

The rise of the state coincided with a reduction in levels of violence, while the monopolisation of force within a given territory permitted organised actions towards other territories where no such monopolies existed (for instance Lower Nubia, Lower Egypt and Southern Levant).

In Egypt, continuing exploitation of the same habitat emphasised a "tube" effect that gave rise to a strong sense of territorial rights. The Nile Valley did not allow for the possibility of lateral dispersion and accordingly, territoriality implied a clearly-defined physical space and a polity that had the sole claim to legitimate authority.

Territorial units and rulers identified by 'Standarten' insignias and explicit items of dress and regalia (mace heads, heka sceptres, crowns), laid claim over particular tracts of land, minerals that lay beneath it, waters that flowed through it and to peoples that inhabited it. Peoples - groups of individuals existing within a clearly demarcated territory and identified by a shared identity (i.e. common traditions such as name, language, law/behavioural codex, funeral customs and mythology). Regional diversity disappears by Naqada IIc and the change of settlement pattern witnessed a shift to state-level society at about the same time.

Sovereignty, although originated in "a peculiar sense of self-confidence within the community

concerned" practically resides in an apparatus of government, which means that there is a final and absolute authority in the particular political community. Sovereignty in this period is understood as a final and absolute authority that resides in an apparatus of government in charge of the entire polity. The list of potential Predynastic rulers-sovereigns, at least judging from various *serekb* marks, labels and petroglyphs, numbers today about 19 candidates, a list that suggests a rather lengthy period. This lengthy period of rule is confirmed not solely by royal insignia associated with identifiable personages but also by royal iconography, characteristic poses and actions, including fixed imagery in the standardised royal displays of the period.

Bureaucracy, "the most rational known means of exercising authority" and its administrative apparatus are well represented in Predynastic Egypt by various "artifacts of administration" from cylinder seals (as one in Naqada tomb T29, dated to IIc) to seal impressions, bone labels and pottery inscriptions. The figure of a ruler smiting his enemies represented on a vase found in Abydos, Grave U-239, suggests that the ideology of rule had its origins in late Naqada I.

Since no state can survive for long solely through its power to coerce, a high degree of authority and legitimacy is also needed. In the Nile Valley, the holder of these two central elements created a hereditary elite that accumulated power in lineages, descent groups or 'leading families'. It became a predominantly endogamous elite superimposed over and dependent upon a much broader stratum of non-elite. Selective interbreeding of an elite segment of the population is, for instance, suggested for Cemetery T at Naqada. At the apex of this elite stratum stood the king with the authority and ideology of either a divine representative or as the deity himself.

'Tax-farming' as a ruler's right to make an income by extracting what resources he could was an early form of taxation. Taxation was the prerogative of the ruler and was a source of accumulating wealth that in turn could be converted into power, which in turn could be translated into policy to further the ambitions of a ruler. None of the ambitions of the ruler, for instance waging war, could be realised without the benefits of taxation. Evidence of taxation is found in tax marks known, at the latest, from the Naqada III period.

Rapid social development from the earliest farming villages to the Egyptian empire saw five major phases: 1. Proto-nomes are the first moderately composite social and political units of Upper Egypt constituted from aggregations of previously

autonomous local villages (Naqada IA-B); 2. Some pre-states are unions/federations of villages, complex chiefdoms that have become large and complex enough to approach the threshold of the state (Naqada IC-IIB); 3. The Upper Egyptian commonwealth possessed certain features of both ranked chiefdoms and stratified states, but the ratio rapidly shifted from the former to the latter. Over time characteristics of the former type of society gave way to those of that latter. That was the crucial phase in "social alchemy" that transformed the chiefdoms into the state (Naqada IIC-IID1); 4. The all-Egyptian early state (Upper and Lower Egypt): a large political entity ruled by a king with a highly centralised and internally specialised government (Naqada IID2-IIIB/IIIC1); 5. The Egyptian empire, that starts with the beginning of the Early Dynastic period with Hor Aha in Naqada IIIc2 (IIIC1/IIIC2).

Bibliography

ANDELKOVIC, B., 2002.

The Evolution of Gerzean Culture: Internal and external Factors. Ph.D. dissertation, University of Belgrade.

ANDELKOVIC, B., 2004.

The Upper Egyptian Commonwealth: A Crucial Phase of the State Formation Process [in:] HENDRICKX, S.; FRIEDMAN, R.F.; CIALOWICZ, K.M. & CHLODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt", Kraków, 28th August - 1st September 2002*. *Orientalia Lovaniensia Analecta* 138. Leuven: 535-546.

Words and Signs of Numerals in Egyptian - Some Elements of Analysis and Reflexion

Alain ANSELIN (Université des Antilles-Guyane)

The vocabulary of the arithmetic fable of the shepherd, *ir*, *ip*, *hsb*, the cardinals and their syntax, are documented from the first dynasties; the schematic shape of the first nine numerals, and that, ideogrammatic, of the following (ten, hundred, thousand...) are attested from c.3300 BC.

The Egyptians of the polities of Upper Egypt, for example at Nekhen, had already since about 3600 BC the *A-Group Nubians* and the *Maaadians* as political and commercial partners. Three centuries later, in a context where the elites exchanged prestige commodities, defined within the framework of their own cultures, forms of writing emerged as a series of signs engraved on the labels of jars found in tomb U-j of King Scorpion I at Abydos. So, the study of the graphic signs of the numerals and their words appears inseparable from an archaeology of power characterised by the historical discontinuity which is the palatial invention of the state, and the development of long distance trade, which underlines the links between Egypt and its neighbours (Nubia, Palestine) or more distant partners (Mesopotamia, Anatolia).

The author examines the iconography of the numerals, by seeking the significance of the opposition between the conventional symbolic system (features, points) of the first numerals and the ideogrammatic metonymy of the following numbers, and by prospecting the lexicography in the manners of counting, and the archaeology of the vocabulary of the numerals (inspired by the methodology of linguistic archaeology: the explicit bond of archaeological research with the geographical distribution of the families of languages; incorporation of textual scholarship into broader models of early language history; consideration of the Afro-Asian context of the old Egyptian and of the too little explored connections of the Egyptian culture with the cultures and the languages of sub-Saharan Africa (Blench & Spriggs 1999: 21-28).

It is from this point of view that the Egyptian numeral writing sign and its vocabulary are related to the archaeological data; that the study of the names of the Egyptian numerals is placed under the lighting of a compared lexicography identifying cognates in the linguistic phyla of geographical environment, encompassing the Semitic field as well as the Afro-Asian and Nilo-Saharan whose languages, like *bedja* and *kenuzi*, remain alive with the southernmost doors of Egypt; and that distribution of isographes and isoglosses of numerals are confronted, characterized by relationship of the iconography of the first numeral symbols, definitely schematic, with their partly Semitic lexicography - and by the link between the iconography of the indices, strictly ideogrammatic, of following numerals and their purely Egyptian lexicography.

The archaeological, epigraphical and lexico-

graphical data indeed show a large variety of content with regard to names of Egyptian numerals - marked by typical Semitic items for 6, 7 and 8. Isographes and isoglosses of reckoning words are distributed into two groups: the first, of ideogrammatic shape, rich in tchadic and couchitic cognates, attested with *ir*, and *ip*, since the 1st Dynasty; the second, of geometrical shape, illustrated by *hsb*, written with *two sticks crossed*, since the 3rd Dynasty, or with a rounded *unclassified hieroglyph*, and whose lexicogenic matrix in semitic is the *pebble*.

The writing and the language thus seem to reflect the limits of acculturation of Predynastic Egyptian elites to the Eastern worlds of long distance trade, and suggest the reasons. In situations of trade and prolonged contact, numerals constitute a zone of lexical brittleness. Many modern African languages of the Couchitic, Omotic, Berber and Soudanic families gave up their vocabulary in this field for semitic cardinals - 6, 7, 8 (as in Egyptian, where we postulate they could replace lost quinary forms), and 9, even tens (as in Egyptian, the sixty and the two followings), hundreds and thousands. Reasons for this acculturation of contents even show through Egyptian itself. The Naqadan palace made use of the Semitic numerals 6, 7, 8, and conventional symbolic graphs since its first labels. If their graphics subscribe to schematic conventions, the names of numerals 4 and 9, without Semitic correspondence, constitute vestiges of old systems, based on numerical anthropology implementing duplicative (4) and protractive (9) metonymic procedures - which still characterise many languages of the Afro-Asian or Nilo-Saharan phyla. The writing released the numeration of its reference to body and gesture and subjected it to requirements of a new context related to the emergence of the state.

It is more difficult to measure changes which affected counting styles. Mesopotamia practised a sexagesimal system, Elam, a decimal one. Traces of quaternary and quinary styles are detectable in Egyptian, whose decimality does not borrow its partners' reference term. With regard to the fitting of materials, graphic as well as linguistic, the ideogram (which provides the general form of the writing, the materials of its phonetisation and those of its distribution in semantic classes) forms the main part of the writing of the numerals. A choice of purely conventional symbols stops with some geometrical forms, the first nine cardinals and the two crossed sticks which determine divisions and calculation. Regulated by the succession of the number to the substantive one that it qualifies [*substantive-numera*], and of ordinal numbers, distinct from that which is specific to the languages of its Eastern partners, the syntax of the cardinal illustrates the distributiveness described in the languages of the majority of *the African phyla*. *The innovations of the New*

Empire, [numeral *n* substantive] and [mb(w) numeral] appear to fall under this continuity of forms, having notable equivalents but in firstly Berber, and secondly in Bantu, Gur and Fulfulde.

It is undoubtedly necessary to seek the reasons most likely to explain the limits of formal acculturation, and the continuity of the framework of numerical thought, the side concerning the "Naqadisation" of the commercial poles of the "Delta" and their political integration into a much vaster political unit finding its paradigms in Upper Egypt. In the writing, as in the language, the entrelac, as suspected by Gabor Takacs, is believed to also consist of two cultural and linguistic currents, the earliest, "Tchado-Egyptian", the later, "Egypto-Semitic"¹ - and culminate in unfinished syncretism probably specific to the sphere of Egyptian rulers. It is in this general context that the Upper-Egyptian polities might provide their palatial tongue with the particularly productive current of the languages carried by long distance trade, and vernacularize their oriental elements.

¹ "Can we suppose after the split-up of the Afro-asiatic unity, the Proto-Egyptian tribes had a long coexistence with the ancestors of Chadic as well as of Nilo-Saharan somewhere in the Saharan macro-area? Can we identify the bearers of the paleolithic-néolithique Saharan culture with a wide conglomeration in which Proto-Egypto-Chadic and other ancient African (Nilo-Saharan, Bantu etc. ...) populations could also have taken part? Can we suppose that the Proto-Egyptians tribes migrated from the south or the south-west to Upper Egypt to gradually occupy the entire Nile Valley? Can we suppose a later (secondary) Egypto-Semitic coexistence already in the Neolithic Nile Valley and place it after the split-up of the Chadic-Egyptian union"? (Takacs 1999: 47).

Bibliography

ABOU, S., 1981.

L'identité culturelle - relations interethniques et problèmes d'acculturation. Paris.

ADAMS, B. & FRIEDMAN, R.F., 1992.

Imports and Influences in the Predynastic and Protodynastic Settlement and Funerary Assemblages at Hierakonpolis [in:] VAN DEN BRINK, E.C.M. (ed.), *The Nile Delta in Transition: 4th.-3rd. Millennium B.C.* Tel Aviv: 317-338.

AMIET, P., 1982.

La naissance de l'écriture en Sumer et en Elam [in:] ANDRE-LEICKNAM, B. & ZIEGLER, C. (eds.), *Naissance de l'écriture. Cunéiformes et hiéroglyphes*. Paris: 46-51.

ANSELIN, A., 2004.

Problèmes de lecture et d'écriture. Les noms des polities nagadéennes [in:] HENDRICKX, S.; FRIEDMAN, R.F.; CIALOWICZ, K.M. & CHLONICKI, M. (eds.), *Egypt at its Origin Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, Kraków, 28th August

- 1st September 2002. *Orientalia Lovaniensia Analecta* 138. Leuven: 547-573.

ANSELIN, A., 2001.

Signes et mots de l'écriture en Égypte ancienne. *Archéo-Nil* 11: 135-162.

BENDER, L., 2000.

Nilo-Saharan [in:] HEINE, B. & NURSE, D. (eds.), *African Languages - an Introduction*. Cambridge: 43-73.

BLAZEK, V., 1999a.

Numerals. Comparative etymological Analyses and their Implications, Brno.

BLAZEK, V., 1999b.

Egyptian Numerals [in:] LAMBERTI, M. & TONELLI, L. (eds.), *Afroasiatica Tergestina* 9th Italian Meeting of Afroasiatic Linguistics Trieste 1998. Padoue: 229-264.

BLENCH, R., 1999.

The languages of Africa: Macrophylla Proposals and Implications for archaeological Interpretation [in:] BLENCH, R. & SPRIGGS, M. (eds.), *Archaeology and Language IV: Language Change and cultural Transformation*. *One World Archaeology* 35. London / New York: 29-48.

BLENCH, R. & SPRIGGS, M., 1999.

Introduction [in:] BLENCH, R. & SPRIGGS, M. (eds.), *Archaeology and Language IV: Language Change and cultural Transformation*. *One World Archaeology* 35. London / New York: 21-26.

CAPRILE, J.-P., 1995.

Morphogénèse numérale et techniques du corps: des gestes et des nombres en Afrique centrale. *Intellectica* 20: 83-109.

COHEN, D., 1988.

Les langues chamito-sémitiques, le couchitique et l'omotique [in:] PERROT, J. (ed.), *Les langues dans le monde ancien et moderne*, vol III. Paris.

COUCHOUD, S., 1993.

Mathématiques égyptiennes Recherches sur les connaissances mathématiques de l'Égypte pharaonique. Paris.

DE MECQUENGHEM, R., 1949.

Épigraphie proto-élamite. Mémoires de la Mission Archéologique en Iran 31. Paris.

DIAKONOFF, I., 1998.

The earliest Semitic Society. *Linguistic Data. Journal of Semitic Studies* 43: 209-219.

DREYER, G., 1998.

Umm el-Qaab I. Das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse. Archäologische Veröffentlichungen 86. Mainz.

- ERMAN, A. & GRAPOW, H., 1926-1931.
Wörterbuch der ägyptischen Sprache. Leipzig.
- GATTO, M.C., 2003a.
Hunting the Elusive Nubian A-Group. *Nekhen News* 15: 14-15.
- HARE, T., 1999.
Remembering Osiris. Number, Gender and the Word in Ancient Egyptian representational Systems. Palo Alto.
- HAYWARD, R.A., 2000.
Afroasiatic [in:] HEINE, B. & NURSE D. (eds.), *African Languages - an Introduction*. Cambridge: 74-98.
- HEINE, B., 1997.
Cognitive Foundations of Grammar. Oxford.
- KAHL, J.; Mitarbeit BRETSCHNEIDER, M. & KNEISSLER, B., 2002.
Frühägyptisches Wörterbuch. Erste Lieferung. 3 - f. Wiesbaden.
- KAHL, J.; Mitarbeit BRETSCHNEIDER, M. & KNEISSLER, B., 2003.
Frühägyptisches Wörterbuch. Zweite Lieferung m - b. Wiesbaden.
- KAHL, J.; Mitarbeit BRETSCHNEIDER, M. & KNEISSLER, B., 2004.
Frühägyptisches Wörterbuch. Dritte Lieferung b - b. Wiesbaden.
- MARK, S., 1997.
From Egypt to Mesopotamia. A Study of Predynastic Trade Routes. London.
- MCGOVERN, P.E., 2003.
Ancient Wine: The Search for the Origins of Viniculture. Princeton.
- MEEUSSEN, A.E., 1980.
Bantu Lexical Reconstructions. Tervuren.
- MIDANT-REYNES, B., 2003.
Aux origines de l'Égypte. *Du Néolithique à l'émergence de l'État*. Paris.
- PEIRCE, C.S., 1958.
Selected Writings. New York.
- SCHLANGER, J., 1991.
La pensée inventive [in:] STENGERS, I. & SCHLANGER, J. (eds.), *Les concepts scientifiques - invention et pouvoir*. Paris: 67-100.
- SCHMANDT-BESSERAT, D., 1979.
An archaic recording System in the Uruk-Jemdet Nasr Period. *American Journal of Archaeology* 83: 19-48.
- TAKÁCS, G., 1999.
Etymological Dictionary of Egyptian. vol. 1. A Phonological Introduction. Leiden.
- TAKÁCS, G., 2001.
Etymological Dictionary of Egyptian. vol. 2. b-, p-, f . Leiden.
- VAN DEN BRINK, E.C.M., 1992.
Corpus and Numerical Evaluation of the "Thinite" Potmarks [in:] FRIEDMAN, R.F. & ADAMS, B. (eds.), *The Followers of Horus. Studies Dedicated to Michael Allen Hoffman*. Oxbow Monograph 20. Oxford: 265-296.
- VYCICHL, W., 1982.
Dictionnaire étymologique de la langue copte. Leuven.

Tegumentary Paint and Cosmetic Palettes in Predynastic Egypt. The Impact of those Artefacts on the Birth of the Monarchy

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Cosmetic palettes and tegumentary paint go far beyond their use in make-up (all the more since only a limited number of people would own them). Above all, the palette is a characteristic object of Predynastic social structure; dismissing the idea of an exclusively functional significance. The palette is present as far back as the arising of the first Neolithic cultures. At the beginning of history this artefact evolved so far as to become the support for writing and an iconography closely-linked to royal propaganda. The palettes are adorned in relief and express the royal ideology.

Becoming a privileged expression of political power, the palette disappears when its supporting role is no longer necessary. Before disappearing, the ancient cosmetic palette has served the arising monarchy as a stepping-stone to advancement.

The idea that we will develop is that the adorned palette in the service of the state is far more than a mere support and shows the end of a group of individuals whose granted power has become troublesome for the construction of the new society. Our analysis relates to palettes and pigments prior to the monarchy, in order to understand why they have been taken over by the pharaoh.

Study of pigments from el-Adaima wholly re-opens our perception of the practise of paint offerings and allows for more than one interpretation. The use of pigments refers to a whole range of significance: the prevention of disease, medicine, aesthetics, functional or magical protection and practise of magic. Answers are varying and offerings present several levels of reading according to the nature and colour of ores (each color does not have the same connection with the tool or the deceased).

As for the tool, it takes up a position as important as the ores with which it is associated. It plays an essential role because it is the element that allows, above all, for the metamorphosis of the ore, and the use of grinding itself has been highlighted. Far more than a simple tool, the cosmetic palette, as tegumentary paint, comes also into the practise of magic and in the expression of the supernatural world while remaining as an identifiable object. Study of palettes in an archaeological context at all Egyptian sites, allows us to understand its evolution and function in Predynastic society. It is the stamp of identification of a social group which is difficult to describe (men, children but especially women), but which has been in existence and evolves throughout the Predynastic period.

The analysis reveals that pigments, as palettes, are closely-linked with the magical-religious world, and that this magic must have been

expressed in all occurrences relative to the life of the community: the harvest, flooding of the Nile, hunting, fishing and funerals. The depositary of the tool and ores (green, black or red) was vested with a large power, more spiritual than political. When, towards the end of Naqada III, the elite develops towards a society more and more pyramidal, it assumes the control of the palette because it is a prestigious object known to all, and above all to abolish the challenge to established authority (principally feminine) of those who possessed it.

The pharaoh proclaims himself master of territory, of nature, of men. During the Predynastic period we observe a hierarchical society that is not centralised. A social group is seen as far back as the Naqada IIC period in terms of economical and political power, while in parallel the group in connection with cosmetics continues to evolve, occupying the spiritual position that is their responsibility. To govern as sole sovereign, the pharaoh had to proclaim himself not only as a political master but also as a religious master. He takes over the support of this magical-religious expression because he also has to reign over the supernatural world. So we understand that the palette was taken over for political purposes: it expressed all ideas connected with the mastery of the world. Henceforth pharaoh also became the master of ceremonies. Myths (notably myths about paints which are the representation of the mythological fight between *Seth* and *Horus*) had only to legitimise his hold on power.

The Nile Valley seen from the Oases - The Contribution of Farafra

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The research program carried out by the University of Rome "La Sapienza" Archaeological Mission in the Farafra Oasis (Western Desert) has, from the very beginning, put as its main task the highlighting of the role played by Farafra as a strategic area of communication between the Central Sahara and the Nile Valley. One of the main results achieved through the long-term research program of the Mission has been the identification of a process towards sedentarisation in the large area of the Depression, favoured by the exploitation of the local varieties of grains, *Sorghum* in particular. This process is fully documented by the site of Hidden Valley, located in the Wadi el Obeiyd, not far from the external slopes of the Northern Plateau. It is an elliptically-shaped internal drainage basin (with a surface area less than 2 square kms) closed off by karstified Farafra chalk scarps. Of utmost importance is also a karstic cave (indicated as "Farafra Cave"), which shows a rich rock art repertoire engraved and painted on its walls. Among the different rock art drawings, very meaningful is that of a boat, reproducing a scheme very popular in the ceramic production of the Predynastic.

In the last two field campaigns (2003 and 2004) investigations of the Italian Mission concentrated on the study of the stratigraphic evidence of the Hidden Valley site and, in particular, on its uppermost layers which indicate the most advanced phase in the sedentarisation process, when some particular features - rounded based huts, lined by stones - make their appearance. Such architectural features can be really taken as a model of similar adaptations in the Badarian and Merimdan contexts for which we don't have enough clear evidence so far. As a matter of fact, this occupation context of the Farafra Oasis allows for establishing meaningful correlations with those cultural milieus (especially El Tarif and Badari) that immediately precede the Predynastic development.

The paper will examine the most typical technological and economic features identified in the late phase of the Hidden Valley sequence, particularly the lithic bifacial production for which clear links can be established with the Predynastic repertoire. At the same time, the architectural arrangements and, furthermore, rock art symbolic representations, will be analysed.

The paper further supports the thesis of strong contributions from the desert peoples to the Predynastic development. In fact, in the late Holocene the Farafra depression was subjected to a short dry climatic oscillation that led to the abandonment of the semi-sedentary settlement and to its replacement by another one, more mobile, than

witnessed until now in the more peripheral areas of the depression, close to the communication routes with the Nile Valley (Sheikh el-Obeiyd, Rajih Playa). These groups exhibit stone assemblages, on brown tabular chert, frequently burned or heat treated to a deep wine colour, manufactured into scrapers, pierces and large knives. These materials are associated with ceramic sherds, mainly made up of a thin walled variety red in colour that can be compared with some Badarian items. We argue that these mobile groups were mainly responsible for establishing more direct relations between the Western Desert region and the Nile Valley.

Bibliography

- BARICH, B.E., 1998.
People, Water and Grain: *The Beginnings of Domestication in the Sahara and the Nile Valley*. Roma.
- BARICH, B.E., 2004.
Archaeological Research in the Farafra Oasis (Egypt): Contribution to the Study of the early Cultivation in the Eastern Sahara [in:] OESTIGAARD, T.; ANFINSET; N. & SAETERSDAL, T. (eds.), *Combining the Past and the Present: Archaeological Perspectives on Society*. British Archaeological Reports, International Series 1210. Oxford: 143-147.
- BARICH, B.E. & LUCARINI, G., 2002.
Archaeology of Farafra Oasis (Western Desert, Egypt). A Survey of the most recent Research. *Archéo-Nil* 12: 101-108.
- GINTER, B. & KOZŁOWSKI, J.K., 1994.
Predynastic Settlement near Arment. Studien zur Archäologie und Geschichte Altägyptens 6. Heidelberg.
- HENDRICKX, S.; MIDANT-REYNES, B. & VAN NEER, W., 2001.
Mahgar Dendera 2 (Haute Égypte), un site d'occupation Badarien. Egyptian Prehistory Monographs 3. Leuven.

Paleodemography in Predynastic Upper Egypt: Investigations of the Working-Class Cemetery at Hierakonpolis

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Thirty years of archaeological investigations at Hierakonpolis have demonstrated the site's immense importance for understanding the Predynastic period (c. 3900-3100 BCE), the formative stage of ancient Egyptian civilisation. Hierakonpolis is the first site at which three widely separated and distinct cemeteries for the different segments of society have been found. Previous fieldwork at a non-elite, working-class cemetery (HK43) has dated burials at the site to the early-mid Predynastic - Naqada IIa and IIb, with a few burials dated to Naqada IIc. Surface indications suggest that the area of the cemetery moved laterally over time, and burials dating from Naqada IIc into the Early Dynastic may be present at the northeastern end of the cemetery (Friedman *et al.* 1999).

The interaction of demographic variables and elements of cultural change - within the realm of archaeology - is not a new subject of study. Hassan (1979) stresses uniformity in human-cultural interactions and the natural environment. Assuming biological uniformity in populations of the past and present, paleodemographic analyses of humans skeletal series have been shown to offer an additional approach to understanding demographic changes in past populations, as represented in the archaeological record. This study reports the preliminary results of a paleodemographic analysis of the working-class cemetery at Hierakonpolis and explores future research in which these types of analyses can help us understand the dynamics of cultural and biological interactions.

Recent excavations at HK43 have yielded the identification of nearly 500 "burials." Preliminary data analysis during 2004 has identified 352 primary burial numbers. Of these, at least 37 contain two or more individuals. A total of 391 burials are in primary association. Of the individuals in primary association, a subset of 271 was chosen for demographic analysis, based upon the amount of information available from osteological assessment.

Demography of the working-class cemetery exhibits marked departure from what is normally expected from paleodemographic profiles. Excluding individuals under the age of 20, 218 adults were available for analysis by sex. Percentages by sex are as follows: 99 (45.4%) female, 73 (33.5%) male, 6 (2.8%) ambiguous as to male or female, and 40 (18.3%) undetermined. Observed sex ratios require the consideration of heterogeneity in the risk of death. The age-at-death distribution of the sample also exhibits percentages that differ from what is expected in a paleodemographic profile. A large portion (n = 101, 37.3%) of individuals fall

into the 20-35 year age group, while infants and old adults are poorly represented (4.1% and 8.1%, respectively). The age-at-death profile of this cemetery suggests relatively high fertility rates or significant migration into the area, in order to sustain a viable population of workers.

The unification of Egypt was an economic as well as a political process (Kemp 1989) and thus development of the Egyptian state should have involved both growth in population and per capita output (Kuznets 1966). Komlos (1989) in his work on the Industrial Revolution contends that increased availability of nutrients provided escape from the Malthusian trap that frequently halted previous growth in population and production. This paper explores the demography of HK43 and the potential of future paleodemographic research in Egypt and the surrounding region. Using paleodemographic data and refined methods, interactions between cultural change and demographic variables - such as age and sex ratios, fertility, mortality, life expectancy, and quality of life - may be further understood.

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Bibliography

- FRIEDMAN, R.F.; MAISH, A.; FAHMY, A.G.; DARNELL, J.C. & JOHNSON, E.D., 1999. Preliminary Report on Field Work at Hierakonpolis: 1996-1998. *Journal of the American Research Center in Egypt* 36: 1-35.
- HASSAN, F.A., 1979. Demography and Archaeology. *Annual Review of Anthropology* 8: 137-160.
- KEMP, B.J., 1989. *Ancient Egypt. Anatomy of a Civilization*. London / New York.
- KOMLOS, J., 1989. *Nutrition and economic Development in the Eighteenth-Century Habsburg Monarchy: An anthropometric History*. New Jersey.
- KUZNETS, S.S., 1966. *Modern economic Growth: Rate, Structure and Spread*. New Haven.

The Evolution of Royal Ideology: New Discoveries from the Reign of Aha

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King Aha, often considered to be the first ruler of the 1st Dynasty, initiated an enormous expansion of the royal funerary apparatus. The tomb Aha built at Abydos is larger, more richly endowed, and substantially more complex than those of his predecessors of Dynasty 0. While subsequent royal tombs continued the precedent of complexity and subsidiary burial, the actual layout of the tombs changed substantially following Aha, such that his reign represents an important stage in a process of evolution rather than a prototype which was followed exactly by later rulers.

In addition to large tombs, the rulers of the 1st Dynasty built rectangular structures commonly called funerary enclosures, probably best understood as a type of temple for the cult of the king. In combination with the royal tombs, the enclosures represent one of the earliest and most accessible monumental expressions of royal ideology. The funerary enclosures were constructed at Abydos in an area of the site known as the North Cemetery, a distance of around 2km from the royal tombs. These structures are considerably more enigmatic than the tombs themselves in terms of their function, evolution, and even simple presence, as only four rulers of the 1st Dynasty have definitely identified enclosures. Recent discoveries in the North Cemetery have given a great deal of food for thought regarding the earliest appearance and use of this type of building, as well as the connection it had to the jump in complexity evidenced by the tomb of Aha at Umm el-Qaab.

A funerary enclosure of Aha was discovered and excavated in 2001-2002 by the University of Pennsylvania-Yale-Institute of Fine Arts, NYU Expedition to Abydos. This enclosure was much smaller than those already known from later in the 1st Dynasty, but in its architectural details and in the presence of subsidiary graves on all sides it was clearly parallel to the enclosures built by Aha's successors. The architectural similarity of the Aha enclosure to those which would follow and the suggestion of more very early remains in the area immediately adjacent to the Aha enclosure raised the possibility that enclosures had actually been built prior to the reign of Aha. Over the past winter, excavations in the North Cemetery revealed two previously unknown enclosures, both smaller than the known Aha enclosure and probably earlier than it. Both were provided with subsidiary graves which yielded inscribed objects, and in both cases it became clear that Aha himself had been responsible for the equipping of the graves and hence probably the construction of the enclosure.

No other known king has more than one

enclosure, suggesting that Aha's reign represents a period of experimentation and innovation in the North Cemetery as well as at Umm el-Qaab. That Aha chose to direct his resources to the construction of new types of monuments for himself represents a real growth in the concepts and expressions of kingship. Although his immediate and long-term successors modified the architectural forms he developed, it is clear that Aha holds a pivotal place in the development of ideology focused on the cult and burial of the body of the king. While analysis of the data from the latest season is ongoing, these finds will clearly add a new dimension to discussions of the evolution of early Egyptian kingship. This paper will focus on the growth of royal ideology in the early 1st Dynasty, drawing on these new and unpublished archaeological data.

The presenter is a PhD candidate at the Institute of Fine Arts, New York University. As Senior Archaeologist with the Pennsylvania-Yale-Institute of Fine Arts Expedition to Abydos (David O'Connor and W. K. Simpson, Directors, Matthew Adams, Associate Director) she supervised the excavations that revealed the two smaller Aha enclosures from October 2004 through February 2005. This research will form the basis of her dissertation.

Bibliography

- AMÉLINEAU, É., 1899.
Les nouvelles fouilles d'Abydos I. (1895-1896). Paris.
- AMELINEAU, É., 1902.
Les nouvelles fouilles d'Abydos II. (1896-1897). Paris.
- AMELINEAU, É., 1904.
Les nouvelles fouilles d'Abydos III. (1897-1898). Paris.
- AYRTON, E.R.; CURRELY, C.T. & WEIGALL, A.E.P., 1904.
Abydos, Part III. Egypt Exploration Society 25. London.
- BAINES, J., 1995.
Origins of Egyptian Kingship [in:] O'CONNOR, D. & SILVERMAN, D.P. (eds.), *Ancient Egyptian Kingship*. Leiden / New York / Köln: 95-156.
- DREYER, G., 1990.
Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof, 3./4. Vorbericht. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 46: 53-90.
- DREYER, G., 1993.
Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof, 5./6. Vorbericht. *Mitteilungen des Deutschen*

- Archäologischen Instituts Abteilung Kairo* 49: 23-62.
- DREYER, G.; ENGEL, E.-M.; HARTUNG, U.; HIKADE, T.; KÖHLER, E.C. & PUMPENMEIER, F., 1996.
Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof 7./8. Vorbericht. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 52: 11-81.
- DREYER, G.; HARTUNG, U.; HIKADE, T.; KÖHLER, E.C.; MÜLLER, V. & PUMPENMEIER, F., 1998.
Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof 9./10. Vorbericht. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 54: 77-167.
- EMERY, W.B., 1938.
The Tomb of Hemaka. Excavations at Saqqara. Cairo.
- EMERY, W.B., 1939.
Hor-Aba. Excavations at Saqqara 1937-1938. Cairo.
- EMERY, W.B., 1949.
Great Tombs of the First Dynasty I. Excavations at Saqqara. Cairo.
- EMERY, W.B., 1954.
Great Tombs of the First Dynasty II. Excavations at Saqqara. London.
- EMERY, W.B., 1958
Great Tombs of the First Dynasty III. Excavations at Saqqara. London.
- GARSTANG, J., 1901.
El Arabab. Egypt Research Account 7. London
- HELCK, W., 1972.
Zu den "Talbezirken" in Abydos. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 28: 95-99.
- KAHL, J., 1994.
Das System der ägyptischen Hieroglyphenschrift in der 0.-3. Dynastie. Göttinger Orientforschungen IV.29. Wiesbaden.
- KAPLONY, P., 1963.
Die Inschriften der ägyptischen Frühzeit I-III. Ägyptologische Abhandlungen 8. Wiesbaden.
- KAPLONY, P., 1964.
Die Inschriften der ägyptischen Frühzeit, Supplement. Ägyptologische Abhandlungen 9. Wiesbaden.
- KAISER, W. & DREYER, G.,
Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof. 2. Vorbericht. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 38: 211-269.
- KEMP, B., 1966.
Abydos and the Royal Tombs of the First Dynasty. *Journal of Egyptian Archaeology* 52: 13-22.
- KEMP, B., 1967.
The Egyptian 1st Dynasty Royal Cemetery. *Antiquity* 41: 22-32.
- O'CONNOR, D., 1989.
New Funerary Enclosures (Talbezirke) of the Early Dynastic Period at Abydos. *Journal of the American Research Center in Egypt* 26: 51-86.
- PEET, E., 1914.
The Cemeteries of Abydos. Part II. 1911-1912. Egypt Exploration Fund 34. London.
- PETRIE, W.M.F., 1900.
The Royal Tombs of the First Dynasty. 1900. Part I. Egypt Exploration Fund 18. London.
- PETRIE, W.M.F., 1901.
The Royal Tombs of the Earliest Dynasties. 1901. Part II. Egypt Exploration Fund 21. London.
- PETRIE, W.M.F., 1902.
Abydos. Part I. 1902. Egypt Exploration Fund 22. London.
- PETRIE, W.M.F., 1903.
Abydos. Part II. 1903. Egypt Exploration Fund 24. London.
- PETRIE, W.M.F., 1925.
Tombs of the Courtiers and Oxyrhynchos. British School of Archaeology in Egypt & Egypt Research Account 37. London.
- RANDALL-MACIVER, D. & MACE, A.C., 1902.
El Amrab and Abydos 1899-1901. Egypt Exploration Fund 23. London.

Appraising South Levantine-Egyptian Interaction based on New Evidence from Tel Lod

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Recent excavations and research in the southern Levant have greatly increased our knowledge of the extent of interaction between indigenous Early Bronze Age peoples and their Late Protodynastic and Early Dynastic neighbours in the Nile Valley. Utilising new and complete analyses of the Egyptian and 'Egyptianised' ceramic assemblage from Tel Lod, including specific information on stratigraphic provenience, this paper seeks to place the site within the larger context of south Levantine-Egyptian interaction at the end of the 4th, and the beginning of the 3rd millennia BC.

This approach considers previously published information and attempts to analyse the nature and degree of Egyptian influence on local culture. Building on earlier schemes, it offers a hierarchical ordering of Egyptian activity associated with select sites such as Tell es-Sakan, Tell Erani, and Tel Halif/Nahal Tillah that offer major clues as to what Egyptians were doing in the southern Levant and precisely when. This paper suggests influence varied greatly from site to site, while it appears to have been mostly limited to a number of select Early Bronze I sites in what is now southern Israel and the Gaza Strip. It may have been direct or indirect, maximal, minimal, non-extant or somewhere in between the extremes.

Results of this analysis are somewhat at odds with scholarly theories that postulate rather extensive Egyptian involvement in the southern Levant over a large portion of its southwestern reaches more or less up to the line of the Yarqon River along the Mediterranean Littoral. Such scenarios include colonisation and political hegemony that sought tribute in goods and possibly services, including slavery. Evidence from a growing corpus of pottery incised Egyptian *serekhs* suggests the peak of this interaction was during the reigns of Horus Ka and Horus Narmer, prior to the unification of Upper and Lower Egypt. This paper suggests alternate scenarios that would better explain the archaeological record as it is presently understood.

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Lithic Industries From Adaïma. Between Farmers and Craftsmen

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Following the publication of research carried out by B. Midant Reynes and D. Prost (2002) on the lithic industry at Adaïma, new studies concerning the flint from this large site have been developed (Briois 2001-2002; Briois & Landier 2003; Briois et al. 2004). This documentation, exclusively derived from the large settlement area, corresponds to domestic equipment found in heaps of refuse, backfill and more rarely from layers or structures of the habitations dating to the late Naqada I to the very first dynasties. Founded on a study of the economy of raw materials and on the character of the different phases of debitage and craftsmanship, this approach has enabled the distinguishing of two types of production: the first concerns local workmanship using simple methods - expedient tools were made at the time of need - whereas the second is more technically elaborate and would seem to indicate the work of specialised craftsmen from outside the settlement.

These two specific types of production, the easily accessible local one and the more specialised imported one, have been consistently observed at all settlements studied in the Nile Valley (Hikade 1999; Holmes 1992; Kabacinski 2003) and constitute, more widely, a specific feature of the Neolithic complexity all over the world. The research carried out at Adaïma has enabled further studies with additional information about this conventional model. These studies have enhanced and brought new light to the understanding of the status of village societies in the wave of the economic, social and symbolic complexity, which characterises the trajectory to the state.

Flint pebbles from the rock terraces next to the settlement provided the raw material for the essential basic tools of the local production. These tools, of limited sophistication and diversity, were essentially made from flakes (denticulated, scrapers, burins, borers, etc.)

At Adaïma, in addition to this easily accessible local production, more technically elaborate tools were used which could not be produced by the local craftsmen. This toolkit included, in particular, bifacial knives and various categories of more or less regular blades, some of which were used to make sickles. Among this last group were standard rectangular or triangular elements ready to be used as sickles at the site.

This same dichotomy, though less obvious, was found in a group of vitreous pink-coloured flint flakes, often classified as heated flint. (This last observation should be discussed, but is outside the scope of this paper.) Some elements of this tool-

kit were clearly produced on site as shown by the numerous bladelet cores and the more or less well-crafted bladelets. However, there were also very regular, well-crafted bladelets, made from the same flint, but which were probably produced outside the settlement.

In the large field of bifacial tools, although not very well represented at Adaïma, the case of the knives found there raises specific questions because all of the bifacial knives were imported as finished products, and mostly discarded, broken and re-knapped. It is worth noting that these knives were used for domestic purposes (mostly for sickles) and were not of the highly sophisticated kind, such as the ceremonial knives found in Predynastic or Protodynastic graves.

This last group of "ceremonial" knives, however, was presented in an indirect manner by a certain number of secondary elements linked to their production. On the one hand, there were large primary flakes with cortex, and, on the other hand, very thin flakes derived from the production of bifacial pieces, made from flint of exceptional quality. These particular pieces, completely separate from the other series of production on the site, were often used as side and end-scrapers. These last observations have brought up essential issues to be considered.

Even if the existence of special high-quality workshops located near or in the dwellings of elite members of the settlement, like those at Hiérakonpolis (Holmes 1992), has in fact been clearly established, it is interesting to take into account what a village community received and collected from the extraction-production-distribution networks set up, regulated and strictly controlled by dominant social groups. Indeed, the production of finely crafted knives implies access to the raw materials, the transportation of the preliminary rough shaped blocks to particular workshops where the finished product was obtained. These different stages imply different levels of handling that were regulated and controlled by the elite. At present, the examples at Adaïma clearly show that all the sites did not receive these particular social marks of prestige. The acquisition by the inhabitants of Adaïma of elements picked out a production network that they did not control (either because it implied a type of craftsmanship for which they had no skill, or because of the social references it implied), and showing a form of evident social inequality, but also and more importantly, recognition of common symbolic values.

Bibliography

BRIOIS, F., 2001.

Adaïma. L'industrie lithique [in:] MATHIEU, B., Travaux de l'Institut français d'archéologie orientale en 2000-2001. *Bulletin de l'Institut français d'Archéologie orientale* 101: 474-479.

BRIOIS, F., 2002.

Adaïma. L'industrie lithique [in:] MATHIEU, B., Travaux de l'Institut français d'archéologie orientale en 2001-2002. *Bulletin de l'Institut français d'Archéologie orientale* 102: 457-461.

BRIOIS, F. & LANDIER, G., 2003.

Adaïma. L'industrie lithique [in:] MATHIEU, B., Travaux de l'Institut français d'archéologie orientale en 2002-2003. *Bulletin de l'Institut français d'Archéologie orientale* 103: 505-509.

BRIOIS, F.; COLL. LANDIER, G. & DELAGE, J.-P., 2004.

Adaïma. L'industrie lithique [in:] MATHIEU, B., Travaux de l'Institut français d'archéologie orientale en 2003-2004. *Bulletin de l'Institut français d'Archéologie orientale* 104: 604-607.

HOLMES, D.L., 1992.

Chipped stone-working Craftsmen, Hierakonpolis and the Rise of Civilization in Egypt [in:] FRIEDMAN, R. & ADAMS, B. (eds.), *The Followers of Horus. Studies Dedicated to Michael Allen Hoffman*. Oxbow Monograph 20. Oxford: 37-44.

HIKADE, T., 1999.

An Early Dynastic Flint Workshop at Helwan/Egypt. *Bulletin of the Australian Centre for Egyptology* 10: 47-57.

KABACINSKI, J., 2003.

Lithic Industry at Tell el-Farkha (Eastern Delta) [in:] KRZYŻANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Cultural Markers in the Later Prehistory of Northeastern Africa and Recent Research*. Poznan: 201-212.

MIDANT-REYNES, B. & PROST, D. 2002.

Le matériel lithique [in:] MIDANT-REYNES, B. & BUCHEZ, N., *Adaïma. 1. Économie et habitat*. Fouilles de l'Institut français d'archéologie orientale 45. Le Caire: 291-419.

Ethnicity and Changing Relations between Egyptians and South Levantines during the Early Dynastic Period

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The notion of interethnic relations in State contexts has complex implications. The State introduces criteria of what constitutes the 'interior' and the 'exterior', which coincide with the limits of the territory subjected to its political control. And these criteria can influence existing markers of ethnicity in various ways. This paper uses this overall framework to consider one example of several interethnic relations in which the Egyptians were involved in early times: the relationship with South Levantines during the Early Dynastic Period. During that period, and in parallel with the State's elaboration of a well-defined model of ethnicity, relations with the Levant went through an initial phase of intense interaction, followed by another phase of Egyptian withdrawal and of drastic reduction of contact. Is there any link between this evident variation in Egypt-Levant relations on the one hand, and the reinforcing of Egypt's political and ethnic boundaries on the other hand?

The consolidation of a single State entity in Egypt - with the concomitant constitution of a powerful elite that demanded prestige goods and disposed of the means of obtaining them from distant regions - undoubtedly provides a context for the marked presence of Egyptians in South Levant at the beginning of Dynasty I. The precise nature of their presence, however, is difficult to assess. On current evidence, and following a classification of E. van den Brink, it seems possible to distinguish three types of sites in South Levant that demonstrate contacts between Egyptians and local population: 1) sites with a strong State Egyptian presence (Tell Sakan, 'En Besor), probable State outposts for obtaining goods and dispatching them to Egypt; 2) South Levantine sites that show a minor but probably permanent presence of Egyptians (Tel Halif, Tel Erani, Tel Lod), who may have settled with the aim of obtaining local products *in situ* and then collecting them at locations that were more closely related to the Egyptian State; and 3) South Levantine sites supplying marginal Egyptian evidence (from Small Tell Malhata and Arad to Megiddo and Tell Abu al-Kharaz), which do not allow to infer permanent presence of Egyptian population. While sites of the first type could have constituted the logistical *foci* of Egyptian State strategy in South Levant, in terms of interethnic practices sites of the second type may have provided the setting for the most intensive contacts between the two ethnic groups.

In addition to establishing the Egyptian presence in South Levant, the dynamics of the Nile Valley State had a differentiating influence on interethnic practices between Egyptians and Levantines. The consolidation within Egypt

of a world view that was centred on a divine king produced a strongly negative image of the peripheries of the State, which were conceptualized as places dominated by chaos. This conception of the world affected ethnicity, identifying the region controlled politically by the State with its population, which contrasted with people outside, who were brought together under a single heading as "non-Egyptians". This implied that these spaces and their populations remained outside the world in political, ethnic, and even cosmic terms. From the beginning of Dynasty I on, the South Levantine region is presented in State iconography in a consistently negative manner that emphasizes the alien character of the populations which exist outside the ordered world, and are doomed to be repulsed by the king.

There is thus a clear difference between evidence from some South Levantine sites, where Egyptians and Levantines seem to have coexisted peacefully, and the rigid Egyptian State model of the Levant as a hostile world to be combated and subordinated. It is important to note this divergence between the strongly exclusionary model of ethnicity disseminated by the State and the broader potential for peaceful contact at the level of interethnic practice. This divergence opens up a space for variation and negotiation: practices in daily life could approximate more or less closely to the State model and they could oscillate temporally.

Such oscillations could have contributed to the variations in interethnic relations that can be observed during the Early Dynastic Period. Although contacts between Egypt and South Levant remained strong throughout Dynasty I, they are known to have diminished during Dynasty II, when the permanent Egyptian presence there finally ceased. Some authors have proposed that this weakening of direct contacts with South Levant could be a result of the strengthening of maritime links with Byblos. Alternatively, it has been suggested that the Egyptian State could have withdrawn gradually from South Levant because it became unnecessary for it to be present there after it forged local "trading partnerships" with the new South Levantine political organizations of the Early Bronze II Period, which then organized the flow of goods to the Nile Valley by themselves.

In addition to these two plausible scenarios, the Egyptian withdrawal from South Levant could also be related to the new political, ethnic, and cosmological model that the State propounded and to the space for variation, mentioned above, between such a model and praxis in everyday contacts. Especially at the beginning of Dynasty I, the divergence between praxis and the State ethnic

model seems to have been wide. However, the subsequent drastic reduction in contact may suggest that the habitual interethnic practices of Egyptians regarding South Levant came to approximate more closely to the model propounded in the State realm.

Bibliography

ANDELKOVIC, B.

The Relations between Early Bronze Age I Canaanites and Upper Egyptians, Belgrade, The University of Belgrade, 1995.

BAINES, J.

Contextualizing Egyptian Representations of Society and Ethnicity. In: COOPER, J. and SCHWARTZ, G. (eds.), *The Study of the Ancient Near East in the Twenty-First Century*, Winona Lake, Eisenbrauns, 1996, pp. 339-384.

BRANDL, B.

Evidence for Egyptian Colonization of the Southern Coastal Plain and Lowlands of Canaan during the Early Bronze I Period. In: VAN DEN BRINK, E. (ed.), *op. cit.*, 1992, pp. 479-485.

BRAUN, E.

Egypt's First Sojourn in Canaan. In: VAN DEN BRINK, E. and LEVY, Th. (eds.), *op. cit.*, 2002, pp. 173-189.

CAMPAGNO, M.

De los jefes-parientes a los reyes-dioses. Surgimiento y consolidación del Estado en el antiguo Egipto, Aula Ægyptiaca-Studia vol. 3, Barcelona, Aula Ægyptiaca, 2002.

CAMPAGNO, M.

Another Reason for the Foundation of Memphis. In: HAWASS, Z. (ed.), *Egyptology at the Dawn of the Twenty-First Century. Proceedings of the Eighth International Congress of Egyptologists*, vol. 2, Cairo, American University in Cairo Press, 2003, pp. 154-159.

DE MIROSCHEDEJI, P.

The Socio-political Dynamics of Egyptian-Canaanite Interaction in the Early Bronze Age. In: VAN DEN BRINK, E. and LEVY, Th. (eds.), *op. cit.*, 2002, p. 39-57.

DESSEL, J. P.

Ceramic Production and Social Complexity in Fourth Millennium Canaan: A Case Study from the Halif Terrace, Ph.D. Dissertation, Tucson, University of Arizona, 1991.

GOPHNA, R.

The Contacts between 'En Besor Oasis, Southern Canaan, and Egypt during Late Predynastic and the Threshold of the First Dynasty: a Further Assessment. In: VAN DEN BRINK, E. (ed.), *op. cit.*, 1992, pp. 385-394.

JENKINS, R.

Rethinking Ethnicity, London, SAGE Publications, 1997.

JONES, S.

The Archaeology of Ethnicity, London, Routledge, 1997.

KANSA, E. AND LEVY, TH.

Ceramics, Identity, and the Role of the State: The View from Nahal Tillah. In: VAN DEN BRINK, E. and LEVY, Th. (eds.), *op. cit.*, 2002, pp. 190-212.

KÖHLER, CH.

History or Ideology? New Reflections on the Narmer Palette and the Nature of Foreign Relations in Pre- and Early Dynastic Egypt. In: VAN DEN BRINK, E. and LEVY, Th. (eds.), *op. cit.*, 2002, pp. 499-513.

SCHULMAN, A.

At the Fringe: The Historiography and Historicity of the Relations of Egypt and Canaan in the Early Bronze Age I. In: DE MIROSCHEDEJI, P. (ed.), *L'urbanisation de la Palestine à l'âge du Bronze ancien. Bilan et perspectives des recherches actuelles*, BAR International Series vol. 527, Oxford, Tempvs Reparatum, 1989, pp. 433-453.

VALBELLE, D.

Les Neuf Arcs. L'Égyptien et les étrangers de la préhistoire à la conquête d'Alexandre, Paris, Armand Colin, 1990.

VAN DEN BRINK, E. (ed.),

The Nile Delta in Transition: 4th - 3rd Millennium B.C., Tel Aviv, E. van den Brink (publisher), 1992.

VAN DEN BRINK, E.

Late Protodynastic-Early First Dynasty Egyptian finds in Late Early Bronze Age I Canaan: an update. In: EYRE, Ch. (ed.), *Proceedings of the Seventh International Congress of Egyptologists*, Orientalia Lovaniensia Analecta vol. 82, Leuven, Peeters, 1998, pp. 215-225.

VAN DEN BRINK, E. AND YANNAI, E. (eds.),

In Quest of Ancient Settlements and Landscapes. Archaeological Studies in Honour of Ram Gophna, Tel Aviv, Ramot Publishing, 2002.

VAN DEN BRINK, E. AND LEVY, TH. (eds.),

Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E., London, Leicester University Press, 2002.

WILKINSON, T.

Reality versus Ideology: The Evidence for 'Asiatics' in Predynastic and Early Dynastic Egypt. In: VAN DEN BRINK, E. and LEVY, Th. (eds.), *op. cit.*, 2002, pp. 514-520.

WOLFF, S. (ed.),

Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse, Studies in Ancient Oriental Civilization vol. 59, Chicago, The Oriental Institute of the University of Chicago, 2001.

The Thinite "Royal Lists": Typology and Meaning

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From the Thinite Age dates a score of inscriptions which can be considered "royal lists", in the sense of sequences of at least two names of kings who reigned successively (there are also sequences of three, four, five and even eight names).

Some of them are royal lists in the strict sense or "deliberate", because the "compiler" *wanted* to make a royal list. The most significant examples are two seal impressions found by Dreyer in the tombs of Den and Qaa in Umm el-Qaab, which enumerate, respectively, the Horus names of the first five kings of the 1st Dynasty (plus the name and title of Queen Mother Meretneith) and the Horus names of the eight kings of that dynasty. Another important example is the inscription on the left shoulder of the statuette of the priest Hotepdief (Second or Third Dynasty), which enumerates the Horus names of the first three kings of the Second Dynasty.

There is a second kind of list which may be called "resultant" lists, because they are not a work of a sole "compiler", but the royal names were added upon the object in which they are inscribed side by side and reign after reign, in order to indicate the successive individual owner of that object. These sequences, however, can be considered as true royal lists for two reasons: 1) because the scribes who successively carved the royal names created a unique register and wrote the sign-groups in a similar module, id est, proceeded by imitation of the true lists (they could choose to erase and replace the name of the predecessor but they did not); and 2) because most of them come from the substructure of the step pyramid of King Djoser at Saqqara, to whom they looked like true "lists of ancestors" when the stone vessels in which they are carved were included in the furniture of his tomb.

The "deliberate" lists include Horus names only (with or without *serekhs*) and have an eminently funerary character (the seals come from tombs and mention god Khentimentiu, and Hotepdief was devoted to funerary royal cult); the "resultant" ones can include Horus or dual names (*nesu-bit* and/or *nebtj* names) and have an originally court and ritual character.

The aim of this communication is to present a current work of inventory and cataloguing of the Thinite "royal lists" (most of them in the Cairo Museum). I will discuss their typology and chronology, as well as their cultural sense starting from these questions: what is the meaning of the royal lists in the context of the early pharaonic state? Why they disappear from the epigraphic record from the 3rd Dynasty onwards? What is

the meaning of the break that the lists establish between the 1st and the 2nd Dynasty in an indirect but undebatable way?

Bibliography

CERVELLÓ-AUTUORI, J., 2003.

Narmer, Menes and the Seals from Abydos [in:] HAWASS, Z. & PINCH BROCK, L. (eds.), *Egyptology at the Dawn of the Twenty-first Century. Proceedings of the Eighth International Congress of Egyptologists. Cairo 2000. Vol. 2: History, Religion*. Cairo / New York: 168-175.

DREYER, G., 1986.

Ein Siegel der frühzeitlichen Königsnekropole von Abydos, *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 43: 33-43.

DREYER, G.; ENGEL, E.-M.; HARTUNG, U.; HIKADE, T.; KÖHLER, E.C. & PUMPENMEIER, F., 1996.

Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof 7./8. Vorbericht. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 52: 11-81.

HELCK, W., 1987.

Untersuchungen zur Thinitenzeit. Ägyptologische Abhandlungen 45. Wiesbaden.

KAPLONY, P., 1963.

Die Inschriften der ägyptischen Frühzeit I-III. Ägyptologische Abhandlungen 8. Wiesbaden.

LACAU, P. & LAUER, J.-P., 1959.

La pyramide à degrés IV. Inscriptions gravées sur les vases. 1er fascicule. Fouilles à Saqqarah. Le Caire.

REDFORD, D.B., 1986.

Pharaonic King-Lists, Annals and Day-Books. Mississauga.

VON BECKERATH, J., 1984.

Handbuch der ägyptischen Königsnamen. Münchner Ägyptologische Studien 20. München / Berlin.

WILKINSON, T.A.H., 1999.

Early Dynastic Egypt. London / New York.

WILKINSON, T.A.H., 2000.

Royal Annals of Ancient Egypt. The Palermo Stone and its Associated Fragments. London.

Trade and Exchange in the Predynastic and Early Dynastic Period in the Eastern Nile Delta

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The importance of trade and exchange of goods in the culture of ancient Egypt is obvious and does not require much elaboration. It is confirmed by numerous imports found at archaeological sites, sometimes implying far-reaching contacts.

The situation in the eastern Nile Delta was not different. Apart from luxury goods the local population had to import numerous raw materials unavailable locally but of considerable importance for the local economy, such as stone, flint, copper and wood. Some materials were delivered as ready-made products, and some were processed on site.

When it comes to the goods that the Delta inhabitants could offer in return, one should first of all mention grain and grain products. The data retrieved at Tell el-Farkha point to the importance of the cultivation of wheat (*Triticum dicocum*) and millet, as well as of beer manufacturing. Proportions of animal bones (pig and large fish in particular) imply that animal carcasses were probably also bartered for other goods.

Transportation routes from the Upper Egypt to Palestinian territories cut through the eastern Nile Delta, which also contributed to the wealth of the local population. Numerous seals found at Tell el-Farkha indicate that the settlement itself was often the point of destination. Seal shapes provide a rich source of information on the containers used for the haulage of goods (vessels and boxes, sometimes wrapped in canvas). At least some of the counters frequently found in Tell el-Farkha materials can also be linked to trade exchange.

The very mode of transportation gives rise to a separate question. Numerous donkey bones found at Tell el-Farkha may imply that these animals were used for transportation. On the other hand, models or fragments of boats point out to naval transportation, which must have been commonly used already at such an early stage.

The Nature of the Relation between Lower and Upper Egypt in the Protodynastic Period. A View from Tell el-Farkha

Krzysztof CIALOWICZ (Jagiellonian University, Kraków)

Recent years have been characterised by increasing interest in research on the origin of the Egyptian state. Results of the newest investigations - in Upper and Lower Egypt as well - point to the problem of Egyptian unification and the rise of monarchy by the Nile for which reconsideration is a growing necessity. Two different processes are becoming more explicit. The first one is the cultural unification, visible in similarities (though not identity) of numerous artefacts and customs. The second process relates to political changes. Both proceed simultaneously in a way but not in every aspect. Analysing these transformations, an important place belongs to architecture, both sepulchral and residential, indicating centres of leading role.

Upper Egypt was, in the Naqada IIIA-B period, obviously dominated by Abydos and Hierakonpolis. Results of fieldwork at these sites reveal their crucial part in political process. Of much importance in this competition must have been the fact of controlling the Nile Delta, especially its eastern part and trade routes.

In 2000-2002 in Tell el-Farkha remains of a significant architectural complex were unearthed. It comprises two clearly different parts. The eastern part of the building consists of a few rooms featuring a considerable concentration of finds and storage vessels that were found standing in their original position. The western one comprised of a complex of rooms having a different character. The edifice was divided into several inner compartments, surrounding an interior courtyard. The monumental dimensions of the edifice are particularly significant, since it covered an area over 500m². Huge mud-brick walls (2.50-1.00m wide) separated most of the compartments. Judging by the hitherto collected data, the complex constitutes the largest construction of this type that has ever been discovered in Egypt in Naqadian context.

Numerous findings produce evidence that the people of Tell el-Farkha were considerably engaged in commercial activities. The building was destroyed in a fire. It is hard to estimate whether it was a result of natural catastrophe (flood, earthquake) or intentional human action. Taking into consideration the latter, one should stress that it is scarcely provable. The catastrophic event is to be dated to Naqada IIIA (IIIa2), which is the period when existence of the earliest protokingsdoms in Upper Egypt can be assumed. It is very likely that southern centres were competing in various fields, the most substantial one could be the issue of controlling trade routes leading to the Sinai and Palestine. Tell el-Farkha was presumably a location important for commercial exchange, giving an

opportunity to control the trade route to the north-east. That is why it is possible that the final destruction of the described complex that was found in Tell el-Farkha, was a result of conflict between centres of emerging kinship, unfortunately rather hard to specify. Accepting this theory, it should be strongly stressed that it remains in close relation to a conflict on a regional scale, but connected to the Naqada culture, and, therefore, it cannot be transferred to a position of evidence for an Upper Egyptian conquest of the Nile Delta.

One more important discovery, which can be interpreted from the aspect of the emerging Egyptian state, is a monumental multichambered tomb (at least 18 x 25m) probably dating to earlier than the 1st Dynasty (Naqada IIIA-III B). The unearthing of at least one chamber (spring 2005) should clear up the chronology and will possibly allow for a more precise understanding of the relation between the Nile Delta and Upper Egypt in the Protodynastic period.

Brewery from Tell el-Farkha (Archaeology and Palaeobotany)

Krzysztof CICHOWSKI (Jagiellonian University, Kraków), Lucy KUBIAK-MARTENS (BIAX Consult, AL Zaandam)

The brewery is the first structure of this type that was discovered at the Tell el-Farkha site in the Eastern Nile Delta. Subsequent excavation seasons allowed us to localise a few more similar objects situated in close vicinity. Owing to these discoveries it is currently possible to determine more accurately the context in which the structure functioned. It is now certain that a large complex of a productive nature was discovered, however its range has not thus far been ascertained. Individual structures functioned for a specified period of time. Since the settlement was frequently inundated by Nile overflows, a number of objects were being flooded and new structures were erected in their place. The above-mentioned sequence makes it possible to draw additional conclusions relating to the object in question.

The brewery was erected over earlier Lower Egyptian structures. It stands out due to its form and construction technique. It was a building measuring approximately 3.60 x 4m and resembling a three-leaf clover in shape, the core of which was constructed of mud-bricks. That form came into existence as a result of a tight merger of three oval parts of the structure. The whole of the structure was surrounded by a rim of burnt mud-bricks, which created a kind of wall that was up to 60cm high and 10-0cm wide, depending on the arrangement and size of the bricks. Each of the three main parts of the object was a sort of a fireplace, the centre of which was a circular base of flatly arranged bricks. Bricks were placed obliquely around each of the bases, slanting towards the centre. Smaller, arched brick walls were also erected on the inside, additionally separating particular fragments of the structure. Four oval pits were discovered around the object, each measuring about 10-30cm in diameter. Their shape and localisation allows for a presumption that they had a close connection to the whole construction. Some clusters of singular unburned bricks of an irregular configuration were situated to the west of the building. Within the structure some meagre, flat, burnt clay tiles with a coarse surface were also found, some of which had impressed fingerprint marks.

A number of theories concerning the purpose and reconstruction of this building have been discussed. It was considered to have been a sort of kiln for ceramic production, a large fireplace for drying grains and a device for the brewing of beer. A detailed analysis of the material excluded the first and second of these possibilities. Today it can be stated with full certainty that the structure was not a pottery kiln. In the case of kilns that have

been in use for such a long time, large amounts of pottery sherds are always discovered in the vicinity, either trial pieces or inept forms occur, and sometimes even some whole or almost whole vessels. However, in this case only a few large, thick-walled fragments were discovered, which, judging by the size and technology are remains of huge, thick-walled brewing vats. Neither was the above-described object a device suited for roasting grains. The temperature in the object was too high and in such conditions grain would have been burned. Apart from that, ovens suited for grain roasting were discovered in younger layers in Tell el-Farkha and were of a completely different form.

Furthermore, discoveries made during subsequent seasons of excavation allow us to state that the object discovered in Tell el-Farkha should be considered as a device used for the brewing of beer. Its form and the technical solutions employed harmonise precisely with the ancient brewing process. Everything points to the fact that the above-described object can be recognised as of a single time. The overall concept has not been changed during the exploitation of the object and remained unchanged during the whole period of its functioning. Presumably the shape had been previously planned and the form was not coincidental. Undoubtedly some generally accepted models and outlines must have existed for constructing this type of object. This is confirmed by the newest, yet unpublished discoveries made in Tell el-Farkha. This points to a much older genesis of the form and individual constructional and moreover functional solutions.

During the last season in Tell el-Farkha we were able to discover remains of a well-preserved, dense organic substance. Clumps and fragments of various sizes were localised inside some of the structures and in their very close vicinity. Macroscopic research conducted by L. Kubiak-Martens confirmed that in this case we are dealing with remains produced during the brewing of beer. The discovery of the above-mentioned huge "brewing centre" and further research on the site will probably enable us to clarify many technical matters concerning beer production. Findings concerning the origin and spread of the whole production process in the archaeological cultures of the Delta, and comparison between the objects discovered at the site with devices from Upper Egypt will be equally important. The research will shed new light on questions of social development, permeating ideas and influence of the southern cultures on their neighbours from Northern Egypt.

The recovery and analysis of plant remains from the Pre- and Early Dynastic Tell el-Farkha are an important source of information for better understanding of the site economy and daily life of its inhabitants.

Botanical samples were taken from various archaeological contexts, including, hearths and fills of ovens, cereal storage areas (silos), storage/cooking vessels, funerary vessels/jars and brewery.

*Two cereals - barley (*Hordeum vulgare*) and emmer (*Triticum dicoccon*) - were the main crops cultivated. Emmer was used to make bread but also was one of the ingredients in beer making while barley was presumably most suitable for brewing. The importance of both cereal products - bread and beer- to ancient Egyptian society is well known. They made a major contribution to diet and ritual practice; they were important trade products. One of the main questions is how they were made. Although there is no simple definition, outstanding botanical evidence recovered from the brewery at Tell el-Farkha presents us with more than just a base line for discussion on various stages of brewing process in pre-dynastic Egypt.*

*At least two pulses also contributed to the diet of the inhabitants of Tell el-Farkha, namely pea (*Pisum sativum*) and lentil (*Lens culinaris*). Other pulses, including grass pea (*Lathyrus sativus*) and bitter vetch (*Vicia ervilia*) were cultivated presumably for both human consumption and animal fodder, while common vetch (*Vicia sativa*) may have grown as arable weed. *Cyperus esculentus* (chufa), a species of the sedge family, might have been cultivated for its edible tubers.*

Bibliography

CHLODNICKI, M. & CIALOWICZ, K.M., 1999.
Tell el-Farkha. Explorations 1998. *Polish Archaeology in the Mediterranean* 10: 63-70.

CHLODNICKI, M. & CIALOWICZ, K.M., 2000.
Tell el-Farkha. Explorations 1999. *Polish Archaeology in the Mediterranean* 11: 59-76.

CHLODNICKI, M.; FATTOVICH, R. & SALVATORI, S., 1992A.
The Nile Delta in Transition: A View from Tell el-Farkha [in:] VAN DEN BRINK, E.C.M. (ed.), *The Nile Delta in Transition: 4th.-3rd. Millennium B.C.* Tel Aviv: 171-190.

CIALOWICZ, K.M., 1999.
Początki cywilizacji egipskiej. Kraków.

CIALOWICZ, K.M., 2001.
La naissance d'un royaume. L'Égypte dès la période prédynastique à la fin de la Ière dynastie. Kraków.

CIALOWICZ, K.M., 2001B.
Najstarszy browar w Deltcie Nilu [in:] PAPUCI-WLADYKA, E. & SLIWA, J. (eds.), *Studia Archaeologica. Liber Amicorum Ianussio A. Ostrowski ab amicis et discipulis oblatu.* Kraków: 59-64.

GELLER, J.R., 1992.
From Prehistory to History: Beer in Egypt [in:] FRIEDMAN, R.F. & ADAMS, B. (eds.), *The Followers of Horus. Studies Dedicated to Michael Allen Hoffman.* Oxbow Monograph 20. Oxford: 19-26.

HOFFMAN, M.A., 1982.
The Predynastic of Hierakonpolis. An Interim Report. Egyptian Studies Association 1. Giza / Macomb.

PEET, E., 1914.
The Cemeteries of Abydos. Part II. 1911-1912. Egypt Exploration Fund 34. London.

PEET, T.E. & LOAT, W.L.S., 1913.
The Cemeteries of Abydos. Part III. 1912-1913. Egypt Exploration Fund 35. London.

SAMUEL, D., 2000.
Brewing and Baking [in:] NICHOLSON, P.T. & SHAW, I. (eds.), *Ancient Egyptian Materials and Technology.* Cambridge. 2000: 537-576.

Study of Gm Immunoglobulin Allotypes in Berbers from Egypt (Siwa Oasis)

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Siwa Oasis is located in western Egypt, 300km from the Mediterranean coast and 25km from the Libyan border. Its population, now estimated at more than 15,000 people, speaks Siwi, a particular dialect related to Berber language. This Oasis had been inhabited since the end of the Upper Palaeolithic (Fakhry 1973). The first Berbers would have come from the East (colonisation by Egyptian Proto-Mediterraneans going to the Maghreb) or from the West (secondary migration of Berbers from the Maghreb towards Egypt). Archaeological records attest a first occupation of the Oasis at around 6700 to 8800 years BC (Hassan 1978) with a "libyco-capsian" lithic industry. The historical period is then marked by successive invasions (Libyans, Persians, Arabs...) then Siwa Oasis knows a period of decline between the 9th and the 12th centuries AD because of Bedouin assaults. It is only in the 13th century AD that it again becomes a stage for the commercial caravans crossing the Nile Valley desert to join the Mediterranean ports of Libya, but it becomes also a market of slaves from the Sahelian areas.

We study the Siwan population within the framework of a CNRS ("Origine de l'Homme, du Langage et des Langues") and EUROCORES ("Origin of Man, Language and Languages") project, having the aim of characterising the genetic and linguistic relationships between North-African Berbers. These populations are divided into small communities scattered across nine African countries: Morocco, Algeria, Tunisia, Libya, Egypt (Siwa Oasis), Mauritania, Niger, Mali and Burkina-Faso. They are linguistically related to the Afro-Asiatic phylum. The Siwi population is particularly interesting because, on the one hand, it is located in the most Eastern part of the geographical Berber areas and, on the other hand, its inhabitants always tried to preserve their culture and their identity in spite of successive invasions. Our study will thus make it possible to measure both the cultural and genetic impacts of invaders on the autochthonous population of the Oasis.

In the OHLL/OMLL project, the anthropogenetic characterisation of Berber populations is established with various markers: immunoglobulin allotypes (Dugoujon *et al.* 2004; Coudray *et al.* 2004), mitochondrial DNA (Fadhlaoui-Zid *et al.* 2004), Y chromosome (Arredi *et al.* 2004), microsatellites (Bosch *et al.* 2000), Alu sequences (Gonzalez-Pérez *et al.* 2003).

For this work, we consider the occurrence of antigenic markers on immunoglobulin polypeptide chains called Ig allotypes. Four allotypic systems

are described according to immunoglobulin classes or chain types but we only investigate the most useful system in characterising human groups: Gm system. Gm antigenic determinants are present on heavy chains of 3 of the 4 subclasses of IgG (IgG1, IgG2 and IgG3) (Lefranc & Lefranc 1990). Their polymorphism is determined by the primary structure of constant regions and reflects differences in amino acid substitutions on the Ig sequence. The Gm system is composed of 18 allotypes forming particular combinations called haplotypes. The qualitative and quantitative differences between the 15 defined Gm haplotypes are an excellent means for comparing human populations (genetic structure, degree of admixture, gene flow, migration and evolutionary history) (Cavalli-Sforza *et al.* 1994, Dugoujon *et al.* 2004) and make it possible to define the three great groups: "European", "sub-Saharan" and "Asian" haplotypes.

One hundred and eighty samples were tested for G1m(1,2,3,17), G2m(23), and G3m(5,6,10,11,13,14,15,16,21,24,28) allotypes by using a classical haemagglutination inhibition method (Field & Dugoujon 1989). The results show that Siwan Berbers are composed of more than 45% of Gm haplotypes common in European populations and of more than 50% of "sub-Saharan" haplotypes. These data contrast with those collected for Berbers from North-West Africa where we only find a "sub-Saharan" contribution of about 20%. When we include the population of Siwa in the Gm database of our laboratory (including Berber populations from Algeria, Tunisia and Morocco, East-African and sub-Saharan groups), we note that Siwi are in the margin of North-African Berber variability. There is neither correspondence between the genetics and linguistics since the Egyptian Berbers are clearly related to East African populations whose dialects belong to a different linguistic family (Semitic and Cushitic).

These results raise various questions: would the differences in Gm haplotypic frequencies between Berbers from the Maghreb and Berbers from Siwa translate a different origin of these populations? Would these differences be due to prehistoric and/or historical genetic contributions of the migrant invaders more or less important on local populations? Are they due to the bottleneck that occurs in the 13th century when only seven families lived in the Oasis? Would the settlement of the Siwa Oasis have occurred from the Nile Valley (by Proto-Mediterraneans) or from the Maghreb (by Proto-Berbers)? Our discussion will be argued by the results obtained for other molecular markers

(mitochondrial DNA, microsatellites, Y chromosome).

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Bibliography

ARREDI, B.; POLONI, E.S.; PARACCHINI, S.; ZERJAL, T.; FATHALLAH, D.M.; MAKRELOUF, M.; PASCALI, V.L.; NOVELLETTO, A. & TYLER-SMITH, C., 2004.

A predominantly Neolithic Origin for Y-chromosomal DNA Variation in North Africa. *American Journal of Human Genetics* 75: 338-45.

BOSCH, E.; CALAFELL, F.; PÉREZ-LEZAUN, A.; CLARIMON, J.; COMAS, D.; MATEU, E.; MARTINEZ-ARIAS, R.; MORERA, B.; BRAKEZ, Z.; AKHAYAT, O.; SEFIANI, A.; HARITI, G.; CAMBON-THOMSEN, A. & BERTRANPETIT, J., 2000.

Genetic Structure of north-west Africa revealed by STR Analysis. *European Journal of Human Genetics* 8: 360-366.

CAVALLI-SFORZA, L.L.; MENOZZI, P. & PIAZZA, A., 1994.

The History and Geography of human Genes. Princeton.

COUDRAY, C.; GUITARD, E.; LEMAIRE, O.; CHERKAOUI, M.; BAALI, A.; HILALI, K.; SEVIN, A.; KANDIL, M.; HARICH, N.; MELHAOUI, M.; LARROUY, G.; MORAL, P. & DUGOUJON, J.M., 2004.

Les allotypes Gm des immunoglobulines chez les Berbères du Maroc. *Antropo* 6: 63-69.

DUGOUJON, J.M.; HAZOUT, S.; LOIRAT, F.; MOURRIERAS, B.; CROUAEU-ROY, B. & SANCHEZ-MAZAS, A., 2004.

Gm haplotype Diversity of 82 Populations over the World suggests a centrifugal Model of human Migrations. *American Journal of Physical Anthropology* 125: 175-192.

FADHLAOUI-ZID, K.; PLAZA, S.; CALAFELL, F.; BEN AMOR, M.; COMAS, D. & ELGAAIED, A.B., 2004.

Mitochondrial DNA Heterogeneity in Tunisian Berbers. *Annals of Human Genetics* 68: 222-233.

FAKHRY, A., 1973.
Siwa Oasis. Cairo.

FIELD, L.L. & DUGOUJON, J.M., 1989. Immunoglobulin allotyping (Gm and Km) of GAW5 Families. *Genetic Epidemiology* 6: 31-34.

GONZALEZ-PÉREZ, E.; VIA, M.; ESTEBAN, E.; LOPEZ-ALOMAR, A.; MAZIERES, S.; HARICH, N.; KANDIL, M.; DUGOUJON, J.M. & MORAL, P., 2003.

Alu Insertions in the Iberian Peninsula and north west Africa - Genetic Boundaries or melting pot ? *Collegium Antropologicum* 27: 491-500.

HASSAN, F.A., 1978.

Archeological Explorations of the Siwa Oasis Region, Egypt. *Current Anthropology* 19: 146-148.

LEFRANC, M.P. & LEFRANC, G., 1990.

Molecular Genetics of immunoglobulin allotype Expression [in:] SHAKIB, F. (ed.), *The Human IgG Subclasses: Molecular Analysis of Structure, Function and Regulation.* Oxford: 43-78.

The First Human Occupation of the Nile Valley: Anthropological and Cultural Data

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The Nile Valley constitutes an inevitable passageway between East Africa and the Mediterranean. The first *Homo* left Africa 1.8 million years ago to migrate towards Asia and Europe. Thus, it is likely that small groups of archaic humans crossed or even settled in this natural corridor. Indeed, after the Middle East, famous for its old sites from 120 to 100 ka and South Africa where the sites are perhaps slightly more recent, it is one of the rare areas where *Homo sapiens sapiens* was discovered.

The oldest human fossil in the Nile Valley comes from Sudan. Discovered in 1964 by F. Bond in Singa, on the edge of the Blue Nile, this specimen was initially regarded as an Upper Pleistocene modern human (Stringer 1979) before being reinterpreted as archaic *Homo sapiens* (Stringer 1979). Taking into account the new evidence of the pathological form of the cranium, the phylogenetic statement of archaic *Homo sapiens* seems more debatable and the chronological position of this fossil should be re-investigated (Spoor *et al.* 1998). Moreover, this calvaria was associated with a ESA/MSA transitional lithic industry. Transitional industries, studied in stratigraphic position in Saï, seem to be related to the appearance of new behaviour that might be the result of cultural activities related to anatomically modern humans (McBrearty & Brooks 2000; Van Peer *et al.* 2003).

In Egypt, the Nubian Complex appeared in the lower Nile Valley at the end of the Middle Pleistocene where it would have replaced a recent Acheulean. It could be the work of modern humans who have spread themselves over a broad territory during the last interglacial. It is related to well-organised settlement systems involving raw material procurement strategies, planned production and transportation of particular lithics and the use of specific locations in the landscape for certain subsistence-hunting activities (Van Peer 1998; Van Peer & Vermeersch 2000).

The first occurrence of the Nubian Complex is present at Taramsa 1 at the end of the Middle Pleistocene. Three periods of exploitation were defined during all of the Middle Palaeolithic. The burial of a child of 8-10 years was discovered in this site in 1994. It has been dated at 55 ka. This skeleton is partially studied by C. Stringer. The preliminary results place this child in the lineage of the anatomically modern humans (Vermeersch *et al.* 1998).

There is a chronological hiatus in the Nile Valley between the sites of the late Middle Palaeolithic (all dated before 55 ka) and those of the

Upper Palaeolithic (25 ka). The transition between the Nubian Complex and Upper Palaeolithic industries is thus badly documented.

The only Early Upper Palaeolithic site in the Nile Valley is that of Nazlet Khater 4 near Tahta (Upper Egypt). It is a chert mining exploitation. Two burials were discovered by the BMEPP (*Belgian Middle Egypt Prehistoric Project*) in 1979 and 1980 and associated to the site. The first one contained a badly preserved skeleton which was dated by AMS at 37.570 ± 350-310 BP (Vermeersch 2002).

The second fossil, that of Nazlet Khater Burial 2, is a young adult. He was lying at full length on his back with a bifacial axe laid to the right of the skull. This specimen was the subject of some publications on specific anatomical points (Thoma 1984; Pinhasi 1998, 2002; Crevecoeur & Trinkaus 2004). It is modern, almost complete and shows a very robust cephalic skeleton with primitive features and a gracile post-cranial one. B. Vandermeersch (1981) already underlined this kind of morphology on early modern humans of the Middle East.

This review of anthropological and cultural data of the Nile Valley illustrates the important gaps still existing in terms of human remains, but also the importance of this area in the comprehension of the origin and spread of the anatomically modern humans.

Bibliography

CREVECOEUR, I. & TRINKAUS, E., 2004.

From the Nile to the Danube: A Comparison of the Nazlet Khater 2 and Oase 1 early modern human Mandibles. *Anthropologie* 42: 203-213.

MCBREARTY, S. & BROOKS, A.S., 2000.

The Revolution that wasn't: A new Interpretation of the Origin of modern human Behaviour. *Journal of Human Evolution* 39: 453-563.

PINHASI, R., 1998.

An Odontometric Investigation of the Affinities of the Nazlet Khater Specimen to Prehistoric, Protohistoric and Modern African Populations. *Dental Anthropology* 12,2-3: 1-10.

PINHASI, R., 2003.

Biometric Study of the Affinities of NK - A quantitative Analysis of Mandible Dimensions [in:] VERMEERSCH, P.M. (ed.), *Palaeolithic Quarrying Sites in Upper and Middle Egypt*. Egyptian Prehistory Monographs 4. Leuven: 283-335.

- SPOOR, F.; STRINGER, C. & ZONNEVELD, F., 1998.
Rare temporal Bone Pathology of the Singa Calvaria from Sudan. *American Journal of Physical Anthropology* 107: 41-50.
- STRINGER C., 1979,
A re-evaluation of the fossil Human Calvaria from Singa, Sudan. *Bulletin of the British Museum of Natural History (Geology)* 32: 77-83.
- THOMA, A., 1984.
Morphology and Affinities of the Nazlet Khater Man. *Journal of Human Evolution* 13: 287-296.
- VANDERMEERSCH, B., 1981.
Les hommes fossiles de Qafzeh (Israël). Paris.
- VAN PEER, P., 1998.
The Nile Corridor and the Out-of-Africa Model. An Examination of the Archaeological Record. *Current Anthropology* 39, suppl.: 115-140
- VAN PEER, P.; FULLAGAR, R.; STOKES, S.; BAILEY, R.M.; MOEYERSONS, J.; STEENHOUD, F.; GEERTS, A.; VANDERBEKEN, T.; DE DAPPER, M. & GEUS, F., 2003.
The Early to Middle Stone Age Transition and the Emergence of modern human Behavior at Site 8-B-11, Sai Island, Soudan. *Journal of Human Evolution* 45: 187-193.
- VAN PEER, P. & VERMEERSCH, P.M., 2000.
The Nubian Complex and the Dispersal of Modern Humans in North Africa [in:] KRZYŹANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Recent Research into the Stone Age of Northeastern Africa*. Poznan: 47-60.
- VERMEERSCH, P.M., 2002.
Two Upper Palaeolithic Burials at Nazlet Khater [in:] VERMEERSCH, P.M. (ed.), *Palaeolithic Quarrying Sites in Upper and Middle Egypt*. Egyptian Prehistory Monographs. Leuven: 273-282.
- VERMEERSCH, P.M.; PAULISSEN, E.; STOKES, S.; CHARLIER, C.; VAN PEER, P.; STRINGER, C. & LINDSAY, W., 1998.
A Middle Palaeolithic Burial of a modern Human at Taramsa Hill, Egypt. *Antiquity* 72: 475-484.

The Predynastic of Egypt: a View from Adaiima

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During the last 15 years, the necropolis of Adaiima (Upper Egypt, 70km south of Luxor) has been intensely excavated and studied by a multidisciplinary team using osteoarchaeological techniques for excavation of the graves. The aim was to obtain new information about the funerary rituals, the bioanthropology of the population and the evolution of people and diseases during the 4th millennium BC, at a period of important changes from a bio and social perspective. More than 1000 graves distributed among three cemeteries have been excavated.

The West cemetery, which has been partially excavated before by Morgan at the end of the 19th century, was essentially an adult cemetery. Its use began at the end of Naqada I and lasted until the end of Naqada III. A lot of graves have been looted, some of them some years after the burial. The history of this cemetery is very particular. It began with a multiple inhumation of children and adults in an extinguished fireplace at the top of a hill surrounded by water during the important Nile floods. Around three to four generations later, double or triple burials were conducted around one hundred metres east of the first burials, some of them with sacrifices, some of them with special artefacts (similar to artefacts used one millennium later during the reign of the Pharaohs). During Naqada II, the cemetery of an elite with a lot of artefacts occupied the location to the west of the first burial. Finally, during Naqada III, the necropolis became the place of inhumation for the whole adult population.

The East cemetery is divided into two cemeteries, distinct from a spatial and chronological point of view. These two cemeteries were absolutely intact. We have fully excavated the southern one, and excavation of the northern one will be completed at the end of 2005. The South cemetery is a children's cemetery (279/280) dated from the extreme end of Naqada II to Naqada IIIB. The North cemetery dates from Naqada III to the beginning of the first dynasties. It includes a lot of immature individuals (180) and some adults (34).

These three cemeteries give us a better understanding of the funerary rituals, especially the symbolic function and/or disposal of some artefacts, the beginning of wrapping and embalming, the emergence of the sarcophagus, the question of human sacrifice and even the emergence of writing. In addition, the necropolis allows us to study a whole population and its morphological and epidemiological evolution over more than 800 years. Ancient DNA allows us to understand some crucial questions about the emergence of Predynastic people as well as the epidemiology of the transition to urban life during the 4th millennium BC in the Nile Valley.

Palaeopathology in Adaïma

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The site of Adaïma is located in Upper Egypt on the west bank of the river Nile to the south of Luxor city. The Predynastic necropolis was excavated over the last ten years and consists of the southern burial ground (late Naqada II, Naqada IIIA-IIIB, 3000 BC) and the northern burial ground (late Naqada III, Early Dynastic period, 2800 BC). These two burial grounds were devoted to infants and children. Preservation of the bones was generally very good, particularly those from the southern burial ground. Paleopathological studies were done on cranial and post cranial remains of 272 individuals recovered from the southern burial ground. Skeletal populations were partitioned into few age categories: new born, 8 individuals; 0-3 months, 8; 3-6 months, 24; 6-12 months, 45; 1-3 years, 109; 3-5 years, 41; 5-10 years, 35; and 10-15 years, 2. The remains of 116 individuals from the northern burial ground were studied. The age at death distribution of the individuals from the two burial grounds corresponds to a natural mortality. Pathologic lesions were recorded on cranial and post cranial remains: non specific lesions as subperiosteal newborn deposition, porotic hyperostosis and cribra orbitalia, porous labyrinthic-like lesions, and specific lesions, spina ventosa and osteolytic lesions. Cribra orbitalia was the most frequent lesion, observed on 26.5% of the individuals in the southern burial ground with different frequencies according to the age category: 5 % of the infants 3 to 12 months old; 30% of those 1 to 5 years old; 58% of those 5 to 10 years old. Subperiosteal new bone deposition on one or more bones of the post cranial skeleton was observed on 18% of the children of the southern burial ground. Periosteal reactions were observed on tibia (12.8%), femur (5.5%), fibula (3.2%), humerus (2.7%), radius (1.9%), ulna (5.9%), clavicle (1.2%) and scapula (0.4%). The lesions were a response to nutritional stress and to infectious disease (systemic infection, osteomyelitis, mastoiditis). Specific lesions (spina ventosa, osteolytic lesions on postcranial skeletal bones) correspond to tuberculous or tuberculous-like lesions. They are located on scapula, clavicle, rib, humerus, ulna, radius, tibia, phalange and lumbar vertebra. Tuberculosis or tuberculosis-like infection was observed on 9.2% of the individuals of the southern burial ground. The age-specific distribution of specific lesions indicates that these lesions occur on children aged from six months to ten years. The frequency was 4.4% of the children in this six to 12 month age class, and from 12% to 14.3% in the other age classes. None specific lesions were observed on individuals of the northern burial ground. Tuberculosis or tuberculosis-like disease overcome the pathology observed in this Predynastic population.

Evidence from the Rayayna Desert and Kurkur Oasis for Long Distance Trade during the Predynastic Period

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Recent fieldwork of the Theban Desert Road Survey has yielded much evidence - both archaeological and representational - for a high level of contact and mutual influence between Nile Valley Egyptians and desert-dwelling Libo-Nubians and oasis groups during the Predynastic and Early Dynastic periods. Material from the Rayayna desert and Kurkur Oasis has, in particular, illuminated the links between the cultures of the southwest and the genesis of Upper Egyptian Predynastic civilisation, upon which many critical elements of pharaonic society were built. In turn, the denizens of the desert remained the agents through whom increasingly powerful Egyptian rulers expanded their economic interests to the south and west.

In the Rayayna Desert west of Armant, a major ancient route between the Nile and Kharga Oasis intersects the Darb Bitan/Darb Gallaba, which continues far to the south, roughly parallel to the Nile. Occupation of a complex of sites in the Rayayna Desert at the dawn of the Predynastic period incorporates features of early Nubian and Saharan cultures. An extraordinary site of multiple inhumations, rich in grave goods, finds its closest parallels in the recently excavated cemetery at Gebel Ramlah in the Nubian Western Desert (Kobusiewicz *et al.* 2004) and the desert Tasian burials at the Wadi el-HÜl (D. Darnell 2002). Stratified habitation sites indicate a purely "Libo-Nubian"/early A-group-related presence at first, after which contact with the emerging Nile Valley Predynastic cultures (late Naqada I - Naqada II periods) led to an acceleration and diversification of activity. At its zenith, the Rayayna "crossroads" saw a bustling exchange of goods and products originating in such diverse locations as Nubia, the Eastern Desert, the Western Oases and the Nile Valley.

The small oasis of Kurkur is situated at the intersection of a number of desert tracks connecting southern Upper Egypt and Lower Nubia; this strategic location was recognised and exploited by pharaonic Egyptians in establishing control over movement from the southwestern desert into Egypt proper (J.C. Darnell 2003, 2004). At a time contemporary with the mid to late Predynastic to Dynasty 0 period, Kurkur was a significant focus of intense and sustained activity. The wealth of the Kurkur inhabitants is apparent in the presence of a wide variety of Libo-Nubian ceramic types alongside Nile Valley imports, as well as numerous stone artifacts. Many of the latter are of imported hard stones such as basalt, diorite, dolerite, gneiss, and pink granite and include celts (otherwise known from Tasian and A-group sites), spherical pounders and vessels.

A foreshadow of the development of ritual/religious architecture in Egypt is observable in a group of elaborate stone formations of Middle Predynastic/early A-Group (late Naqada I - middle Naqada II) date that appear to represent "model" enclosures and thus may relate to the Egyptian concept of the temple enclosure as a ritual setting. The ceramic corpus from these features is remarkably congruous with that of contemporary Rayayna desert sites.

The areas of Kurkur and Rayayna are linked by important route: the Darb Gallaba. The same "Libo-Nubian"/early A-Group population was living in, travelling through and in de facto control of this very long desert corridor, and thus also in practical command of the movement of materials and commodities between the Nile Valley and points to the south and west.

It is of no small significance that one of the major sites along the Rayayna-Kurkur desert corridor (Darb el-Gallaba/Darb el-Bitan) is Hierakonpolis- quite likely an important source of many of the Nile Valley products transported far afield. As Egyptian political power increased and expanded, the distinctive "Libo-Nubian" pottery disappears from the desert roads. But it is more than likely that these desert dwellers were still plying their trade across the great distances, now Egyptianised and working in the employ of the emerging Egyptian state.

Bibliography

DARNELL, D., 2002.

Gravel of the Desert and Broken Pots in the Road: Ceramic Evidence from the Routes between the Nile and Kharga Oasis [in:] FRIEDMAN, R.F. (ed.), *Egypt and Nubia: Gifts of the Desert*. London: 156-177.

DARNELL, J.C., 2003.

A Stela from the Reign of Tutankhamun from the Region of Kurkur Oasis. *Studien zur Altägyptischen Kultur* 31: 73-91.

DARNELL, J.C., 2004.

The Route of Eleventh Dynasty Expansion into Nubia: An Interpretation based on the Rock Inscriptions of Tjehemau at Abisko. *Zeitschrift für ägyptische Sprache* 131: 23-37.

KOBUSIEWICZ, M.; KABACINSKI, J.; SCHILD, R.; IRISH, J.D. & WENDORF, F., 2004.

Discovery of the first Neolithic Cemetery in Egypt's Western Desert. *Antiquity* 78: 566-578.

Rock Inscriptions, Niloticising the Desert, and the Origin of Egyptian Writing

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During more than twelve years of work in the Egyptian Western Desert, the Theban Desert Road Survey has discovered many Predynastic rock art and inscription sites on the ancient routes of the southwestern desert of Egypt. At a number of these sites inscriptions are in clear association with other remains of human activity and occupation. Although many of the dating techniques for rock art are at best of uncertain value (Bednarik 2002), the sites in the Theban Western Desert that occur in conjunction with archaeological remains allow a cultural attribution. The interrelationships of rock art, habitation, ritual, and burial sites within the Rayayna desert provide an important template and test model for those attempting to understand similar assemblages of petroglyphs and archaeological material within an extensive landscape (compare essays in David & Wilson 2002). The area also provides an excellent opportunity to relate models of archaeological site formation with models of rock art site development, and the interrelationships between such sites and the landscape in which they are located.

The early sites in the Rayayna desert allow one in turn to test the reliability of models proposed for other cultures in an attempt to use formal methods to "provide a structure for the placement and nature of this imagery on the landscape" (Hartley & Vawser 2000). Hartley and Vawser describe "places with rock-art that serve as 'check-points during movements across the desert terrain' as assisting in orientation to locales of water or other necessary resources," a possibility that the work of the Theban Desert Road Survey has specifically addressed.

The Rayayna material places us in the unique position of being able to grasp at least a portion of the "emic" significance of the rock art through diachronic evidence. The later developments of some of the motifs into pharaonic iconographic elements which are explicitly explained in later textual material provides an opportunity to avoid some of the pitfalls of subjective "etic" interpretation which are otherwise inevitable when one is dealing with pre-literate societies. The use of rock art in Upper Egypt as a means of marking places and commenting upon terrestrial and cosmic processes and events appears to have led to the increasing "symbolic" nature of Upper Egyptian cultures, a necessary precursor, if not direct antecedent, to the development of true writing in Egypt.

The motifs and use of rock inscriptions in the Theban Western Desert reveal the development of a complex repertoire of religious symbols. These symbols and the more abstract concepts

they could communicate allowed the individual artist/communicator to comment on the terrain, to communicate with future visitors, to participate with those who have gone before in an ongoing interpretation of the terrain (compare Huyge 2002); they also allowed for personal commentary on the more generally understood motifs. On these routes we see the development of a symbolic communication that linked people, habitation and burial sites, routes, and landscape, and that led ultimately to the development of true writing in Egypt around 3250 BCE. The hieroglyphic script originated in the glyphic symbols of Upper Egyptian rock art.

Bibliography

- BEDNARIK, R.G., 2002. The Dating of Rock Art: A Critique. *Journal of Archaeological Science* 29: 1213-1233.
- DAVID, B. & WILSON, M. (EDS.), 1993. *Inscribed Landscapes: Marking and making Place*. Honolulu.
- HARTLEY, R. & WOLLEYVAWSER, A.M., 2000. Spatial Behaviour and Learning in the Prehistoric Environment of the Colorado River Drainage (south-Eastern Utah), Western North America [in:] CHIPPINDALE, C. & TAÇON, P.S.C. (eds.), *The Archaeology of Rock-Art*. Cambridge: 185-211.
- HUYGE, D., 2002. Cosmology, Ideology, and Personal Religious Practice in Ancient Egyptian Rock Art [in:] FRIEDMAN, R.F. (ed.), *Egypt and Nubia: Gifts of the Desert*. London: 192-206.

Burial custom and political status of local societies - a view from Tell el-Farkha

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Discoveries in the cemetery at Tell el-Farkha revealed graves which can be divided into three main categories. The first of them is connected to Phase 5 of the settlement's occupation only, the second - to Phase 6, whereas the third one was in use partially in Phase 6, but mainly during the last Phase, 7. The clear change noted in burial customs between Phases 5 and 6 coincides with changes of political status of the settlement.

The oldest graves in Tell el-Farkha are to be dated to the end of Dynasty 0 (Naqada IIIB-C1) and the beginning of the 1st Dynasty (Naqada IIIC1-2). They are the most frequent and apparently belonged to Tell el-Farkha's middle class. Each of these rather large mud-brick structures was erected employing significant effort, carefully lined with matting and often secured by a massive superstructure. Some of them also display extra architectural features such as: an additional storage chamber, a bottom burial niche, or particularly massive walls. The economic status of people buried within the necropolis is confirmed by differentiation within the assemblage of offerings.

Graves of the second type are rarely equipped with objects. They are interpreted as belonging to people of the society's lower group and dated to the end of the 1st Dynasty (NIIIC2-NIIID). However, most of them are rectangular in shape and lined or paved with mud-bricks, the main difference revealed in smaller measurements and less effort invested in their construction (twisted, thin walls, lack of any traces of preserved superstructures). Although much poorer in form, graves of this part of Farkha's population are seldom simple pits, which become popular not before the later period.

The third type of graves consists of simple pit burials very similar to each other (mostly oval but sometimes rectangular) lined with matting and devoid of any offerings. This group of graves is dated only by its archaeological relation to the Old Kingdom structures, most probably to the end of Early Dynastic Period.

Burials dated to the end of Dynasty 0 and the beginning of the 1st Dynasty point to the overall welfare of the settlement's inhabitants and the differentiation of their socio-economic status. This conclusion is supported by results of succeeding field campaigns carried on in other sections of the site. The works have revealed the presence of solid mud-brick walls composing numerous compartments of residential and storage use, while on the western mound - a massive structure, which is interpreted as being of cultic function. Stone and faience figurines, miniature vessels of alabaster and other colour stones, gaming pieces and beads deposited in the building confirm this statement.

The structures of Tell el-Farkha met with many disasters such as flooding, fire and earthquake. Their traces are layers of mud or ashes, pots crushed by falling walls and even a young animal buried alive in the ruins. But the breakdown of the settlement's prosperity must have been a result of its political decline, otherwise the impressive construction would have been rebuilt. Instead, human activity on the site was restricted to the central mound, where only rather insignificant structures of economic and storage functions were being erected. The political change reflected in burial customs as well. It is represented by wealthy graves of the first type contemporaneous with the terminal stage of the settlement's political importance, the second type showing the society's gradual decline and the third one proving the settlement's low rank. The last category reveals no traces of social differentiation and this - together with the architectural evidence - points to the final departure of the elite from Tell el-Farkha.

Sacred or Mundane: Scalping and Decapitation at Predynastic Hierakonpolis

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In the early twentieth century, excavations by Sir Flinders Petrie at Naqada (Petrie and Quibell 1896), and Gerald Wainwright with Petrie at El Gerzeh (Petrie *et al.* 1912) produced evidence of dismemberment and mutilation in the Predynastic mortuary ritual regime. Further evidence of mutilation, in this case decapitation, has been discovered at the site of Adaima (Ludes & Crubezy 2000). Recent discoveries at the Predynastic cemetery at Hierakonpolis (Locality 43) provide a unique opportunity to examine the practice of dismemberment and mutilation further (Friedman *et al.* 1999; Maish & Friedman 1999; Maish 2003; Dougherty 2004).

At Hierakonpolis, 22 individuals (nine males, five females and eight indeterminable) with vertebrae suggestive of decapitation have been uncovered. In addition, five male individuals are present with cut marks indicative of scalping, a practice thus far undocumented in Egypt. In one case, Burial 350, both cranial and cervical vertebral lesions are exhibited on the same individual. Four other crania with cut marks suggestive of scalping were also found within the same context as nine disarticulated cervical vertebrae, which also exhibited several cut marks. However, because the context in which they were found was greatly disturbed, any conclusions concerning the exact relationships of the affected skeletal elements are tenuous.

In general, explanations of these morbid activities tend to favour mortuary ritual or human sacrifice (Wainwright 1912; Murray 1956; Crubézy & Midant-Reynes 2000; Wilkinson 2001). That the dismemberments were present within generally non-elite cemeteries with seemingly ordinary burial treatment makes human sacrifice, at least as a symbol of power or sacred ritual, problematic. Concerning mortuary ritual, only 5.8% of the total cemetery population at Hierakonpolis exhibited lesions associated with mutilation. The low frequency of affected individuals at cemetery HK43 at Hierakonpolis, as well as the relatively low frequencies of mutilated skeletons within other Predynastic cemeteries elsewhere in Egypt, suggests that only certain individuals were subjected to this ritual, and this seems to argue against the use of mutilation in common mortuary ritual. However, the prominence given to discussion and fears of dismemberment in later funerary textual evidence does create a compelling link between acts of mutilation seen at Hierakonpolis and mortuary and other ritual behavior (cf. Assmann 1989; Tefnin 1991; Eyre 2002).

In addition to mortuary ritual, other possible explanations are considered. Historically, the practice of decapitation, dismemberment and scal-

ping are often associated with trophy-taking, particularly among Native Americans and ancient Scythians (Nadeau 1941; Murphy *et al.* 2002). In addition, they have also been documented as a method of torture and historically prominent methods of punishment and execution (Mednikova 2003). Thus, the presence of dismemberment found within Predynastic cemetery may also denote punitive, rather than ritual, action, if not a combination of the two (cf. Willems 1990).

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Bibliography

- ASSMANN, J., 1989. Death and Initiation in the Funerary Religion of Ancient Egypt [in: SIMPSON, W.K. (ed.), *Religion and Philosophy in Ancient Egypt*. Yale Egyptology Series 3. New Haven: 135-139.
- CRUBEZY, É., 2000. Les sacrifices humains à l'époque prédynastique: L'apport de la nécropole d'Adaima. *Archéo-Nil* 10: 21-40.
- DOUGHERTY, S.P., 2004. A Little More off the Top. *Nekhen News* 16: 11-12.
- EYRE, C., 2002. *The Cannibal Hymn*. Liverpool.
- FRIEDMAN, R.F.; MAISH, A.; FAHMY, A.G.; DARNELL, J.C. & JOHNSON, E.D., 1999. Preliminary Report on Field Work at Hierakonpolis: 1996-1998. *Journal of the American Research Center in Egypt* 36: 1-35.
- LUDES, B. & CRUBEZY, E., 2000. Le sacrifice humain en contexte funéraire: problèmes posés à l'anthropobiologie et à la médecine légale. L'exemple prédynastique. *Archéo-Nil* 10: 43-53.
- MAISH, A., 2003. Not just another Cut Throat. *Nekhen News* 15: 26.
- MAISH, A. & FRIEDMAN, R.F., 1999. Pondering Paddy: Unwrapping the Mysteries of HK43. *Nekhen News* 11: 6-7.
- MEDNIKOVA, M.B., 2003. Scalping in Eurasia. *Anthropology and Archeology of Eurasia* 41: 57-67.

- MURPHY, E.; GOKHMAN, I.; CHISTOV, Y. & BARKOVA, L., 2002.
Prehistoric Old World Scalping: New Cases from the Cemetery of Aymyrlyg, South Siberia. *American Journal of Archaeology* 106: 1-10.
- MURRAY, M.A., 1956.
Burial Customs and Beliefs in the Hereafter in Predynastic Egypt. *Journal of Egyptian Archaeology* 42: 86-96.
- NADEAU, G., 1941.
Indian Scalping: Technique in different Tribes. *Bulletin of the History of Medicine* 10: 178-194.
- PETRIE, W.M.F. & QUIBELL, J.E., 1896.
Naqada and Ballas. London.
- PETRIE, W.M.F.; WAINWRIGHT, G.A. & MACKEY, E., 1912.
The Labyrinth, Gerzeh and Mazguneh. British School of Archaeology in Egypt & Egypt Research Account 21. London.
- TEFNIN, R., 1991.
Art et magie au temps des Pyramides. L'énigme des têtes de remplacement. Monumenta Aegyptiaca 5. Bruxelles.
- WAINWRIGHT, G.A., 1912.
The Ritual of Dismemberment [in:] PETRIE, W.M.F.; WAINWRIGHT, G.A. & MACKEY, E., 1912. *The Labyrinth, Gerzeh and Mazguneh*. British School of Archaeology in Egypt & Egypt Research Account 21. London: 11-15.
- WILLEMS, H., 1990.
Crime, Cult and Capital Punishment (Mo'alla Inscription 8). *Journal of Egyptian Archaeology* 76: 27-54.
- WILKINSON, T.A.H., 1999.
Early Dynastic Egypt. London / New York.

The East Cemetery of Adaiïma (Upper Egypt): Paleodemography of a Predynastic Cemetery

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The East cemetery of Adaiïma is divided into two cemeteries, distinct from a spatial and chronological point of view. These two cemeteries were absolutely intact and we have fully excavated the southern one. The South cemetery is a children's cemetery (279 children in 280 graves) dated from the extreme end of Naqada II to Naqada IIIB. The North cemetery dates from Naqada III to the beginning of the first dynasties. It includes a lot of immature individuals (180) and some adults (34).

From a bio-anthropological point of view, the interest of these two cemeteries is to provide a lot of intact graves of children, well dated and fully excavated for the South cemetery. Indeed, in these pre-antibiotics and pre-vaccine populations, life expectancy depends on child mortality, so the ratio of different age classes of children could theoretically furnish a precise idea of the life expectancy in each necropolis and a comparison during the different periods of Naqada III. However, it appears that the different age classes are not fully represented in each cemetery.

In the South cemetery, only children between childbirth and 12 years old have been buried. Comparison with theoretical models of mortality of archaic populations (Lederman tables, "réseau 100") shows that the newborn are underrepresented and in fact it seems that the cemetery was essentially a graveyard of children between 6 months and 12 years old. Such demography is interesting because its limits are two important stages of life in a lot of traditional societies: the advent of deciduous dentition and puberty. The ratio of different age classes (1-4 and 5-9 for example) indicates a population with a life expectancy of 27 years old, which is a standard value in a lot of archaic populations.

In the North cemetery, all age classes are represented and if the newborn were not all buried in the cemetery, they are less under-represented than in the South cemetery. During the excavation, the most superficial graves appeared to have been disturbed by a Predynastic flash flood, so the ratios of different children's age classes were not as useful to estimate life expectancy. However, the ratio between the adults' and some children's age classes are indicative of a population with similar life expectancy to the previous one.

In conjunction with some of the chronological information available, these demographic data allow us to propose a minimum number of inhabitants for the village of Adaiïma at the end of Predynastic times.

Contribution of Palynology and Phytolithology to the Study of Adaiima's Graves

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In Adaiima, eighty samples of sediments were taken in the necropolis. They arise from potteries deposited around the deceaseds and presenting slight traces of organic matter, and also from well preserved abdominal contents.

The grains of pollen and phytoliths extracted from such sediments evidence what plants were present in the food of the living and in the offerings made for the dead and the simultaneous study of pollen and phytoliths is complementary.

Observations made after the extraction of these micro-fossils reveal that funerary vases contained mainly spikelets of cereals sometimes associated with spikelets of wild *Poaceae* such as rye grass, as well as leaves and stalks belonging to taxa of the same family.

The grains of *Anthemideae's* pollen are characteristic of the remains found in funerary potteries, the fossilized stamens give evidence of the presence of flowers without clarifying their role.

But more important is the presence of pollen of oak with a high frequency in several of the analyzed sediments. The grains of pollen of oak are accompanied by fragments of cuticles and numerous trichomes characteristic of *Quercus cerris*. The lower limit of the area of distribution of this oak is at present Lebanon but although it is very likely that this taxon was able to have had a more important extension, it was not able to develop in Upper Egypt. Its presence in such quantities is surprising and can only be explained in terms of exchanges between Adaiima and the Levant.

We also note the presence of numerous plant tissues and also remains of mats which could cover at the same time the deceased and the funerary vases around the deceased.

In the case of abdominal contents we note the presence of cereal or wild *Poaceae*, that of epidermis and of phytoliths of dicotyledons, and of grains of pollen of *Rhamnaceae* (jujube tree) and *Ficus sp.*

The remains of plants in the digestive tract are comparable to those in funerary potteries, however it is possible to note that the former contain numerous spores of Pteridophytes or of fresh water algae which appeared probably with drinking water or water used in food preparation.

More remarkable are the abdominal contents of the subject 74 (grave S74). Among the numerous grains of pollen of *Poaceae* and those (less frequent) of cereal were various morphotypes of pollen belonging to arborescent taxa which do not belong to the Egyptian flora, including *Alnus*, *Corylus*, *Betula*, *Cedrus*, *Juniperus*, *Salix* and *Tilia*. Any risk of pollution being excluded, one can wonder

about the origin of such a mixture of pollen, which (leaving aside the cedar) evidences a mild climate, at a time when the vegetation in Upper Egypt is dominated by the acacia and the tamarisk. The skeleton of subject 74 reveals important pathologies (Crubézy *et al.*, 2002). About 24 hours before death, the subject had absorbed a substance which contained these grains of pollen, or on which these grains settled. While one may be tempted to give to this substance a medicinal or magical role, it is clear at least that these pollens had been brought from afar and indicate that exchanges took place between populations of different cultures.

The set of pollens identified comes along with spores of ferns belonging to various species as well as phytoliths of domestic and wild *Poaceae*.

Palaeoethnobotany in Predynastic Hierakonpolis, Upper Egypt

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The present study shows the results of the analyses of the botanical material (macro and micro remains) retrieved from the Predynastic cemetery HK 43 at Hierakonpolis (Friedman *et al.* 1999) and integrates this with the palaeoethnobotanical data obtained from the mound of stratified domestic debris at Hierakonpolis Locality HK 11C (Harlan 1982; Fahmy 1995: 1-129). Together these data provide new information with which to assess aspects of economy, ecology and subsistence in Predynastic settlements in Upper Egypt.

Dry sieving the contents of pottery and baskets, as well as re-hydration of food debris recovered from human digestive tracts, were found to be effective methods to separate plant remains preserved in the excavated burials in the Predynastic cemetery of HK 43. Preliminary analysis has revealed husk fragments of emmer wheat, phytoliths of emmer wheat, fruit epicarp fragments and starch grains of wheat in the desiccated gut contents of intact human burials (Fahmy 2001). Frequent occurrence of emmer wheat remains indicates a significantly large number of cereal glumes in the diet under investigation. This evidence could prove that hulled grains of emmer wheat were subjected whole for grinding without de-husking. There is, however, also evidence for different grain preparations for infants and adults. The high frequency of emmer wheat (*Triticum dicoccon*) remains retrieved manifests the major role of this cereal in the agricultural economy of Predynastic Hierakonpolis (Fahmy 2003).

Pottery vessels from the cemetery also contained a variety of botanical material including charcoal, desiccated fruits, seeds and cereal refuse. The charred botanical material found almost exclusively in straw tempered jars of conical shape (Petrie's R81n; occasionally with soot-stained exteriors suggesting they functioned originally as cooking pots) has been linked to ritual funerary ceremonies. Straw tempered bottles (Petrie's R91-94 series) often contained few grain fragments of cereal and glumes bases of emmer wheat suggesting that they contained a liquid that had been strained, probably beer. A variety of other foods were found in baskets and black-topped vessels. Morphological investigation of remains found in association with matting revealed the presence of chaff-stuffed mattresses and pillows beneath some human burials. Chaff of emmer wheat was used as filling and the remains of nine field weeds were found mixed with the cereal chaff. Recovery of field weeds gives clear insights into past agricultural practices and other aspects of past ecology, such as soil conditions and growth of a specific assemblage of field weeds confined to a

particular crop (Willerding 1991; Fahmy 1997).

Investigation of the plant macro remains of the trash mound at HK 11C reveals that barley grains are more frequent than those of emmer wheat in all samples (Fahmy 1995: 112). This dominance of barley grains could be linked to the fact that animals were kept there and this cereal was used as animal feed. This conclusion is confirmed by the separation of barley grains from animal dung recovered from recent excavations at HK11 (Friedman *et al.* 2002), however the recovery of both cereals in the features under consideration at HK11 could suggest the possibility that they were cultivated in the same fields and consequently, they were harvested, threshed and winnowed in like manner.

In terms of palaeoethnobotanical investigations, another source of plant macro remains has been the contents of a basket found in an intact burial at HK43. Containing what may be part of a cosmetic or magico-medical kit, it also provides evidence for botanical remains often poorly preserved in archaeological contexts. The botanical contents of the basket included remains of sedge tubers (*Cyperus*), dill mericarps (*Anethum graveoloens* L.) and drupes of balanites (*Balanites aegyptiaca* (L.) Delile) as well as narrow slivers of coniferous wood and other types of plant remains (Fahmy 2005). Palaeoethnobotanical evidence showed that the Predynastic inhabitants adopted a subsistence strategy based on cultivation of cereals, with emmer wheat as the likely staple, and gathering of wild fruits and tubers as well as herding of livestock. Integration of these datasets with previous palaeoethnobotanical studies on a domestic trash mound A at HK 11C at Hierakonpolis provides relevant insights into economic and ecological aspects of Predynastic settlements in Upper Egypt.

Bibliography

- FAHMY, A.G., 1995.
A Historical Flora of Egypt. Unpubl. Ph.D. Dissertation, Cairo University.
- FAHMY, A.G., 1997.
Evaluation of the Weed Flora of Egypt from the Predynastic to Graeco-Roman Times. *Vegetation History and Archaeobotany* 6,4: 242-247.
- FAHMY, A.G., 2001.
Plant Remains in Gut Contents of Ancient Egyptian Predynastic Mummies (3750-3300 BC). *OnLine Journal of Biological Sciences* 1,8: 772-774.

FAHMY, A.G., 2003.

Palaeoethnobotanical Studies of Egyptian Predynastic Cemeteries: New Dimensions and Contributions [in:] NEUMANN, K.; BUTLER, A. & KAHLHEBER, S. (eds.) *Food, Fuel and Fields. Progress in African Archaeobotany. Contributions of the 3rd International Workshop on African Archaeobotany, Frankfurt 5-7 July, 2000* . Köln: 95-106.

FAHMY A.G., 2005.

Missing Plant Macro Remains as Indicators of Plant Exploitation in Predynastic Egypt. *Vegetation History and Archaeobotany* 14.

FAHMY, A.G. & ABD EL-GHANI, M., 2000.

Palaeo-ecological Aspects of Farafra Oasis (Egypt) during Mid-Neolithic Period (7130-6190 BP): A Multivariate Analysis. *Bulletin of the Faculty of Sciences, Assiut University* 29(2-D): 93-105.

FRIEDMAN, R.F.; MAISH, A.; FAHMY, A.G.; DARNELL, J.C. & JOHNSON, E.D., 1999.

Preliminary Report on Field Work at Hierakonpolis: 1996-1998. *Journal of the American Research Center in Egypt* 36 : 1-35.

FRIEDMAN, R.F.; WATRALL, E.; JONES, J.; FAHMY, A.G.; VAN NEER, W. & LINSEELE, V., 2002. Excavations at Hierakonpolis . *Archéo-Nil* 12: 55-68.

HARLAN, F.J., 1982.

Excavations at Locality 11C [in:] HOFFMAN, M.A., 1982. *The Predynastic of Hierakonpolis. An Interim Report*. Egyptian Studies Association 1. Giza/Macomb: 14-25.

WILLERDING, U., 1991.

Präsenz, Erhaltung und Repräsentanz von Pflanzenresten in archaologischen Fundgut [in:] VAN ZEIST, W.; WASYLIKOWA, K. & BEHRE, K.-E. (eds.), *Progress in Old World Palaeoethnobotany*. Rotterdam/Brookfield: 25-51.

Excavating Egypt's Early Kings : Recent Discoveries in the elite cemetery at Hierakonpolis

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In 2000 Barbara Adams began excavations in Square 9H in the cemetery of the predynastic elite at HK6, located in the Wadi Abu Suffian at Hierakonpolis. Her work revealed part of a large tomb chamber (Tomb 23), which was flanked by indications of a wooden superstructure and surrounded by an enclosure wall of posts and mats (Adams 2002, 2004; Figueiredo 2004). Dating to early Naqada II, this is the earliest evidence for above-ground funerary architecture in Egypt. Owing to the illness and subsequent death of Mrs. Adams in 2002, the excavation of this important tomb complex remained incomplete.

In early 2005, with a grant from the National Geographic Society, excavation of the Tomb 23 complex was resumed, revealing the full extent of the rectangular tomb chamber to be c. 5.5m long (E-W) and 3.1m (N-S) wide, with an original depth of over 1.2m. It is the largest known tomb of its time (early Naqada IIB). Discovery of eight posts/postholes arranged on either side of the tomb cavity confirms that a wood or reed-mat covered building erected above it. In three cases, the squared wooden posts survive. East of the grave, evidence for six similar posts indicates the presence of a separate above-ground structure, perhaps an offering chapel or serdab. Surrounding the complex, rows of regularly spaced smaller posts form an enclosure 16m (E-W) by 9m (N-S) with an entrance on the northeast.

Although repeatedly plundered, the tomb chamber still contained a number of fine items including fragments of the ceramic funerary masks found exclusively in the HK6 cemetery, indicating at least two original high-ranking occupants in this tomb.

Human bone was scattered throughout the fill. The only in situ finds were the articulated legs and feet of three bodies found resting directly on the floor without indications of matting or wrappings. Placed in the grave with little attention to orientation, these bodies may be intrusive and are unlikely to belong to the tomb owner or his immediate family. Analysis of the human remains suggests a minimum of 11 individuals in total were placed in this tomb, including adults and children.

A shallow subsidiary tomb (Tomb 25) to the west contained the remains of three young adults as well as large amounts of textile that were apparently used to wrap and pad the bodies. Similar pads of resin-soaked linen found in the contemporaneous non-elite cemetery at HK43 suggest the beginnings of artificial mummification (Friedman *et al.* 1999; 2002; Jones 2002), and their presence in Tomb 25 indicates that the elite also engaged in this practice.

At the northeast corner of the enclosure, indirect access led the visitor toward the offering chapel where the majority of fragments of the limestone human statue have been recovered (Jaeschke 2004; Harrington 2004), suggesting that this life-sized statue was set up in the offering chapel and may have been the focus of special rituals and offerings. A number of ritual deposits were found concentrated in the northeast sector. Several included fragments of the ritual vessels known exclusively from the predynastic temple at HK29A, where they are associated with rebirth and fertility of the land (Friedman 1996; Hendrickx & Friedman 2003a). The recovery of these unique vessels at Tomb 23 suggests that the tomb owner's rebirth required similar rituals. Reinforcing this theme, a foundation deposit of blackened ostrich eggshell was found below the northeast corner of the enclosure wall.

Ashy sediments near the entrance to the enclosure contained further apparent votive offerings including a ram's head in flint, a companion to the flint ibex found in the same area in 2000. In addition the same offering deposit contained part of an ivory cylinder with geometric designs (perhaps a handle for a mace), traverse arrowheads and one isolated human cervical vertebra with perimortem cut marks. It is unknown whether this neck vertebra belongs to any of the individuals found in the tomb, but the deposit is sufficiently far away from the tomb chamber to rule out the possibility that any of these objects were accidentally placed here during tomb robbing events. Although the objects are no longer in situ, they are clearly part of an intentional deposit of materials, all of which carried connotations of power and control.

While the question of human sacrifice must remain open, the tomb owner took other companions with him to the afterlife. The most impressive of these being a 10-year-old African elephant, which was buried adjacent to the tomb enclosure, in an oval grave (Tomb 24) excavated 2003 (Friedman 2004). The ownership and maintenance of such an exotic creature is another indication of the power and wealth of the occupant of Tomb 23 (Van Neer *et al.* 2004).

This evidence together suggests that Tomb 23 belonged to one of the early rulers of Hierakonpolis, who undoubtedly controlled a large portion of Upper Egypt already in the early Naqada II period, a time when the settlement at Hierakonpolis was at its peak forming the largest urban center anywhere along the Nile.

As a result of these excavations, we can now propose a new interpretation for earlier finds

at HK6. In conjunction with the analysis of the ceramic assemblage, it seems likely that the so-called 'truction pit' around the brick-lined Tomb 16 (Adams 2003, 2004) is actually another large Naqada IIAB elite tomb in which the Early Dynastic tomb was inserted much later, causing heavy disturbance. Similarities among the ceramics suggest that Tomb 23 may be only a generation or two later.

The presence of the brick lined tomb within the earlier tomb does not appear accidental. It may reflect a conscious desire by the later elite to be closely associated with their illustrious ancestors. The earlier tombs with their elaborate superstructures would have been easy enough to locate and a restored version of their original appearance may be what their descendents were aiming at when they too constructed wooden buildings and enclosure walls over and around their tombs, unlike anywhere else in Egypt (see Tombs 1,10 and 11: Adams 2000). This interest in the past at the time of state formation is not restricted to Hierakonpolis, and strongly suggests that, even as Dynastic civilization was being born, the Egyptians were already looking to the past for inspiration and justification, as they would do again and again over the course of their long history.

Perhaps the Souls of Nekhen are not later fiction. Strong and rich rulers were clearly present at Hierakonpolis in early Naqada II times, predating developments at Abydos and lending support for sequential rather than rival bases of power (Hendrickx & Friedman 2003b). It is hoped that further excavation at HK6, like the excavations in the Umm el Qaab, will reveal the tombs of the entire dynasty of these early rulers and help us to understand more clearly the origins of Ancient Egypt civilization.

However, plans to reclaim land in the upper reaches of the Wadi Abu Suffian may ruin the elite cemetery. It is a tragedy unfortunately not limited to Hierakonpolis, that just as we are entering a new era of interest and understanding with regard to the origins of the state, we are loosing important sites forever.

Bibliography

ADAMS, B. 2000.

Excavations in the Locality 6 Cemetery at Hierakonpolis 1979-1985. BAR Int. Series 903, Oxford.

ADAMS, B., 2002.

Seeking the Roots of Ancient Egypt. A Unique Cemetery Reveals Monuments and Rituals from Before the Pharaohs, *Archéo-Nil* 12: 25-28

ADAMS, B., 2004.

Excavations in the Elite Predynastic Cemetery at Hierakonpolis Locality HK6: 1999-2000, *ASAE* 78: 47-52

FIGUEIREDO, A., 2004 .

Locality HK6 at Hierakonpolis: Results of the 2000 Field Season, in S. Hendrickx et al. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams*, OLA 138, Leuven: 1-23.

FRIEDMAN, R., 1996.

'The Ceremonial Centre at Hierakonpolis Locality HK29A' in A.J. Spencer (ed.), *Aspects of Early Egypt*. London: 16-35

FRIEDMAN, R.F.; MAISH, A.; FAHMY, A.G.; DARNELL, J.C., 1999.

Preliminary Report on Field Work at Hierakonpolis: 1996-1998, *JARCE* 36: 1-35.

FRIEDMAN, R., et al., 2002.

Excavations at Hierakonpolis, *Archéo-Nil* 12: 55-68

FRIEDMAN, R., 2004.,

Elephants at Hierakonpolis in Hendrickx, S., et al. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams*, Leuven: 131-168.

HARRINGTON, N., 2004.

Human Representation in the Predynastic Period: The Locality HK6 Statue in Context, in Hendrickx, S., et al. (eds.), *Egypt at its Origins, Studies in Memory of Barbara Adams*, Leuven: 26-43.

HENDRICKX, S. & FRIEDMAN, R., 2003A

'Chaos and Order: A Predynastic "Ostrakon" from HK29A', *Nekhen News* 15: 8-9.

HENDRICKX, S & FRIEDMAN, R., 2003B.

Gebel Tjauti Rock Inscription 1 and the Relationship between Abydos and Hierakonpolis during the early Naqada III Period. *Göttinger Miszellen* 196: 95-109.

JAESCHKE, H., 2004.,

The Stone statue fragments from HK6, in Hendrickx, S., et al. (eds.), *Egypt at its Origins, Studies in Memory of Barbara Adams*, Leuven: 46-65

JONES, J., 2002.

Funerary Textiles of the Rich and Poor, *Nekhen News* 14: 13.

VAN NEER, W., et al. 2004.

Animal burials and food offerings at the Elite Cemetery HK6 of Hierakonpolis, in: Hendrickx, S., et al. (eds), *Egypt at its Origins. Studies in Memory of Barbara Adams*, Leuven: 67-130

At the Origin of the Egyptian Civilisation: Reconsidering the Relationship between Egypt and Nubia in the Pre- and Protodynastic Periods

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The relationship between Egypt and Nubia during the period preceding the formation of the Egyptian state has been discussed on many occasions, particularly as far as the A-Group and Naqada cultures are concerned (Reisner 1910; Williams 1986; Smith 1990).

From the start, the cultural prominence of Egypt over the land of Nubia was postulated. All of the prehistoric evidence found at the beginning of the last century during the first Salvage Campaign related to the construction of the Aswan Dam, was interpreted and described by Reisner as Egyptian. But soon after, a real Nubian culture, similar, but at the same time different from Egypt's, was recorded and defined. Of course, any similarities were still interpreted as being cultural influences from Egypt, as the Nubians were thought to be incapable of reaching a high cultural standard without Egypt's "assistance".

During the last few decades, following the publication of the A-Group royal cemetery at Qustul, a Nubian origin of the Pharaohs was proposed. In fact, the Nubian kings at Qustul were represented with the same iconography as the Egyptian kings from Upper Egypt. According to Williams' chronological interpretation, the Nubian pharaohs had to be dated right before the first known kings of Egypt. For the first time, a different trajectory in the cultural influences between the two regions was taken into consideration, not without criticism.

According to current knowledge, there is a geographical, cultural and political boundary between Egypt and Nubia, and it is located between Gebel es Silsila and Aswan. Any Egyptian evidence in Nubia was seen as an import or as cultural influence, while any Nubian evidence in Upper Egypt was viewed as the sporadic presence of foreign people within Egyptian territory.

In the last few years, new research on the subject, particularly from a Nubian point of view, shows that the interaction between the two cultures was much more complex than previously thought, affecting the time, space and nature of the interaction (Gatto & Tiraterra 1996; Gatto 2000, 2003a, 2003b). The Aswan area was probably never a real borderline, at least not until the New Kingdom. Of particular importance in this perspective is the area between Armant and Dehmit, south of the First Cataract, as well as the surrounding deserts, and for the availability of data, more specifically the Western Desert.

The data recently collected and a new interpretation of available information are bringing to light a stable and long-term interaction between

Upper Egypt and Lower Nubia that has to be seen in a very different perspective. The two regions, and so their cultural entities, are not in antithesis to one another, but in the Predynastic period are still the expression of the same cultural tradition, with strong regional variations, particularly in the last part of the 4th millennium BC. Some of them are clearly connected with the major cultural and political changes of Egypt.

This paper aims to revise and better highlight the nature of this relationship, starting from the 5th millennium BC, by pointing out the mutual influences, including the ideological ones, which in some cases became the base of important aspects of the rising Egyptian civilisation.

Bibliography

GATTO, M.C., 2000.

The most ancient Evidence of the "A-Groups" Culture in Lower Nubia. [in:] KRZYŻANIĄK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Recent Research into the Stone Age of Northeastern Africa*. Poznan: 105-117.

GATTO, M.C., 2003A.

Hunting the Elusive Nubian A-Group. *Nekhen News* 15: 14-15.

GATTO, M.C., 2003B.

The Early A-Group in upper Lower Nubia, Upper Egypt and surrounding deserts. Paper presented at the VIIe Poznan Symposium, "Archaeology of the Earliest Northeastern Africa", 14-18 July 2003, Poznan.

GATTO, M.C. & TIRATERRA, F., 1996.

Contacts between the Nubian "A-Groups" and Predynastic Egypt [in:] KRZYŻANIĄK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Interregional Contacts in the Later Prehistory of Northern Africa*. Poznan : 331-334.

REISNER, G.A., 1910.

The Archaeological Survey of Nubia: Report for 1907-1908. Cairo.

SMITH, H.S., 1991.

The Development of the 'A-Group' Culture in Northern Lower Nubia [in:] DAVIES, W.V. (ed.), *Egypt and Africa. Nubia from Prehistory to Islam*. London: 92-111.

WILLIAMS, B.B., 1986.

Excavations between Abu Simbel and the Sudan Frontier, Keith C. Seele, Director. Part 1: *The A-Group Royal Cemetery at Qustul: Cemetery L*. Oriental Institute Nubian Expedition 3. Chicago.

The Roots of the "Naqadian Expansion" Phenomenon and the Secondary Social Formation in the Egyptian, Nubian and South Levantine Areas

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If the Upper Egyptian communities were obviously already organised in complex chiefdoms as early as the Naqada I era, the first clear demonstration of their hierarchical social organisation appears during the second part of this period. Since that moment, this phenomenon is evidenced in particular in certain tombs that contain products of exogenous origin, sometimes imported from regions far away. These products, sometimes referred to as "exotic", can either be raw materials or manufactured goods, and hold a central place in the lifestyle of primitive societies, for they are in the centre of intra- and inter-communal social relationships in the way of the practices of gift exchange or organisation of public events. In this, they partake in the foundation of the incipient elites.

Nonetheless, these types of commodities, coming from Nubia in the south and from the southern Levant (or even from Syria) in the north, only reached Upper Egypt after random "down the line trade" of transactions. This mode of supply did not guarantee the Naqadian leaders a steady influx of desired goods nor did it offer them the possibility to modulate demand. The Naqadian elites, then in the middle of their process of assertion, reorganised the already existing exchange networks for their own benefit in order, first of all, to control all the proximity transactions and, secondly, to try to regulate these exchanges over a greater distance while diminishing the number of middlemen.

As a result of this impetus, an increasing number of persons lived permanently in these centres, now devoted to the concentration and the advancement of the regional production toward the poles of consumption. Subsequently a modification of their social organisation became indispensable due to the widening of the community and the necessity of organising the exchange of commodities. During these modifications, the impact of the Naqadian model was determined, and the different local communities borrowed from it several material and social aspects. That was how the phenomenon of cultural diffusion, also known as the "Naqadian expansion" began, which as early as the first half of the Naqada II era expanded to the north, but also to the south. This stream of cultural emulation is comparable in its causes and effects to another expansion, Urukian this time, which took place in Great Mesopotamia a few centuries earlier.

In favour of both the ever-growing Naqadian elites' need for exogenic goods and the material and matrimonial exchanges between close and faraway communities, the phenomenon quickly - as early as the second half of the Naqada II era -

affected the centre of Nubia, Lower Egypt and the southern Levant. Nonetheless, this single wave of "secondary social transformation" appeared in different ways in the three regions under consideration here.

In Nubia, where this phenomenon occurred with the concentration of exchange centres in the strategic emplacements at the outlets of wadis, but also in the Nile Delta, where it took the form of a modification of the existing long distance exchange networks (either with the acculturation of certain sites, or with the abandonment and the concomitant foundation of new exchange-oriented centres), the indigenous societies dropped their social organisation, and adopted more or less completely and quickly the Naqadian model.

On the other hand, in the southern Levant, with the exception of a few Egyptian administrative outposts based in the north of the Negev, the concentration of local production and redistribution took place around centres demonstrating a deep Canaanite tradition. This hermetism can be explained either by the great distance from the core, which minimised the impact of the Naqadian model, or by the fact that these Canaanite societies disposed of a social organisation structured enough to hold the exchanges at a constant level and adapted them if needed, and thus didn't feel the necessity to adopt a new social organisational form, even one said to be more efficient.

Anyway, the Naqadian expansion first observed through the diffusion of the Upper Egyptian material culture to the whole Nile Valley and then to the Delta, had to be linked to a more global secondary social formation phenomenon. The commercial dynamics created by the Naqadian elites in order to obtain a steady flux of commodities with a strong social dimension, has generated a secondary urbanisation wave that, in the middle of the 4th millennium BC, affected Lower Egypt as well as Nubia and the southern Levant. This cultural diffusion corresponds to a change in social structures and thus must be distinguished from primary formation processes respective to each of the considered cultural spheres. Moreover, the best evidence for the existence of such a movement still remains its collapse. When, at the beginning of the 3rd millennium BC, the Thinite dynasties, for reasons yet unclear, cut their relationships with Nubia and the southern Levant, an identical phenomenon was observed in these two regions, namely the sudden vanishing of the "A-Group" cultural entity on one hand, and an important disturbance in the Canaanite urban network during the EB II on the other. With the collapse of the inter-regional

exchanges, whose organisation was at the same time purveyor of status and justification of inter-communities relationships, the different local centres had to find, after a necessary readjustment, other specifically regional organisational strategies.

Bibliography

- BALANDIER, G., 1967.
Anthropologie politique. Paris.
- BAZIN, J. & TERRAY, E., 1982.
Guerres de lignages et guerres d'états en Afrique. Paris.
- BRAUN, E., 1996.
Cultural Diversity and Change in the Early Bronze I of Israel and Jordan. Towards an Understanding of the Chronological Progression and Patterns of Regionalism in Early Bronze Age Society. Unpublished Ph.D. thesis, Tel Aviv.
- BRAUN, E., 2003.
South Levantine Encounters with Ancient Egypt at the Beginning of the Third Millennium [in:] MATTHEWS, R. & ROEMER, C. (eds.), *Ancient Perspectives on Ancient Egypt. Encounters with Ancient Egypt*. London: 21-37.
- BRAUN, E.; VAN DEN BRINK, E.C.M.; GOPHNA, R. & GOREN, Y., 2001.
New Evidence for Egyptian Connections during the Latter Part of Early Bronze I from the Soreq Basin in South-Central Israel [in:] WOLFF, S.R. (ed.), *Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse*. Studies in Ancient Oriental Civilization 59. Chicago / Atlanta: 59-98
- BRAUN, E. & VAN DEN BRINK, E.C.M., 1998.
Some Comments on the Relative Dating of Tomb U-j at Umm el Ga'ab and Graves 330 and 787 from Minshat Abu Omar with Imported Ware. Views from Egypt and Canaan. *Ägypten und Levante* 7: 71-94.
- CHLODNICKI, M., 2003.
Stratigraphy and Chronology of the Central Tell in Tell al-Farkha [in:] HAWASS, Z. & PINCH BROCK, L. (eds.), *Egyptology at the Dawn of the Twenty-first Century. Proceedings of the Eighth International Congress of Egyptologists. Cairo 2000. Vol. 1. Archaeology*. Cairo / New York: 117-122.
- DALTON, G., 1967.
Tribal and Peasant Economies. Readings in Economic Anthropology. Austin.
- DALTON, G., 1975.
A note of Clarification on economic Surplus. *American Anthropologist* 62: 483-490.
- FALTINGS, D.; BALLETT, P.; FÖRSTER, F.; FRENCH, P.; IHDE, C.; SAHLMANN, H.; THOMALSKY, J.; THUMSHIRN, C. & WODZINSKA, A., 2000.
Zweiter Vorbericht über die Arbeiten in Buto von 1996 bis 1999. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 56: 132-179.
- FOREST, J.D., 1996.
Mésopotamie, l'apparition de l'état. VIIe-IIIe millénaires. Paris.
- FRIEDMAN, J. & ROWLANDS, M.J., 1977.
The Evolution of Social Systems. London.
- GATTO, M.C., 2000.
The most ancient Evidence of the "A-Groups" Culture in Lower Nubia. [in:] KRZYŻANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Recent Research into the Stone Age of Northeastern Africa*. Poznan: 105-117.
- GATTO, M.C. & TIRATERA, F., 1996.
Contacts between the Nubian "A-Groups" and Predynastic Egypt [in:] KRZYŻANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Interregional Contacts in the Later Prehistory of Northern Africa*. Poznan : 331-334.
- GODELIER, M., 1973A.
Horizon, trajets marxistes en anthropologie. Paris.
- GODELIER, M., 1973B.
Sur les sociétés précapitalistes. Paris.
- GODELIER, M., 1982.
La production des Grands Hommes. Pouvoir et domination masculine chez les Baruya de Nouvelle-Guinée. Paris.
- GODELIER, M., 1984.
L'Idéal et le Matériel. Pensées, économies, sociétés. Paris.
- HONEGGER, M., 2001.
Évolution de la société dans le bassin de Kerma (Soudan) des derniers chasseurs-cueilleurs au premier royaume de Nubie. *Bulletin de la Société Française d'Égyptologie* 152:12-27.
- JIMÉNEZ-SERRANO, A., 2003.
Two Proto-kingdoms in Lower Nubia in the Fourth Millennium B.C. [in:] KRZYŻANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Cultural Markers in the Later Prehistory of Northeastern Africa and Recent Research*. Poznan: 251-268.
- KAHN, J. & LLOBERA, J., 1981.
The Anthropology of Pre-capitalist Societies. London.
- KRZYŻANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (EDS.), 2003.
Cultural Markers in the Later Prehistory of Northeastern Africa and Recent Research. Studies in African Archaeology 8. Poznan.
- LANGHE, M., 2003.
Settlement Sites of the A-Group from the Laqiya

- Region (Eastern Sahara, Northwest-Sudan) [in:] KRZYZANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Cultural Markers in the Later Prehistory of Northeastern Africa and Recent Research*. Poznan: 105-127.
- LASSUDRIE-DUCHENE, B., 1954.
La Consommation ostentatoire dans les économies primitives. Bordeaux.
- LEVY, T.E.; ALON, D.; SMITH, P.; YEKUTIELI, Y.; ROWAN, Y.; GOLDBERG, P.; PORAT, N.; VAN DEN BRINK, E.C.M.; WITTEN, A.J.; GOLDEN, J.; GRIGSON, C.; DAWSON, L.; HOLL, A.; MORENO, J. & KERSEL, M., 1997.
Egyptian-Canaanite Interaction at Nahal Tillah, Israel (ca. 4500-3000 B.C.E.): An Interim Report on the 1994-1995 Excavations. *Bulletin of the American Schools of Oriental Research* 307: 1-52.
- LEVY, T.E.; ALON, D.; VAN DEN BRINK, E.C.M.; KANSA, E. & YEKUTIELI, Y., 2001.
The Protodynastic / Dynasty 1 Egyptian Presence in Southern Canaan: A Preliminary Report on the 1994 Excavations at Nahal Tillah, Israel [in:] WOLFF, S.R. (ed.), *Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse*. Studies in Ancient Oriental Civilization 59. Chicago / Atlanta: 411-446.
- MEILLASSOUX, C., 1975.
Femmes, greniers et capitaux. Paris.
- PANOFF, M., 1977.
Claude Meillassoux et le mode de production domestique. *Revue française de Sociologie* 18,1: 133-143.
- RAMPERSAD, S.R., 1999.
The Origin and Relationships of the Nubian A-group. U.M.I. / Toronto.
- RAMPERSAD, S.R., 2000.
Relationships of the Nubian A-Group. *Journal of the American Research Center in Egypt* 37: 127-142.
- ROSMAN, A. & RUBEL, P., 1971.
Feasting with mine Enemy. Rank and Exchange among Northwest Coast Societies. New York / London.
- SAHLINS, M., 1958.
Social Stratification in Polynesia. Seattle / London.
- SAHLINS, M., 1976.
Age de pierre, âge d'abondance. L'économie des sociétés primitives. Paris.
- SCHMIDT, K., 1993.
Comments to the Lithic Industry of the Buto-Maadi Culture in Lower Egypt [in:] KRZYZANIAK, L.; KOBUSIEWICZ, M. & ALEXANDER, J.A. (eds.), *Environmental Change and Human Culture in the Nile Basin and Northern Africa until the Second Millennium B.C.* Poznan: 267-277.
- SCHMIDT, K., 1996.
Lower and Upper Egypt in the Chalcolithic Period. Evidence of the Lithic Industries: A View from Buto [in:] KRZYZANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Interregional Contacts in the Later Prehistory of Northeastern Africa*. Poznan: 279-289.
- SERVICE, E., 1975.
Origins of the State and Civilization. The Process of cultural Evolution. New York.
- TASSIE, G.J. & VAN WETERING, J., 2003.
Early Cemeteries of the East Delta: Kafr Hassan Dawood, Minshat Abu Omar, and Tell Ibrahim Awad [in:] HAWASS, Z. & PINCH BROCK, L. (eds.) *Egyptology at the Dawn of the Twenty-first Century. Proceedings of the Eighth International Congress of Egyptologists. Cairo 2000. Vol. 1. Archaeology*. Cairo / New York: 499-507.
- TERRAY, E., 1979.
Le Marxisme devant les sociétés " primitives ". Paris.
- TESTART, A., 2001A.
Deux politiques funéraires. Trabalhos de Anthropologia e Etnologia 41: 45-66.
- TESTART, A., 2001B.
Echange marchand, échange non marchand. Revue française de Sociologie 42: 719-748.
- TESTART, A., 2004.
L'origine de l'état. Paris.
- VAN DEN BRINK, E.C.M., 1993.
Settlement Patterns in the Northeastern Nile Delta during the Fourth-Second Millennia B.C. [in:] KRZYZANIAK, L.; KOBUSIEWICZ, M. & ALEXANDER, J.A. (eds.), *Environmental Change and Human Culture in the Nile Basin and Northern Africa*. Poznan : 279-304.
- VAN DEN BRINK, E.C.M. & BRAUN, E., 2002.
Wine Jars with Serekhs from Early Bronze Lod: Appellation contrôlée Vallée du Nil, But for Whom? [in:] VAN DEN BRINK, E.C.M. & YANNAI, E. (eds.), *In Quest of Ancient Settlements and Landscapes. Archaeological Studies in Honour of Ram Gophna*. Tel Aviv: 159-184.
- VAN DEN BRINK, E.C.M. & LEVY, T.E. (EDS.), 2002.
Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E. London / New York.
- WILLIAMS, B.B., 1986.
Excavations between Abu Simbel and the Sudan Frontier, Keith C. Seele, Director. Part 1: The A-Group Royal Cemetery at Qustul: Cemetery L. Oriental Institute Nubian Expedition 3. Chicago.

WILLIAMS, B.B., 1989.

Excavations between Abu Simbel and the Sudan Frontier, Keith C. Seele, Director. Parts 2, 3 and 4: Neolithic, A-group and Post-A-Group Remains from Cemeteries W, V, S, Q, T, and a Cave East of Cemetery K. Oriental Institute Nubian Expedition 4. Chicago.

WILLIAMS, B.B., 1993.

Excavations at Serra East. A-Group, C-Group, Pan Grave, New Kingdom, and X-Group Remains from Cemeteries A-G and Rock Shelters. Oriental Institute Nubian Expedition 10. Chicago.

WITTFOGEL, K., 1964.

Le despotisme oriental. Étude comparative du pouvoir total. Paris.

Corpus of Pottery from the Proto/Early Dynastic Cemetery at Kafr Hassan Dawood, Wadi Tumilat, East Delta, Egypt

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The site of Kafr Hassan Dawood (KHD) is located in the Wadi Tumilat, East Delta, Egypt and dates from the Protodynastic through to Dynasty I. The cemetery is the largest so far excavated in the East Delta, with 751 graves from this early period; later graves from the Late Period and Ptolemaic era are interspersed with these graves making a total of over 1060 graves. The site was excavated by a joint mission from University College London and the Supreme Council of Antiquities from 1995 to 1999 and is at present undergoing final analysis for publication in a series of monographs. The site and artefactual assemblage was systematically recorded during the period of excavation, with Ashraf El-Senoussi as head ceramicist assisted by Annette Kjølby. Some of the pottery from the previous excavations at the site (1989-1995) conducted by the local inspectorate, under the direction of Mohammed El-Hangouri was also analysed by the ceramic specialists on-site, whereas others, which had already been removed from the site have been examined from the original drawings and photographs. The corpus of pottery from KHD, which consists of nearly 2,000 pottery vessels, represents an invaluable addition to the growing number of regional typologies of Predynastic to Early Dynastic pottery.

The examination of the various characteristics of the pottery, such as fabric type, surface treatment, mode of production, shape and style of decoration, has allowed various stages in the development of pottery production at KHD to be distinguished. Both coarse ware and fine wares of Nile Silt and Marl Clay are represented at the site. Various pottery types have been identified: so-called "beer" and "wine" jars, storage jars, bread moulds, round shouldered jars with restricted base, ovoid jars, tall cylindrical jars, tall and squat jar stands, scoops, lids, squat shaped jars, bowls and dishes. The pottery corpus from KHD has been indexed with Petrie's and Kaiser's pottery sequences, as well as the corpi from Helwan (Köhler & Smythe 2004) and Minshat Abu Omar (Kroeper 1986/1987), and although not matching in all instances, a reliable sequence has been established for the development of the KHD pottery. The dating of the pottery from KHD ranges from a small Naqada IID carinated storage jar with a small pronounced rim, characteristic of milk jars, but with a flat-bottom, to a wavy line decorated storage jar with a thickened rim, oval body and flat base of Naqada IIIC2 date. One of the observations is the temporal increase in the number of functionally specialised types of pottery, representing developments in the manner of preparation of certain food types, such as bread

and beer.

As well as the whole vessels discovered at the site, many thousands of potsherds were also discovered, including strategically placed "symbolic" potsherds. It has been surmised that these symbolic potsherds represented whole vessels of either bread moulds or cooking jar stands. The study of the ceramic assemblage along with the other types of artefacts allows for a better understanding of the daily and ritual life of the KHD population and the effects of the increasingly centralised state on the peripheral regions.

Bibliography

- BAKR, M.I.; ABD EL-MONEIM, M.A.M. & SELIM, M.O.M., 1996.
Protodynastic Excavations at Tell Hassan Dawud (Eastern Delta) [in:] KRZYŻANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Interregional Contacts in the Later Prehistory of Northeastern Africa*. Poznań: 277-278.
- EL-HANGARY, S.M., 1992.
The Excavations of the Egyptian Antiquities Organization at Ezbet Hassan Dawud (Wadi Tumilat), Season 1990 [in:] VAN DEN BRINK, E.C.M. (ed.), *The Nile Delta in Transition: 4th. - 3rd. Millennium B.C.* Jerusalem: 215-216.
- HAMDAN, M.A., 2003.
Quaternary Geology of Kasr Hassan Dawood, East Nile Delta, Egypt [in:] HAWASS, Z. & PINCH BROCK, L. (eds.), *Egyptology at the Dawn of the Twenty-first Century. Proceedings of the Eighth International Congress of Egyptologists. Cairo 2000. Vol. 1. Archaeology*. Cairo / New York: 221-228.
- HASSAN, F.A., 2000.
Kafr Hassan Dawood. *Egyptian Archaeology* 16: 37-39.
- HASSAN, F.A.; TASSIE, G.J.; TUCKER, T.L.; ROWLAND, J.M. & VAN WETERING, J.F.L., 2003.
Social Dynamics at the Late Predynastic to Early Dynastic Site of Kafr Hassan Dawood, East Delta, Egypt. *Archéologie-Nil* 13: 37-46
- KÖHLER, E.C. & SMYTHE, J., 2004.
Early Dynastic Pottery from Helwan - Establishing a Ceramic Corpus of the Naqada III Period [in:] MARCHAND, S. (ed.), *Cahiers de la Céramique Égyptienne* 7. Le Caire: 123-143.
- KROEPER, K., 1986-1987.
The Ceramic of the Pre/Early Dynastic Cemetery of Minshat Abu Omar. *BES* 8: 73-94.

LOVELL, N.C., 1997.

The 1995 Excavations of the Cemetery at Kafr Hassan Daoud, Wadi Tumulat. *Journal of the Society for the Study of Egyptian Antiquities* 27: 34-41.

ROWLAND, J.M., 2003.

Trends in Burial Evidence: Evaluating Expectations for the Regional and Temporal Distribution of Mortuary Behaviour in Predynastic Egypt [in:] IVES, R.; LINES, D.; NAUNTON, C. & WAHLBERG, N. (eds.), *Current Research in Egyptology III*. BAR Int. ser. 1192. Oxford: 63-88.

ROWLAND, J.M. & HASSAN, F.A., 2003.

The computerized Database and Potential for a Geographic Information System at Kafr Hassan Dawood [in:] HAWASS, Z. & PINCH BROCK, L. (eds.), *Egyptology at the Dawn of the Twenty-first Century. Proceedings of the Eighth International Congress of Egyptologists. Cairo 2000. Vol. 1. Archaeology*. Cairo / New York: 416-423.

SUTHERLAND, A., forthcoming.

Field conservation Techniques at Kafr Hassan Dawood [in:] HASSAN, F. A.; VAN WETERING, J. & TASSIE, G.J. (eds.), *Managing Egypt's Cultural Heritage: Proceedings of the First Egyptian Cultural Heritage Organisation Conference on: Egyptian Cultural Heritage Management*. Cairo.

TASSIE, G.J. & VAN WETERING, J., 2003.

Early Cemeteries of the East Delta: Kafr Hassan Dawood, Minshat Abu Omar, and Tell Ibrahim Awad [in:] HAWASS, Z. & PINCH BROCK, L. (eds.) *Egyptology at the Dawn of the Twenty-first Century. Proceedings of the Eighth International Congress of Egyptologists. Cairo 2000. Vol. 1. Archaeology*. Cairo / New York: 499-507.

TASSIE, G.J.; VAN WETERING, J. & ROWLAND, J.M., in prep.

The socio-political Landscape & economic Interaction of Egypt during the late 4th Millennium and early 3rd Millennium BCE: State Formation from a Delta Perspective.

TUCKER, T.L., 2003.

Bioarchaeology of Kafr Hassan Dawood: Preliminary Investigations [in:] HAWASS, Z. & PINCH BROCK, L. (eds.), *Egyptology at the Dawn of the Twenty-first Century. Proceedings of the Eighth International Congress of Egyptologists. Cairo 2000. Vol. 1. Archaeology*. Cairo / New York: 530-535.

VAN WETERING, J. & TASSIE, G.J., 2003.

Socio-Political Hierarchy of First Dynasty Sites: A Ranking of East Delta Cemeteries based on Grave Architecture [in:] EYMA, A.K. & BENNETT, C.J. (eds.), *A Delta-Man in Yebu*. Occasional Volume of the Egyptologists' Electronic Forum 1. Parkland: 123-146.

Economics of Production of the Predynastic Tomb and its Content

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The main interest of the period under study is its association with the formation of the state in ancient Egypt. By examining the social organisation as reflected in mortuary remains, one aims at obtaining an insight into the socio-economic dynamics of the society during the Predynastic and early dynastic period in Egypt. Thus, an approach is necessary which allows for the examination of the factors that demanded social reorganisation and identification of the changes in social formations as a result of transformations in levels of organisation. Accordingly, a methodology is adopted where a study of the economics of production of the Predynastic tomb and its components may reveal the elements of the differential distribution of resources within an environment and the societal management of these resources.

The question to be explored in this research is how can we study the economics of production of the Predynastic tomb. By studying how social and cultural choices are expressed at the various stages of artefact production, we can perceive the social organisation of production involved and its underlying effect on the society as a whole. Thus by conducting a micro-scale analysis of artefact production, the differential participation of the individuals or groups involved can be outlined and the underlying social complexity may be measured. An example of such micro-scale analysis is the analysis of energy expenditure of the Predynastic tomb and its contents. In this case, the analysis of energy expenditure measures social complexity as expressed through mortuary remains as evidenced in the social organisation and time invested in artefact production.

This approach requires the building of a model in which the processes of production are the main criterion and in which the organisation of production of each artefact type is examined. The model is based on a) the archaeological record where technical and organisational evidence of artefact production are known; b) experimental research where some artefacts were reproduced, revealing information on production and organisation; and c) modern ethnographic studies, where some technological variables are accounted for.

Bibliography

AGANGA, A.A.; LETSO, M. & AGANGA, A.O., 2000. Feeding Donkeys. *Livestock Research for Rural Development* 12: (2).

AGANGA A.A. & TSOPITO, C.M., 1998.

A note on the feeding Behaviour of domestic Donkeys: a Botswana Case Study. *Applied Animal Behaviour Science* 60: 235-239.

ARNOLD, D.E., 1985.

Ceramic Theory and Social Process. Cambridge.

BYRNE, D.S., 1998.

Complexity Theory and Social Sciences: An Introduction. London.

BYRNE, D.S., 1997.

Complexity Theory and Social Research. Social Research Updates 18. Guildford.

CLARKE, D.L., 1972.

Models in Archaeology. London.

DIJKMAN, J.T., 1992.

A Note on the Influence of negative Gradients on the Energy Expenditure of Donkeys walking, carrying and pulling Loads. *Animal Production* 54: 153-156

FLETCHER, M. & LOCK, G., 1994.

Digging Numbers elementary Statistics for Archaeologists. Oxford.

JONES, A., 2001.

Archaeological Theory and scientific Practice. Cambridge.

KAUFFMAN, S., 1993.

The Origins of Order. Oxford.

KAUFFMAN, S., 1995.

At Home in the Universe. London.

NICHOLSON, P.T. & SHAW, I. (eds.), 2000.

Ancient Egyptian Materials and Technologies. Cambridge.

OLSEN, M.E., 1968.

The Processes of Social Organization. New York.

O'SHEA, J.M., 1984.

Mortuary Variability: An archaeological Investigation. Orlando.

STOCKS, D.A., 2003.

Experiments in Egyptian Archaeology. Stoneworking Technology in Ancient Egypt. London / New York.

WARD, C.A., 2000.

Sacred and Secular: Ancient Egyptian Ships and Boats. Philadelphia.

WARD, C.A., 2003.

Sewn Planked Boats from Early Dynastic Abydos, Egypt [in:] BELTRAME, C. (ed.), *Boats, Ships and Shipyards. Proceedings of the Ninth International Symposium on Boat and Ship Archaeology, Venice 2000*. Oxford: 19-23.

ZIPF, G.K., 1965 [1949].

Human Behavior and the Principle of Least Effort. New York.

Craft Specialisation at Hierakonpolis during the Early Naqada II Period in the Elite Context of Cemetery HK6

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Owing to the untimely death of Barbara Adams in 2002, the study of the objects from her excavations at the elite cemetery HK6 between 1997 and 2000 (Adams 2002, 2004) had not been completed. Also, the 2000 excavation of the most important Tomb 23 remained to be finished. In February - March 2005, the material excavated between 1997 and 1999 was studied in preparation for publication. This allowed some interesting observations to be made on craft specialisation within the context of social differentiation.

Large quantities of pottery remained to be mended and analysed. As a consequence, it was decided to concentrate efforts on the extensive amount of material found in Tomb 16, its so-called "construction pit" and the adjacent Tomb 18 (contexts 20-21, find numbers 89 and 117). Many joins could be made between these find numbers and the material obviously derives from the same source. This, together with the results of this season's excavations at HK6 of Tomb 23 by Renée Friedman, allows for the proposal of a new interpretation for part of Barbara Adams' excavation. Tomb 23 is the largest tomb ever excavated in Egypt for the early Naqada II period (see Friedman, this volume). Most probably, contexts 20-21 represent a similar large tomb with multiple occupants, in which, however, a mud-brick-lined tomb (Tomb 16) was inserted during Early Dynastic times, causing heavy disturbance.

From the large number of pottery fragments examined from contexts 20-21, about 115 vessels could be reconstructed completely or partially, and more are awaiting reconstruction. The vessels studied consist of Black-topped and Red-polished pottery made from fine Nile silts (Nile B1 / Hierakonpolis fabric/temper class 2), and Rough pottery made from straw tempered Nile silt (Nile C / Hierakonpolis fabric/temper class 1). At first view, the Black-topped and Red-polished types are characteristic of Naqada IC-IIA, although several types are rarely represented at other sites. Of great interest are the small egg-shaped vessels, with brown or black polished surfaces, which are rare at other sites, but are attested in great numbers at the early temple site HK29A (Friedman 2003: 5) and occasionally also at cemetery HK43 (Friedman 2004: 5). These findings confirm the particularities of pottery production at Hierakonpolis during the late Naqada I - early Naqada II period.

The straw tempered jars are of particular interest. The complete vessel shape of 30 examples could be reconstructed, but judging from the base fragments, there were at least 36 additional vessels.

They are flat-based, low-shouldered jars with a wide aperture. The rims are very simple and never show a marked transition from the body of the vessel. Although very similar in shape, two distinct size types can be distinguished; neither of them occurring in Petrie's Predynastic pottery typology (Petrie 1921). The smaller vessels closely resemble some of the contemporary Black-topped jars and may be considered to be imitations of these. None of the straw tempered jars show traces of use, and it is therefore probable that they were made especially for funerary use. These jars certainly represent the earliest large-scale presence of Rough pottery in a Predynastic cemetery. Remarkably, the appearance of Rough pottery is not connected to low-status tombs, as might have been expected from the rather rough appearance of these vessels, but on the contrary is linked with the most important tombs ever found in Egypt for the late Naqada I - early Naqada II period. This, of course, opens up new and interesting avenues for the interpretation of Rough pottery at that time.

Bibliography

- ADAMS, B., 2002.
Seeking the Roots of Ancient Egypt. A Unique Cemetery reveals Monuments and Rituals from before the Pharaohs. *Archéo-Nil* 12: 11-28.
- ADAMS, B., 2004.
Excavations in the elite Predynastic Cemetery at Hierakonpolis Locality HK6: 1999-2000. *Annales du Service des Antiquités de l'Égypte* 78: 35-52.
- FRIEDMAN, R.F., 2003.
Return to the Temple: Excavations at HK29A. *Nekhen News* 15: 4-5.
- FRIEDMAN, R.F., 2004.
Farewell to HK43. *Nekhen News* 16: 4-5.
- PETRIE, W.M.F., 1921.
Corpus of Prehistoric Pottery and Palettes. British School of Archaeology in Egypt & Egypt Research Account 32. London.

The Origin of the State and the Unification: two different Concepts in the same Context

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Usually, the origin of the state has been related to the process of unification. The reason for this perception probably lies in the traditional vision in which the unification was the consequence of a single event. However, both concepts (the origin of the state and the unification) are completely different. On the one hand, the origin of the state is an anthropological, social, and political concept that can be observed in different cultures, areas, and periods. On the other, the unification is a regional process that must be understood as a consequence of the origin of the state in the Nile Valley. According to our point of view, the existence of a state can be detected in the Nile Valley at least at the beginning of the Naqada IIIA2 period, while the unification was a long process, which did not culminate until the beginning of the 1st Dynasty. At the same time, the origin of the state can be detected in different regions of the Nile Valley. Currently, the major data comes only from Upper Egypt and this permits us to evaluate this phenomenon in that area. However, this does not mean that similar processes were developing in other areas such as Lower Nubia, the Fayum or Lower Egypt.

The aim of this paper is to define the existence of a state in Upper Egypt before the end of the unification of all Egypt. For this proposal, we will analyse all the elements that might define the existence of the state. As such a definition is very problematic we will try to suggest a minimum of features that might open a debate. One of these characteristics is the creation of writing and its social role, although we will take into consideration others, such as trade, tomb size, iconographic motifs, increase in bureaucracy, the religious role of the ruler, etc. At the same time, we will emphasise the concentration of power perceived from the archaeological evidence present in different cemeteries (mainly Abydos and Hierakonpolis) and also the representation of the ruler (i.e. Djebel Tjauti).

The existence of the state prior the end of the unification might explain the different dynamics that interacted during the process of the unification itself.

Bibliography

ADAMS, B., 1995.

Ancient Nekben. Garstang in the City of Hierakonpolis. Egyptian Studies Association 3. New Malden.

ANDELKOVIC, B., 1995.

The Relations between Early Bronze Age I Canaanites and Upper Egyptians. Centre for Archaeological Research 14. Belgrade.

ARNETT, W. S., 1982.

The Predynastic Origin of Egyptian Hieroglyphs. Washington.

BAINES, J., 1990.

Trône et dieu: aspects du symbolisme royal et divin des temps archaïques. *Bulletin de la Société Française d'Égyptologie* 118: 5-37.

BAINES, J., 1995.

Origins of Egyptian Kingship [in:] O'CONNOR, D. & SILVERMAN, D.P. (eds.), *Ancient Egyptian Kingship.* Leiden / New York / Köln: 95-156.

BARD, K.A., 1992.

Origins of Egyptian Writing [in:] FRIEDMAN, R.F. & ADAMS, B. (eds.), *The Followers of Horus. Studies Dedicated to Michael Allen Hoffman.* Oxbow Monograph 20. Oxford: 297-306.

BARD, K.A., 1994

From Farmers to Pharaohs. Mortuary Evidence for the Rise of Complex Society in Egypt. *Monographs in Mediterranean Archaeology* 2. Sheffield.

BUTZER, K.W., 1976.

Early Hydraulic Civilization in Egypt. Chicago.

CAMPAGNO, M., 1998.

God-kings and King-gods in Ancient Egypt [in:] EYRE, C.J. (ed.), *Proceedings of the Seventh International Congress of Egyptologists.* *Orientalia Lovaniensia Analecta* 82. Leuven: 237-243.

DARNELL, J.C., ASS. DARNELL, D., CONTR. 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-Hól Rock Inscriptions 1-45. Oriental Institute Publications 119. Chicago.

DREYER, G., 1998.

Umm el-Qaab I. *Das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse.* Archäologische Veröffentlichungen 86. Mainz.

FRANKFORT, H., 1948.

Kingship and the Gods. A Study of Ancient Near Eastern Religion as the Integration of Society and Nature. Chicago.

HASSAN, F.A., 1988.

The Predynastic of Egypt. *Journal of World Prehistory* 2: 135-185.

HASSAN, F.A., 1993.

Population, Ecology, and Civilization in Ancient Egypt [in:] CRUMLEY, C.L. (ed.), *Historical Ecology. Cultural Knowledge and changing Landscapes*. Santa Fe.

HASSAN, F.A., 1997.

The Dynamics of a Riverine Civilization: a Geoarchaeological Perspective on the Nile Valley, Egypt. *World Archaeology* 29: 51-74.

KEMP, B.J., 1989.

Ancient Egypt. Anatomy of a Civilization. London / New York.

KÖHLER, E.C., 1995.

The State of Research on Late Predynastic Egypt: New Evidence for the Development of the Pharaonic State ? *Göttinger Miszellen* 147: 79-92.

PÉREZ LARGACHA, A., 1993.

El nacimiento del Estado en Egipto. Alcalá de Henares.

SPENCER, A.J., 1993.

Early Egypt: The Rise of Civilisation in the Nile Valley. London.

TRIGGER, B.G.; KEMP, B.J.; O'CONNOR, D. & LLOYD, A.B.,

Ancient Egypt: A Social History. Cambridge.

VERNUS, P., 1993.

La naissance de l'écriture dans l'Égypte ancienne. *Archéo-Nil* 3: 75-108.

Pre- and Early Dynastic Textiles: Technology, Specialisation and Administration during the Process of State Formation

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The favourable conditions for organic preservation in Egypt have resulted in significant quantities of textile evidence, which provides a record from the Early Neolithic to the Late Antique periods. The archaeological evidence is supported by ample iconographic and textual evidence for organised flax cultivation and processing, textile production and distribution from the Old Kingdom onwards. However, during the Pre- and Early Dynastic periods the implicit and explicit evidence for textile production is limited and diverse, and originates predominantly in funerary contexts south of the Nile Delta. Funerary textiles do not necessarily reflect the full spectrum of textile technologies of a society. Nevertheless, examination of archaeological material from different social strata, at sites dating from the Neolithic period to the 1st Dynasty, has provided information on technological changes in production, increasing craft specialisation, social stratification and centralised organisation.

This paper will relate the results of recent microscopic and chemical analysis of implicit evidence from the following sites to contemporary explicit evidence, with some reference to later material, particularly epigraphic.

Fayum (settlement)	(The Bolton Museum and Art Gallery, Bolton, U.K.)
Badari and Mostagedda	(Bolton Museum)
Hierakonpolis	(The Hierakonpolis expedition)
Adaïma	(The French Archaeological Institute [FAO])
Abydos	(The German Institute of Archaeology Cairo [DAI])
Helwan	(The Australian Centre for Egyptology)
Tarkhan	(The Petrie Museum of Egyptian Archaeology; Bolton Museum).

During the Predynastic period, a monumental technological change occurred which was to have far-reaching implications for textile production in ancient Egypt: the change from "Z" to "S" spinning. Early textiles, including the earliest extant specimen from the Fayum (Caton Thompson & Gardner 1934), were woven from yarns that were spun in the "Z" direction (i.e., sloping to the right [/]), and then plied (i.e., doubled) in the "S" direction (sloping to the left [\]). This resulted in the production of woven linen that was relatively coarse and uneven. Ultimately, the doubled, z-spun yarns were superseded by single, s-spun yarns, which were joined by splicing the fibres together. S-spun, spliced yarns distinguished Egyptian textiles from then until the 17th century AD (Bellinger 1959);

"Z" spun yarns continued to be manufactured in the rest of the textile-producing world, with some few isolated exceptions (Barber 1987).

Final results from the analysis of these early textiles are currently being collated, but at this stage of research it would appear that the change from "Z" to "S" spinning occurred in late NI and the beginning of NII at most sites. The consequences of this technological development are evident in the production of finer, stronger, evenly woven textiles dating from about NIIA-B onwards.

An attempt will be made to address the following issues pertaining to Predynastic textile production: Was the earlier (i.e., pre-NIIA) production principally domestic? Was there an increase in production concomitant with the introduction of the new techniques? Did specialist workshops emerge as a consequence? What evidence exists for the emergence of a social stratum that catered specifically for the requirements of the elite during the Mid- to Late Predynastic?

During the 1st Dynasty, funerary contexts suggest increasing efficiency and specialisation in textile production. Large quantities of fine quality textiles appeared in burials, with the inclusion of finished articles of clothing as offerings. Tarkhan Mastaba 2050, despite plundering, still contained large amounts of linen (Petrie 1914) as well as a pleated dress (Hall 1982). The prominence of the "linen lists" in Early Dynastic funerary stelae, with signs designating different qualities, sizes and quantities of woven textiles or garments to be offered, accords with the archaeological evidence that various grades of textile and specific garments were essential funerary equipment for the elite. (Köhler & Jones, in preparation.)

A preference for completely pure white linen, evident in 1st Dynasty burials from Helwan, in the tomb of Hemaka at Saqqara (Egyptian Museum, Cairo JE 70099) and at Tarkhan, has been observed during the course of research (Jones, in preparation). Analysis of the inorganic components of a white 1st Dynasty textile shows the presence of salts that could have been used in the bleaching process (Stoll & Fengel 1988. Provenance not stated). Bleaching of textiles indicates specialisation, requiring specific resources, materials and skills. Moreover, the production of high-status, ultra-fine textiles for the consumption of the elite is evident from analysis of the recently "discovered" wrappings from the royal tomb enclosures at Umm el-Qaab, Abydos (Jones 2002).

Centralised control and the distribution of textiles was first suggested during NIIIA2 by the presence of bone labels, which apparently had been

attached to textiles and clothing in tomb U-j at Abydos (Dreyer 1998). During the 1st Dynasty, commodity tags from Umm el-Qaab identify specialised textile production centres/estates that provisioned the royal household and the royal tombs. (Unpublished. With thanks to Günter Dreyer for permission to examine.) Although rare, such evidence, when assembled with the data implicit in the textiles, contributes to the understanding of the economic organisation that was associated with the processes of state formation.

Bibliography

BARBER, E. J.W., 1987.

Prehistoric Textiles. Princeton.

BELLINGER L., 1959.

Craft Habits, Part II: Spinning and Fibers in Warp Yarns. *The Textile Museum Workshop Notes* 20. Washington.

CATON-THOMPSON, G. & GARDNER, E.W., 1934. *The Desert Fayum*. London.

DREYER, G., 1998.

Umm el-Qaab I. Das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse. Archäologische Veröffentlichungen 86. Mainz.

HALL, R.M., 1982.

Garments in the Petrie Museum of Archaeology. *Textile History* 13,1: 27-45.

JONES, J., 2002.

The Textiles at Abydos: New Evidence. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 58: 323-340.

JONES, J., in preparation.

Bleached Textiles in First Dynasty Contexts: More than just a fashion Statement ?

KÖHLER E.C. & JONES, J.,

in preparation. *Helwan II. The Early Dynastic Funerary Stelae*.

PETRIE, W.M.F., 1914.

Tarkhan II. British School of Archaeology in Egypt & Egypt Research Account 26. London.

STOLL M. & FENGEL, D., 1988.

Chemical and structural Studies on ancient Egyptian Linen. *Berliner Beiträge zur Archäometrie* 10: 151-172.

Desert - Nile Valley Interactions: A view from Djara

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Interactions between Predynastic cultures of the Nile Valley and groups from the oases region have often been discussed during recent years (e.g. Barich *et al.* 1996; McDonald 1991). Archaeological sites in the oases share with those in the Nile Valley the "general Neolithic traits" (McDonald 1996) such as the use of pottery, grinding stones or domesticated livestock as well as the predominantly flake-based stone industries and the bifacial lithic technique. The chronological difference between both Predynastic cultures and those from the oases, must be emphasised because the shared traits appeared in the oases about a millennium earlier (McDonald 1996).

In between both areas lays the Abu Muhariq Plateau, which was investigated during the years 1995 to 2002 by the Collaborative Research Centre - *ACACIA* (University of Cologne). During this time hundreds of archaeological sites were surveyed on this high plain in the areas of Abu Gerara, Seton Hill and especially in Djara, which is situated in the middle of the Abu Muhariq Plateau. In the settlement area of Djara, about 10km by 5km in extent, mostly mid-Holocene sites were recorded during the field survey, of which many were also excavated or surveyed by collecting surface artefacts. The archaeological material from this region also gives indications for the above-mentioned discussion about interactions between Predynastic cultures and those from the desert areas.

A typo-chronological classification of the diagnostic artefacts and the ¹⁴C-dates from anthropogenic features from Djara led to a period of occupation from 6400 cal BC until 5300 cal BC, with some sporadic settlements until 4500 cal BC. The characteristic artefact material consists out of facially retouched knives, planes, circular scrapers, side-blow flakes and various kinds of arrowheads. The lithic assemblages as well as the rare ceramic material show similarities to the artefact material of Dakhla (Hope 2002; McDonald 1999). Regular contacts between Djara and the surrounding oases are indicated by the very similar lithic tool kit used all around the Abu Muhariq Plateau, which can be described as the facial retouch techno-complex.

Although the ecological conditions were better during the Holocene humid phase than they are today, a sedentary way of life was improbable in Djara. The hydrological factors require highly mobile subsistence strategies because the retreat areas were the regions where water was perennially available - the oases and the Nile Valley. An indication for episodic cycles of groups is given by the Nile bivalve *Aspatharia*, which was found on different sites in this region, and gives evidence for direct contacts between Djara and the Nile.

After 5300 cal BC the area of Djara became depopulated, which reflects the beginning of the drying trend towards hyper-arid conditions and the relatively moist mid-Holocene was interrupted. Now only very few dates occur, representing small short-term occupations on the plateau. After 4500 cal BC the arid and hyper-arid conditions led to the degradation of these sites, and the Djara region was no longer attractive for humans. People who stayed in former times seasonally in this area were forced to more fertile lands with permanent water.

It is hard to ascertain whether there is a direct influence between these migrations out of the arid regions on the origin of the Predynastic cultures because a chronological gap of a few hundred years still exists between the youngest radiocarbon dates from Djara and those from the Predynastic cultures still. Nevertheless similarities between the lithic tool kit of Djara and the inventories of the Predynastic cultures of the Nile Valley can be seen. Of special interest are the characteristic side-blow flakes because they occur in the Bashendi unit of Dakhla (McDonald 1996, 1999) as well as in the Fayum culture (Caton-Thompson & Gardner 1934). Over and above that some oval limestone palettes, which were found on different sites in the Djara region, show parallels to the Fayum A culture. Shared traits also exist between the bifacial stone artefacts from the Limestone Plateau and those from the sites of the Fayum A and the Badarian culture (Brunton & Caton-Thompson 1928), for example the facially retouched knives, planes and bifacial drills. The spatial distance is not very far, if one looks to the Nile Valley, the site of Badari lies approximately 200km east of Djara and the Fayum depression about 250km further to the north-west.

Bibliography

- BARICH, B.E.; HASSAN, F.A. & STOPPIELLO, A.A., 1996.
Farafra Oasis between the Sahara and the Nile [in:] KRZYZANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Interregional Contacts in the Later Prehistory of Northeastern Africa*. Poznan: 71-80.
- BRUNTON, G. & CATON-THOMPSON, G., 1928.
The Badarian Civilisation and Predynastic Remains near Badari. British School of Archaeology in Egypt & Egypt Research Account 46. London.
- CATON-THOMPSON, G. & GARDNER, E.W., 1934.
The Desert Fayum. London.

HOPE, C.A., 2002.

Early and Mid-Holocene Ceramics from the Dakhleh Oasis: Traditions and Influences [in:] FRIEDMAN, R.F. (ed.), *Egypt and Nubia: Gifts of the Desert*. London: 39-61.

MCDONALD, M.M.A., 1991.

Origins of the Neolithic in the Nile Valley as seen from Dakhleh Oasis in the Egyptian Western Desert. *Sabara* 4: 41-52.

MCDONALD, M.M.A., 1996.

Relations between Dakhleh Oasis and the Nile Valley in the Mid-Holocene: A Discussion [in:] KRZYŻANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Interregional Contacts in the Later Prehistory of Northeastern Africa*. Poznan: 93-100.

MCDONALD, M.M.A., 1999.

Neolithic Cultural Units and Adaptations in the Dakhleh Oasis [in:] CHURCHER, C.S. & MILLS, A.J. (eds.), *Reports from the Survey of the Dakhleh Oasis, Western Desert of Egypt, 1977-1987*. Oxford: 117-132.

The Interaction between and the Roles of Upper and Lower Egypt in the Formation of the Egyptian State Another Review

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Since the results of various excavations in the Nile Delta, most notably of the German Buto excavations, have come to light this author had taken the opportunity in 1995 to raise a range of 'burning questions' concerning the formation of the Pharaonic state and an often fierce, yet productive debate followed. While many studies of the past 10 years have contributed greatly to the remedy of the then lamented lack of more holistic and current approaches, of more archaeological evidence from Lower Egypt, of evidence for settlements, regionalism etc. the fundamental issue of the actual relationship between Upper and Lower Egypt and their contribution to the formation of the state has possibly not attracted enough attention. This paper aims to correct this.

It will make a case for the proposition that both regions had a significant, and at times distinct, at times interdependent, and yet equal contribution to the many factors that are ultimately responsible for the formation of the politically unified, territorial nation state that was Early Dynastic Egypt.

It will examine the current state of research following a range of criteria, which are relevant to state formation in general, and which are very much reflected in this conference's themes; social organisation, urbanism and centralisation, writing and administration, craft specialisation, interregional and long-distance trade, religion and ideology of kingship.

For example, in the early days of scholarship, the highly tenuous belief was held that the agile Upper Egyptian tribes of hunter-gatherer origin had been the driving force in the process of unification and therefore had taken over the territory of the more docile agriculturalists of the north to make path for the cultural and political unification of the country under the Thinite kings. However, even relatively recent comments, such as by Seeher (1991: 317), that the prehistoric Delta cultures adhered to the ways of the Neolithic for longer than their southern contemporaries and that their contribution to the process of state formation therefore may not have been significant, still echo this notion. It will be shown that the site of Maadi, being one of the best-studied sites of the early 4th Millennium in Lower Egypt, fulfils all the criteria of a Chalcolithic society, including evidence for specialised craft industries and interregional trade between the southern Levant and Upper Egypt. There is possibly also implicit evidence for the existence of high status persons, if not elites, who consumed some of those prestigious commodities that were also sought after by their southern contemporaries.

This would further warrant to label this community a chiefdom society, which places Maadi on even footing with its southern counterparts and which will be important for the next point.

Another area of investigation will be the question of autochthonous primary state formation during the Proto-Dynastic Period (Naqada IIIA-B) in the different regions of Egypt based on evidence for regional polities with their own monarchs. Following Trigger's recent observations (2003: 101), it will be proposed that the neighbouring regional polities maintained regular contact with each other and that they thus not only engaged in peer competition, trade and exchange of goods but also of cultural values and religious beliefs, such as artistic conventions and ideologies. This premise possibly allows us to explain the practically simultaneous appearance of the early forms of the *serekh* suggesting contemporary regional rulers and indicating that these rulers shared artistic and literary conventions. As the *serekh* was later augmented by the addition of a deity, mainly the god Horus, it implies the sharing also of religious beliefs for the expression of royalty in the different regions.

This paper will also revisit the notion of the Naqada expansion and will review a number of terminological problems arising from recent archaeological work and general studies which will impact on the treatment of the two regions in their cultural, social, political and geographical setting.

Finally, it will be suggested that the development of state formation in Egypt did not follow a uni-linear narrative, as traditionally suggested, but was a complex, multi-linear process involving three stages, and that what we generally refer to as the 'Unification of Egypt' was ultimately a process of secondary state formation on a territorial scale, after the social, political, economic, logistical, administrative and ideological foundations had been laid in both parts of the country.

Bibliography

- BAINES, J., 1999.
Defining social Complexity and its Evidence in the archaeological Record. Paper presented at the World Archaeological Congress, Cape Town
- CAMPAGNO, M., 2002.
On the Predynastic "Proto-States" of Upper Egypt.
Göttinger Miszellen 188: 49-60.

- CLAESSEN, H.J.M. & SHALNIK, P. (EDS.), 1978. *The Early State*. Den Haag / Paris / New York.
- CLARK, G., 1979. Archaeology and human Diversity. *Annual Review of Anthropology* 8: 1-20.
- EARLE, T.K., 1987. Chiefdoms in archaeological and ethnohistorical Perspective. *Annual Review of Anthropology* 16: 279-308.
- FRIED, M.H., 1960. On the Evolution of social Stratification and the State [in:] DIAMOND, S. (ed.), *Culture in History*. New York: 713-731.
- HARTUNG, U., 1994. Bemerkungen zur Chronologie der Beziehungen Ägyptens zu Südkanaan in spätprädynastischer Zeit. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 50: 107-113.
- HARTUNG, U., 1998. Zur Entwicklung des Handels und zum Beginn wirtschaftlicher Administration im prädynastischen Ägypten. *Studien zur Altägyptischen Kultur* 26: 35-50.
- HARTUNG, U.; ABD EL-GELIL, M.; VON DEN DRIESCH, A.; FARES, G.; HARTMANN, R.; HIKADE, T. & IHDE, C., 2003. Vorbericht über neue Untersuchungen in der prädynastischen Siedlung von Maadi. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 59: 149-198.
- KAISER, W., 1990. Zur Entstehung des gesamtägyptischen Staates. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 46: 287-299.
- KAISER, W., 1995. Trial and Error. *Göttinger Miszellen* 149: 5-11.
- KEMP, B.J., 1989. Ancient Egypt. *Anatomy of a Civilization*. London / New York.
- KÖHLER, E.C., 1995. The State of Research on late Predynastic Egypt: New Evidence for the Development of the Pharaonic State? *Göttinger Miszellen* 147: 79-92.
- KÖHLER, E.C., 1996. Evidence for interregional Contacts between Late Prehistoric Lower and Upper Egypt - A View from Buto [in:] KRZYZANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.) *Interregional Contacts in the Later Prehistory of Northeastern Africa*. Poznan : 215-226.
- KÖHLER, E.C., 1997. Socio-economic Aspects of Early Pottery Production in the Nile Delta. *Bulletin of the Australian Center for Egyptology* 8: 81-89;
- KÖHLER, E.C., 1998. *Tell el-Fara'in - Buto III. Die Keramik von der späten Naqada-Kultur bis zum frühen Alten Reich (Schichten III bis VI)*. Archäologische Veröffentlichungen 94. Mainz.
- KÖHLER, E.C., 2002. History or Ideology?: New Reflections on the Narmer Palette and the Nature of Foreign Relations in Predynastic Egypt [in:] VAN DEN BRINK, E.C.M. & LEVY, T.E. (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London / New York: 499-513.
- KÖHLER, E.C., 2004B. On the Origins of Memphis. The New Excavations in the Early Dynastic Necropolis at Helwan [in:] HENDRICKX, S.; FRIEDMAN, R.F.; CIALOWICZ, K.M. & CHLODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, Kraków, 28th August - 1st September 2002. *Orientalia Lovaniensia Analecta* 138. Leuven: 295-315.
- KUSHNER, G., 1969. The Anthropology of complex Societies. *Biennial Review of Anthropology* 6: 80-131.
- RENFREW, C. & CHERRY, J., 1986. *Peer Polity Interaction and socio-political Change*. Cambridge.
- SEEHER, J., 1991. Gedanken zur Rolle Unterägyptens bei der Herausbildung des Pharaonenreiches. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 47: 313-318 .
- SERVICE, E.R., 1962. *Primitive social Organisation: An evolutionary Perspective*. New York.
- SINOPOLI, C.M., 1994. The Archaeology of Empires. *Annual Review of Anthropology* 23: 159-180.
- TRIGGER, B.G., 2003. *Understanding Early Civilizations*. Cambridge.
- VON DER WAY, T., 1991. Die Grabungen in Buto und die Reichseinigung. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 47: 419-424.
- VON DER WAY, T., 1993. *Untersuchungen zur Spätvor- und Frühgeschichte Unterägyptens. Studien zur Archäologie und Geschichte Altägyptens* 8. Heidelberg.

WEBB, M.C., 1974.

Exchange Networks: Prehistory. *Annual Review of Anthropology* 3: 357-383.

WILKINSON, T.A.H., 2000.

Political Unification: Towards a Reconstruction. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 56: 377-395.

WINCKLER, E.A., 1969.

Political Anthropology. *Biennial Review of Anthropology* 6: 301-386.

WRITE, H.T., 1977.

Recent Research on the Origin of the State. *Annual Review of Anthropology* 6: 379-397.

The Economic and Social Implications of Jewellery Production in the Early Dynastic Period: Some Preliminary Insights.

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This paper will aim to highlight the potential of an examination of jewellery manufacture during the Early Dynastic Period for elucidating several key issues in relation to the emerging Egyptian state. This discussion will be based on the preliminary results of my PhD thesis.

The jewellery industry should be seen as one of the major areas of technological development and achievement arising from the increased demand for elite products as the early bureaucracy began its development. The jewellery belonging to the royal tombs of the period and those of the elite shows a remarkable advance in the technical skill of the jewellery craftsmen. However, it is also evident that the Early Dynastic jewellery industry had developed to such an extent that a wider range of jewellery products could no longer simply be seen as luxury commodities reserved for the highest echelons of society. The materials used in the manufacture of jewellery had diversified to such an extent, and the production technology required had advanced to such a level, that even the lower classes of Egyptian society could access an ever widening repertoire of personal adornment for their tombs. This growing shift in the accessibility of jewellery was arguably due to increased involvement and participation by the Egyptian state in the collection of raw materials required for production and in the manufacturing process itself, possibly through the development of specialised state-controlled workshops.

The increasing accessibility of jewellery for the lower classes in Egyptian society was largely connected to significant developments in the technology of jewellery manufacture. Although relatively good quality jewellery was being produced during the Predynastic Period, the Early Dynastic Period saw a new era in its quality, regularity of manufacture and the quantity of jewellery produced. Jewellery craftsmen had gained high-level technical skills, their sophisticated techniques facilitating an increase in production efficiency. It can be inferred, therefore, that jewellery production was a full-time industry practised by specialised craftsmen, who in all probability, worked out of dedicated (state-controlled?) workshops.

The jewellery industry is also a key indicator of the economic climate of the period. Specifically, it is evident that the industry was expanding through intensification of production and distribution during the Early Dynastic Period. The most significant result of this industrial expansion was that jewellery had become more accessible to the wider population, and was no longer reserved for the upper echelons of society. The implicit evidence suggests, therefore, that typical jewellery, made from easily obtainable

raw materials, no longer served the function of a luxury product. It no longer necessarily distinguished its owner as elite.

Egyptian activity to locate and procure natural resources must have also escalated significantly at this time. It is suggested that the structure of mining expeditions was highly organised, so that extraction sites were not only located in the first instance, but became part of the wider knowledge either of the local community, the region or of the state. Furthermore, it is highly probable that this primary acquisition occurred in connection with the larger stone vessel industry.

Although international trade during the Predynastic Period was already prevalent, it must have become crucial for establishing the Egyptian state in the international arena during the Early Dynastic Period. Trade also continued to act as a means for the supply of luxury commodities at this time. With certain indigenous Egyptian raw materials becoming more accessible, and probably less valuable, it is suggested that the state may have imported an increasing supply of international luxury products to satisfy the bureaucracy and maintain their loyalty and support.

The highly organised nature of raw material acquisition and jewellery production is clearly suggestive of state-sponsorship. However, at present the nature of the material evidence means that the validity of state involvement or control remains an open question. Nonetheless, the emerging picture of the jewellery industry gained from preliminary analysis is of a dynamic industry, gathering momentum and developing more sophisticated techniques of production to maintain a correspondence between the supply and demand of jewellery. More generally, the Egyptian economy can be seen as continually expanding in order to fulfil the escalating needs of the king and the state.

Bibliography

- ALDRED, C., 1971.
Jewels of the Pharaohs. London.
- ANDREWS, C., 1990.
Ancient Egyptian Jewellery. London.
- ANDREWS, C., 1994.
Amulets of Ancient Egypt. London.
- ANDREWS, C., 1981.
Catalogue of Egyptian Antiquities in the British Museum VI. Jewellery I. From the Earliest Times to the Seventeenth Dynasty. London.

- BAVAY, L.; DE PUTTER, T.; ADAMS, B.; NAVEZ, J. & ANDRE, L., 2000.
The Origin of Obsidian in Predynastic Upper Egypt. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 56: 5-20.
- BECK, H.C., 1928.
Classification and Nomenclature of Beads and Pendants. *Archaeologia* 77: 1-76.
- BOARDMAN, J., 1996.
The Archaeology of Jewelry [in:] CALINESCU, A. (ed), *Ancient Jewelry and Archaeology*. Bloomington: 3-13
- ELLIS, C., 1992.
A Statistical Analysis of the Protodynastic Burials in the "Valley" Cemetery of Kafr Tarkhan [in:] VAN DEN BRINK, E.C.M. (ed.), *The Nile Delta in Transition: 4th.-3rd. Millennium B.C.* Tel Aviv: 241-258.
- FRIEDMAN, F.D. (ED), 1998.
Gifts of the Nile: Ancient Egyptian Faience. New York.
- GOLDEN, J., 2002.
The Origins of the Metals Trade in the Eastern Mediterranean: Social Organization of Production in the Early Copper Industries [in:] VAN DEN BRINK, E.C.M. & LEVY, T.E. (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London / New York: 225-238.
- GRISWOLD, W.A., 1992.
Measuring Social Inequality at Armant [in:] FRIEDMAN, R.F. & ADAMS, B. (eds.), *The Followers of Horus. Studies Dedicated to Michael Allen Hoffman*. Oxbow Monograph 20. Oxford: 193-198.
- GWINNETT, A.J. & GORELICK, L., 1983.
Ancient Egyptian Stone Drilling: An experimental Perspective on a scholarly Disagreement. *Expedition* 25,3: 40-47.
- GWINNETT, A.J. & GORELICK, L., 1990.
Innovative lapidary craft Techniques in Neolithic Jarmo. *Archeomaterials* 4: 25-32.
- GWINNETT, A.J. & GORELICK, L., 1993.
Beads, Scarabs and Amulets: Methods of Manufacture in Ancient Egypt. *Journal of the American Research Center in Egypt* 30: 125-132.
- HARRELL, J.A., 2002.
Pharaonic Stone Quarries in the Egyptian Deserts [in:] FRIEDMAN, R.F. (ed.), *Egypt and Nubia: Gifts of the Desert*. London: 232-243.
- HARRELL, J.A.; BROWN, V.M. & MASOUD, S.M., 1996.
Survey of Ancient Egyptian Quarries. Egyptian Geological Survey and Mining Authority Paper 72. Cairo.
- HARRELL, J.A.; BROWN, V.M. & MASOUD, S.M., 2000.
An Early Dynastic Quarry for Stone Vessels at Gebel Manzal el-Seyl, Eastern Desert. *Journal of Egyptian Archaeology* 86: 33-42.
- HERRMANN, G., 1968.
Lapis Lazuli: The early Phases of its Trade. *Iraq* 30: 21-57.
- KACZMARCZYK, A. & HEDGES, R.E.M., 1983.
Ancient Egyptian Faience. An Analytical Survey of Egyptian Faience from Predynastic to Roman Times. Warminster.
- KLEMM, D.; KLEMM, R. & MURR, A., 2002.
Ancient Gold Mining in the Eastern Desert of Egypt and the Nubian Desert of Sudan [in:] FRIEDMAN, R.F. (ed.), *Egypt and Nubia. Gifts of the Desert*. London: 215-231.
- KLEMM, R. & KLEMM, D., 1992.
Steine und Steinbrüche im Alten Ägypten. Berlin/Heidelberg/New York.
- LUCAS, A. & HARRIS, J.R., 1962.
Ancient Egyptian Materials and Industries (4th rev. ed.). London.
- MARFOE, L., 1987.
Cedar Forest to Silver Mountain: Social Change and the Development of long-distance Trade in Early Near Eastern Societies [in:] ROWLANDS, M.; LARSEN, M. & KRISTIANSEN, K. (ed.), *Centre and Periphery in the Ancient World*. Cambridge: 25-35.
- MORTENSEN, B., 1991.
Change in the Settlement Pattern and Population in the Beginning of the Historical Period. *Ägypten und Levante* 2: 11-37.
- NICHOLSON, P.T., 1993.
Egyptian Faience and Glass. Princes Risborough.
- NICHOLSON, P.T. & SHAW, I. (EDS.), 2000.
Ancient Egyptian Materials and Technologies. Cambridge.
- OGDEN, J., 1982.
Jewellery of the Ancient World. London.
- PAYNE, J.C., 1968.
Lapis Lazuli in Early Egypt. *Iraq* 30: 58-61.
- PETRIE, W.M.F., 1914.
Amulets. London.
- REISNER, G.A., 1907.
Amulets. Cairo.
- RICHARDS, J., 1997.
Ancient Egyptian mortuary Practice and the Study of socioeconomic Differentiation [in:] LUSTIG, J. (ed.), *Anthropology and Egyptology : A Developing Dialogue*. Sheffield : 33-42.

- SCHORSCH, D., 1992.
Copper Ewers of Early Dynastic and Old Kingdom Egypt. An Investigation of the Art of Smithing in Antiquity. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 48: 145-159.
- SHAW, I., 1998.
Exploiting the Desert Frontier: The Logistics and Politics of Ancient Egyptian mining Expeditions [in:] KNAPP, A.B.; PIGOTT, V.C. & HERBERT, E.W. (eds.), *Social Approaches to an Industrial Past: The Archaeology and Anthropology of Mining*, London: 242-258.
- SHAW, I., 2002.
Life on the Edge: Gemstones, Politics and Stress in the Deserts of Egypt and Nubia [in:] FRIEDMAN, R.F. (ed.), *Egypt and Nubia: Gifts of the Desert*. London: 244-251.
- STOCKS, D.A., 1986.
Bead Production in Ancient Egypt. *Popular Archaeology* 7,5: 2-7.
- STOCKS, D.A., 1989.
Ancient Factory mass-production Techniques: Indications of large-scale Stone Bead Production during the Egyptian New Kingdom Period. *Antiquity* 63: 526-531.
- WARBURTON, D., 1998.
Economic Thinking in Egyptology. *Studien zur Altägyptischen Kultur* 26: 143-170.
- WILKINSON, A., 1971.
Ancient Egyptian Jewellery. London.
- WILLIAMS, C.R., 1924.
Gold and Silver Jewelry and Related Objects: Catalogue of Egyptian Antiquities. New York.
- ZARINS, J., 1989.
Ancient Egypt and the Red Sea Trade: The Case for Obsidian in the Predynastic and Archaic Periods [in:] LEONARD, A. & WILLIAMS, B.B. (eds.), *Essays in Ancient Civilization presented to H.J. Kantor*. Studies in Ancient Oriental Civilization 47. Chicago: 339-368.

New finds of Egyptian Origin at Chalcolithic Wadi Rayyan, Jordan

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In 1993 Alex Joffe published his *Settlement and Society in the Early Bronze Age I and II*, Southern Levant in which he claimed that the export of olive oil to Egypt was the impetus for the Early Bronze Age urbanisation process in the southern Levant (Israel, Jordan and Palestine). His idea was that the production and subsequent trade in olive oil (effectively a luxury good) provided the mechanism for regular contact between the rural southern Levant and the highly centralised Egyptian state, and that this in turn prompted the state formation process in the Levant (c. 3500 BCE onwards). It has also more recently been suggested that the preceding Chalcolithic period saw a great number of political and economic changes and these might well have been triggered by prehistoric contact with the Egyptian Delta which began as early as the Neolithic (see Bar-Yosef Mayer 2002). In 1993 there was little direct evidence to support EBA olive oil production, but recent excavations at Chalcolithic sites in Jordan and Israel have revealed, for the first time, evidence for the domestication of the olive (Meadows 2001).

De Miroschedji cites the generalisation of the donkey, the development of horticulture, the expansion of mining activities, and the increase in contacts between the southern part of the southern Levant and other areas to the north and east as being the "*sine qua non* conditions for the establishment of regular exchange relations" (2002: 40). The EBIA appears to witness a wave of settlement on the southern coastal plane in an uninterrupted chain from the Delta to southwest southern Levant exhibiting predominantly Egyptian pottery of the Naqada IIa period with some Maadian shapes. In the southern Levant itself, sites yielding Egyptian pottery are few, but they do exist "on a modest scale". In the traditional view the EBIB, by contrast, constitutes the massive expansion of Egypt and an increase in formalisation of exchanges with the southern Levant. This is described by de Miroschedji as colonisation designed to "facilitate the economic exploitation of southern Canaan and to allow the dispatch of its products to Egypt" (2002: 42). Recently there have been attempts to establish that in Tomb U-j at Umm el-Qaab up to 300 vessels, some of which are claimed to have contained wine, derive from the southern Levant (Hartung 2002; McGovern 2003: 91-103; cf Porat & Goren 2002). Certainly by the 1st Dynasty in Egypt southern Levantine vessels are clearly established in reasonable quantity in tombs at Abydos (Porat 1989). Meanwhile in the southern Levant itself the sites of Taur Ikhbeineh, Tel Erani and

Hartuv contain Egyptian vessels (both 'storage' and 'domestic'), Egyptian architectural styles and clay sealings that perhaps suggest Egyptian administrative practises.

New evidence from sites across the southern Levant suggests that olive production was much more common in the Chalcolithic than has been previously recognised. Sites in Israel like Nevalat (van den Brink *et al.* 2001), Sataf (Gibson *et al.* 1991) and Modi'in (van den Brink *pers. comm.*) suggest that at least the production of the resource, later desired by the Egyptians, was well underway at this point. New excavations, in the Ajlun district in Jordan, are also confirming this (Lovell *in press*). The question for us today is how did trading connections develop between the early inhabitants of what is now Egypt and the southern Levant and how extensive was this trade?

The University of Sydney's excavations at Wadi Rayyan in the Ajlun district have revealed a number of artefacts that point to Egyptian connections or influence, including two diorite or micro-granite 'convex topped disc-shaped' maceheads. This type of macehead is therefore, in all probability, the earliest of the Predynastic maceheads (Ciałowicz 1987: 17). Given that these are most common in the Sudan, their existence in the oasis and further north at Maadi appears to attest to contact between the upper Nile and Lower Egypt. These new discoveries potentially expand the known area of Egyptian influence during the Chalcolithic.

Bibliography

BAR-YOSEF MAYER, D.E., 2002:

Egyptian-Canaanite Interaction during the Fourth and Third Millennia BCE: The Shell Connection [in:] VAN DEN BRINK, E.C.M. & LEVY, T.E. (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London/New York: 129-135.

CIAŁOWICZ, K.M., 1987.

Les têtes de massues des périodes prédynastique et archaïque dans la vallée du Nil. Prace archeologiczne 41. Warszawa/Kraków.

DE MIROSCHEDJI, P., 2002.

The Socio-political Dynamics of Egyptian-Canaanite Interaction in the Early Bronze Age [in:] VAN DEN BRINK, E.C.M. & LEVY, T.E. (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London/New York : 39-57.

- GIBSON, S.; IBBS, B. & KLONER, A., 1991.
The Sataf Project of Landscape Archaeology in the Judean Hills: A preliminary Report on Four Seasons of Excavation and Survey. *Levant* 23 : 29-54.
- HARTUNG, U., 2002.
Imported Jars from Cemetery U at Abydos and the Relations between Egypt and Canaan in Predynastic Times [in:] VAN DEN BRINK, E.C.M. & LEVY, T.E. (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London/New York : 437-449.
- LOVELL, J.L.,
in press. The Wadi Rayyan Archaeological Project (WRAP): Investigating the Chalcolithic - Early Bronze Age Transition [in:] AMR, K.; TAHER, H. & KHOURI, S. (eds.), *Studies in the History and Archaeology of Jordan IX.* Amman.
- MCGOVERN, P.E., 2003.
Ancient Wine: The Search for the Origins of Viniculture. Princeton.
- MEADOWS, J., 2001.
Olive Domestication at Teleilat Ghassul [in:] PARKER, A. & HOPKINS, E. (eds), *The Ancient Near East: An Australian Postgraduate Perspective.* Sydney : 13-18.
- PORAT, N. & GOREN, Y., 2002.
Petrography of the Naqada IIIa Canaanite Pottery from Tomb U-j in Abydos [in:] VAN DEN BRINK, E.C.M. & LEVY, T.E. (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London/New York: 252-270.
- VAN DEN BRINK, E.C.M.; LIPSCHITZ, N.; LAZA, D. & DORANI, G., 2001.
Chalcolithic Dwelling Remains and Cup Marks and Olive (*Olea europea*) Stones at Nevalat. *Israel Exploration Journal* 51 : 36-43.

Harvesting Techniques and Plant Exploitation in Late Neolithic and Predynastic Egypt - Contributions from Functional Analysis and Experimental Archaeology

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The paper will show the role played by the harvesting and exploitation of plants, equipment for the domestication of cereals (wheat, barley and sorghum), as well as the importance of African crops (sorghum, in particular) in the development of agriculture in Egypt during late Neolithic and Predynastic times. The paper is based on the study carried out by the author on the entire lithic assemblage recovered from the Hidden Valley site at Farafra (in the context of the University of Rome "La Sapienza" Archaeological Mission, directed by Barbara E. Barich) and on some collections from the Faiyum depression, owing to the activity of the archaeological mission, from the same University, organised in the second half of the 1960s by Salvatore M. Puglisi.

All of the Farafra collections underwent functional analysis, using both stereoscopic and metallographic microscopes, with the aim of recognising some glossy polishes on the working edges that could indicate the use of the artefacts for cutting siliceous plants. However, the complete lack of gloss can prove that hands, or artefacts obtained from very soft raw material such as wood, were mainly used in the harvesting activities performed in the area. Further analysis was carried out on the sickle elements coming from the Faiyum Depression. Unfortunately, in this case, the post-depositional processes originated a glossy patina on large portions of the analysed items, indicating their high-grade alteration and, therefore, making them completely "unreadable" for functional analysis.

The contribution made by experimental archaeology was also important for our study. At the beginning we made replicas of a few sickle elements that then were hafted and used for harvesting activities that are usually performed in the different stages of growth and ripening of wild wheat, domestic wheat and wild sorghum. Later, the same activities were carried out using hands.

The use of hands in the harvesting process, which in some cases seems contemporary to the use of sickles, could testify for alternative, but coeval strategies. The choice between them was probably dictated by functional considerations and also by the total number of plants that had to be harvested.

Finally, grinding equipment was another tool category that was also examined. The study was based on items coming from Farafra Oasis; not only those found *in situ* in the Hidden Valley site, but also those recorded at several surface sites of both Hidden Valley - El Bahr basins and Sheikh el-Obeiyid plateau. They were studied both from a typological and functional point of view, and in

order to better understand its real use and function, phytolith analysis is currently in progress. However, it is worth noting that, despite some rare specimens with a few traces of ochre, almost all of these grinders coming from Farafra seem to have been used in plant exploitation activities.

Once again, these results highlight the importance of harvesting techniques in the Egyptian Western Desert and, in particular, in the Oases region, within various contexts belonging to the Late Holocene. Therefore, they are meaningful of the role played by the desert regions in the process of the development of farming during the Neolithic and Predynastic periods in the Nile Valley.

Bibliography

- BARICH B.E., 2004.
Archaeological research in the Farafra Oasis (Egypt): Contribution to the study of the early cultivation in the Eastern Sahara [in:] OESTIGAARD, T.; ANFINSET, N. & SAETERSDAL, T. (eds.), *Combining the Past and the Present: Archaeological Perspectives on Society*. BAR Int. Ser. 1210. Oxford: 143-147.
- BARICH, B.E. & LUCARINI, G., 2002.
Archaeology of Farafra Oasis (Western Desert, Egypt). A Survey of the most recent Research. *Archéo-Nil* 12: 101-108.
- CATON-THOMPSON, G. & GARDNER, E.W., 1934.
The Desert Fayum. London.
- FAHMY, A.G., 2001.
Palaeoethnobotanical studies of the Neolithic settlement in Hidden Valley, Farafra Oasis, Egypt. *Vegetation History and Archaeobotany* 10,4: 235-246.
- HARLAN, J.R.; DE WET, J.M.J. & STEMLER, A.B.L., 1976.
Plant Domestication and indigenous African Agriculture [in:] HARLAN, J.R.; DE WET, J.M.J. & STEMLER, A.B.L. (eds.), *Origins of African Plant Domestication*. The Hague / Paris: 3-19.
- JENSEN, H.J., 1994.
Flint Tools and Plant Working. Hidden Traces of Stone Age Technology. Aarhus.
- MAGID, A.A., 1989.
Plant Domestication in the Middle Nile Basin. An Archaeo-ethnobotanical Case Study. BAR Int. Ser. 523. Oxford.
- PUGLISI, S.M., 1967.
Missione per ricerche preistoriche in Egitto. *Origini* 1: 301-312.

REZANIA, M., 1973.

Variations in Cultivated Grain Sorghum of the Yemen Arab Republic. *Information Bulletin. Cereal Improvement and Production. Near East Project* 10,3: 26-41.

STEMLER, A.B.L., 1980.

Origins of Plant Domestication in the Sahara and the Nile Valley [in:] WILLIAMS, M.A.J. & FAURE, H. (eds.), *The Sahara and the Nile: Quaternary Environment and Prehistoric Occupation in Northern Africa*. Rotterdam: 503-526.

STEMLER, A.B.L., 1984.

The Transition from Food Collecting to Food Production in Northern Africa [in:] CLARK, J.D. & BRANDT, S.A. (eds.), *From Hunters to Farmers. The Causes and Consequences of Food Production in Africa*. Los Angeles / London: 127-131.

WASYLIKOWA, K., CONTRIBUTIONS BY BARAKAT, H.N.; BOULOS, L.; BUTLER, A.; DAHLBERG, A.J.; HATHER, J. & MITKA, J., 2001.

Site E-75-6: Vegetation and Subsistence of the Early Neolithic at Nabta Playa, Egypt, reconstructed from Charred Plant Remains [in:] WENDORF, F.; SCHILD, R. & ASSOCIATES (eds.), *Holocene Settlement of the Egyptian Sahara. Volume 1. The Archaeology of Nabta Playa*. New York / Boston / Dordrecht: 544-591.

Some Remarks on Egyptian-Palestinian interrelation in the beginning of 4th Millennium BC

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The studies on Egyptian-Palestinian relationships began in the 1950s, when Palestinian imports started to be discovered at Predynastic and Early Dynastic sites in Egypt. Today many theories and models explaining the nature of these interrelations have been invented. We can distinguish four main theories, which presume: military conquest of Caanan by the Egyptian army; reciprocal trade between Egyptians and Canaanites; an Egyptian colony in Canaan; symbolic; and ideological Egyptian presence in Canaan. Although all these theories seem to be in opposition to each other, all together they can be regarded as different aspects of very complicated nature of Egyptian-Palestinian interrelations.

In the 1980s, when study of processes became popular in the interpretations of past societies, new models of Egyptian-Palestinian contacts appeared. Their authors used different theoretical interaction modes (e.g. Renfrew's exchange modes) and they distinguished different phases of these relationships according to archaeological evidence. The weak point of all these theories is their focusing on the relationships in Early Bronze Age IB and II. The beginning of the contacts between these two societies in the Chalcolithic period and the beginnings of EBI were described as *sporadic* because of the paucity of relevant finds.

In the last few years, excavations in the Nile Delta and Israel have shown that the nature of the Egyptian-Canaanite relations in the beginning of 4th Millennium BC should be revised. It is obvious that their mechanisms were different in this period than we had previously thought. The evidence for contacts between these two regions can be seen among materials at early Predynastic societies in the Delta (Fayum, Merimde, Omari culture). But in this early period it should be regarded as a result of an exchange of information. Shortly afterwards the people of the Lower Egyptian culture and Palestinian Chalcolithic societies started a new phase of contacts. The exchange includes both information and goods. Following this, the mechanisms of relations changed according to the social, economic and political situation and needs of both societies. Although the division of Egyptian-Levantine interaction into six chronologically sequential phases, proposed by T.E. Levy and E.C.M. van den Brink (2003) appears the most accurate, it doesn't explain its earliest phases taking place between people of Lower Egyptian culture and Chalcolithic and Early Bronze IA communities of south Levant.

The explanation of the nature of the interaction between Egypt and Canaan in the

early Predynastic period is an important issue for understanding these relationships in later phases. It is one long-term process, which had taken place since c. 3800 BC to c.2900 BC. It is obvious that we still need more evidence of these early contacts, but on the other hand we should use all available information gathered so far on this matter to make a new attempt at resolving this problem. In this paper the author will present new approach for the Egyptian-Palestinian contacts in the beginning of 4th Millennium BC on the base of new discoveries and theoretical models. It will not be a new interpretation of Egyptian-Palestinian interrelations in the beginning of the 4th millennium BC, but rather a few important remarks

Bibliography

LEVY, T.E. & VAN DEN BRINK, E.C.M., 2002. Interaction Models, Egypt and the Levantine Periphery [in:] VAN DEN BRINK, E.C.M. & LEVY, T.E. (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London / New York: 3-38.

The revetted mound at Hierakonpolis and early kingship: a re-interpretation

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Since its discovery by Quibell and Green in 1897, the revetted mound in the centre of the temple enclosure at Hierakonpolis has been consistently interpreted as the foundation for an Early Dynastic temple or shrine. Similarly, the mass of prestige objects unearthed nearby and dubbed the "Main Deposit" by the excavators was immediately categorised as a deposit of votive material dedicated within the early temple complex. Both explanations have since gone largely unchallenged and remain central to interpretations of the site's development and significance during the period of state formation.

An examination of the early structural and artefactual remains at Hierakonpolis reveals little unequivocal evidence to support these now universal assumptions. Most subsequent researchers have been heavily influenced by - or have simply followed - standard views of the site's character. In accordance with the excavators' original interpretation, many have offered hypothetical reconstructions of the temple buildings they presume to have topped the mound. Most of the evidence for such structures has been obliterated by the foundations of the later temple; what little has survived was not discovered in its original context and cannot be accurately reconstructed because the archaeological record is defective. In this paper I question the validity of designating the site as an early temple and present a new interpretation of the revetted mound, thus suggesting an alternative context in which the Main Deposit might be understood.

David O'Connor's theory (1992) that the enclosure at Hierakonpolis may be related, at least architecturally, to the royal funerary enclosures at Abydos, and Barbara Adams' extension of this hypothesis (1999) to include the Step Pyramid complex at Saqqara, point towards a very different purpose for the early structures at Hierakonpolis. While O'Connor and Adams both adhere to the "universal interpretation", I propose that the remains at Hierakonpolis represent not an early temple, but a royal ritual precinct, perhaps a "court of royal appearance", or more specifically an arena for the performance of ceremonies connected with the office of kingship (*hꜥt*-ceremonies, and perhaps the *sed*-festival). While rituals connected with the eternal pageantry of kingship may have been performed in perpetuity in the mortuary enclosures at Abydos and the Step Pyramid complex at Saqqara (Kaiser 1969: 17), their living counterparts were perhaps enacted in the enclosure at Hierakonpolis.

An original appearance for the enclosure and for the type of ceremonies performed therein may be proposed by analogy with the iconography

of the Narmer mace-head, found as part of the Main Deposit. Moreover, the majority of objects from the Deposit are arguably more intelligible when set in the context of royal cultic activity and its associated ideology, centred on the institution of kingship, than in relation to the cult of any one specific deity. This paper challenges some basic assumptions about the nature of the "temple" area at Hierakonpolis during the Early Dynastic period, and proposes a reassessment of one of the most significant assemblages of Protodynastic material unearthed in Egypt.

Bibliography

ADAMS, B., 1999.

Early Temples at Hierakonpolis and Beyond [in:] SLIWA, J. (ed.), *Centenary of Mediterranean Archaeology at the Jagiellonian University 1897-1997. International Symposium, Craców, October 1997*. Craców: 15-28.

KAISER, W., 1969.

Zu den königlichen Talbezirken der 1. und 2. Dynastie in Abydos und zur Baugeschichte des Djoser-Grabmals. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 25: 1-21.

O'CONNOR, D., 1992.

The Status of Early Egyptian Temples: An alternative Theory [in:] FRIEDMAN, R.F. & ADAMS, B. (eds.), *The Followers of Horus. Studies Dedicated to Michael Allen Hoffman*. Oxbow Monograph 20. Oxford: 83-98.

QUIBELL, J.E., 1900.

Hierakonpolis I. Egypt Research Account 4. London.

QUIBELL, J.E. & GREEN, F.W., 1902. *Hierakonpolis II*. Egypt Research Account 5. London.

Gender and the Emergence of Writing

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Die Schrift war in Altägypten als Kulturtechnik alles andere als sozial neutral. Vielmehr erscheinen Schrift und Macht in der mehrtausend-jährigen ägyptischen Geschichte engstens miteinander verflochten. Seit ihrer Herausbildung im 4. Jt. v. Chr. war die Schrift in Ägypten ein stark sozial geprägtes Phänomen der hohen Kultur mit großer Bedeutung für viele Bereiche des gesellschaftlichen Lebens. Die Schrift prägte Disziplinierungseffekte in verschiedenen Feldern:

- Disziplinierung der Sprache:
 - normierte (Schrift) Sprache versus individuelle und dialektale Alltagssprache etc.
- Disziplinierung des Denkens:
 - Erzeugung textueller Kohärenz etc. und damit Beförderung bestimmter Denk "techniken "
- Sozialdisziplinierung:
 - Entwicklung und Stabilisierung der neu herausgebildeten, die altägyptische
 - Gesellschaft konstituierenden
 - Hierarchien
- Disziplinierung der Administration:
 - Rationalisierung der Verwaltung
- Disziplinierung des Imaginären:
 - Inventarisierung, Sagbarmachung und
 - Systematisierung der Vorstellungen, des
 - Denkens und der Welt; Schub für
 - Konzeptionalisierung

Dabei wurzelte die Herausbildung der Schrift insbesondere in den Bereichen von einerseits Administration und andererseits der Welt des Imaginären. Eine bestimmte Exklusivität zeigt sich u.a. darin, dass nur ein außerordentlich niedriger Prozentsatz der Bevölkerung direkt an der Schrift partizipierte, so attraktiv sie auch auf die Illiteraten wirken mochte. Während dieses Phänomen schon länger in der Forschung diskutiert wird, spielen gendergeschichtliche Implikationen bisher noch eine eher untergeordnete Rolle. Tatsächlich erlauben und fordern die Quellen des 4. und frühen 3. Jt. v. Chr. aber in diese Richtung orientierte Fragestellungen durchaus.

Im Vortrag werde ich an die Ergebnisse meiner Monographie "Bild-Buchstaben und symbolische Zeichen, Die Herausbildung der Schrift in der hohen Kultur Altägyptens, OBO 205, 2004) anknüpfen und die Schriftentwicklung im Rahmen ihres kulturellen Umfeldes gendergeschichtlich unter die Lupe nehmen. Dabei werden nicht nur die Zugangsbedingungen von Männern und Frauen zur Schriftlichkeit; Schriftgebrauch, -verwendungen sowie -tabus verglichen, sondern auch die Enzyklopädie der hieroglyphischen Zeichen auf Genderung untersucht. Dabei zeigt sich eine beme-

rkenswerte Abhängigkeit von Genderkonventionen und Herausbildung der ägyptischen Schrift. Die Beobachtung beginnt damit, dass unter den Hieroglyphentypen sehr viel mehr Männer- als Frauenzeichen (vgl. sign-list A versus B) belegt sind. Dies gilt für die ganze Zeit der Hieroglyphenschrift. Von daher ist es vielleicht auch nicht allein dem Überlieferungszufall geschuldet, wenn unter den ältesten Erzeugnissen der Frühschrift - den archaischen Etiketten aus Abydos und einigen Monumenten wie der Buto-Palette - ausschließlich Zeichen von Männern belegt sind. Dieser Befund deckt sich auch mit den bildlichen Darstellungen auf den Prunk-Objekten des 4. und frühen 3. Jt. v. Chr., auf denen zwar gelegentlich auch Frauen abgebildet wurden, aber die dominierenden Positionen von Männern besetzt sind. Hinzu kommt, dass Männer in den frühestbelegten hieroglyphischen Zeichen bei kriegerischen Aktivitäten gezeigt sind - Bogenschießen, Schlagen mit der Keule oder Ringen. Dies waren in der altägyptischen Kultur deutlich maskulin besetzte Rollen. Außerdem gehören diese Elemente in den pharaonischen Herrschaftsdiskurs. Die Auswahl und Gestaltung der für Schreiber relativ offen und erweiterungsfähig angelegten Hieroglyphenzyklopädie bietet für den Kulturhistoriker Spuren der *agency*. Exemplarisch wird dies daran untersucht, wie das ikonische Potential der Hieroglyphen auf den archaischen Etiketten aus Abydos von den Schreibern im Interesse sowohl der gender- als auch der ethnischen und anderer Differenzierung ausgereizt wurde. Detailreichtum belegt dabei eine sehr bewusste Gestaltung.

Für die kulturinterne Konzeption der Schriftlichkeit ist interessant, dass in den beiden frühesten bekannten Schriftkulturen - Ägypten und Mesopotamien - jeweils sowohl eine Göttin als auch ein Gott der Schrift existierten. So deutlich das Schreiben in Ägypten eine Domäne der Männer und der Männlichkeit war, wurde gerade in der frühen Zeit Seschat als schreibende Göttin konzipiert, während Thot erst später in diese Rolle schlüpfte. Mögliche Hintergründe für diese götterweltlichen Prototypen sollen auch religionsgeschichtlich ausgeleuchtet werden.

Die Ergebnisse und die am Material entwickelten Hypothesen werden kulturhistorisch kontextualisiert und in den Rahmen der Geschichte der Herausbildung der ägyptischen Schrift gestellt.

Environmental Change and Settlements Shifts during the Predynastic: New Data from Upper Egypt

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Settlement shifts during the Naqada III period within the Nile Valley were observed first through sedimentological studies by Karl Butzer (1959), then at several archaeological sites, such as Adaïma, Hierakonpolis (Hoffman *et al.* 1986), the Naqada-Khattara region (Hassan 1988), and Abydos-Thinis (Patch 1991, *in* Midant-Reynes *et al.* 2002). The evidence comes mainly from archaeological observations on the changing localisation of settlement sites and/or on changing settlement patterns during that period.

A contraction of the settlements near the floodplain seems to have occurred, which may have been partly due to ecological and economical reasons. A shift towards the Nile may indeed be linked to the latter's role as the major communication route, and therefore the place and starting point for trade (Midant-Reynes 2003). However, owing to the present scarcity of environmental data, it remains difficult to discuss these two complementary explanations.

As a contribution to the debate, we will discuss here one type of environmental data allowing for the reconstruction of ancient vegetation, *viz.* charcoal analysis. The basic assumption is that wood used as fuel for daily domestic purposes over a time period is not selected, and therefore represents the woody vegetation available in the vicinity of a site.

Previous results from charcoal analyses at two Upper Egyptian sites, Adaïma and Elkab, did not yield strong evidence of a change in vegetation at the end of the Predynastic period (Newton 2005). Only very slight changes could be perceived. However, difficulties in dating the settlement contexts at Adaïma may have contributed to blur the chronological differences in the composition of the woody vegetation. Indeed, the special nature of the archaeological structures studied, mainly pits dug into a clayey terrace and filled with sandy loam, yielded a poor stratigraphy and the mixture of material over a 500 year period of occupation from Naqada II until Naqada III B/C, *i.e.* between c. 3400 and 2900 BC.

New anthracological data from other Naqada II and Naqada III settlement sectors at Adaïma will be presented and discussed. They are located on the sandy plain closer to the desert compared with the previously studied terrace. They are more homogenous chronologically and could thus be dated more precisely. We will first attempt to reconstruct the vegetation in the vicinity of the site at the earliest time available through the archaeological charcoal (Naqada II), in order to describe in what kind of environmental context the first inha-

bitants of Adaïma settled. This attempted picture will then be compared with later ones from other contexts of different ages.

The questions to be dealt with are: Is there evidence of a qualitative or quantitative change in vegetation between Naqada II and Naqada III, or within the Naqada III period? If so, could it reflect an ecological trend strong enough to lead the settlements to become contracted closer to the river? Is the ecological explanation complementary to the economical one? What else does anthracology tell us about Predynastic use of the local vegetation at Adaïma?

Bibliography

- BUTZER, K.W., 1959.
Environment and Human Ecology in Egypt during Predynastic and Early Dynastic Times. *Bulletin de la Société de Géographie d'Égypte* 32: 43-87.
- HASSAN, F.A., 1988.
The Predynastic of Egypt. *Journal of World Prehistory* 2: 135-185.
- HOFFMAN, M.A.; HAMROUSH, H.A. & ALLEN, R.O., 1986.
A Model of Urban Development for the Hierakonpolis Region from Predynastic through Old Kingdom Times. *Journal of the American Research Center in Egypt* 23: 175-188.
- MIDANT-REYNES, B., 2003.
Aux origines de l'Égypte. Du Néolithique à l'émergence de l'État. Paris.
- MIDANT-REYNES, B. & BUCHEZ, N., 2002.
Adaïma. 1. Économie et habitat. Fouilles de l'Institut français d'archéologie orientale 45. Le Caire.
- NEWTON, C., 2005.
Upper Egypt: Vegetation at the Beginning of the Third Millennium BC inferred from Charcoal Analysis at Adaïma and Elkab. *Journal of Archaeological Science* 32: 355-367.
- PATCH, D.C., 1991.
The Origin and Early Development of Urbanism in Ancient Egypt: A Regional Study. U.M.I. / Philadelphia.

Egyptian Desert and the Origin of Pharaonic Conception

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In the last few years various books and articles have analysed the role that the Egyptian desert played in the rise of pharaonic state, in the evolution that culminated in the unification of Egypt. The purpose of this communication is to show how climatic changes and environmental conditions could have been influenced by the different Neolithic cultures, especially during Naqada II; as succeeded in Sumer at around the middle of the 4th millennium BC. In another way, the desert was always present in the Egyptian mind, pharaonic or not, and to know the influence of it in the Egyptian way of life during Predynastic times is to know the origin of pharaonic conceptions (political, religious, economic, etc.). We must try to know not only the political process that culminates in a territorial state, but also the ideological and human conceptions that accompanied the process of conquest of the Nile Valley, their incidence over the first political and religious chiefs, the pattern of settlement, the original conceptions of divinities, the role of priest or religious leaders that probably also had communal responsibilities. Besides this, there are many others aspects that must be searched for at the time when Egypt was a "wild" land and the life of the Neolithic communities was centred around the wadis or marginal lands far away from the fertile lands of the Nile, then inhospitable.

All these conceptions were used for the chiefs of the different political entities in Upper and Lower Egypt. The process of the conquest of a land, the sensation of superiority and, possibly, the "frontier culture" that emerged in the first territorial communities, can explain the political expansion of Upper Egypt and, finally, the integration, not the conquest, of Lower Egypt. As in other aspects of Protodynastic history, the hypotheses that try to explain the "Uruk miracle" and "Sumer revolution", could be useful in investigating the origins of Egyptian history and, probably, in showing how this was also an "Egyptian miracle" during the fourth millennium BC, forgetting the arguments and disputes in relation to which of the two worlds was the first. There were similar process, in Sumer first the Ubaid culture and, in the middle of 4th millennium the Uruk culture with their expansion to Lower Syria; in Egypt the emergence of the Naqada culture and, also in the middle of the 4th millennium, an economic, political and social evolution during Naqada II, which culminated the integration of the different entities of Protodynastic Egypt and, subsequently, the colonisation or Egyptian presence in southern Palestine.

Early Dynastic Palaeography

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The very interesting problem of the "origins" of writing is shrouded in a cloud of darkness and is as hard to interpret as the "origins" of art, architecture, religion, and social institutions, to name only a few of the important aspects of the early Egyptian state. The further back we go in years the fewer sources we have at our disposal.

Needless to say, Early Dynastic burial places have been repeatedly disturbed. Despite these misadventures, a rich variety of inscribed artefacts, intact or fragmentary, have survived to provide glimpses into Early Dynastic Egypt. The most numerous categories are sealings, engraved inscriptions or cursive annotations in ink on pottery or stone vessels, and bone or wooden tags originally attached to tomb equipment. Examples of Egypt's earliest written documents also include royal stelae and stelae of royal women and courtiers from subsidiary tombs around the royal tombs at Umm el-Qaab. More elaborate reliefs appear at the end of the 2nd and beginning of the 3rd Dynasty. Written papyrus is not attested for this period.

My work, which will result in a PhD dissertation, investigates the earlier phases of writing in ancient Egypt, from the first attestations of hieroglyphic signs (tomb U-j) until the beginning of the 3rd Dynasty (c. 3150-2611 BC).

It seems an opportune moment to undertake such an investigation. Not only have the earliest texts tended to be neglected when compared to larger and more formal historical inscriptions from later periods, but the amount of new evidence has increased dramatically during the past few decades. Only recently, did scholars start to question the exhaustive work done by Kaplony (1963, 1964, 1966). This has revealed that some material had not been analysed since his publication of the *Inschriften der Ägyptischen Frühzeit* or even earlier, at the beginning of the 20th century. A first attempt to gain a better understanding in the development of the earliest stage of writing was provided in 1994 by Kahl's *System der ägyptischen Hieroglyphenschrift*. With this study, there is at last available a comprehensive, scholarly synthesis of the system of early writing.

My study is an attempt to collect, describe and evaluate these Egyptian Early Dynastic inscriptions from a palaeographical point of view. The main goal is to focus on the changes and variations of individual signs and their possibility to change through time. Based on an established chronology of palaeographical development, less well-dated inscriptions can be re-considered, re-evaluated and re-dated. Finally, the palaeographical evolution will be compared with the political and social developments in Early Dynastic Egypt. The communication

will provide preliminary insights concerning these issues.

Bibliography

DREYER, G., 1998B.

Der erste König der 3. Dynastie [in:] GUKSCH, H. & POLZ, D. (eds.), *Stationen. Beiträge zur Kulturgeschichte Ägyptens Rainer Stadelmann gewidmet*. Mainz: 31-34.

HELCK, W., 1979.

Die Datierung der Gefäßaufschriften der Djoserpyramide. *Zeitschrift für ägyptische Sprache und Altertumskunde* 106: 120-132.

HENDRICKX, S.; BIELEN, S. & DE PAEPE, P., 2001.

Excavating in the Museum: The Stone Vessel Fragments from the Royal Tombs at Umm el-Qaab in the Egyptian Collection of the Royal Museums for Art and History at Brussels. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 57: 73-108.

KAHL, J., 1994.

Das System der ägyptischen Hieroglyphenschrift in der 0.-3. Dynastie. Göttinger Orientforschungen IV.29. Wiesbaden.

KAHL, J., 1997.

Zur Datierung der frühen Grabplatten mit Opfertischszene. *Studien zur Altägyptischen Kultur* 24: 137-145.

KAHL, J., 2001.

Perspektiven der Erforschung der frühen ägyptischen Schrift und Sprache [in:] POPIELSKA-GRZYBOWSKA, J. (ed.), *Proceedings of the First Central European Conference of Young Egyptologists. Egypt 1999: Perspectives*. Warsaw: 47-55.

KAHL, J., 2001.

Hieroglyphic Writing during the Fourth Millennium BC: an Analysis of Systems. *Archéo-Nil* 11: 101-134.

KAHL, J., 2003.

Die frühen Schriftzeugnisse aus dem Grab U-j in Umm el-Qaab. *Chronique d'Égypte* 78: 112-135.

KAHL, J., 2003.

Entwicklung der frühen Hieroglyphenschrift [in:] SEIPEL, W. (ed.), *Der Turmbau zu Babel. Ursprung und Vielfalt von Sprache und Schrift. Band IIIA: Schrift*. Graz: 127-131.

KAHL, J.; MITARBEIT BRETSCHNEIDER, M. & KNEISSLER, B., 2002.

Frühägyptisches Wörterbuch. Erste Lieferung. 3 - f. Wiesbaden.

- KAHL, J.; MITARBEIT BRETSCHNEIDER, M. & KNEISSLER, B., 2003.
Frühägyptisches Wörterbuch. Zweite Lieferung m - b. Wiesbaden.
- KAHL, J.; MITARBEIT BRETSCHNEIDER, M. & KNEISSLER, B., 2004.
Frühägyptisches Wörterbuch. Dritte Lieferung b - b. Wiesbaden.
- KAPLONY, P., 1963.
Die Inschriften der ägyptischen Frühzeit I-III. Ägyptologische Abhandlungen 8. Wiesbaden.
- KAPLONY, P., 1964.
Die Inschriften der ägyptischen Frühzeit, Supplement. Ägyptologische Abhandlungen 9. Wiesbaden.
- KAPLONY, P., 1966.
Kleine Beiträge zu den Inschriften der ägyptischen Frühzeit, Supplement. Ägyptologische Abhandlungen 20. Wiesbaden.
- KAPLONY, P., 1992.
Archaische Siegel und Siegelabrollungen aus dem Delta: Die Arbeit an den Siegeln von Buto [in:] VAN DEN BRINK, E.C.M. (ed.), *The Nile Delta in Transition: 4th.-3rd. Millennium B.C.* Tel Aviv: 23-30.
- LACAU, P. & LAUER, J.-P., 1959.
La pyramide à degrés IV. Inscriptions gravées sur les vases. 1^{er} fascicule. Fouilles à Saqqarah. Le Caire.
- LACAU, P. & LAUER, J.-P., 1961.
La pyramide à degrés IV. Inscriptions gravées sur les vases. 2^{eme} fascicule. Fouilles à Saqqarah. Le Caire.
- LACAU, P. & LAUER, J.-P., 1965.
La pyramide à degrés V. Inscriptions à l'encre sur les vases. Fouilles à Saqqarah. Le Caire.
- PETRIE, W.M.F., 1901.
The Royal Tombs of the Earliest Dynasties. 1901. Part II. Egypt Exploration Fund 21. London.
- PETRIE, W.M.F., 1902.
Abydos. Part I. 1902. Egypt Exploration Fund 22. London.
- PETRIE, W.M.F., 1903.
Abydos. Part II. 1903. Egypt Exploration Fund 24. London.
- SAAD, Z.Y., 1957.
Ceiling Stelae in Second Dynasty Tombs from the Excavations at Helwan. Supplément aux Annales du Service des Antiquités de l'Égypte, Cahier 21. Cairo.
- WILKINSON, T.A.H., 1999.
Early Dynastic Egypt. London / New York.

Contacts between the Oasis and the Nile: A Resumé of the Abu Muhariq Plateau Survey 1995-2002

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During the last decades the opinion has been expressed that the development of the Predynastic at the Nile was influenced by desert traditions (Friedman 2002). This influence has been postulated on the basis of a growing number of similarities and parallels in cultural traits, both found in the oases of the Western Desert and the Nile Valley. Other background arguments have been used to explain links between the two regions, of which the climatic change is the most important point. While archaeological investigations in the Nile Valley and the oases are numerous, the desert areas in between are more or less a black box within this debate. Between 1995 and 2002 investigations of the Cologne based ACACIA project focussed on the prehistory of the Egyptian Limestone Plateau that separates the Nile and the oases. The picture that derived from the great number of sites and artefacts from the plateau desert throws new light on the possible contacts and their intensity and mechanism during the Predynastic. Not only the sites of Djara and their lithic material played an important role in the earliest phase of possible contacts (Kindermann 2003), but there is growing evidence among the pottery found predominantly in the southern part of the Limestone Plateau.

Two aspects should be emphasised in this discussion to exclude misunderstandings. As the role of the changing environmental conditions in the deserts can hardly be ignored, at first, a precise chronology of the climatic development and its effects on living condition in the desert has to be established. In turn, the changing conditions are constraints to the contact patterns and frequencies, and it is, at second, wise to separate the debate in order of the chronological phases:

(1) The earliest stage under discussion is the final period of the Holocene wet phase that ended at about 5000 cal BC. This time is characterised by frequent episodic occupations on the Limestone Plateau during the rainy seasons. While there are many desert camp sites, archaeological sites in the Nile Valley are lacking. Therefore, no contemporaneous links can be made between the Western Desert and the Nile, although the remains of the Nile mollusc *Aspatharia* on the desert sites point to contacts during the seasonal rounds of the desert dwellers.

(2) The second stage is the rapid climatic deterioration at the end of the Holocene wet-phase at about 5000 cal BC and the beginning of the earliest Predynastic cultures in the Nile Valley. The depopulation effects and the migrational movement into the more favoured habitats at the Nile forms the backbone of the contact discussion during this

period. Among the many local traditions, a small number of black-topped potsherds and Tasian-like beakers found on the desert sites may underline the scenario that the Early Predynastic dwellers were the followers of desert groups.

(3) During the Predynastic, when the desert was hyper-arid and no longer an environment to live in, the contacts obviously disappeared, as no artefacts from the Plateau desert can be dated to this period.

(4) Although very sporadic, a growing amount of pottery can be stated for the Late Predynastic and Early Dynastic, as some of Sheikh Muftah sherds which point to an oases' tradition (Hope 2002), as well as a number of Clayton rings. The latter might have played an important role for the contacts, as they may represent a specialised group of desert "bedouins". The type of contact during this phase is different from that of the Holocene wet-phase, as there was no hope of finding any surface water along the desert travel. However, frequent contacts obviously did not increase before the "Egyptians" entered the oases during the Old Kingdom when donkey roads were established throughout the deserts.

Bibliography

FRIEDMAN, R.F., (ED.), 2002.

Egypt and Nubia: Gifts of the Desert. London.

HOPE, C.A., 2002.

Early and Mid-Holocene Ceramics from the Dakhleh Oasis: Traditions and Influences [in:] FRIEDMAN, R.F. (ed.), *Egypt and Nubia: Gifts of the Desert*. London: 39-61.

KINDERMANN, K., 2003.

Investigations of the Mid-Holocene Settlement of Djara (Abu Muhariq Plateau, Western Desert of Egypt) [in:] KRZYZANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Cultural Markers in the Later Prehistory of Northeastern Africa and Recent Research*. Poznan : 51-72.

The Dynamics of Diversity: Interaction between the Individual, the Institution and the Environment during the rise of the Egyptian state

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It is generally accepted that the scale of effort expended (Tainter 1978) on burial in Lower and Upper Egypt is subject to intrinsic differences. The northwards spread of the Naqada cultural complex infiltrated the Delta, but did not bring with it a wholesale change within the burial customs of the Lower Egyptians. This is best exemplified by examining the graves of individuals: on a socio-economic basis in terms of the volume of grave and grave goods, and on an ideological basis by the positioning of the deceased within the grave. This evidence implies differential socio-economic and political agendas in the north and south (Hoffman 1980). This communication seeks to further investigate this phenomenon and bring greater understanding to the social dynamics of this period, and will do so through examination of the following key issues:

1. Differential mortuary behaviour as a reflection of geographic environment
2. The variable impact of the individual and the institution upon aspects of burial practice
3. The external pressure of rising centralisation on individuals and communities
4. The variable evidence for the mortuary ritual - during burial and subsequently
5. The variable abandonment/impooverishment of sites during the 1st and 2nd Dynasties

Analysis on the mortuary evidence at a regional cluster of sites in the northern east Delta has already proved valuable in elucidating aspects of social transition within this region between the Late Predynastic and Early Dynastic Period. Analysis of the mortuary data suggested that the rising social complexity associated with the growth of the centralised state and founding of the capital at Memphis has a profound effect on communities in terms of:

- Increasing variability of familial wealth
- Increasing numbers of social classes and positions within communities
- An increasing awareness/need to legitimate position through socio-economic means
- Changing prosperity for either sectors of, or the whole, community and, in some cases
- Abandonment of sites

In mortuary terms, this was most visible within the cemetery through:

- The quantity and range of grave goods
- The range of grave architecture (e.g. presence/absence and type of coffins and mud-brick chambered graves)
- Spatial zoning and mortuary segregation of segments of the population
- The latest date of burial made within a cemetery






This communication will draw on the analytical methods successful in the eastern Delta context together with aspects of mortuary, social complexity and agency theory from mainstream archaeology in order to make sense of inter-regional peculiarities and changes during the Late Predynastic and Early Dynastic period. These theories have been successfully applied to a diversity of chronological and geographical contexts (Parker Pearson 1999; Clark 2000; Dobres & Robb 2000; Chapman 2003) and stand to make an impact on our understanding of the dynamics of interaction between north and south, individual and institution and geographically disparate regions during the rise of the state.



Bibliography

- CHAPMAN, R., 2003.
Archaeologies of Complexity. London.
- CLARK, J.E., 2000.
Towards a better Explanation of hereditary Inequality [in:] DOBRES, M.-A. & ROBB, J.E. (eds.), *Agency in Archaeology*. London: 92-112.
- DOBRES, M.-A. & ROBB, J.E., 2000.
Agency in Archaeology: Paradigm or Platitude? [in:] DOBRES, M.-A. & ROBB, J.E. (eds.), *Agency in Archaeology*. London: 3-17.
- HOFFMAN, M.A., 1979.
Egypt before the Pharaohs. The Prehistoric Foundations of Egyptian Civilization. New York.
- PARKER PEARSON, M., 1999.
The Archaeology of Death and Burial. Stroud.
- TAINTER, J.A., 1978.
Mortuary Practices and the Study of Prehistoric social Systems [in:] SCHIFFER, M.B. (ed.), *Advances in archaeological Method and Theory*. New York: 105-137.

Kings as Gods in Early Egyptian Writing System

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Even before writing, the falcon on the standard  appeared as part of the set of standards on Late Predynastic palettes. From an historical overview of the role and function of the falcon on the standard in the early Egyptian writing system, it is clear that the ideogram  had the phonetic value of *ntr*. Other readings offered by various scholars are overruled on the account of historical context and, more importantly, the fact that no comparable evidence indicates any safe reading of the sign other than *ntr*. In all formulae and titles where a bare  appears, the one and only replacement is . Thus, the phonetic value of the sign  is *ntr*.

Choosing the falcon on the standard as an ideogram for *ntr* "god" raises two questions. The first question is: why out of all the standards of what was later called *šmsw-hr* "the Followers of Horus" the falcon is the one chosen to represent with its picture the term *ntr* "god"? The second question is based on the working hypothesis, that no two signs are used exactly in the same way in their initial state. This hypothesis makes one wonder what was the reason for using the falcon on the standard as an ideogram for *ntr* 'god' while the triliteral *ntr* was in use at the same time, and seems to have had the same function. In other words, what was the difference between  and ?

In trying to answer the first question, it is crucial to examine Late Predynastic palettes and Old Kingdom sources for the *šmsw-hr* 'the Followers of Horus'. Indeed, on the Predynastic palettes, the falcon on the standard has the most frequent appearances. The appearance of the falcon on the standard on Predynastic palettes, as well as its later appearance as part of the *šmsw-hr*, does indeed indicate its importance and close association with the king. Yet, it does not explain the phonetic value *ntr* 'god' gained by the sign from the beginning of Ancient Egyptian history.

All scholars who considered the question of the standards agree that the standards indicate royal presence, either as protective deities restricted to the king, or as some representation of the king himself. While the standards of the jackal and the cushion-like object may be interpreted as representations of local emblems (possibly Hierakonpolis and Abydos), the two falcons on the standards are explained as a double facet of the king. This assumption is also based on the well-established identification of the king with a falcon deity, possibly Horus, from Predynastic times, a prominent expression of which is recorded on the Narmer Palette. Thus, out of the basic set of four standards,

the two falcons seem to have been the closest to the king's self, representing the king and not the geographic aspects of his rulership.

A careful analysis of Early Dynastic and Old Kingdom written material suggests that the reason because for which the falcon on the standard had received the phonetic value of *ntr* is the concept of divine kingship. This concept seems to be the key for understanding the use of the falcon on the standard. Against this background, I would like to propose that the falcon on the standard was used at first only when the king as a *ntr* was meant, first as an ideogram, and later as a classifier. At the same time, the triliteral  *ntr* was used as a general designation of any god. This, I would submit, was the reason behind the use of  and  at the same time.

Bibliography

ASSELBERGHS, H., 1961.

Chaos en beheersing. Documenten uit aeneolithisch Egypte. Leiden.

BAINES, J., 1991.

On the symbolic Context of the principal Hieroglyph for "God" [in:] VERHOEVEN, U. & GRAEFE, E. (eds.), *Religion und Philosophie im Alten Ägypten. Festgabe für Philippe Derchain zu seinem 65. Geburtstag am 24. Juli 1991*, Orientalia Lovaniensia Analecta 39. Leuven: 29-46.

BAINES, J., 1995.

Origins of Egyptian Kingship [in:] O'CONNOR, D. & SILVERMAN, D.P. (eds.), *Ancient Egyptian Kingship.* Leiden / New York / Köln: 95-156.

CERNY, J., 1958.

Name of the King of the unfinished Pyramid at Zawiyet el-Aryân. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 16: 25-29

EDEL, E., 1975.

Beiträge zum ägyptischen Lexikon VI. Die Stoffbezeichnungen in den Kleiderlisten des Alten Reiches. *Zeitschrift für ägyptische Sprache* 102 (1975), pp. 13-30

FISCHER, H.G., 1964.

Inscriptions from the Coptite Nome, Dynasties VI-XI. Analecta Orientalia 40. Rome.

FRANKFORT, H., 1948.

Kingship and the Gods. A Study of Ancient Near Eastern Religion as the Integration of Society and Nature. Chicago.

- GODRON, G., 1990.
Études sur l'Horus Den et quelques problèmes de l'Égypte archaïque. Cahier d'Orientalisme 19. Genève.
- HELCK, W., 1987.
Untersuchungen zur Thinitenzeit. Ägyptologische Abhandlungen 45. Wiesbaden.
- KAHL, J., 1994.
Das System der ägyptischen Hieroglyphenschrift in der 0.-3. Dynastie. Göttinger Orientforschungen IV.29. Wiesbaden.
- KAPLONY, P., 1963.
Die Inschriften der ägyptischen Frühzeit I-III. Ägyptologische Abhandlungen 8. Wiesbaden.
- KAPLONY, P., 1964.
Die Inschriften der ägyptischen Frühzeit, Supplement. Ägyptologische Abhandlungen 9. Wiesbaden.
- KAPLONY, P., 1966.
Kleine Beiträge zu den Inschriften der ägyptischen Frühzeit, Supplement. Ägyptologische Abhandlungen 20. Wiesbaden.
- KEMP, B.J., 1989.
Ancient Egypt. Anatomy of a Civilization. London / New York.
- PETRIE, W.M.F., 1900.
The Royal Tombs of the First Dynasty. 1900. Part I. Egypt Exploration Fund 18. London.
- PETRIE, W.M.F., 1901.
The Royal Tombs of the Earliest Dynasties. 1901. Part II. Egypt Exploration Fund 21. London.
- POSENER, G., 1960.
De la divinité du Pharaon. Cahiers de la Société Asiatique 15. Paris.
- POSENER, G., 1965.
Le nom de l'enseigne appelée "Khons" (). *Revue d'Égyptologie* 17: 193-195.
- WILKINSON, T.A.H., 1999.
Early Dynastic Egypt. London / New York.

Niched Architecture in Early Mesopotamia and Early Egypt

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The origins of niched architecture in Predynastic and Early Dynastic Egypt have been a subject of scientific debate for many decades. Especially during the last five years, Egyptologists have paid fresh attention to this matter. This might be seen as a consequence of the remarkable new discoveries in Predynastic settlement and funerary contexts at sites such as Buto and Abydos in the 1980s and 1990s. Yet, the ongoing discussions display disagreement in fundamental questions.

Only the important role of niched architecture as a symbol of power in the process of Egyptian state formation remains undisputed. This function is illustrated by a large number of actual buildings, mostly tombs and funerary enclosures, as well as an even greater amount of pictorial representations, for instance on pottery, palettes and rock-carvings. Quite different viewpoints, however, have been expressed concerning the early centres of development of Egyptian niched architecture. Several researchers assume that it first appeared in Lower Egypt, while others presume an Upper Egyptian origin. Likewise, the time of appearance of niched architecture in the Nile Valley is disputed. While some Egyptologists support a first occurrence during Naqada IIc or even earlier, others defend a rather late appearance during Naqada IIIb.

Ambivalent is also the attitude in Egyptological literature towards the question of a possible Mesopotamian background of the niched architecture in the Nile Valley. The theory of a Near Eastern origin of the Egyptian buttress-recess architecture was first purported by Henri Frankfort in the 1920s. It experienced new support during the 1970s and 1980s by the unexpected discovery of impressive niched buildings of the second half of the 4th millennium BC at the Late Uruk sites of Habuba Kabira and Djebel Aruda in Northern Syria. Since then, the appearance of sophisticated niched architecture in early Egypt is viewed by most Near Eastern archaeologists as one of the numerous consequences of the so-called "Uruk Expansion" of Southern Mesopotamia and Southwestern Iran with its wide-ranging cultural contacts and trade relations. Yet, among Egyptologists, a certain scepticism is still prevalent with regard to any external roots of Egyptian niched architecture.

In my paper I intend to discuss the phenomenon of the Egyptian niched architecture against the background of the long and eventful history of buttress-recess architecture in Mesopotamia going back to the Samarra Period of the 6th millennium BC. Niched façades in their classical shape, however, represent a rather late phenomenon within

Near Eastern architectural development and are mainly known from the later stages of the Uruk Period, i.e. the phase of the "Uruk Expansion". As it is well-known, exactly at this point in time, we have clear indications for contacts between the élites of the Uruk people and Predynastic Egypt in several fields of the archaeological record; so it is hard to believe that the resemblances between the niched architecture in both regions are just fortuitous.

This view will find further support if one takes a look at the slow genesis of mud-brick building in the Ancient Near East starting around 8000 BC, whereas in Egypt adobe architecture apparently occurs quite late and develops unusually quickly during the 4th millennium BC. Finally, the close ties between niched architecture and symbolism of power are comparable in the Uruk world as well as in Predynastic and Early Dynastic Egypt. Here again, we observe that in Near Eastern architectural evolution this symbolic role of the buttress-recess arrangements has taken shape only at an advanced developmental stage. The beginnings can be traced back to the Ubaid Period of the 5th millennium BC, but the full scope of niched architecture indicating status is not to be found before the Uruk Period. There it appears in the process of Mesopotamian state formation.

Because of the above-mentioned reasons, I assume that niched arrangements as a variety of conspicuous consumption have been adopted from Mesopotamian into Egyptian monumental architecture during Naqada II, an archaeological phase which can be equated with the "Uruk Expansion" in the Ancient Near East. However, it is true that at present examples of niched architecture in early Egypt mainly date to a slightly later phase of the Predynastic Period and to the Early Dynastic Period. We, therefore, encounter Egyptian niched architecture at a level when it already served as a widespread and well-established worldly and other-worldly symbol of power for the ruling élites in the Nile Valley. Certainly it will be difficult to unearth just the initial occurrences of niched architecture in Egyptian settlement contexts. In all probability the buildings in question were temples, palaces or other official complexes erected by migratory Near Eastern architects active in Egypt. This inferred evolutionary stage is supposed to have provided the pristine model for all further developments of niched architecture in Northeast Africa.

Bibliography

- ARNOLD, D., 1994.
Lexikon der ägyptischen Baukunst. München / Zürich.
- AURENCHE, O., 1993.
L'origine de la brique dans le Proche Orient ancien [in:] FRANGIPANE, M.; HAUPTMANN, H.; LIVERANI, M.; MATTHIAE, P. & MELLINK, M. (eds.), *Between the Rivers and over the Mountains. Archaeologica Anatolica et Mesopotamica Alba Palmieri Dedicata*. Rome: 71-85.
- BALCZ, H., 1930.
Die altägyptische Wandgliederung. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 1: 38-92.
- BOEHMER, R.M., 1999.
Uruk-Früheste Siegelabrollungen. Ausgrabungen in Uruk-Warka Endberichte 24. Mainz.
- BUTTERLIN, P., 2003.
Les temps proto-urbains de Mésopotamie. Contacts et acculturation à l'époque d'Uruk au Moyen-Orient. Paris.
- COLLINS, P., 2000.
The Uruk Phenomenon. The Role of Social Ideology in the Expansion of the Uruk Culture during the Fourth Millennium BC. BAR Int. ser. 900. Oxford.
- DREYER, G., 1998.
Umm el-Qaab I. Das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse. Archäologische Veröffentlichungen 86. Mainz.
- FALTINGS, D., 1998.
Ergebnisse der neuen Ausgrabungen in Buto. Chronologie und Fernbeziehungen der Buto-Maadi-Kultur neu überdacht [in:] GUKSCH, H. & POLZ, D. (eds.), *Stationen. Beiträge zur Kulturgeschichte Ägyptens Rainer Stadelmann gewidmet*. Mainz: 35-45.
- FRANKFORT, H., 1924.
Studies in Early Pottery of the Near East I. Chicago.
- FRANKFORT, H., 1941.
The Origin of Monumental Architecture in Egypt. *American Journal of Semitic Languages and Literatures* 58: 329-358.
- HARTUNG, U., 2001.
Umm el-Qaab II. Importkeramik aus dem Friedhof U in Abydos (Umm el-Qaab) und die Beziehungen Ägyptens zu Vorderasien im 4. Jahrtausend v. Chr. Archäologische Veröffentlichungen 92. Mainz.
- HENDRICKX, S., 2001.
Arguments for an Upper Egyptian Origin of the Palace-façade and the Serekh during Late Predynastic - Early Dynastic Times. *Göttinger Miszellen* 184: 85-110.
- HENDRICKX, S. & BAVAY, L., 2002.
The Relative Chronological Position of Egyptian Predynastic and Early Dynastic Tombs with Objects Imported from the Near East and the Nature of Interregional Contacts [in:] VAN DEN BRINK, E.C.M. & LEVY, T.E. (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London/New York: 58-80.
- JIMÉNEZ-SERRANO, A., 2001.
The Origins of the Palace-Façade as Representation of Lower Egyptian Élites. *Göttinger Miszellen* 183: 71-81.
- JIMÉNEZ-SERRANO, A., 2003.
Chronology and Local Traditions: The Representation of Power and the Royal Name in the Late Predynastic Period. *Archéo-Nil* 13: 93-142.
- JOFFE, A.H., 2000.
Egypt and Syro-Mesopotamia in the 4th Millennium - Implications of the New Chronology. *Current Anthropology* 41: 113-123.
- KAISER, W., 1985.
Zu Entwicklung und Vorformen der frühzeitlichen Gräber mit reich gegliederter Oberbaufassade [in:] POSENER-KRIEGER, P. (ed.), *Mélanges Gamal Eddin Mokhtar*. Bibliothèque d'Étude 97.2. Le Caire: 25-38.
- MIDANT-REYNES, B., 2003.
Aux origines de l'Égypte. Du Néolithique à l'émergence de l'état. Paris.
- MIGLUS, P.A., 1998-2001.
Nischen, "Nischenarchitektur" [in:] EDZARD, D.O. (ed.), *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 9. Berlin / New York: 585-589.
- MOOREY, P.R.S., 1990.
From Gulf to Delta in the Fourth Millennium BCE - The Syrian Connection. *Eretz-Israel* 21: 62-69.
- POLLOCK, S., 1999.
Ancient Mesopotamia - The Eden that never was. Cambridge.
- PREZIOSI, D., 1979.
Architecture, Language, and Meaning - the Origins of the built World and its semiotic Organization. The Hague / Paris / New York.
- ROTHMAN, M.S. (ED.), 2001.
Uruk Mesopotamia & its Neighbors. Cross-Cultural Interactions in the Era of State Formation. Santa Fe/Oxford.
- SAUVAGE, M., 1998.
La brique et sa mise en œuvre en Mésopotamie des origines à l'époque achéménide. Paris.

- SIEVERTSEN, U., 1992.
Das Messer vom Gebel el-Arak. *Baghdader Mitteilungen* 23: 1-75.
- SIEVERTSEN, U., 1998.
Untersuchungen zur Pfeiler-Nischen-Architektur in Mesopotamien und Syrien von ihren Anfängen im 6. Jahrtausend bis zum Ende der frühdynastischen Zeit. British Archaeological Reports International Series 743. Oxford.
- SIEVERTSEN, U., 1999.
Early Buttress-Recess Architecture in Mesopotamia and Syria. *Baghdader Mitteilungen* 30: 7-20.
- SIEVERTSEN, U., 2002.
Private Space, public Space and connected architectural Developments throughout the early Periods of Mesopotamian History. *Altorientalische Forschungen* 29: 307-329.
- SIEVERTSEN, U., 2003.
Synchronismen zwischen Mesopotamien, der Levante und Ägypten in der 2. Hälfte des 4. Jts. v. Chr. - Das zeitliche Verhältnis der Uruk-Kultur und Protoelams zur Negade-Kultur [in:] DITTMANN, R.; EDER, C. & JACOBS, B. (eds.), *Altewissenschaften im Dialog. Festschrift für Wolfram Nagel zur Vollendung seines 80. Lebensjahres.* Alter Orient und Altes Testament 306. Münster: 467-512.
- SPENCER, A.J., 1979.
Brick Architecture in Ancient Egypt. Warminster.
- VAN DEN BRINK, E.C.M., 2001.
Some Comments in the Margins of "The Origin of the Palace-Façade as Representation of Lower Egyptian Elites". *Göttinger Miszellen* 183: 99-111..
- VON DER WAY, T., 1992.
Indications of Architecture with Niches at Buto [in:] FRIEDMAN, R.F. & ADAMS, B. (eds.), *The Followers of Horus. Studies Dedicated to Michael Allen Hoffman.* Oxbow Monograph 20. Oxford: 217-226.
- VON DER WAY, T., 1993.
Untersuchungen zur Spätvor- und Frühgeschichte Unterägyptens. Studien zur Archäologie und Geschichte Altägyptens 8. Heidelberg.
- VON DER WAY, T., 1997.
Tell el-Fara'in - Buto I. Ergebnisse zum frühen Kontext. Kampagnen der Jahre 1983-1989. Archäologische Veröffentlichungen 83. Mainz.
- WILKINSON, T.A.H., 1999.
Early Dynastic Egypt. London / New York.
- WILKINSON, T.A.H., 2002.
Uruk into Egypt: Imports and Imitations [in:] POSTGATE, J.N. (ed.), *Artefacts of Complexity. Tracking the Uruk in the Near East.* Warminster: 237-248.
- WILKINSON, T.A.H., 2002.
Reality Versus Ideology: The Evidence for 'Asiatics' in Predynastic and Early Dynastic Egypt [in:] VAN DEN BRINK, E.C.M. & LEVY, T.E. (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London / New York: 514-520.

The Cemetery of el-Gerzeh. Implications for our Understanding of Social Development and the so-called 'Expansion of the Naqada Culture'

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The aim of this paper is to introduce the research aims, methodologies and projected results of my current PhD investigation into the eponymous site of el-Gerzeh, of the Fayum region. Situated on the west bank of the Nile, only 7km northeast of the Mejdum pyramid, Gerzeh is seemingly one of the earliest 'Naqada' cemeteries in Lower Egypt and its presence suggests a geographical expansion of the cultural complex of the communities of the south, apparently around Naqada IIc/IIId. After its excavation in 1910, however, very few graves were published by its excavator, Gerald Wainwright, as was typical of the time (Petrie *et al.* 1912). The Petrie Museum in London, however, holds the original notes from all 288 Predynastic graves. These tombcards record the contents of each grave on one side, and depict the layout of the body and its accompanying grave goods on the other side. Many of the artefacts from this site have since found their way into western museums, particularly those based in the UK, and as such it is possible to examine many of the artefacts first hand and thus enhance the details recorded on the tombcards. I am in the process of organising and analysing this data with a view to comprehensively publishing the material.

The first fundamental methodological issue here is the dating of the site and its chronological position relative to the chronologies formulated for the core of the Naqada culture to the south and the Maadi/Buto cultural complexes to the north. From this springboard the data provide the opportunity to investigate the composition and nature of this community through utilising multivariate statistical techniques, such as correspondence analysis, to not only propose a chronology for the site but also to draw out patterns in the material that may relate to social roles. These patterns may be compared to other relatively contemporaneous sites. By engaging with recent anthropological and archaeological debates (Jenkins 1996; Canuto & Yaeger 2000) about social and community identity we may then enhance interpretation of the site. Does this community represent an ethnic and/or territorial expansion? Can we consider this site to be a pioneer community or a 'trade diaspora'? (Curtin 1984). Can we infer from the material remains what this community's relations were with others within and outwith the region? Through pursuing these lines of enquiry it is hoped that the in-depth examination of this site will facilitate our ongoing interpretation of the so-called 'spread of the Naqada culture', often seen as the basis for the unification of Egypt (Kaiser 1990), and the nature of the contacts and social strategies that were integral to this process.

Bibliography

- CANUTO, M. & YAEGER, J., 2000. Introduction [in:] CANUTO, M. & YAEGER, J. (eds.), *The Archaeology of Communities*. London.
- CURTIN, P.D., 1984. *Cross cultural Trade in World History*. Cambridge.
- JENKINS, R., 1996. *Social Identity*. London.
- KAISER, W., 1990. Zur Entstehung des gesamtägyptischen Staates. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 46: 287-299.
- PETRIE, W.M.F.; WAINWRIGHT, G.A. & MACKAY, E., 1912. *The Labyrinth, Gerzeh and Mazguneh*. British School of Archaeology in Egypt & Egypt Research Account 21. London.

Firing Installations and Levels of Specialisation: A View from Recent Excavations at Hierakonpolis Locality 11C

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1. Introduction

Hierakonpolis is unique among Predynastic settlements for the number of “kiln sites” that have been located through systematic surface surveys from the 1960s onwards (Hoffman 1982). Excavations since the 1970s have revealed structural remains of firing installations built in a variety of different configurations (Hoffman 1982; Harlan 1982; 1985; Geller 1989; 1992a). These discoveries provided important evidence with which to investigate the development of specialisation in the production of pottery (Friedman 1994) and beer (Geller 1992a; 1992b) during the Predynastic Period. However, the configuration and mechanics of these installations as well as differences between pottery kilns and breweries is still poorly understood mainly due to the limited preservation of the structures.

The recent excavations at Hierakonpolis Locality HK11C carried out by R. Friedman and the author (Friedman 2004; Friedman *et al.* 2004; Takamiya 2004b; Baba 2004) have further increased our information about Predynastic firing installations and pyrotechnologies, presumably for the production of pottery and beer. In this paper, the structure of the firing installation excavated in Squares A6-A7 at Hierakonpolis HK11C and the investment of labour in its construction compared with the adjacent pottery kilns are discussed on the basis of preliminary results from the excavation during the 2003 and 2005 seasons.

2. Excavations of Squares A6-A7

In late 2003, the author initiated excavations of Square A6, and during February 2005 the excavation area was expanded to adjacent Square A7, where Harlan (1982) uncovered a “pit-draught kiln” believed to be for pottery making in 1979. The recent excavations uncovered a large complex of firing installation almost entirely, though the upper part of the structure had been completely demolished. The complex appears to have originally been rectangular in shape, confined by linear walls on at least three sides; the northern wall has not been located. The dimensions of the complex are approximately 3m along the east-west axis by more than 7m along the north-south axis.

The walls of this complex were constructed with large fragments of square ceramic plates (often more than 70cm on one side) and fragments of fire-bars and pottery sherds cemented with mud plaster. The floor of the complex was identified as a thin layer of white ash on the surface of natural

deposits. The upper part of these natural deposits was red burnt indicating strong heat, which penetrated into the deposit more than 20cm below the floor surface, all over the complex.

Seven circular kiln features (more than 1m in diameters) were identified in the complex, in addition to one exposed by Harlan. The best-preserved was Feature 12, which consisted of 13 fire-bars (the upper parts broken) still standing upright *in situ*. These circular features were arranged in two rows along the north-south axis. Thick deposits of charcoal were found along the east and west walls, usually placed between two kiln features, suggesting that several if not all of the features were heated at one time.

Many fragments of fire-bars, as well as a large amount of pottery sherds covered with mud, were uncovered from debris above the structure. Most of the fire-bars have a pointed base and a wedge-shaped top.

The precise date of the complex remains to be clarified by future analyses; however, it may be supposed on ceramic evidence from the upper levels that the features date to roughly around the middle of Naqada II.

3. Function of the firing installation

The results of the excavations enabled us to reconstruct a large and laboriously constructed firing installation, in which at least 8 circular kiln features were heated up at once. The features uncovered are quite similar to kilns excavated at Abydos by E. Peet in the beginning of the 20th century (Peet 1914: 7-9; Peet & Loat 1913: 1-7).

J. Geller has suggested that installations at Abydos were used for brewing beer based on the example he excavated at Hierakonpolis HK24A (Geller 1992a; 1992b). Although we have not yet recovered large quantities of the large vessels (vats) or their fragments inevitably required for breweries in our pottery assemblages, it may be presumed that the complex at HK11 could have functioned as brewery.

4. Comparison with pottery kilns

The amount of materials and labour invested in the construction of this firing installation is notable. The major construction materials, i.e. fire-bars and ceramic plates, were carefully modelled by hand and fired before use in the construction. The number of fire-bars far exceeded 160, if each kiln feature contained more than 20 fire-bars, although some of them may have been reused. It may thus

be supposed that the structure was intended to be used many times. Indeed, repeated use can be inferred from the surface colour of the structural remains and the existence of several layers of fuel residue.

It is interesting to compare this brewery complex with the pottery kilns excavated by R. Friedman in Square B4 (Friedman 2004; Friedman *et al.* 2004), which was less than 20m away and is roughly contemporary in date. The major product of this pottery kiln was roll rim jars and it may be assumed that it supplied the containers for the beer. Comparison shows striking differences in structure, investment and durability between these two firing installations. According to Friedman, the kilns in Square B4 were simple and easy to make pit kilns set within a burnt mud platform. Kiln remnants found at several levels indicates that they were rebuilt frequently and little effort was put into maintenance. The low investment and frequent rebuilding suggested that potting was a low intensity seasonal activity here.

On the basis of the scale of production, Geller has suggested the involvement of full-time specialists in brewing at HK24A (Geller 1992b). The large investment for the structure in Squares A6-A7 may support this assumption. However, the nature of the product and the seasonality of activities should be taken into consideration, because brewing beer might have been a seasonal, temporary or occasional activity using the same durable installations many times over (Takamiya 2004a). Future excavations and analyses will resolve these questions as well as those on the discrepancy in the level of specialisation between the pottery kilns and the brewery complex.

Bibliography

- BABA, M., 2004.
Close Encounters with HK Potters. *Nekhen News* 16: 21.
- FRIEDMAN, R.F., 1994.
Predynastic Settlement Ceramics of Upper Egypt: A Comparative Study of the Ceramics of Hemameh, Nagada and Hierakonpolis. U.M.I. / Berkeley.
- FRIEDMAN, R.F., 2004.
Predynastic Kilns at HK11C: One Side of the Story. *Nekhen News* 16: 18-19.
- FRIEDMAN, R.F.; DOUGHERTY, S.P.; TAKAMIYA, I.H. & BABA, M., 2004.
The 2003-2004 Season of the Hierakonpolis Expedition. Report submitted to the SCA.
- GELLER, J.R., 1989.
Recent Excavations at Hierakonpolis and their Relevance to Predynastic Production and Settlement. *Cahiers de*

recherches de l'Institut de Papyrologie et d'Égyptologie de Lille 11: 41-52.

GELLER, J.R., 1992A.
Predynastic Beer Production at Hierakonpolis, Upper Egypt: Archaeological Evidence and Anthropological Implications. U.M.I. / Saint Louis.

GELLER, J.R., 1992B.
From Prehistory to History: Beer in Egypt [in:] FRIEDMAN, R.F. & ADAMS, B. (eds.), *The Followers of Horus. Studies Dedicated to Michael Allen Hoffman*. Oxbow Monograph 20. Oxford: 19-26.

HARLAN, F.J., 1982.
Excavations at Locality 11C [in:] HOFFMAN, M.A., 1982. *The Predynastic of Hierakonpolis. An Interim Report*. Egyptian Studies Association 1. Giza / Macomb: 14-25.

HARLAN, F.J., 1985.
Predynastic Settlement Patterns: A View from Hierakonpolis. U.M.I. / Saint Lewis.

HOFFMAN, M.A., 1982.
The Predynastic of Hierakonpolis. An Interim Report. Egyptian Studies Association 1. Giza / Macomb.

PEET, E., 1914.
The Cemeteries of Abydos. Part II. 1911-1912. Egypt Exploration Fund 34. London.

PEET, T.E. & LOAT, W.L.S., 1913.
The Cemeteries of Abydos. Part III. 1912-1913. Egypt Exploration Fund 35. London.

TAKAMIYA, I.H., 2004A.
Development of Specialisation in the Nile Valley during the 4th Millennium BC. [in:] HENDRICKX, S.; FRIEDMAN, R.F.; CIAŁOWICZ, K.M. & CHODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, Kraków, 28th August - 1st September 2002. *Orientalia Lovaniensia Analecta* 138. Leuven: 1027-1039.

TAKAMIYA, I.H., 2004B.
Kilns in Square A6: The other Side of the Story. *Nekhen News* 16: 19-20.

Human Occupation of the Nile Delta during Pre- and Early Dynastic Times. A View from Kom el-Khilgan

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Research carried out in the Nile Delta during the last twenty years has resulted in the discovery of a number of settlements and cemeteries of the Predynastic and the Early Dynastic periods. Work done in this area, which is considered to be the part of Egypt most threatened by urbanism and agricultural pressure, gives rise to new ideas about human occupation during the 4th millennium BC. 40km south-east of Mansoura, a multi-disciplinary team led by Béatrix Midant-Reynes (CNRS, UMR 8555, Centre d'anthropologie, Toulouse) supported by the Institut français d'archéologie orientale (IFAO) and financed by Midi-Pyrenees Region, has initiated a research program on the period of state formation in Egypt. This is part of a more general program intended to highlight the geographical and cultural identity of the Lower Egyptian Culture as well as the process of acculturation that led to the spread of the Naqada Culture throughout the Nile Valley.

Geomorphological studies undertaken in the Kom el-Khilgan area made it possible to recognise that the site exists on a levelled sandy residual hill called a "gezira" or "turtleback" which provided high ground above the floods in the 4th millennium BC. Two main periods of activity were identified. In the lower layers of this particular feature, between 1.0 and 1.2m below the surface, the Pre- and Early Dynastic Periods are represented solely by funerary structures. The interest of the Kom el-Khilgan cemetery lies primarily in the discovery of a dual cultural component cemetery with graves of the Lower Egyptian and the Naqada Cultures. In the upper layers, a later occupation related to the Hyksos period (2nd millennium BC) is seen in domestic structures (walls, hearths, storage pits) and funerary features (mud-brick tombs, anthropomorphic coffins).

From the example of Kom el-Khilgan, to which several geo-archaeological techniques have been applied (geological profiling, classical hand augering, geo-electrical profiling and sounding) the aim of this study is to understand the modalities of human occupation in the Nile Delta so as to locate the sites in their regional archaeological context and to link historical data with sedimentary processes. New answers are thus being suggested for the question of human occupation of the Nile Delta. This work makes possible a better understanding of the original morphology of the landscape in the course of its history. According to the distribution of "geziaras" and Predynastic sites, a model of human occupation might be proposed with a particular focus on the ecological and cultural changes affecting the region at the time of state formation in Egypt.

Bibliography

MIDANT-REYNES, B.; BRIOIS, F.; BUCHEZ, N.; CRUBEZY, E.; DE DAPPER, M.; DUSCHENE, S.; FABRY, B.; HOCHSTRASSER-PETIT, C.; STANIASZEK, L. & TRISTANT, Y., 2003.

Kom el-Khilgan: un nouveau site prédynastique dans le Delta. *Archéo-Nil* 13: 55-64.

MIDANT-REYNES B.; BRIOIS F.; BUCHEZ N.; DE DAPPER M.; DUSCHESNE S.; FABRY B.; HOCHSTRASSER-PETIT C.; STANIASZEK L. & TRISTANT Y., 2004.

Kom el-Khilgan. A new Site of the Predynastic Period in Lower Egypt. The 2002 Campaign [in:] HENDRICKX, S.; FRIEDMAN, R.F.; CIAŹOWICZ, K.M. & CHŹODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt", Kraków, 28th August-1st September 2002*. *Orientalia Lovaniensia Analecta* 138. Leuven: 465-486.

TRISTANT, Y.; DE DAPPER, M. & MIDANT-REYNES, B.,

in preparation. Recherches géo-archéologiques sur le site pré- et protodynastique de Kôm el-Khilgan (delta du Nil). Résultats préliminaires des campagnes de prospection 2002-2004 [in:] *Actes du IXe Congrès International des Égyptologues. 6-12 Septembre 2004, Grenoble-France*. Leuven.

VAN DEN BRINK, E.C.M., 1987.

A Geo-Archaeological Survey in the North-Eastern Nile Delta, Egypt: The First Two Seasons, a Preliminary Report. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 43: 7-32.

VAN DEN BRINK, E.C.M., 1988.

The Amsterdam University Survey Expedition to the Northeastern Delta (1984-1986) [in:] VAN DEN BRINK, E.C.M. (ed.), *The Archaeology of the Nile Delta. Problems and Priorities*. Amsterdam: 65-114.

Finding the War! A follow-up to M. Campagno's *Origins I* article 'In the Beginning was the War. Conflict and the Emergence of the Egyptian state'

Joris VAN WETERING (Leiden University, Leiden)

War, military conflict or rather violence, is an integral part of state formation but is a process very difficult to elucidate to in the archaeological record. In his paper presented at the first *Origins* conference at Kraków in 2002, M. Campagno discussed the role of military conflict within the state formation processes. This follow-up study focuses on the archaeological visibility of military conflict, where to find it! and what to look for! The representational evidence and the various weapons found in Egypt have been investigated by G. Gilbert in his recent study.

The statements "... *that not the slightest evidence for conflict between Abydos and Hierakonpolis has ever been found.*" and "*Violence, for once, however, seems to be lacking ...*" by S. Hendrickx and R. Friedman (2003) in their recent article on Gebel Tjauti, seem to imply that we have a good insight into the archaeological record concerning military conflict. This issue will be investigated by looking at several war game scenarios based on the Gebel Tjauti Rock inscription. These hypothetical scenarios provide general statements about what might have remained/could be visible in the archaeological record if these scenarios had happened in the Naqada region during the Naqada IIIA period in relation to the political landscape of Upper Egypt (van Wetering, forthcoming).

As stated by both M. Campagno and G. Gilbert, the evidence concerning military evidence is still unclear and difficult to interpret. Leaving the representational evidence and the various weapons aside, the most important evidence comes from architecture. The wall constructions at Naqada and Nekhen (Hierakonpolis) are frequently used as evidence for defensive fortifications and indicators of conflict (Campagno 2004, Gilbert 2004, Williams 1994). The archaeological record concerning fortifications is reasonable good with the successive fortifications at Elephantine and the, recently discovered, Egyptian fortification at Gaza (Protodynastic - Early Dynastic Period), but the archaeological context of the walls at Naqada and Nekhen are too inconclusive to identify these constructions as defensive fortification walls. To date, few if any sites show unambiguous evidence for military conflict. This study looks at the locations within the Nile Valley where military conflict might have taken place, and what kind of sites/archaeological visibility this would have resulted in.

I would like to thank Dr Marcelo Campagno for providing me with a pre-publication copy of his *Origins I* article.

Bibliography

CAMPAGNO, M., 2004.

In the Beginning was the War. Conflict and the Emergence of the Egyptian State [in:] HENDRICKX, S.; FRIEDMAN, R.F.; CIAŹOWICZ, K.M. & CHŹODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, Kraków, 28th August-1st September 2002. *Orientalia Lovaniensia Analecta* 138. Leuven: 689-703.

GILBERT, G.P., 2004.

Weapons, Warriors and Warfare in Early Egypt. British Archaeological Reports International Series 1208. Oxford.

HENDRICKX, S. & FRIEDMAN, R.F., 2003.

Chaos and Order: A Predynastic "Ostrakon" from HK29A. *Nekhen News* 15: 8-9.

VAN WETERING, J.,

forthcoming. Nekhen [Hierakonpolis] *versus* This-Abydos. The Political Landscape of Upper Egypt before the First Dynasty.

WILLIAMS, B.B., 1994.

Security and the Problem of the City in the Naqada Period [in:] SILVERMAN, D.P. (ed.), *For His Ka: Studies Offered in Memory of Klaus Baer*. *Studies in Ancient Oriental Civilization* 55. Chicago: 271-283.

Limits of Decipherment: Object Biographies and the Invention of Writing

David WENGROW (University College London, London)

The act of decipherment stands guard over the disciplinary histories of Egyptology and Assyriology at their respective points of origin, rooting those histories in scientific achievements of unquestionable importance. It has been apparent for some time, however, that the methods and aims of decipherment, centred upon the recovery of language, are of limited utility in understanding the initial emergence of writing systems in Egypt and Mesopotamia during the late 4th millennium BC (see e.g. Nissen *et al.* 1993; Damerow 1999; Kahl 1994, 2001). While incorporating isolated elements of speech, such as phonemes, these early writing systems were not initially designed or able to represent continuous spoken discourse. This was a later adaptation of their initial functions, which must have been more closely allied to other, non-linguistic modes of communication. Accordingly, the principles of organisation underlying the use of early written signs to convey messages may be sought in other domains of social interaction and material culture (Michalowski 1994; Baines, in press).

One way of modelling these domains is to propose a blanket dichotomy between ritual and administrative activity, and attempt to identify the archaeological correlates of each (e.g. Postgate *et al.* 1995). A recurrent problem with this approach has been that the contexts in which early writing is attested (mainly large funerary assemblages in Egypt and urban rubbish tips in Mesopotamia) do not in themselves represent clearly delimited fields of social action. Rather they are surviving remnants of more encompassing processes in time and space which, when considered in their totality, may transcend any simple dichotomy between sacred and secular (or ceremonial and everyday) activity. In both cases these processes involved the large-scale production and movement of packaged goods, albeit in different contexts and with different aims.

A simple, binary approach also fails to account for a distinctive feature of the earliest Egyptian writing (c. 3300-3000 BC) that finds no parallel in contemporary (Uruk-period) Mesopotamia; i.e. its execution on a range of media using a number of different inscriptional techniques executed at varying scales. Surviving examples, which may only represent a subsection of the original corpus of inscribed material, include relief carving on ceremonial stone objects such as cosmetic palettes and weapons (attested mainly from temple deposits), incision on perforated labels of ivory, wood or bone (and on otherwise plain ceramic surfaces), painting on both ceramic and stone vessels, and intaglio carving on cylinder seals of

wood, ivory and stone that were impressed onto the clay sealings of containers and portals, leaving the imprint of a miniature design in raised relief (see e.g. Asselberghs 1961; Kaplony 1963; Dreyer 1998). The latter technique was imported from South West Asia, where its use appears to have been restricted at this time to the transmission of purely pictorial images.

This range of applications for the earliest Egyptian writing is striking, and suggests that a central concern during its development may have been the redefinition of relationships between objects, and between people *via* objects. As much early writing in Egypt derives from funerary deposits, this possibility can be most fully investigated with regard to relationships between the living and the dead. The use of manufactured objects and images in mediating relations between the living and the dead has a long and complex prehistory in Egypt, extending back at least to Neolithic times, and undergoing significant changes during the Naqada I-II periods (see e.g. Wengrow & Baines 2004). This paper argues that a detailed consideration of this prehistoric background forms a necessary prelude in understanding the impact of literate technologies upon early Egyptian society. As I discuss further elsewhere, a long-term perspective may be of particular value in exploring how inscription and sealing practices contributed a) to the erosion of earlier cultural landscapes, conveyed largely on mobile objects, and b) to the emergence of a new and highly restricted form of ritual currency during the period of state formation (Wengrow, in press).

Bibliography

- ASSELBERGHS, H., 1961.
Chaos en beheersing. Documenten uit aeneolithisch Egypte. Leiden.
- BAINES, J.,
in press. The earliest Egyptian Writing: Development, Context, Purpose [in:] HOUSTON, S. (ed.), *The First Writing.* Cambridge.
- DAMEROW, P., 1999.
The Origins of Writing as a Problem of historical Epistemology. Max Planck Institute for the History of Science, Pre-Print 114. (<http://www.mpiwg-berlin.mpg.de/Preprints/P114.pdf>).
- DREYER, G., 1998.
Umm el-Qaab I. Das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse. Archäologische Veröffentlichungen 86. Mainz.

KAHL, J., 1994.

Das System der ägyptischen Hieroglyphenschrift in der 0.-3. Dynastie. Göttinger Orientforschungen IV.29. Wiesbaden.

KAHL, J., 2001.

Hieroglyphic Writing during the Fourth Millennium BC: an Analysis of Systems. *Archéo-Nil* 11: 101-134.

KAPLONY, P., 1963.

Die Inschriften der ägyptischen Frühzeit I-III. Ägyptologische Abhandlungen 8. Wiesbaden.

MICHALOWSKI, P., 1994.

Writing and Literacy in early States: A Mesopotamianist Perspective [in:] KELLER-COHEN, D. (ed.), *Literacy: Interdisciplinary Conversations.* New Jersey: 49-70.

NISSEN, H.J.; DAMEROW, P. & ENGLUND, R.K., 1993.

Archaic Bookkeeping. Early Writing and Techniques of economic Administration in the Ancient Near East. Chicago.

POSTGATE, N.; WANG, T. & WILKINSON, T., 1995.

The Evidence for early Writing: Utilitarian or ceremonial? *Antiquity* 69: 459-480.

WENGROW, D.,

in press. *The Archaeology of Early Egypt.* Cambridge World Archaeology Series. Cambridge.

WENGROW, D. & BAINES, J., 2004.

Images, Human Bodies, and the Ritual Construction of Memory in Late Predynastic Egypt [in:] HENDRICKX, S.; FRIEDMAN, R.F.; CIAŁOWICZ, K.M. & CHODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, Kraków, 28th August - 1st September 2002. *Orientalia Lovaniensia Analecta* 138. Leuven: 1081-1113.

Iconography of Local Resistance

Yuval YEKUTIELI (Ben-Gurion University of the Negev, Beer-Sheva)

This paper deals with the implications of postcolonial theory for the research of the Egyptian occupation of southwest Canaan during the last quarter of the 4th millennium BC (the transition from the Egyptian Predynastic to Protodynastic periods).

Archaeological investigations carried out over the past four decades in the region of present day southern Israel, the Gaza strip and northern Sinai, have indicated that Egypt established in this area an archaeologically recognisable regional entity that employed Egyptian socio-political apparatuses and manners.

Researchers of this episode identified it as a colony, and discussed it mainly from the coloniser's point of view: identifying Egyptian artefacts and structures within the colonised zone, speculating about the reason that led the Egyptians to create the colony (trade, military expansionism, experimental power management, etc), attempting to portray the kind of behaviour the Egyptians expressed towards the natives (cooperation, violence, etc.), trying to identify the Egyptian rulers involved, and aiming to synchronise the event with the Egyptian chronology. In addition, most of these discussions are marked by the assumption that the process was mono-causal and that it involved two separate and distinct groups: the Egyptians versus the Canaanites.

Awareness of postcolonial theory indicates that episodes as such are much more complex, involving multiple identities, intricate processes, numerous types of interaction and inevitable after effects. It is proposed that a postcolonial theory oriented research might reveal clear indications within the archaeological record for resistance, collaboration, hybridisation, hegemonic and subaltern discourses, manipulations of memory and forgetting, and more.

The paper will concentrate upon one of these elements - local resistance. This topic will be discussed through a new reading of a well-known collection of iconographic graffiti found at Tel Megiddo during the 1930s, which, in our view presents a local manipulation of Egyptian Royal Iconography.

Work Levels of a Predynastic Egyptian Population from Hierakonpolis

Melissa ZABECKI (University of Arkansas, Fayetteville)

The site of Hierakonpolis in Upper Egypt is thought to have been a principal site during the formative stages of Ancient Egyptian civilisation. Being the cult centre of the god Horus, it is believed that this site may have acted as a regional capital during the Predynastic. Years of excavations have yielded much information that has greatly advanced our understanding of the time surrounding the unification of the North and the South. Settlements, ritual areas, material production areas, and cemeteries are all present and have been intensely studied, revealing a stratified society of elites, middle class citizens, and workers.

Hierakonpolis, inhabited before and possibly during a time of such fundamental transformation, has the potential to answer many questions about the rise of civilisations and the process of culture change. In addition to technological or stylistic changes in art and pottery and shifts in religious ideas leading to changes in mortuary patterns, the health, nutrition, and workloads of the people themselves are sure to be affected over time. The goal of many of the bioarchaeological studies at Hierakonpolis has been to understand how the bodies of the inhabitants reacted to a changing lifestyle.

Muscle attachment locations have often been used as markers of occupational stress (MOS) in the study of past human populations. MOS can shed light on the type and extent of activities conducted in the past. Use and abuse of certain muscle groups can be observed and scored on skeletal elements by the size and condition of the locations of attachments. This method provides the means of demonstrating the diverse lives led by individuals of a population. Material culture may give us ideas about daily life, but it is the actual individuals that can reflect true living conditions. This study considers differences in activity patterns as reflected by the musculoskeletal markers (MSM) of a sample of individuals from the workers' cemetery designated as HK43 at Predynastic Hierakonpolis. It is one of the various studies conducted to test the hypothesis that the people at Hierakonpolis were different than most prehistoric populations in that they had sufficient means of providing for their leaders as well as their workers in order to participate in a political change.

A sample of individuals (n=220) was scored for up to 16 different MSM. Male-female differences were noted with males showing higher scores. These expected results support previous findings, from biomechanical studies, that males and females were responsible for different types of activities. Though this cemetery represents the working class, very few individuals display signs of having endured heavy workloads with muscle markings. These results are very different from those originally predicted. It was thought that a workers' cemetery should display more evidence of hard work. As Hierakonpolis is thought to have played a pivotal role in the unification of Egypt, the findings from this study contribute a great deal towards the explanation of this important time in history. These unexpected results may explain how the leaders of these workers may have ultimately united Upper and Lower Egypt. With healthy workers with a modest workload these leaders had a surplus capacity to exploit in their expansionist scheme. Research was funded by NSF grant BCS-0119754.

Cranial Robusticity, Teeth, Diet and Social Organisation

Sonia ZAKRZEWSKI (University of Southampton, Southampton)

Skeletal material has rarely been used within Egyptian contexts for more than simple analyses of palaeopathology and assessments of health or occupation. The current study elucidates patterns of social organisation and population composition, through assessment of morphological variability and changing patterns of sexual dimorphism in cranial robusticity, tooth size and dental wear.

The data consist of cranio-facial and dental variables from 418 adult Egyptian individuals, from six periods, ranging in date from the Badarian period through the Predynastic and Early Dynastic periods, to the Old Kingdom. A Middle Kingdom sample was also included to form a comparative outgroup. The data include both morphological measurements and grades of skeletal robusticity and dental wear.

Significant sexual dimorphism was found in 6 maxillary and 3 mandibular buccal-lingual tooth diameters. Significant changes in dental wear patterning within the mouth over time were also found. Significant sexual dimorphism and change through time was found in most cranial robusticity grades, and positive associations were found between measurements of dental wear, tooth size and cranial robusticity. These patterns have been compared with archaeological evidence of dietary change (from stable-isotopic analyses and documentary and artistic sources). The results suggest a complex interaction with diet and male-female ranking differences being mediated through changes in social organisation, social stratification and the formation of the Egyptian state.

This research was funded by the Wellcome Trust (Bioarchaeology Panel), Durham University (Addison-Wheeler Fellowship) and by University of Southampton.

The Late Prehistoric Cultures of the Gilf Kebir and Jebel Uweinat - The Evidence from Rock Art

András ZBORAY (FJ Expeditions, Budapest)

The great massifs of the central Libyan Desert (Eastern Sahara) have been long known to harbour prehistoric rock art sites. At the time of their discovery in 1923 Hassanein already noted 'engraved images of apparently great antiquity'. Subsequently the early explorers, Kemal el Din, Bagnold, Clayton, Almásy and others all noted numerous engravings and paintings. The first serious scientific study of the prehistoric art of the region was the 1933 Frobenius-Almásy expedition, during which a large number of new rock art sites were discovered and recorded by Hans Rhotert (including the famous 'cave of swimmers' at Wadi Sora). Another, smaller scale expedition was led by Bagnold in 1938, during which Hans Winkler recorded many new sites at Jebel Uweinat.

Following the war, exploration and interest in the region subsided. It was only in 1968 that a large scale archaeological expedition was mounted by Belguim, during which a number of spectacular new paintings were discovered that rank among the finest known Saharan rock paintings (Van Noten et al). From that time until present, a number of sporadic discoveries were made (Berger, Negro and others) in the Gilf Kebir and at Uweinat, however no systematic exploration or recording of sites was attempted, and awareness of the sites remain limited even among rock art specialists.

Since 1998 the author organised fourteen expeditions to Jebel Uweinat and the Gilf Kebir plateau, initially to visit known and recorded sites. However as familiarity with terrain and sites increased with each visit, the objectives were expanded to record all known sites, and survey on foot large areas that were void of known sites due to lack of exploration.

Over the past two years large areas of north-eastern Uweinat (around Karkur Talh, the main valley system) were systematically explored, and over 200 new rock art sites were discovered. Further discoveries were made at Western Uweinat, Jebel Arkenu, Jebel Kissu and along the Western edge of the Gilf Kebir plateau. To date the author recorded over 500 sites in the central Libyan Desert. A complete descriptive catalogue, with full bibliographical references (including unpublished image archives of early exploration), is planned for publication in the first half of 2005 on DVD.

The most significant aspect of the new discoveries are two clearly identifiable early cultural horizons at Jebel Uweinat, manifested in a number of well preserved paintings that pre-date the more numerous 'cattle pastoralist' horizon sites. The style and composition of the earliest paintings bear a marked similarity to the 'roundhead' paintings of

the Central Sahara. Their relative chronology is well established based on several examples of over-paintings, however the absolute chronology remains unestablished.

The new finds also expanded the range of the characteristic Uweinat 'cattle pastoralist' culture. The discovery of paintings at high elevations at Uweinat (practically all of the way to the summit) will require a complete rethinking of theories on prehistoric habitation and land use patterns. Near Wadi Sora (western Gilf Kebir), several shelters were discovered that definitely link the 'cattle pastoralist' cultures at Uweinat and the Gilf Kebir.

To date no definite links have been demonstrated between the 'cattle pastoralists' of the Gilf - Uweinat and the Nile Valley cultures. However there are certain aspects of the paintings, which foreshadow some characteristics of the classical Egyptian civilisation. The most notable is the emergence of a standardised iconography over a large geographical area, and over an extended period of time. Cattle and humans are always depicted in similar postures, with uniform abstractions. There are several examples of similar composite scenes involving several figures. The paintings convey a sophisticated culture with high aesthetic values.

Archaeological research in the southern Gilf Kebir established that due to deteriorating environmental conditions, human habitation ceased in the area around 3500 BC Further research is needed to establish whether any contacts may have existed between the deep desert cultures and the emerging Nile Valley civilisations.



Posters

Pottery making tools -worked sherds from HK11C Square B4, Hierakonpolis

Masahiro BABA (Department of Archaeology, Waseda University)

The recent excavation at Locality HK11C of Hierakonpolis, under the direction of Dr Renée Friedman (British Museum), greatly advance our knowledge about pottery making during the Predynastic period. HK11 is a large settlement area situated on the wadi terrace along the south side of the Wadi Abu Suffian, at the western part of which HK11C is located. Excavation at HK11C Square B4 revealed Predynastic pottery kilns, and yielded over 500 worked sherds from all levels of the excavation. In addition, two tool caches were found in situ in the work area beside the kiln; one was a concentration consisting of 13 worked sherds and 4 smooth faced stones that had been stowed within a hollow in a wall, and the other was a jar base containing nine worked sherds and a bifacial flint knife.

Almost all of the examples from B4 grid were made from sherds of straw tempered Nile silt pottery that had been modified to create tools of various shapes and sizes. The most common type, making up 56% of the total amount, is oval in shape with a mean size of 7.2 x 5.7 x 0.9cm. This size fits quite comfortably in the hand. Worked sherds are common on settlement sites and were created for various purposes, for example, spindle whorls, trowels and carding tools, but the oval shape common to the kilns can be identified as a pottery-making tool based on morphological analogy to a modern potter's kit as well as the circumstances of their discovery.

The oval shaped sherds were used for smoothing and scraping on the surfaces of pots soon after shaping. Scraping is required to smooth the joins and later to make the walls uniform. The horizontal traces of smoothing observed on the interior surfaces of pottery from HK11C show that these treatments were undertaken while the clay was still wet. It is probably the properties of the straw tempered clay that made it possible for scraping and smoothing to take place simultaneously soon after the primary formation of the vessel.

Some of the worked sherds still have rough edges, while others have become smoothed, indicating the extent of usage. Detailed observation of the sherds can tell us how these tools were made and used. To create such a tool, the potter simply chipped a potsherd to the desired size, but appears to have left the edges uneven. It was in the course of being used that the edge became smooth. Thus, the potters did not put a great deal of effort into modifying the working edges. These tools were made in a very expedient manner, and they were probably abandoned easily. Nevertheless, the two caches suggest that once they had attained just the

right shape, some effort was made to retain them.

The use-ware on the edges can also tell us more about how the tool was used and just what that optimal shape was. Fundamental components included a rounded, straight, and pointed or angular face, preferably, but not necessarily, all on the same tool. The rounded face was probably used for scraping vertically in order to make uniform an uneven surface and remove the excess of clay; the straight face is for smoothing horizontally during the final treatment; and the pointed or angular face is for producing and trimming the edges and corners, such as those at the interior base or around the rim.

The existence of sherd tools has been long known, but tools specifically for pottery making have not been researched in as much detail in Egypt as they have in other places in the Near East. In connection with the discovery of the pottery kilns, the tools from Square B4 are very valuable for understanding the technique and process of pottery manufacture in the Predynastic Egypt.

In the conference, I would like to present the results of experiments on how to use and make the sherd tools.

The Proto-Dynastic and Early Dynastic necropolis of Tell el-Daba'a (El-Qanan) and Tell El-Samarh (El-Dakahlia province, Northeast Delta)

Salem G. EL BAGHDADI (Egypt)

Tell El-Daba'a (El-Qanan)

Tell El-Daba'a (El-Qanan) is situated at the west side of Ezbet Minshat El-shorafa, 4km north of Sadaqa village, 20km to the east of Tell El-Roba'a (Mendes) which was the capital of the 16th Nome in the Prehistoric era. And 50km to the east of El-Mansoura city .

Nowadays Tell El-Daba'a (El-Qanan "at the Egyptian maps") is about 11 Egyptian feddans (Feddan = 4200m²) under the control and supervision of the Supreme Council of Antiquities (El-Mansoura Inspectorate) Egypt. It is surrounded by agricultural lands from three sides except on the west side, where there is the Um el-Dieab (Tag el-Aez) drainage canal. It stands about 2 to 7m above the level of cultivation.

The seasonal excavation began in 1989 and continued until 1998. It was carried out by Salem G. El-Baghdadi chief archaeologist of El-Dakahlia province (as field director) under the supervision of the SCA of "Dakahlia zone". The excavations have mainly revealed three distinct cemeteries of three periods i.e. the Protodynastic period, Early Dynastic period and Graeco-Roman period.

From 1989 to 1998, two hundred and fifty graves were excavated in an area of about five feddans lying to the western and northern limits of the site that has the cemeteries area and the settlement which lies at the same layers of the cemetery area, that still expands to the southeast limit of the tell. These graves were classified into:

- 40, poor Graeco-Roman graves were built from mud-bricks. They were separated and intermingled with the Early Dynastic graves. They have a small number of pottery vessels, juglets and a large bronze arrow as funeral equipment. Among these human graves that we excavated, there were eight cow burials.

- 110, Early Dynastic graves were found in the 2nd to the 4th stratum. They were built in rectangular form, lined with slabs of mud, and others had been built from mud-bricks. They consist of one chamber for the burial, which was in a contracted position with the head to the northeast, and up to three chambers for richer graves, the central one of these chambers being for the burial and funeral equipment, with storage chambers at each end of the grave. Three of these graves had three pottery coffins, lined with mud slabs. These graves were full off different types of funeral equipment made from many important stones, such as porphyry, rocks alabaster, schist, and flint knives, copper, necklaces, and pottery jars. Amongst the unearthed objects was a small knobbed basalt bowl with

round base, ornamented with a row of twenty-one small knobs placed horizontally below the rim. This bowl is the only one of basalt found in Egypt, and it dated back to the beginning of the 1st Dynasty according to the type of funeral equipment in the grave and its contents at the excavation area, such as the types so-called "wine-jars", some of which bears signs of the fish symbol found in many large grave (some of these remains are actually displayed in the Cairo Museum).

- 100, Protodynastic graves were found between the 5th and 7th stratum, all these graves consisted of only a chamber for the dead in a contracted position, with the head to the northeast, inside a plant mat. Most of these graves has furnishings comparable with the types known at the beginning of Naqada III when the Upper Egyptian Naqada culture expanded to the north and led to the unification of Egypt.

Tell El-Samarh

Tell El-Samarh is situated beside Ezbet Abdou saqr, 1km to the west of El-Samarh village at markaz Temai El Added, Dakahlia province, and about 40km southeast of El-Mansoura city. This site is about 12 feddans in size, under the control and supervision of the Supreme Council of Antiquities (El-Mansoura Inspectorate) Egypt.

The seasonal excavations began in 1998 and continued until 2002. It was carried out by Salem G. El-Baghdadi, chief archaeologist of El-Dakahlia province (as field director) under the supervision of the SCA of "Dakahlia zone".

The excavations have revealed 85 graves dating back to the Late Predynastic and Early Dynastic periods, "75" of these graves concentrated at the southeast side of the lower part of the tell. It covered one and a half Egyptian feddans of the excavation area, encompassing a complete cemetery and "10" rectangular graves discovered among and inside the remaining eight houses discovered at the settlement area which lies to the west of and at the expanded end of the cemetery area. These graves were built only of mud, and the houses from mud and mud-bricks. These graves have storage full of different types of funeral equipment such as many important stone vessels, such as alabaster, schist, porphyry rock bowls and pottery jars. Some of the wine pottery jars bear signs of the fish symbol.

They are the same types that have been described at many Late Predynastic sites in the Delta such as Tell Basta, Kufur Nigm, Minshat Abu Omer, Minshat Ezzat, and in Tura.

Also they have been described at the Late Predynastic Upper Egyptian sites such as: El- Kab, El-Ballas, Naqada, Abydos, and Tarkhan.

An important small terracotta seal in a triangular form (5×5cm) bears hieroglyphic inscriptions in relief at the base and on the double face of the seal, reading "itt di s3 h3ty nst sb" or "itt di s3 nst h3ty sb", meaning Itt has (was given) a protection at the front of the chapel. "Itt" is the name of "Narmer or Hor-Aha" which followed by a square has the hieroglyphic inscriptions for (br ?) or (br^ch3). Is it Narmer or Hor-Aha's name head of the 1st Dynasty? And a pottery shard fragment from a wine jar has the hieroglyphic inscriptions incised reading (*dd bk3*) that means true of voice.

In the settlement, different kinds of walls were found, most of them typically Egyptian in layout and building technique and belonging to domestic structures. The pottery jars, shards, animal bones, blade/bladelets of flint, hearths and grinding tools of quartz stone scattered inside the house remains of the settlement are contemporary with the types of funeral equipment of cemeteries of the same period.

The majority of the remaining Egyptian material consists mainly of Egyptian shapes produced from local clay with Egyptian techniques.

Bibliography

ALBRIGHT, W.F., 1932.

The Excavation of Tell Beit Mirsim in Palestine I: The Pottery of the First Three Campaigns. Annals of the American School of Oriental Research 12. New Haven.

GARSTANG, J.; BEN-DOR, I. & FITZGERALD, G.M., 1936.

Jericho : City and Necropolis (Report for Sixth and Concluding Season). *Liverpool Annals of Archaeology and Anthropology* 23: 67-90.

BRUNTON, G. & CATON-THOMPSON, G., 1928.

The Badarian Civilisation and Predynastic Remains near Badari. British School of Archaeology in Egypt & Egypt Research Account 46. London.

CATON-THOMPSON, G. & GARDNER, E.W., 1934.

The Desert Fayum. London.

EMERY, W.B., 1949.

Great Tombs of the First Dynasty I. Excavations at Saqqara. Cairo.

EL-BAGHDADI, S.G., 2003.

Proto- and Early Dynastic Necropolis of Minshat Ezzat, Dakahlia Province, Northeast Delta. *Archéo-Nil*, 13: 143-152.

JOUKOWSKY, M., 1980.

A complete Manual of Field Archaeology. Englewood Cliffs.

KROEGER, K., 1985.

Decorated Ware from Minshat Abu Omar (Eastern Delta), (Münich East-Delta Expedition). *Bulletin de Liaison du Groupe international d'Étude de la Céramique égyptienne* 10: 12-17.

LUCAS, A. & HARRIS, J.R., 1962.

Ancient Egyptian Materials and Industries (4th rev. ed.). London.

MACALISTER, R.A.S., 1912.

The Excavations of Gezer 1902-1905 and 1907-1909. Vol. III. London.

PETRIE, W.M.F., 1921.

Corpus of Prehistoric Pottery and Palettes. British School of Archaeology in Egypt & Egypt Research Account 32. London.

VAN DEN BRINK, E.C.M., 1992.

Preliminary Report on the Excavations at Tell Ibrahim Awad, Seasons 1988-1990 [in:] VAN DEN BRINK, E.C.M. (ed.), *The Nile Delta in Transition: 4th.-3rd. Millennium B.C.* Tel Aviv: 43-68.

Recent Excavations at Hierakonpolis

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Excavations at Hierakonpolis over the past three years, under the direction of Renee Friedman, have concentrated on three Predynastic localities: the "working class" cemetery at HK43; the elite cemetery at HK6 and the kiln sites at Locality HK11. This presentation will present the highlights of the recent discoveries made in these localities and provide additional visual background to papers and posters being presented at the colloquium.

At HK43, the cemetery of the non-elite segment of the society, excavations on-going since 1996 were completed in 2004. Approximately 470 burials were uncovered. Organic preservation was outstanding and much information on matting, basketry, textiles, and botanicals was collected, as well as insights into personal appearance and funerary ritual. The burials were arranged in large circles with empty centres, apparently associated with family groupings in which the greatest attention was given to the burials of older women. In the intact burial of one woman (40-50 at time of death), a basket containing a wide variety of objects that maybe interpreted as a magico-medical kit, also gives insight into trade relations and environment. It included a leather pouch filled with slivers of imported aromatic woods (cedar and juniper) and rarely preserved plant remains of dill and tubers suggesting that it was an incense mixture, with ethnographic parallels today. This and other burials of older females have also revealed well-preserved hair in some cases elaborately styled. Several of the burials contained not only larger endowments of pottery vessels, but also pottery of a type that only has parallels in cultic associations, suggesting a change in the conception of the afterlife which put more stress on ritual activity over simple provisioning. Nevertheless, food stuffs remained the major and sometimes the only offering in most graves. A small loaf of bread on a potsherd was placed lovingly before the mouth of a small child. At the base of another grave was a basket filled to the brim with the desiccated fruit of the Egyptian plum and the crab apple sized product call "Christ's thorn Bush" that are both still eaten today. The association of metal and other re-usable artefacts with male burials may, however, skew the impression of relative wealth. Case in point is the burial of a large male, 35-40 years of age, that contained a fish tail flint knife, still wrapped in a hide bundle and uniquely still hafted to a reed handle, fabric wrapped balls of crushed malachite and a quantity of textiles.

The presentation will illustrate these finds and other highlights of the work.

At the elite cemetery at HK6, the work of Barbara Adams continues. The results of the 2002 season in which the burial of an elephant was discovered, and the current 2005 season of excavation and study in this cemetery will be presented.

In addition, the presentation will provide an overview of the excavations at the kiln sites at HK11 where two different kiln types were revealed; a modified pit kiln and a more sophisticated arrangement containing three kilns surrounded by a walled structure.

Recent work at Tell el-Fara'in/Buto

Ulrich HARTUNG (German Archaeological Institute, Cairo)

Buto (today Tell el-Fara'in) is mentioned already on Early Dynastic labels and seal impressions, and seems to have played an important role throughout pharaonic times as a counterpart of Hierakonpolis in Upper Egypt, both in religious belief and in cultic life. However, rather little is known about the archaeology of the site until today.

The investigations of the German Institute of Archaeology started during the early 1980s, focusing mainly on the early history of the site. Excavations directed by Thomas van der Way and Dina Faltings revealed Pre- and Early Dynastic occupation levels covered by huge later deposits, namely of Saite and Ptolemaic/Roman date. Predynastic layers were found only below the modern water table and the necessity to use pumps restricted the work considerably.

Regarding the total size of the site (about 1km²), there is no doubt that excavations alone are not sufficient for a more complete understanding of the site's history. Therefore, besides ongoing excavations, a systematic survey program was initiated combining drill coring and geophysical measurements. Whilst the first method provides information on the thickness and extension of cultural layers deep below the present surface, the geomagnetic measurements yielded a surprisingly detailed map of younger archaeological features until a depth of about 1-1.5m. The comparison of the results obtained by both methods allows the reconstruction of the general development of the settlement, and is also of great help in selecting distinctive areas for excavations. Although the investigations comprise only a small part of the site so far, the first preliminary results may be presented.

The recent excavations focus mainly on the area north of the village of Sekhmawy where parts of an Early Dynastic administrative building have been revealed by van der Way already in the 1980s. During the last few years the excavated area was considerably enlarged and further parts of the building complex uncovered, including a broad doorway as well as magazines. According to the pottery evidence, the building seems to have been in use from the early 1st to the middle of the 2nd Dynasty, when it was destroyed by a heavy fire. Only parts of the building were rebuilt, but other areas were used secondarily until the 3rd Dynasty. The appearance of the complex and its size resembles a palace-like structure with official and private rooms, workshops and magazines. Although direct evidence is still missing, it seems not unlikely, that the complex may be identified with a royal estate known from labels and seal impressions since the

time of Djer, named "Palace of the harpooning Horus", which is thought by scholars to be situated in Buto.

Most recently, new excavations started in the north-western part of the site. In this area, not only drillings had indicated Old Kingdom and Early Dynastic deposits quite near to the surface, but also the magnetic measurements revealed unusual structures. The excavations carried out so far uncovered Late Dynastic mud-brick walls, obviously the foundations of rectangular structures of which the upper parts have not survived. The walls seem to be built immediately on Old Kingdom deposits. Among several Late Dynastic finds pointing to a cultic function of this place, there is a small statue made of diorite with an inscription mentioning the *pr-*mw**, the so-called Lower Egyptian sanctuary. This sanctuary is generally located in Buto and well-known from depictions, e.g. on Early Dynastic labels and in Old Kingdom tombs. Whether the excavated structures have any connection to the *pr-*mw** or not, is not yet clear and any further consideration must await future excavations.

Corpus of potmarks from the Proto/Early Dynastic Cemetery at Kafr Hassan Dawood, Wadi Tumilat, East Delta, Egypt

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The East Delta site of Kafr Hassan Dawood (KHD) dates from the Protodynastic Period/Naqada IIIA to the late 1st Dynasty/Naqada IIIC. The cemetery, the largest so far excavated in the East Delta, was excavated by a joint mission from University College London and Supreme Council of Antiquities during the 1990s and is at present undergoing final analysis for publication in a series of monographs (see Hassan *et al.*, in preparation).

The corpus of potmarks from KHD consists of 97 different signs recorded on ceramic vessels from 36 graves, and two recorded on tall cylindrical Egyptian alabaster vessels from two graves. Many of these signs found at this East Delta site are unique, while others are comparable with signs found at many contemporary sites, such as Minshat Abu Omar (MAO) (Kroeper 2000) and Tell Ibrahim Awad (TIA) (van Haarlem 1996), both in the northern East Delta (see also Tassie & van Wetering 2003).

The vast majority of potmarks were discovered on storage or wine jars, although some were found on beer jars or bread moulds. The potmarks occur in graves from the earliest to the latest period of occupation at the site - Naqada IIIA to Naqada IIIC. The most elaborate graves with the largest amount of grave goods, KHD 913 and KHD 970, had the largest amount of vessels with potmarks. Also two serekhs have been found, one of King Ka/Sekhen in KHD 1008 and one of King Narmer in KHD 970. These kings seem to be instrumental in bringing the East Delta under Thinite rule (see van Wetering, in preparation).

The current analysis of the KHD potmarks will look at the internal distribution of the potmarks in relation to the distribution of wealth/status within the cemetery (see Rowland 1998, 2003), as well as at the relation to other potmarks from cemeteries both within a regional - Lower Egyptian perspective, and a national - Egyptian perspective (see van den Brink 1992, 1996, 2001; Helck 1990). In this work the potmarks are initially presented as scaled drawings before being located into a lexicon of the various categories of potmarks found at KHD.

This corpus of potmarks from KHD represents a valuable addition to the growing number of early signs with which to illuminate the beginnings of writing in Egypt. Therefore, the database of the KHD potmarks includes all of the contextual information and is attached as an appendix to this

study to allow other researchers the opportunity to incorporate these potmarks into their research on Egypt's early writing system (see Kahl 1994, 2001a, 2001b; Kahl *et al.* 2002, 2003, 2004).

Bibliography

HASSAN, F.A., 2000.

Kafr Hassan Dawood. *Egyptian Archaeology* 16: 37-39.

HASSAN, F.A.; TASSIE, G.J.; TUCKER, T.L.; ROWLAND, J.M. & VAN WETERING, J.F.L., 2003. Social Dynamics at the Late Predynastic to Early Dynastic Site of Kafr Hassan Dawood, East Delta, Egypt. *Archéo-Nil* 13: 37-46.

HASSAN, F.A. ET AL.,

in preparation. *Kafr Hassan Dawood: The Late Predynastic to Early Dynastic Cemetery in the East Delta, Egypt.*

HELCK, W., 1990.

Thinitische Topfmarken. Ägyptologische Abhandlungen 50, Wiesbaden.

KAHL, J., 1994.

Das System der ägyptischen Hieroglyphenschrift in der 0.-3. Dynastie. Göttinger Orientforschungen IV.29. Wiesbaden.

KAHL J., 2001A.

Perspektiven der Erforschung der frühen ägyptischen Schrift und Sprache [in:] POPIELSKA-GRZYBOWSKA, J. (ed.), *Proceedings of the First Central European Conference of Young Egyptologists. Egypt 1999: Perspectives.* Warsaw: 47-55.

KAHL, J., 2001B.

Hieroglyphic Writing during the Fourth Millennium BC: an Analysis of Systems. *Archéo-Nil* 11: 101-134.

KAHL, J.; MITARBEIT BRETSCHNEIDER, M. & KNEISSLER, B., 2002.

Frühägyptisches Wörterbuch. Erste Lieferung. 3 - f. Wiesbaden.

KAHL, J.; MITARBEIT BRETSCHNEIDER, M. & KNEISSLER, B., 2003.

Frühägyptisches Wörterbuch. Zweite Lieferung m - b. Wiesbaden.

KAHL, J.; MITARBEIT BRETSCHNEIDER, M. & KNEISSLER, B., 2004.

Frühägyptisches Wörterbuch. Dritte Lieferung b - b. Wiesbaden.

KROEPER, K., 2000.

Corpus of Potmarks and Inscriptions from the Pre/Early Dynastic Cemetery at Minshat Abu Omar (Northeastern Delta, Egypt) [in:] KRZYŻANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Recent Research into the Stone Age of Northeastern Africa*. Poznan : 187-218.

ROWLAND, J.M., 1998.

Analytical Study into the Distribution of Wealth at the Egyptian Predynastic Cemetery Site of Kafr Hassan Dawood. Unpublished MA dissertation. London.

ROWLAND, J.M., 2003.

Social Transformation in the Delta from the Terminal Predynastic to the Early Dynastic Period: A comparative Study. Unpublished Ph.D. dissertation. London.

TASSIE, G.J. & VAN WETERING, J.F.L., 2003.

Early Cemeteries of the East Delta: Kafr Hassan Dawood, Minshat Abu Omar, and Tell Ibrahim Awad [in:] HAWASS, Z. & PINCH BROCK, L. (eds.), *Egyptology at the Dawn of the Twenty-first Century. Proceedings of the Eighth International Congress of Egyptologists. Cairo, 2000. vol. 1. Archaeology*. Cairo / New York: 499-507.

VAN DEN BRINK, E.C.M., 1992.

Corpus and Numerical Evaluation of the "Thinite" Potmarks [in:] FRIEDMAN, R.F. & ADAMS, B. (eds.), *The Followers of Horus. Studies Dedicated to Michael Allen Hoffman*. Oxbow Monograph 20. Oxford: 265-296.

VAN DEN BRINK, E.C.M., 1996.

The Incised Serekh Signs of Dynasties 0-1. Part 1. Complete Jars [in:] SPENCER, J. (ed.), *Aspects of Ancient Egypt*. London: 133-151.

VAN DEN BRINK, E.C.M. 2001.

The Pottery-Incised Serekh-Signs of Dynasties 0-1. Part II. Fragments and Additional Complete Vessels. *Archéo-Nil* 11: 23-100.

VAN HAARLEM, W.M., 1996.

A Tomb of the First Dynasty at Tell Ibrahim Awad. *Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden te Leiden* 76: 7-33.

VAN WETERING, J.,

forthcoming. *Nekben [Hierakonpolis] versus This-Abydos. The political Landscape of Upper Egypt before the First Dynasty*.

VAN WETERING, J.,

in preparation. *Preliminary Considerations on the early political Landscape of Lower Egypt. Paper to be presented at Origins II*.

Reassessing Age-at-Death through Tooth wear using the Population at Hierakonpolis 43

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Bioarchaeologists have searched for more than eight decades for a reliable way to determine age at death of individuals. In 1921, with the introduction of the Todd method and subsequent modifications, it seemed possible that the search might, in fact, be over. Despite developments of new and improved techniques, such as the revisions of the Todd method, the Suchey-Brooks method, or the auricular surface technique, determining age at death is still a problem. This problem exists in the skeletal sample at Hierakonpolis, Egypt, specifically those studied from HK43. This particular cemetery was used by the working class and farmers of the Predynastic city. Preliminary analyses (Friedman *et al.* 1999; Irish 2000) showed that the individuals buried there experienced overall good health while alive and exhibited minimal hypoplasias, a low incidence of caries, and only slight tooth wear. Wear on the teeth and plant remains suggest that overall, the diet primarily consisted of a low grit or a carbohydrate diet. Though the major skeletal joints show significant degenerative disease from frequent use, there is little evidence of disease, anaemia, or broken bones during life.

To date, the average age at death at Hierakonpolis is thought to be between 20-35 (Rathbun & Maish 1997). The standard age indicators used in this study are cranial sutures, the Suchey-Brooks method for pubic symphyses, the Todd method for pubic symphyses, and the auricular surface method (Buikstra & Ubelaker 1994). If this age is in fact accurate, the population at Hierakonpolis would not have been able to reproduce at a rate fast enough to replace the dead and sustain a viable populous. Other indicators imply that despite this fact, the population appeared to be thriving. Because of this, alternative skeletal techniques for determining age at death have been considered.

One technique that can be used to independently assess age at death is tooth wear. Tammy Greene was responsible for acquiring this information in the field, using the Scott method (Scott 1979). The Scott method is preferred because it has a lower interobserver error (Cross *et al.* 1986) than other competing methods and the data stands up well to statistically rigorous tests (Benfer 1991). The results of these measurements are likely to be a linear function (Buikstra & Ubelaker 1994; Scott 1979). Although the initial tooth wear is somewhat slower than that found during the later years of life (due to the fact that the enamel coating of the various teeth wear at a different rates than the exposed dentin) the overall tooth wear versus age distribution is

nearly linear. Because tooth wear is in part affected by variations in a particular population's diet, the slope of the resulting graph would change due to a corresponding increase or decrease in dietary wear between various population groups. However, if the wear rate is standardised for a population (Brothwell 1981; Liversidge *et al.* 1998; Walker *et al.* 1991), the specific variations become standardised and the distribution can then be used to help verify age at death.

Using the Scott method on the population at HK43, this study explores the feasibility of tooth wear as a reliable age at death indicator. By calculating the yearly wear rate, this can then be used to approximate age at death. Using the Miles method (Miles 1978), an age scale has been applied to the tooth wear. With an average wear rate of 0.51 per year, age at death is much higher than initial estimates. The average age at death was 42, suggesting that the population had enough life years to replenish itself. Additionally, the range of age at death is from 30-70, suggests a more robust population than previously thought. This age at death derived from tooth wear suggests that the other skeletal techniques are under estimating age at death.

Bibliography

- BENFER, R.A. & EDWARDS, D.S., 1991. The principal axis Method for measuring Rate and Amount of dental Attrition: Estimating Juvenile or Adult Tooth Wear from unaged Adult Teeth [in:] KELLEY, M.A. & LARSEN, C.S. (eds.), *Advances in Dental Anthropology*. New York.
- BROTHWELL, D.R., 1981. *Digging up Bones: The Excavation, Treatment and Study of human skeletal Remains*. New York.
- BUIKSTRA, J.E. & UBELAKER, D.H., 1994. *Standards for Data Collection from human skeletal Remains*. Fayetteville.
- CROSS, J.F.; KERR, N.W. & BRUCE, M.F., 1986. An Evaluation of Scott's Method for Scoring dental Wear [in:] CRUWYS, E. & FOLEY, R.A. (eds.), *Teeth and Anthropology*. British Archaeological Reports International Series 291. Oxford.
- FRIEDMAN, R.F.; MAISH, A.; FAHMY, A.G.; DARNELL, J.C. & JOHNSON, E.D., Preliminary Report on Field Work at Hierakonpolis: 1996-1998. *Journal of the American Research Center in Egypt* 36: 14-18.

IRISH, J.D., 2000.

Preliminary Report on Analyses of Hierakonpolis human Remains. *Nekben News* 12: 9-10.

LIVERSIDGE, H.M.; HERDEG, B. & ROSING, F.W., 1998.

Dental Age Estimation of non-adults. A Review of Methods and Principles [in:] ALT, K.W.; ROSING, F.W. & TESCHLER-NICOLA, M. (eds.), *Dental Anthropology: Fundamentals, Limits, and Theories*. Berlin / Heidelberg / New York: 419-442.

LOVEJOY, O.C., 1985.

Dental Wear in the Libben Population: It's functional Pattern and Role in the Determination of adult skeletal Age at Death. *American Journal of Physical Anthropology* 68: 47-56.

MILES, A.E.W., 1978.

Teeth as an Indicator of Age in Man [in:] BUTLER, P.M. & JOYSEY, K.A. (eds.), *Development, Function and Evolution of Teeth*. Cambridge: 455-464.

RATHBUN, T.A. & MAISH, A.J., 1997.

No Bones about it, these People were working hard. *Nekben News* 9: 3-4.

SCOTT, E.C., 1979.

Dental Wear Scoring Technique. *American Journal of Physical Anthropology* 51: 213-218.

WALKER P.L.; DEAN, G. & SHAPIRO, P., 1991.

Estimating Age from Tooth Wear in archaeological Populations [in:] KELLEY, M.A. & LARSEN, C.S. (eds.), *Advances in Dental Anthropology*. New York: 169-178.

The corpus of potmarks from the Pre/Early Dynastic site at Tell el-Farkha

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The site of Tell el-Farkha situated in the Eastern Nile Delta has been excavated by the Polish archeological expedition since 1998. During the first seasons of research the remains of settlement dated from Predynastic – Lower Egyptian Culture until the beginning of the Old Kingdom (4th Dynasty ?) were excavated. Moreover during the 2001 season a few graves were also discovered. In the following seasons successive graves were completely explored. The dating of all these tombs span a period of time contemporary with the end of period of state formation in Egypt and beginning of its existence after the unification.

In this paper I focus on so called potmarks, found on the potsherds as well as complete pots, during the Polish excavations at Tell el-Farkha. These are well known also from other sites dated to the Protodynastic – beginning of the Early Dynastic periods. Such signs, whose exact meaning is not clear, were often interpreted as property marks, signs which may refer to the contents of the vessel or which may denote the destination of export trade.

Potmarks from Tell el-Farkha occur both on the pottery found at the settlement as well as on the pots coming from the graves.

Unfortunately a great number of potmarks from the settlement were recorded on undiagnostic (e.g. fragments of the body) potsherds. Only a few of them were found on diagnostic fragments of vessels. Moreover some of them were only partially preserved it being unable to make an interpretation of the fragmentarily preserved sign. Among them a great number were recorded on the walls of bread moulds belonging to coarse rough ware. In most cases these were made inside a vessel though sporadically may be also made on the outer surface or at the top of the rim. It is obvious that these on the inner walls were reproduced on the surface of the bread that was baked in such a mould. Potmarks from the settlement were also recorded on fine ware potsherds probably in most cases belonging to jars. The signs were mostly placed on outer surface though in one case the sign was situated also on the inner part of the rim.

Potmarks were also recorded on vessels found in graves. Most of them occur on different types of jars and were placed on the outer surface of the vessel. A great number of them were found on shouldered jars with flat or slightly convex base and decorated with lightly impressed half-bows around the shoulder. Potmarks also occur frequently on tall jars with three rope bands. They were also placed on tall jars decorated with lightly impressed half-bows on the shoulder and on tall jars though

without decoration. Among other vessels on which such signs were placed frequently occur also broad shouldered ovoid jars with flat or slightly convex base and decorated with a single rope band on the shoulder of the vessel. These were also recorded on a few examples of broad shouldered ovoid jars with flat or slightly convex base and decorated with half-bows around the shoulder as well as on examples without decoration. Potmarks were also recorded on the jar with tapering body and flat base decorated with incised arches and on squat jar with flat base.

Bibliography

- CIALOWICZ, K.M. & JUCHA, M., 2001. *Tell el-Farkha 1998-2000. Stratigraphy and Chronology of the Western Kom* [in:] POPIELSKA-GRZYBOWSKA, J. (ed.), *Proceedings of the First Central European Conference of Young Egyptologists. Egypt 1999: Perspectives*. Warsaw: 29-35.
- JUCHA, M., 2001. *Decorated Pottery from Tell el-Farkha (Seasons 1998-2000)* [in:] PAPUCI-WŁADYKA, E. & SLIWA, J. (eds.), *Studia Archaeologica. Liber Amicorum Ianusio A. Ostrowski ab Amicis et Discipulis Oblatus*. Kraków: 145-163.
- JUCHA, M., 2002. *Pottery* [in:] CHŁODNICKI, M. & CIALOWICZ, K.M., *Tell el-Farkha Seasons 1998 – 1999. Preliminary Report. Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 58: 104-107.
- JUCHA, M., 2002. *Pottery from the Tombs nos. 1-3* [in:] CHŁODNICKI, M & CIALOWICZ, K.M., *Polish Excavations at Tell el-Farkha (Ghazala) in the Nile Delta. Preliminary Report 1998-2001. Archeologia* 53: 99.
- JUCHA, M., 2003. *Tell el-Farkha 1998-1999: Pottery from Predynastic and Early Dynastic Strata* [in:] HAWASS, Z. & PINCH BROCK, L. (eds.), *Egyptology at the Dawn of the Twenty-first Century. Proceedings of the Eighth International Congress of Egyptologists. Cairo 2000. Vol. 1. Archaeology*. Cairo / New York: 262-271.
- JUCHA, M., 2003. *Tell el-Farkha 2001. The Settlement Pottery of Phases 5 and 4 – a preliminary Report*, [in:] KRZYŻANIAK, L.; KROEPER, K. & KOBUSIEWICZ, M. (eds.), *Cultural Markers in the Later Prehistory of Northeastern Africa and Recent Research*. Poznań: 185-199.

The Archaeology of Djara: Environment, Chronology and Land-Use

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The interdisciplinary research of the *ACACIA*-project (University of Cologne) in the region of Djara (Abu Muhariq Plateau) was conducted between the years of 1995 and 2002. Now fieldwork and analysis have been brought to a close and detailed results can be given for the archaeological material and its chronology. The co-operation of natural (e.g. archaeobotany- and zoology, physical geography) and cultural sciences (e.g. prehistory) made it possible to describe a feasible scenario for the palaeoenvironment of the Djara region.

Environmental reconstruction:

During the Holocene humid optimum climatic conditions on the Abu Muhariq Plateau were better than today and important factors for a human occupation were the presence or absence of vegetation and surface water. A climatic situation with seasonal precipitation supports the development of a diffuse, carbonate-tolerant dwarf shrubland on the limestone plateau, well adapted to an arid regime. Also the faunal spectrum recorded for the Mid-Holocene Djara region indicates a mosaic landscape around the site consisting of real desert, semi-desert shrub vegetation and arid grassland, which points to ecologically more favourable conditions during the Mid-Holocene.

The appearance of *Anastatica hieruchuntica* within the charred macro remains of the Djara dripstone cave show the relation to the vegetation communities along the Mediterranean sea, to which this species is now restricted. It is therefore an indicator for a winter rain driven climate, which reached further south. A different vegetation type with a southern distribution could have developed in the wind shelter of the drainage system: a dry shrub Savanna type with a tree layer of phraetophytes and a grass layer with annual or perennial species. The macro remains, such as internodes of grass axes and glum fragments, give evidence of a grass canopy. The deeper lying warmer depressions could have served as abundant pasture and the species composition resembled those developed under a summer rain driven climate with higher precipitation values. An interfingering of winter rains and monsoonal summer rains seemed to be plausible for this region of the Abu Muhariq Plateau.

Chronology and Land-use:

In the area of Djara altogether more than 200 prehistoric sites and survey observations were recorded, which dated mainly to the Mid-Holocene between 6400 cal BC and 5400 cal BC. The con-

centration of archaeological sites in this landscape, which is characterised by small limestone hills and shallow playa depressions, points to locally favoured conditions in contrast to the surrounding plateau surface. Archaeological sites were mainly observed in shallow depressions, which received overflows from dendritic wadi systems in former times. According to the typo-chronological classification of artefacts (mainly stone tools) and associated radiocarbon dates, two main cultural units - named as Djara A and Djara B - can be reconstructed for the Mid-Holocene, with some sporadic occupations until 4500 cal BC. Characteristic tool types as side-blow flakes, planes, knives and bifacial drills as well as other facially retouched artefacts can be combined with these cultural units and therefore with absolute dates.

During the Holocene humid optimum people lived as hunter-gatherers in this area, which is today, a hyper-arid desert. During the later Djara B occupation phase a change in subsistence becomes apparent, which can be seen in the bone fragment of a domesticated sheep. Although the ecological conditions were better during the Holocene humid phase than they are today, a sedentary way of life was improbable. There is no evidence for an agricultural way of life, which implies settlements, for the desert dwellers of Djara. Remains of hut or house structures have not been found in this area and domesticated plants have not been identified in the archaeobotanical material. Moreover, sickle elements, which were normally used for cutting the cultivated plants as, for example, emmer and wheat in the Fayum A culture (Caton-Thompson & Gardner 1934), were not present in Djara. Fish hooks and harpoon points, which can be seen as an indicator of exploitation of fish resources from permanent or seasonal water bodies - as they were known from the Fayum - were likewise absent here. The hydrological factors require highly mobile subsistence strategies because the retreat areas were the regions where water was perennially available - the oases and the Nile Valley.

Bibliography

CATON-THOMPSON, G. & GARDNER, E.W., 1934. *The Desert Fayum*. London.

Recent work at Helwan

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Since 1997 the Australian mission of Macquarie University in Sydney has been active in the necropolis at Helwan/Ezbet el-Walda and has conducted eight seasons of archaeological excavations. Also, seven study periods in the Egyptian Museum in Cairo have been conducted in order to record the substantial collection of more than 6000 artefacts from Zaki Saad's excavations last century.

Helwan, located in the Memphite region on the eastern side of the Nile Valley, has been identified as one of the key sites to further our understanding of the formation of the territorial state of Egypt. In the absence of adequate archaeological data from the urban centre of early Memphis, this vast necropolis contributes significant data to the region as well as to the community of Memphis, its social organisation, economic administration, religion and material culture during Naqada III.

This poster will provide an overview of the data collected to date. It will focus on the results from our archaeological excavations in Operation 4, where the mission has uncovered 90 archaeologically intact tomb structures dating from the 1st Dynasty to the 4th Dynasty and will include the results from our study of the Saad collection in the Cairo Museum.

The new excavations on site will be especially relevant as they allow for an assessment of the previously published data from Saad's excavations, for new insights into the bioarchaeology of early tombs and for establishing the use-lives of the tombs and the impact of ancient tomb robbing on the economy and mortuary behaviour of this early urban community.

The poster will include a summary of the variability in tomb sizes, architecture, assemblages and owners, and of the problems encountered in the archaeological excavations.

Bibliography

EL-BANNA, E., 1990.

Une nécropole inédite d'époque archaïque découverte près de Héliouan, au Sud du Caire. *Göttinger Miszellen* 117-118: 7-54.

BIRRELL, M., 2000.

Portcullis Stones: Tomb Security during the Early Dynastic Period. *Bulletin of the Australian Centre for Egyptology* 11: 17-28.

HAENY, G., 1971.

Zu den Platten mit Opfertischszene aus Heluan und Gizeh. *Beiträge zur Ägyptischen Bauforschung und Altertumskunde* 12: 143-164.

HIKADE, T., 1999.

An Early Dynastic Flint Workshop at Helwan/Egypt. *Bulletin of the Australian Centre for Egyptology* 10: 47-57.

JEFFREYS, D. & TAVARES, A., 1994.

The Historical Landscape of Early Dynastic Memphis. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 50: 147-173.

KAHL, J., 1997.

Zur Datierung der frühen Grabplatten mit Opfertischszene. *Studien zur Altägyptischen Kultur* 24: 137-145.

KÖHLER, E.C., 1998.

Excavations at Helwan. New Insights into Early Dynastic Stone Masonry. *Bulletin of the Australian Center for Egyptology* 9: 65-72.

KÖHLER, E.C., 1999.

Re-assessment of a Cylinder Seal from Helwan. *Göttinger Miszellen* 168: 49-56.

KÖHLER, E.C., 2000A.

Excavations in the Early Dynastic Cemetery at Helwan. A Preliminary Report of the 1998/99 and 1999/2000 Seasons. *Bulletin of the Australian Center for Egyptology* 11: 83-92.

KÖHLER, E.C., 2000B.

Excavations at Helwan. *Egyptian Archaeology* 17: 38-40.

KÖHLER, E.C., 2002.

Hidden Treasures in the Egyptian Museum in Cairo – The Collection of Objects from Zaki Saad's Excavations at Helwan / Ezbet el-Walda [in:] ELDAMATY, M. & TRAD, M. (eds.), *Egyptian Museum Collections around the World: Studies for the Centennial of the Egyptian Museum, Cairo*, vol. 1. Cairo: 679-690.

KÖHLER, E.C., 2003A.

Grab und Totenkult in der Frühzeit [in:] GUKSCH, H. & HOFFMANN, E. (eds.), *Grab und Totenkult im Alten Ägypten*. Munich: 11-26.

KÖHLER, E.C., 2003B.

The New Excavations in the Early Dynastic Necropolis at Helwan. *Archéo-Nil* 13: 17-28.

KÖHLER, E.C., 2003C.

Preliminary Report on the Fourth Season of Excavations at Helwan/Ezbet el-Walda by the Australian Centre for Egyptology at Macquarie University in Sydney. *Annales du Service des Antiquités de l'Égypte* 127: 83-90.

KÖHLER, E.C., 2004A.

Australian Excavations at Helwan in Egypt [in:] MURRAY, T. (ed.), *Archaeology from Australia*. Melbourne: 325-341.

KÖHLER, E.C., 2004B.

On the Origins of Memphis. The New Excavations in the Early Dynastic Necropolis at Helwan [in:] HENDRICKX, S.; FRIEDMAN, R.F.; CIAŃOWICZ, K.M. & CHŁODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, Kraków, 28th August - 1st September 2002. *Orientalia Lovaniensia Analecta* 138. Leuven: 295-315.

KÖHLER, E.C., 2004C.

The Cairo Museum Collection of Artefacts from Zaki Saad's Excavations at Helwan.

KÖHLER, E.C., 2004d. Seven Years of Excavations at Helwan in Egypt. *Bulletin of the Australian Centre for Egyptology* 15: 79-88.

KÖHLER, E.C., WITH CONTRIBUTIONS BY BIRRELL, M.; CASEY, I.; HIKADE, T.; SMYTHE, J. & ST.CLAIR, B. (in press),

Helwan I. Excavations in the Early Dynastic Cemetery. Season 1997/98. *Studien zur Archäologie und Geschichte Altägyptens* 24. Heidelberg.

KÖHLER, E.C. & JONES, J.,

forthcoming. *Helwan II. The Early Dynastic Funerary Stelae*.

KÖHLER, E.C. & SMYTHE, J., 2004.

Early Dynastic Pottery from Helwan - Establishing a Ceramic Corpus of the Naqada III Period [in:] MARCHAND, S. (ed.), *Cahiers de la Céramique Égyptienne* 7. Le Caire: 123-143.

KÖHLER, E.C. & VAN DEN BRINK, E.C.M., 2002.

Four Jars with Incised Serekh-Signs from Helwan recently retrieved from the Cairo Museum. *Göttinger Miszellen* 187: 59-81.

SAAD, Z.Y., 1947.

Royal Excavations at Saqqara and Helwan (1941-1945). Supplément aux Annales du Service des Antiquités de l'Égypte, Cahier 3: 1-25.

SAAD, Z.Y., 1951.

Royal Excavations at Helwan (1945-1947). Supplément aux Annales du Service des Antiquités de l'Égypte, Cahier 14: 1-52.

SAAD, Z.Y., 1957.

Ceiling Stelae in Second Dynasty Tombs. Supplément aux Annales du Service des Antiquités de l'Égypte, Cahier 21. Cairo.

SAAD, Z.Y., 1969.

The Excavations at Helwan. Art and Civilization in the First and Second Egyptian Dynasties. Oklahoma.

SMYTHE, J., 2004.

The Pottery from Operation 3 / Tomb 1 at Helwan [in:] HENDRICKX, S.; FRIEDMAN, R.F.; CIAŃOWICZ, K.M. & CHŁODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, Kraków, 28th August - 1st September 2002. *Orientalia Lovaniensia Analecta* 138. Leuven: 317-335.

WILKINSON, T.A.H., 1996.

A Re-examination of the Early Dynastic Necropolis at Helwan. *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 52: 337-354.

WOOD, W., 1987.

The Archaic Stone Tombs at Helwan. *Journal of Egyptian Archaeology* 73: 59-70.

Pottery from Cemetery B at Abydos

Christiana KÖHLER, C. KNOBLAUCH (Macquarie University, Sydney)

The poster will present an update on the ongoing DAI work with the "B" Cemetery ceramic material at Abydos. The focus will be on presenting the full pottery repertoire from the early royal tombs with emphasis on ware and clay groups. Preliminary analysis showing the typological development of some key diagnostic types (for example the "wine jars") with regards to morphology, clay and manufacture, will also be presented. The difficulties that the post-depositional history of the site present for the reconstruction of the original context of individual pottery vessels will be illustrated briefly.

Discoveries on the Western Kom (Tell el-Farkha - Nile Delta) in the 2004-2005 seasons

Piotr KOŁODZIEJCZYK (Jagiellonian University, Kraków)

This poster will contain most important information about discoveries of a Naqadian brewing centre found by the Polish expedition on the western Kom at Tell el-Farkha. The mud-brick structures are distinguished into several activity areas; finds of organic remains let us complete a reconstruction of the Predynastic beer-making process.

Stone objects from Tell el-Farkha (Nile Delta) in the 2000-2005 season

Anna LONGA (Jagiellonian University, Kraków)

This poster introduces the most interesting stone objects found during the excavations at Tell el-Farkha in the 2000-2004 seasons. Finds came from three tells and they are mostly connected to Early Dynastic period.

The poster will contain stone figurines, palettes, jars and pendants and most importantly information about dimensions and the type of stone material used.

The Predynastic Collection of the Musée des Antiquités Nationales, Saint-Germain-en-Laye, France

Christine LORRE (Musée des Antiquités nationales, Saint-Germain-en-Laye)

With about 8000 artefacts, the collection housed in the festival hall of the ancient royal castle of Saint-Germain-en-Laye, displays a great amount of objects from the Palaeolithic period to the Thinite dynasties. Most of the collection comes from archaeological field research conducted by the brothers Jacques and Henri de Morgan in the Nile Valley at the end of the 19th and the very beginning of the 20th century, when they were competing with Sir W. Flinders Petrie for the definition of prehistoric times in Egypt.

Most of the Predynastic objects today on display come from huge surveys and funerary contexts excavated by the brothers Morgan and some other archaeologists in the Theban Valley or at the best-known sites such as Naqada, El Amra, Abydos, Hierakonpolis, Adaïma and Gebelein. When published in 1896-1897 by Jacques de Morgan in his book *Origines de l'Égypte*, a great part of the collection had reached a kind of historical status of relative interest both for the museum's history itself and the raising of Predynastic Egyptian archaeology.

Among archaeologists and collectors who have completed the collection over the years, we must quote especially:

1870: purchase coll. Charvet, don de Napoléon III; 1873, 1887: long time loan, musée de Cluny, ancient coll. Clot Bey; 1899, 1902, pieces registered in 1982: gift Thédénat; 1900: gift coll. Seton-Karr; 1908: gift coll. A.J. Reinach; 1909-1912: gift H. de Morgan; exchange with the Brooklyn Museum; 1909: purchase coll. Rustaffjael; 1910, 1912, 1913, 1923, and pieces registered later in 1939 and 1982: gift coll. J. de Morgan; 1920: purchase coll. Courtot; 1924: purchase coll. Piketty; 1930: gift coll. Capitan; 1931-1932: gift coll. Posener et Robichon; 1952: gift coll. Reygasse; 1954 and 1982: long time loan, musée du Louvre; 2000: purchase anonymous coll.

Bibliography

CLEYET-MERLE, J.-J. & VALLET, F., 1982. Égypte [in:] BECK, F.; CLEYET-MERLE, J.J., *Archéologie comparée. Catalogue sommaire des collections du musée de Saint-Germain-en-Laye*, 1. Paris: 68-165.

DE CENIVAL, J.L., 1973. *L'Égypte avant les pyramides: 4e millénaire. Exposition Grand Palais, 29 mai - 3 sept. 1973*. Paris.

DE MORGAN, J., 1896. *Recherches sur les origines de l'Égypte. I. L'âge de la pierre et des métaux*. Paris.

DE MORGAN, J., 1897. *Recherches sur les origines de l'Égypte. II. Ethnographie préhistorique et tombeau royal de Négadab*. Paris.

LORRE, C., 1998. Henri de Morgan, l'inventeur d'El Adaïma (1854-1909). *Archéo-Nil* 8: 11-30.

NEEDLER, W., 1984. *Predynastic and Archaic Egypt in The Brooklyn Museum*. Wilbour Monographs 9. Brooklyn.

Predynastic pins and combs: an approach to its chronology and development in the necropolis of Naqada

Candelaria MARTÍN DEL RÍO ÁLVAREZ & Eduardo ALMENARA ROSALES (Tenerife)

Recent works show the importance of items of everyday life, left in the background by the previous generations of Egyptologists. They have, nonetheless, the possibility of giving a large quantity of information on all the activities of ancient Egyptian life. Objects of personal care are an example of those aspects. Although the toilette utensils found in historical sites have already awakened an important range of studies, there is a great gap of knowledge for its Predynastic counterparts, which results in a great difficulty in determining the function of the different objects found in the archaeological register.

Although appearing in a considerable amount in the funerary equipment of Predynastic tombs, pins and combs have never been the subject of academic research. For this reason, one of the aims of our work is the creation of a corpus of these objects that facilitates their chronological organisation and typological classification. They show a great range of decorative features, and among them, the theriomorphic ones play an important role. These patterns have a great variety and show us the deep interest that the first Egyptians gave to the animal world and their preferences for certain species in different periods. Another interesting aspect would be the identification of the function of each one in the environment of personal care and we should add its symbolic meaning in an ideological and social context.

One of the biggest problems to carry out this corpus, as is usual in works of this type, is the difficulty of ascribing a sure chronology and origin of the pieces kept in the Museums storerooms, because its great majority come from clandestine or unreliable excavations, that were carried out between the end of the 19th century and beginning of the 20th and arrived to these institutions as private donations. To find a solution to this problem and to obtain a first chronological classification of some pieces that allow us its comparison to other sites or objects with unknown provenance, we have decided to focus the first part of our enquiry on sites with reliable information.

The present poster collects the preliminary conclusions obtained from the analysis of the Naqada cemetery, excavated mainly by W.M.F. Petrie in 1885. We have chosen this site for the great quantity of material found in it and for the studies printed by Petrie and other authors. Nevertheless we have taken into account the particular limitation of the works that were carried out at the end of the 19th century, and we have introduced new chronological parameters and researches. We understand that this test is only indicative, because the study

of a unique site influences the results because of its temporal limits and the repetition of material typologies associated with a specific geographic environment.

Bibliography

- BAUMGARTEL, E.J., 1970.
Petrie's Naqada Excavation: A Supplement. London.
- HENDRICKX, S., 1996.
The Relative Chronology of the Naqada Culture: Problems and Possibilities [in:] SPENCER, J. (ed.), *Aspects of Early Egypt*. London: 36-69.
- HENDRICKX, S., 1999.
La chronologie de la préhistoire tardive et des débuts de l'histoire de l'Égypte. *Archéo-Nil* 9: 13-81, 99-107.
- HOULIHAN, P.F., 1986. *The Birds of Ancient Egypt*. Warminster.
- KAISER, W., 1957.
Zur inneren Chronologie der Naqadakultur. *Archaeologia Geographica* 6: 69-77.
- MARTÍN DEL RÍO ÁLVAREZ, C. & ALMENARA ROSALES E., 2004.
An Analysis of the Theriomorphic Representations on Combs and Hairpins from the Predynastic Period [in:] HENDRICKX, S.; FRIEDMAN, R.F.; CIAŁOWICZ, K.M. & CHŁODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, Kraków, 28th August - 1st September 2002. *Orientalia Lovaniensia Analecta* 138. Leuven: 881-889
- MIDANT-REYNES, B., 2000.
The Prehistory of Egypt. From the First Egyptians to the First Pharaohs. Oxford / Malden.
- OSBORN, D.J. & OSBORNOVÁ, J., 1998.
The Mammals of Ancient Egypt. The Natural History of Egypt 4. Warminster.
- PAYNE, J.C., 1987.
Appendix to Naqada Excavations Supplement. *Journal of Egyptian Archaeology* 73: 181-190.
- PAYNE, J.C., 1993.
Catalogue of the Predynastic Egyptian collection in the Ashmolean Museum. Oxford.
- PETRIE, W.M.F., 1896.
Naqada and Ballas. London.

PETRIE, W.M.F., 1920.

Prehistoric Egypt. British School of Archaeology in Egypt & Egypt Research Account 31. London.

PETRIE, W.M.F., 1921.

Corpus of Prehistoric Pottery and Palettes. British School of Archaeology in Egypt & Egypt Research Account 32. London.

VANDIER, J., 1952.

Manuel d'archéologie égyptienne. Tome premier. Les époques de formation. Paris.

Le site prédynastique d'Adaïma (Haute-Égypte) - L'habitat et la nécropole de l'Est : fouilles 1997-2003

Béatrix MIDANT-REYNES (Centre d'anthropologie, CNRS, Toulouse)

Adaïma est situé sur la rive ouest du Nil, à 8 kilomètres au sud de la ville moderne d'Esna, à 20 kilomètres au nord de la cité ancienne de Hiérakonpolis.

La fouille se déroule dans le cadre des travaux de l'Ifao (Institut français d'archéologie orientale du Caire), avec le soutien du Ministère des affaires étrangères et la collaboration de l'Institut de géographie physique de Gand (Belgique).

Le site s'étend sur environ 25 hectares, en bordure des terres cultivées et comprend une vaste aire d'habitat et deux cimetières, l'un à l'Ouest, l'autre à l'Est.

Deux grands secteurs d'occupation se dessinent. Au nord, sur une terrasse de limon, au sud, dans une grande plaine sableuse.

Le secteur de la terrasse des limons a été dégagé sur 255m². Il est constitué par une série de dépressions plus ou moins régulières, formant des zones de silos et, par endroits, des aires dévolues aux travaux horticoles. L'occupation s'étend de la fin de Nagada II jusqu'à Nagada IIIC1, les phases finales (IIIB-IIIC1) ayant progressivement gommé les époques antérieures.

Les occupations humaines ne couvrent pas la totalité de la grande plaine sableuse, mais se présentent sous la forme de petits secteurs bien circonscrits, formés de nappes cendreuses, de piquets de bois, de grandes meules et de foyers, marqués, chacun, par au moins une sépulture d'enfant. Les secteurs les mieux conservés (8000 et 9000) datent de Nagada IIA-B /C-D.

Les études menées à Adaïma permettront de développer la problématique de l'habitat nagadien et de son évolution au cours de la seconde moitié du 4^{ème} millénaire, au moins sur ce site spécifique qui n'a pas manqué d'être affecté par les changements économiques et sociaux qui ont accompagné la fin des temps nagadiens.

La nécropole de l'Est est située en bordure d'un wadi perpendiculaire à la vallée du Nil et qui longe le site d'habitat. Au total, près de 600 tombes ont été fouillées, presque toutes intactes.

Composée en grande majorité de tombes d'enfants - du foetus à l'adolescent - elle comprend deux secteurs distincts sur le plan topographique et chronologique : au sud, les tombes sont datées de Nagada IIIA-B, au nord, elles se rattachent aux phases finales de l'époque nagadienne et aux premières dynasties (Nagada IIIC-D).

Une grande partie des enfants est inhumée dans des jarres et des pots à cuire, dans lesquels ils ont pu être glissés (cas des péri-nataux), ou qui ont été cassés pour leur aménager une forme de cercueil. Les sépultures sont aussi de simples fosses dans le sable ou dans l'argile rouge du wadi. Les

défunts reposent en général sur le côté gauche, tête au Sud, regard vers l'Est.

Dans le secteur nord de la nécropole, le plus tardif, les sépultures en coffres de terre crue ou cuite sont nombreuses. Les tombes sont parfois signalées par des pierres. Le mobilier funéraire est dans l'ensemble peu abondant. Dans le secteur sud, on constate cependant un nombre plus important de poteries, la présence de matériel de fard et surtout de parures. Une des tombes de ce secteur a livré une poterie de type nubien et un collier de 1561 perles montées en 16 rangs torsadés.

La nécropole de l'Est d'Adaïma constitue un des rares ensembles funéraires de l'Égypte prédynastique bien circonscrit dans l'espace et dans le temps. Le fait que la plupart des tombes nous soit parvenue intacte permettra aux études en cours d'approfondir la question des pratiques funéraires sur ce site, pour cette période, ainsi que d'affiner la chronologie de cette phase cruciale d'accession des sociétés prédynastiques à l'État.

Des recherches paléobiologiques plus poussées (É. Crubezy), notamment à partir de l'ADN ancien, jetteront un éclairage sur la structure génétique du groupe, sur l'évolution des maladies infectieuses et des populations de la vallée.

La nécropole prédynastique de Kôm el-Khilgan (Delta oriental du Nil)

Béatrix MIDANT-REYNES (Centre d'anthropologie, CNRS, Toulouse)

Situé dans le delta oriental du Nil, à 40 km au sud-est de la ville de Mansoura, le site de Kôm el-Khilgan fait l'objet depuis 2002 d'un programme de fouille mené par une équipe du Centre d'anthropologie de Toulouse (CNRS, EHESS) dirigée par B. Midant-Reynes, avec la collaboration de l'Institut français d'archéologie orientale et le soutien de la Région Midi-Pyrénées. Le secteur archéologique est localisé dans un champ à la sortie du village de Samara. Les prospections géo-archéologiques ont permis de mettre en évidence l'existence d'une gezira, résultat d'une accumulation de sable déposé sur les berges des chenaux nilotiques, au Pléistocène récent, lorsque le delta égyptien était encore actif.

Deux grandes périodes de l'histoire égyptienne sont attestées:

- dans les niveaux inférieurs de la gezira, à une profondeur comprise entre 1 et 1,2 m sous la surface actuelle, la période prédynastique est exclusivement représentée par des structures funéraires ;
- dans les niveaux supérieurs de la gezira, une occupation plus tardive (époque Hyksôs, plus particulièrement 15^e dynastie) correspond à des structures domestiques (murs, foyers, fours, silos) et funéraires (tombes construites en briques crues, avec du matériel céramique et des scarabées inscrits).

Les recherches menées dans les niveaux prédynastiques ont permis de découvrir 256 sépultures parmi lesquelles 239 ont été fouillées. Elles se rattachent aux cultures de Basse-Egypte et à la fin de la période nagadienne (Nagada IIIA-C/D). Déposés dans des fosses simples, en position recroquevillée sur le côté, protégés parfois par une natte, les défunts de la phase la plus ancienne étaient accompagnés d'un mobilier funéraire restreint, limité le plus souvent à quelques poteries, parfois une épingle en cuivre, une lame de silex ou un coquillage. Deux groupes peuvent être distingués : le premier se rattache à la phase Digla II (début Nagada II) ; le second, caractérisé par des vases dits " en citron ", est contemporain de la phase Nagada IIC-D.

Vers 3000/2900 BC, phase Nagada IIIA-C/D, la nécropole est réoccupée. Des coffres en terre cuite, des fosses aménagées d'argile, une inhumation multiple, caractérisent une population de tradition nagadienne. Le mobilier est plus abondant et plus varié : vases en terre cuite et en pierre, palettes, parures, etc. Les enfants sont inhumés dans des jarres, comme sur le cimetière de l'Est à Adaïma. Toutefois, comparées au monumentalisme et à l'opulence des nécropoles de Minshat Ezzat, 10 km plus au sud, et de Tell el-Samara, à quelques centaines de mètres seulement vers l'est, les sépultures de Kôm el-Khilgan ne correspondent pas aux tombes " riches " des élites de l'époque, bien connues ailleurs.

Predynastic objects of "Art ": Contests, Meanings, Changes and Regionalism

Simona MOSCADELLI (University "La Sapienza", Rome)

In this work I tried to focus on a possible diachronic connection between some specific archaeological records that we will henceforth call "Artistic", their archaeological contexts and a probable regional interaction, in Predynastic times in the Egypt Nile Valley.

This research originates from the idea that, like any other human handicraft, the decorated ones may be subject to regional influence and that they may be a clear evidence of the social and political changes along with other interpreted archaeological data.

This study implies many difficulties, first of all about the terms used here.

As widely known, it's not easy to speak about "Artistic objects", even because, following an historical tradition in the study of the Art, they have often been considered outside their specific contexts and with no connection with an hypothetical regional style.

The kind of objects chosen may be important to indicate the general situation of social stratification, but also to understand the development of local craft.

Especially in this moment, in which Egyptian people were changing their political organization, it seems very important to evaluate the ideological revolution with which it is connected and the role of these symbols allegedly used by an increasingly powerful elite.

In an attempt to understand all these possible interactions I started this study for my thesis and here I would like to expose some results.

My presentation will start from the analysis of the terminology that scholars presently use to define the handicrafts that we may call artistic objects, but that generally are the symbolic expression of culture. It may also be interesting to look for evidence of the dynamics that eventually created a single society like ancient Egypt as we know it, from several groups of semi nomadic people.

After discussing the basic definitions, I will display some probable elaboration of the data in order to evidence several layers of interpretation.

The following step will be the analysis of the data with the aid of different software.

The main principle is to create a database of each item classified through the following parameters :

- 1) depicted subjects
- 2) techniques employed
- 3) area of depiction
- 4) records
- 5) method of exposition (pictorial or geometric)
- 6) perspective

The elaborated data, placed within its archaeological context, aims at revealing several interesting and varied interpretations.

Some conclusions will be drawn on the use of perspective, the use of decoration and the spread of the records, but more interesting data about the subjects, a probable ideology, territoriality and some reflections about the evidence of cultural symbols chosen by the rising *elite* of Egypt will be discussed too.

This study may be of inspiration for further research for example about the economical elements that survive in iconological and iconographic choices.

Bibliography

BARD, K.A., 1992.

Ideology and the Evolution of Complex Society in Predynastic Egypt [in:] *Ancient Images, Ancient Thought. The Archaeology of Ideology*, The University of Calgary, 1992, *Proceedings of the Twenty-Third Annual Conference*. Calgary: 279-281.

BARGNA, I., 2003.

Arte Africana. Milano.

BIEBUYCK, D. (ED.), 1969.

Tradition and Creativity in Tribal Art. Berkley.

CIALOWICZ, K.M., 1992.

La composition, le sens et la symbolique des scènes zoomorphes prédynastiques en relief [in:] FRIEDMAN, R.F. & ADAMS, B. (eds.), 1992. *The Followers of Horus. Studies Dedicated to Michael Allen Hoffman*. Oxbow Monograph 20. Oxford: 247-264.

CONKEY, M., HASTORF, C. (EDS.), 1990.

The Use of Style in Archaeology. Cambridge.

COOTE, J., SHELTON, A. (EDS.), 1992.

Anthropology, Art and Aesthetics. Oxford.

FRIEDMAN, R.F. & ADAMS, B. (EDS.), 1992.

The Followers of Horus. Studies Dedicated to Michael Allen Hoffman. Oxbow Monograph 20. Oxford.

FROBENIUS, L., 1950.

Storia delle Civiltà Africane (trad. it. di Kulturgeschichte Afrikas, 1933). Torino.

HASSAN, F., 1992.

Primeval Goddess to Divine King. The Mytogenesis of Power in the Early Egyptian State [in:] FRIEDMAN, R.F. & ADAMS, B. (eds.), 1992. *The Followers of Horus. Studies*

- Dedicated to Michael Allen Hoffman. Oxbow Monograph 20. Oxford: 307-322.
- HASSAN, F.A., 1988.
The Predynastic of Egypt. *Journal of World Prehistory* 2: 135-185.
- HODDER, I., 1990.
Style as Historical Quality [in:] HASTORF, C. (ed.). *The Use of Style in Archaeology*. Cambridge: 44-51.
- KRIEGER, A., 1944.
The Typological Concept. *American Antiquity* 9:271-288.
- LAYTON, R., 1983.
Antropologia dell'Arte (trad.it. di The Anthropology of Art, 1981). Milano.
- MIDANT-REYNES, B., 1992.
Préhistoire de l'Égypte. Paris.
- NEEDLER, W., 1984.
Predynastic and Archaic Egypt in The Brooklyn Museum. Wilbour Monographs 9. Brooklyn.
- PETRIE, W.M.F., 1896.
Naqada and Ballas. London.
- PETRIE, W.M.F., 1901.
Diospolis Parva. The Cemeteries of Abadiyeh and Hu. 1898-1899. Egypt Exploration Fund 20. London.
- PLOG, S., 1976.
Social Interaction and Stylistic Similarity [in:] SCHIFFER, M. (ed.). *Advances in Archaeological Method and Theory*, vol. 1. New York: 255-272.
- PLOG, S., 1980.
Stylistic Variation in Prehistoric Ceramics. Cambridge.
- SAVAGE, S.H., 2001.
Some Recent Trends in the Archaeology of Predynastic Egypt. *Journal of Archaeological Research* 9.
- SEWELL, R.L., 1992.
Decorated Ware and the Ideologies of Predynastic Egypt [in:] *Ancient Images, Ancient Thought. The Archaeology of Ideology, The University of Calgary, 1992, Proceedings of the Twenty-Third Annual Conference*. Calgary: 263-269.
- SHAPIRO, M., 1953.
Style [in:] KROEBER, A.L. (ed.), *Anthropology Today*. Chicago: 283- 311.
- SMITH, A.L., 1993.
Identification d'un potier prédynastique. *Archéo-Nil* 3:23-33.
- VANDIER, J., 1952.
Manuel d'archéologie égyptienne. Tome premier: Les époques de formation. Paris.
- WILKINSON, T.A.H. 1996.
State formation in Egypt: Chronology and Society. BAR International Series 651. Oxford.
- WINKLER, H.A., 1938.
Rock Drawings of Southern Upper Egypt Tome I. Oxford.

Egyptian Predynastic pottery with painted decoration - a study of its archaeological context

Edyta Maria NOWAK (Jagiellonian University, Kraków)

The presented paper deals with all published excavated examples of Predynastic pottery with painted decoration. These include: vessels, figurines, boxes and other ceramic fragments revealing details of such type of decoration. Painted decoration applied on pottery appears already in the Badarian times and sporadically continues into 1st Dynasty, for the most part comprising so called *White Cross-Lined* and *Decorated ware*. The total number of over 550 items and their fragments with secure archaeological context have been collected. The discussed objects are presently distributed in various museums all over the world and come from the following sites: Abadiyeh, Abusir el-Meleq, Abydos, el-Adaima, el-Amrah, Armant, Badari, Ballas, Gerzeh, Harageh, Hemamieh, Hierakonpolis, Hu, Maadi, Mahasna, el-Mamarija, Matmar, Mostagedda, Minshat Abu Omar, Naga ed-Deir, Naqada.

The first step in the present study is to collect all the information concerning the archaeological context of each excavated object with a view of determining the chronological position within the Predynastic period. The thorough analyses of graves' furnishing allow to provide secure, relative date for a large number of items. The dating is based on W. Kaiser's and S. Hendrickx's systems. J.C. Payne's comments on the chronology of Naqada cemeteries and *Decorated ware*, as an important contribution to our study, are also taken into consideration. Establishing relative dates for most of the objects, allow to determine chronological position not only for different types of painted pottery objects but also for each and every element and motif, their groups and combinations - their heyday and decline. After presenting all this data, the quantitative analyses are carried out. As the majority of discussed objects come from tombs, the analyses include the following variables: size of the graves, sex of the deceased, number and variety of pottery types, quantity and quality of other grave goods, position of the objects in the grave. The spatial distribution of graves containing the painted pottery objects within Predynastic cemeteries is also presented. These analyses reveal correlations of items with painted decoration with other types of Predynastic pottery as well as with other Predynastic artefacts. Previous quantitative analyses of Predynastic cemeteries, especially those of J. Castillos and K. Bard are very helpful and thoroughly discussed (see References). The presence of painted pottery in the cultural strata of settlements and its relation to other artefacts is also presented and analysed. The appearance of Egyptian decorated ware and its imitations in the Nubian cemeteries cannot be omitted, however it is only generally presented as

the comparative material and the starting point for the further discussion.

The obtained results reveal the archaeological context for these exceptional items. Establishing the secure dating for different types of the painted pottery within the Nagada period allow to determine the position of pottery with painted decoration within the material culture of Predynastic period and its chronological relation to other more or less securely dated objects and masterpieces of art, like the famous Hierakonpolis Wall Painting, the Gebelein Linen, stone, pottery and ivory figurines and statuettes and slate palettes with relief decoration. It must be noted that presented model is only fragmental reconstruction as most of the data related to the most exceptional objects is lost.

Artefacts made of vegetal fibres from Adāima, Upper Egypt

Christiane PETIT (Etréchy)

Produced for thousand of years, basketry has an important place in the daily life of many cultures. Technically, the basketry shows a strong relation with the natural background. In spite of the fact that an area was humid or dry, cold or hot, flat or mountainous, every one has useful vegetables for basketry. Every area also produced artefacts of its own tradition. In that kind of craft, every twisted, corded or plaited artefact must be mentally conceived before the work begins. That means that basketry production is a direct witness of a knowledge inherited from cultural tradition. But these fragile artefacts, especially the oldest ones are preserved only in very favourable archaeological contexts and special climatic conditions.

The discovery of baskets, matting and netting remains on the archaeological site of Adāima is the consequence of the meeting of several favourable conditions:

- the dry Egyptian climate brings a relatively good preservation of the organic and vegetal fibres,
- the field archaeology technique used by the team, the registration and the systematic survey with numeric photography that register even fugitive elements,
- the statute of the artefacts themselves: there are daily life objects (baskets, plates, bags, matting etc) that were moved from their original background, the settlement, to be used as receivers for the bodies of children in the necropolis,
- the indirect tracks found on sealing prints, and finally
- the paleobotanic identification of fibres and plant remains which is done in order to identify their nature and, through this, the landscape and the vegetable environment of the site. Adāima is different from most other Pre- and Protodynastic sites because of the use of various techniques and shapes. Indeed, a technical variability could be put in evidence on this site depending on cultural and chronological factors. Photography of some pieces in a field situation, technical drawings and a short presentation of the basic structures (stakes, strands, bundles, winders, etc) are as follows:

The basketry:

- the coiled type, also named sewn basketry, is the most widespread technique with many different shapes and materials used (for example in S(é)ulture).649-S.683-S.724)
- the basketry covered with mud (in S.913)
- the continuous plaiting (for example in S.608)

The cordage:

- the bags and nettings made of ropes (for example in S.841-S.739-S.863)

- the wooden bed with a top made of twisted ropes (in S.597)

The matting used as protection of the body or the tomb itself, or both:

- the simple bend mat type (for example in S.530)
- the crossed bend mat type (for example in S.650)
- the mat bend in the thickness of the fibres (for example in S.907- U2.13)
- the diagonal plaited mat (for example in S.722)
- the "serge" plaited mat (for example in S.515)

In the funerary area of Adāima, the use of summarily tied bundles of vegetal fibres, stalks and twigs is attested for the covering or closing of some coffins (for example in S.874). Bunches of flowers, considered as offerings, have also been discovered, laying on some bodies (for example in S.500).

In spite of its daily life character and the modesty of the materials used for its manufacture, basketry has not to be slighted. The first approach of Egyptian basketry undertaken through the Pre- and Protodynastic excavations at Adāima, linked with some observations and pre-studies realised on other sites, shows that basketry can be used as an economical, cultural and chronological marker.

Bibliography

MIDANT-REYNES, B.; BADUEL, N.; BRIOIS, F.; BUCHEZ, N.; CRUBÉZY, E.; DE DAPPER, M.; DUSCHESNE, S.; EMERY-BARBIER, A.; HOCHSTRASSER-PETIT, C.; NEWTON, C.; STANIASZEK, L. & TRISTANT, Y., 2003.

Le site prédynastique d'Adāima. Rapport de la 15ème campagne de fouille, UMR 8555 du CNRS, Centre d'Anthropologie de Toulouse / Ifao, Le Caire (unpublished report).

PETIT, C., 2003.

Les objets en vannerie et les tissus [in:] MATHIEU, B., Travaux de l'Institut français d'archéologie orientale en 2002-2003. Adāima. *Bulletin de l'Institut français d'Archéologie orientale* 103: 512-513.

PETIT, C., 2004.

La vannerie [in:] MATHIEU, B., Travaux de l'Institut français d'archéologie orientale en 2003-2004. Adāima. *Bulletin de l'Institut français d'Archéologie orientale* 104: 607-608.


Computer-aided analysis of the compositional and material contexts of early Egyptian writing and art

Kathryn E. PIQUETTE (University College London, London)


Whether classified as writing or art, or a combination thereof, approaches to graphic media within archaeology have tended to isolate analysis and interpretation from the compositional and material contexts, thereby precluding a more in-depth understanding of this rich and fascinating area of human behaviour and social expression. The development of a method which facilitates a contextualised approach to the visual culture of ancient Egypt, particularly in view of the problematic and persistent text:archaeology dichotomy is fundamental to my research on the inscribed labels of the Late Predynastic and 1st Dynasty. The 400+ labels bear a wide array of images and are among the most visually complex objects from the period of Egyptian state formation. Given the large number of images, their formal and compositional features, and the aim of a contextual archaeology, a research tool able to cope with a vast quantity of data becomes essential. The computer software programme ATLAS.ti offers a way to gather, collate, and manipulate large bodies of data for qualitative and quantitative analysis methodically and efficiently. This poster will detail the theoretical and practical applications of ATLAS.ti as a research tool for the systematic, yet reflexive, study of the compositional relationships between images within the material context of the object.


Tomb and matting. Paleographical and archaeological approaches to a primitive burial practice (the case of the word "js" and the Adaima Artifacts)


Isabelle RÉGEN (Institut français d'archéologie orientale, Le Caire) & Christiane PETIT (Etréchy)


Used till the Roman period, the term *js*  is one of the most ancient and common words of the Egyptian lexicon referring to the "tomb" in a general way, particularly during the Old and Middle Kingdoms¹.

The original aspect of the *js*-tomb can be approached within a paleographical and lexicographical study in progress², but only remarks of paleographical nature will be accepted here.

In the large majority of cases, the sign used to define the semantic group of the word *js* is that of the house  used to designate any delimited space more or less architected. A careful research shows that in rare cases, during the Old Kingdom (15 %) and Middle Kingdom (very sporadic occurrences), the determinative is not that of the house, but an architectural form with several variants, mainly :

- the façade of a looking-like truncated pyramid supported by a kind of light frame, the whole may correspond to a structure made of vegetables;
- the very schematic representation of the façade of a vaulted structure in which appear some vertical lines who may be elements of architectural support (catafalque ?) ;
- the "palace"-façade of a building (mastaba) sometimes vaulted, reminding in that case of the type of parallelepipedal coffins/sarcophagi with a rounded lid which sides can sometimes bear a serekh-type decoration ;
- an unidentified form but that could be interpreted as a coffin covered with a mat ;
- in extremely rare cases, a light structure  which form is identical to the Lower Egypt primitive sanctuary (*per-nw*).

Before any speculation, it is important to note that the bilitere *js*  used to write the word "tomb" represents, depending on each case, a bundle of reeds tied up with a strap (bevelled top) or a rolled mat tied up with a strap (flat top).

These elements cannot be interpreted without a confrontation with archaeological facts and the very first ways of burial. The study of funerary artefact from predynastic necropolises clearly shows the use of vegetal in the tomb. Thus, in the Eastern necropolis of Adaima, mats are used mainly as protection of the body and arranged around the dead in a "portfolio" layout. They are kept in place either by offerings [S.597] or a by single strap [S.998], reminding of the form . The mat can also protect, isolate or hide offerings [S.608]. In certain cases, it covers the funeral pit but it is always in that case a particular type of mat (woven palm leaves, [S.556]). It was not found till now at Adaima, "architectural" layouts in tombs, as it

could have been observed in other predynastic sites (such as poles holding mats around the pit). That can be explained by the fact that the small size of the pits (children tombs) did not require such a layout, and baskets stood in usefully. Nevertheless, it is important to point out the use of fibres bundles as protection of the body and/or as a pottery-coffin lid, way of burial of later date, that could be related to one of the determinatives of *js*. These coffins are often pierced in the upper part in order to allow the fastening of vegetable stalks bound together [S.907 + schema]. This covering system can also be made of a single tangle of vegetal stalks [S.784 + schema]. The artefact used at Adaima for this covering type is mainly of *ceruana pratensis*.

The "traditional" mats of Adaima, are either of wicker-fences type with visible straps or tied up in the thickness of fibres, straps being in that case invisibles. They are mainly made of palm tree leaves, stalks of Monocotyledone (probably halfa) and papyrus, twigs of Dicotyledone and also of *Tamarix* sp. wood.

In a general way during the predynastic period, the mat (that can be made of different vegetables, among them reeds) appears as a main element of a primitive burial practice, used as well as a protective shroud or as an "architecturising" element (as a roof, a side covering of the funeral pit or a lid of a pottery-coffin). It must not be forgotten that mats appear also in the representation of the primitive sanctuaries of Egypt, light structures apparently made of a vegetable frame covered by mats (*pr-nw*, *pr-wr*)

If we accept to relate these archaeological elements to the informations given by the study of *js*, it can thus be suggested that, before the use of brick/stone in architecture, the first burials have been laid out and probably indicated above ground by a vegetable structure today disappeared, and that stone architecture will remember through several ornamental patterns.

¹ *Wb* I, 126, 18-24.

² Isabelle Régen, "La tombe-*js* I. Recherches paléographiques", *BIFAO* 105, in preparation

El Karafish. A Sheikh Muftah desert camp site between the Oasis and the Nile

Heiko RIEMER, Stefanie NUSSBAUM, Nadja PÖLLATH (University Of Cologne, Cologne; Ludwig-maximilians University, Munich)

The Sheikh Muftah culture is believed to be the indigenous culture of Dakhla Oasis that lasted from the later Predynastic till the end of the Old Kingdom, co-existing during the 4th to 6th Dynasty with the "Egyptian" occupants in Dakhla (Mills 1999; Kaper & Willems 2002). The Sheikh Muftah subsistence is suggested to be a pastoral nomadism strictly based on the oasis' resources (McDonald 1999). Although contacts with the Nile Valley are represented throughout a number of ceramic imports in Dakhla (Hope 2001), they are few. Investigations in the archaeology of the deserts underline that Sheikh Muftah sites do not exist outside the oasis. The exception is the southern plateau strip that borders the Dakhla depression with its 400m high escarpment. El Karafish is the hilly country that forms the southernmost plateau surface over approximately 10km back of the plateau edge. There, a number of Sheikh Muftah sites were discovered in 2002 by the ACACIA project of the University of Cologne, of which site 02/5 was surveyed and excavated. The diversity and accumulation of artefacts on 02/5 supports the reconstruction of a temporal base camp.

Site El Karafish 02/5 is a 20m high hill. The first excavation was laid out on an artefact scatter at the foot of the hill. It yielded more than 2,000 potsherds and probably some 60,000 stone artefacts. The pottery is characterised by three components: characteristic Sheikh Muftah vessels, Clayton rings, and though less frequent, Egyptian Old Kingdom sherds. The fabrics predominantly consist of shale temper, as it is characteristic for the local Sheikh Muftah manufacture in Dakhla. The stone artefacts are worked from local resources outcropping and weathering around the site. All stages of the *chaîne opératoire* were found on site, tested nodules, as well as primary and modification products. The general interpretation is that of a very ad hoc and opportunistic blank industry using flakes as well as chunks and cores for tool manufacture. About 250 retouched tools were found. They comprise in decreasing order of importance side-scraper, end-scraper, perforators, denticulates, end-scrapers, and notches. Obviously, the site was frequently occupied between the Early Dynastic and the end of the Old Kingdom. A 14C-date falls about 3000 cal BC that goes well with other Clayton ring sites in the desert. For a red-polished cup the best parallels are to be found among the 6th Dynasty/early FIP ceramics from the Old Kingdom town in Ayn Aseel (Soukassian *et al.* 2002).

A test trench was laid out within a walled room under a rock overhang on the hill. It yielded identical potsherds as in excavation 1 and a huge

amount of well-preserved organic material, such as animal bones, charcoal, leather fragments and wooden tools. The wood remains comprise the well-preserved lower part of a fire stick, as well as a fragment of the additional fire drill. As far as we are aware, they represent the oldest fire drill found in Egyptian archaeology.

The faunal and floral evidence, though the analyses are not yet finished, will give fresh impetus to the reconstruction of the climatic conditions during a period after the termination of the Holocene wet-phase. It might also help to explain why and during which season the Sheikh Muftah groups entered the Plateau desert along the escarpment. The environment as reflected in the faunal record was mainly arid. Nevertheless the vicinity of the site must have offered at least seasonally sufficient vegetation to attract gazelles, for example. The inhabitants of El Karafish obtained their meat almost exclusively by hunting gazelles complemented by fowling and egg collecting. A single cattle bone indicates the presence of domestic livestock. The composition of the faunal remains suggests that El Karafish was inhabited only seasonally, i.e. during late winter and/or early spring.

The species composition of the archaeobotanical remains resembles those of the Djara cave some 250km north and could be interpreted in the same way. The typical carbonate-tolerant dwarf shrub-land vegetation could be proven, which is the main vegetation type of the wadi channels and depressions on the limestone plateau today. However the taxa *Capparaceae* and *Anastatica*, which recently occur along the Mediterranean coast influenced by a winter rain driven climate, show more humid conditions for this region about 3000 cal BC. The preservation of the macro remains is very good due to the particular sheltered situation of the site. Fruit fragments and seeds of grasses and herbs are preserved. A grass canopy such as the grass communities developed under a summer rain driven climate further south may have covered the wadi channels and the depressions and could have served as abundant pasture for herds. Exceptional is the record of barley and of *Acacia nilotica* ssp. *nilotica*, a species, which is a common plant along banks and shores needing ground water.

Bibliography

HOPE, C.A., 2002.

Early and Mid-Holocene Ceramics from the Dakhleh Oasis: Traditions and Influences [in:] FRIEDMAN, R.F. (ed.), *Egypt and Nubia: Gifts of the Desert*. London: 39-61.

KAPER, O.E. & WILLEMS, H., 2002.

Policing the Desert: Old Kingdom Activity around the Dakhleh Oasis [in:] FRIEDMAN, R.F. (ed.), *Egypt and Nubia: Gifts of the Desert*. London: 79-94.

MCDONALD, M.M.A., 1999.

Neolithic Cultural Units and Adaptations in the Dakhleh Oasis [in:] CHURCHER, C.S. & MILLS, A.J. (eds.), *Reports from the Survey of the Dakhleh Oasis, Western Desert of Egypt, 1977-1987*. Oxford: 117-132.

MILLS, A.J., 1999.

Pharaonic Egyptians in the Dakhleh Oasis [in:] CHURCHER, C.S. & MILLS, A.J. (eds.), *Reports from the Survey of the Dakhleh Oasis, Western Desert of Egypt, 1977-1987*. Oxford: 171-178.

SOUKIASSIAN, G.; WUTTMANN, G. & PANTALACCI, L., 2002.

Le palais des gouverneurs de l'époque de Pépy II. Les sanctuaires de ka et leurs dépendances. Balat VI. Fouilles de l'Institut français d'archéologie orientale 46. Le Caire.

Early Dynastic Pottery from Helwan

Jane SMYTHE (Macquarie University, Sydney)

The ongoing work done by Macquarie University at the Pre- and Early Dynastic cemetery site of Helwan is steadily providing a wealth of new information on the development of early Egyptian culture.

Concurrent with the excavation work that has taken place since November 1997, there has been continuing analysis of objects that have come from the excavations of Z.Y. Saad during the 1940s and 1950s.

Apart from the boxes currently stored within the Egyptian Museum Cairo; it is known that Saad placed the bulk of the pottery generated from his extensive work at the cemetery within his previously excavated tombs; more importantly Saad attempted to indicate the tomb number and season from which each pot had come (referred to as Saad numbers). Analysis of the first "storage tomb" (Operation 3/Tomb 1) uncovered by the Macquarie University Project yielded significant results (Smythe 2004; Köhler & Smythe 2004).

During the 2003/4 season, the Macquarie University team unearthed a second storage tomb from Saad's excavation. This storage tomb is assigned the project reference Operation 3/Tomb 3. A total of 713 vessels were recovered nearly all of which were intact. A total of 78% have retained their Saad Number. Season nine from Saad's work represents the overall majority of the sample and is represented on a total of 697 vessels. The chronological range of pottery in Operation 3/Tomb 3 is considerable, ranging mainly from NIII B through to NIII C/D. The 1st and 2nd dynasties are well represented within the sample.

Beyond the Naqada Period we have a tomb assemblage of three pots belonging to the 4th Dynasty. Further still into the dynastic age there are seven small round-bottomed jars typical of the early 12th Dynasty. Also within the storage tomb Op3/3 was one very typical example of a large globular type, also a diagnostic of the 12th Dynasty. The poster will demonstrate the ongoing reconstruction and analysis of the tomb assemblages from Operation 3/Tomb 3:

- Chronological sequencing of the tomb groups indicated stylistically through the use of well-represented vessel types will be illustrated.
- Exploration of the clay fabric in the development or decline of quality within the established chronological sequence will be considered.
- A comparative analysis will be presented regarding the connection between stylistic sequencing and associated fabric development or decline.

The poster will provide a comparative analysis comprising the use of typological sequencing and clay fabric development in particular through the terminal stages of the Naqada III period. Operation 3/Tomb 3 at Helwan has provided an opportunity to explore the above issues due to an unprecedented quality and quantity of material.

Bibliography

KÖHLER, E.C. & SMYTHE, J., 2004. Early Dynastic Pottery from Helwan - Establishing a Ceramic Corpus of the Naqada III Period [in:] MARCHAND, S. (ed.), *Cahiers de la Céramique Égyptienne* 7. Le Caire: 123-143.

SMYTHE, J., 2004. The Pottery from Operation 3 / Tomb 1 at Helwan [in:] HENDRICKX, S.; FRIEDMAN, R.F.; CIAŹOWICZ, K.M. & CHŹODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt", Kraków, 28th August - 1st September 2002*. *Orientalia Lovaniensia Analecta* 138. Leuven: 317-335.



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Les actes seront publiés par les éditions Peeters Publishers and Booksellers à Louvain (Belgique) dans la collection *OLA (Orientalia Lovaniensia Analecta)*.

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Leur longueur ne doit impérativement pas dépasser 25 pages, à raison de 2000 caractères (espaces compris) par page et une illustration maximum par page.

Il est souhaitable d'accompagner l'article d'un résumé d'environ 300 mots.

Les illustrations, en noir et blanc uniquement, originaux ou photocopies d'excellente qualité, doivent être réalisées au format A4 au maximum et être réductibles sans perte de qualité. Les documents numériques seront enregistrés **séparément du texte de l'article**, exclusivement avec les programmes *Photoshop* ou *Illustrator*, de préférence dans les formats suivants : .tiff, .jpg, .eps, .ai. Elles doivent faire l'objet d'un tirage papier séparé avec mention du numéro de l'illustration et du sens de la figure au montage. Aucune légende ne doit figurer sur les illustrations elles-mêmes.

Les figures doivent comporter systématiquement une échelle graphique et éventuellement une orientation. Les illustrations sont numérotées dans l'ordre où elles sont citées dans le texte, selon une numérotation continue sans distinguer figures et photographies. Il est recommandé de fournir des figures à des échelles comparables pour des documents archéologiques de même nature.

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Les références bibliographiques sont à indiquer entre parenthèses (ex. Petrie, 1901 :11). Elles sont regroupées en fin d'article et classées par ordre alphabétique et, pour un même auteur, par date de publication. Pour leur mise en forme, se référer à la présentation bibliographique utilisée dans HENDRICKX, S.; FRIEDMAN, R.F.; CIALOWICZ, K.M. & CHLODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt", Kraków, 28th August - 1st September 2002*. Orientalia Lovaniensia Analecta 138. Leuven, 2004.

Les éditeurs vous remercient d'avance de respecter ces consignes et les délais impartis pour une parution rapide des actes de ce colloque.

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Proceedings of the conférence

The Proceedings are to be published by Peeters Publishers and Booksellers at Leuven (Belgium) in the *OLA (Orientalia Lovaniensia Analecta)*.

Only paper submitted on time will be published. The deadline is: **December 1st, 2005.**

Any contributor who attends the congress having with him the complete version of his contribution is kindly request to give it at the immediate end of the congress to the organization committee.

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The text is expected to be submitted on CD by the postal system (either IBM or Macintosh format, in Microsoft *Word*). One printout copy with exactly the same contents (text and illustrations) as the ones engraved on the disk must be joined.

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An Abstract of 300 words is required. It should summarize the main findings of the paper.

Contributors are asked to include original pictures or very good quality photocopies. Illustrations should be prints or artwork of under A4 size and must be reducible without loss of quality. **The numerical documents should be recorded separately**, exclusively with the *Photoshop* or *Illustrator* software, in the following formats: .tiff, .jpg, .eps, .ai. Captions should not be given on the drawings. A separated paper should mention the number of the illustration, and its direction.

The figures, in black and white only, must systematically include a graphic scale and possibly an orientation. It is recommended to provide figures to comparable scales for archaeological documents of same nature.

Captions must be typed on a separate sheet. Figures and photographs are numbered consecutively using Arabic numerals (i.e. Figure x). All are referred to as "Figures". Tables are numbered consecutively using Arabic numerals (tabl. x). They should not be introduced into the text but on a separated computer file (preferably with the Excel format).

References within text should mention surname(s) of the author(s) referred, year of publication and page number within parentheses, e.g. (Petrie 1910: 11). All references should appear in a reference list at the end of the manuscript and classified alphabetically, for the same author, by date of publication.

R.F.; CIALOWICZ, K.M. & CHLODNICKI, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, Kraków, 28th August - 1st September 2002. *Orientalia Lovaniensia Analecta* 138. Leuven, 2004.

By anticipation, the editors express their gratefulness for the attention and respect you will pay for these guidelines for schedule and statement, which are the main conditions for publishing on time the Proceedings of the conference.

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