



OLD KINGDOM ART AND ARCHAEOLOGY

6th CONFERENCE, WARSAW, 2-6 JULY 2014



ABSTRACTS OF PAPERS



**6th Conference
Warsaw, 2-6 July 2014**

**Institute of Archaeology, University of Warsaw
Faculty of Oriental Studies, Egyptology Section, University of Warsaw
Department of Archaeology and Anthropology, Pułtusk Academy of Humanities
Institute of Mediterranean and Oriental Cultures, Polish Academy of Sciences
Polish Center of Mediterranean Archaeology, University of Warsaw**

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PROGRAMME

Wednesday, July 2nd

The Kazimierzowski Palace, Senate Hall

9.00 *Registration*

10.00 *Opening*

10.45 Ch. Köhler (Vienna) *An investigation into Early Dynastic – Old Kingdom relative chronology*

11.15 J. van Wetering (Leiden) *The Early Dynastic royal cemetery at Saqqara*

11.45 C.A. Hope, A.J. Pettman, A.R. Warfe (Melbourne) *The Egyptian annexation of Dakhla Oasis: an analysis of the material from the excavations at Mut al-Kharab*

Lunch break 12.15–14.00

14.00 C. Jeuthe (Cairo) *Current research on the indigenous and pharaonic occupation during the Old Kingdom/FIP in Balat (Dakhla Oasis)*

14.30 M. De Meyer (Leuven) *Cultic activity in forecourt areas of the Old Kingdom rock tombs at Dayr al-Barsha*

15.00 E. Thompson (Sydney) *The Old Kingdom tombs at Tehna in Middle Egypt*

Coffee break 15.30-15.45

15.45 C. Baka (Warsaw) *A synthetic approach to the Old Kingdom settlement in the Nile Delta*

16.15 B. Vanthuyne (Leuven) *Early Old Kingdom rock circle tombs, rock-cut mastabas and rock tombs in Middle Egypt*

16.45 N. Kanawati (Sydney) *A unique burial of a father and a son: Niankhpepy the black and Pepyankh the black of Meir*

17.15 A. Jiménez Serrano (Jaén) *The governors of Elephantine and their funerary complexes in Qubbet el-Hawa at the end of the 6th dynasty*

Thursday, July 3rd

Institute of Archaeology

- 9.00** M. Verner (Prague) *Sahure: Rethinking the pyramid complex*
- 9.30** L. Flentye (Giza Project) *The Giza Necropolis: early influences – Meidum, Dahshur, and Saqqara*
- 10.00** Y. Kawae (Nagoya),
Y. Yasumuro (Suita),
I. Kanaya (Osaka),
F. Chiba (Iwate) *3D reconstruction and its interpretation of the “Cave” of the Great Pyramid in an inductive approach*

Coffee break 10.30–10.45

- 10.45** R. Manzini *Planning of pyramidal apartments*
- 11.15** A.M. Roth (New York) *Ritual activities in the life of a tomb: Some uninscribed mastabas in the Western Cemetery at Giza*
- 11.45** A. Woods, J. Swinton (Sydney) *Chronological considerations: Fragments from the tomb of Hetepet at Giza*

Lunch break 12.15–14.00

- 14.00** M. Korzeniowska,
A. Wodzińska (Warsaw) *Pottery from SWI area – Heit el-Ghurab settlement, Giza*
- 14.30** T. Rzeuska (Warsaw) *Bedja bread in the Old Kingdom and its socioeconomic implications*
- 15.00** M. Lebedev (Moscow) *A new Old Kingdom painting from the Eastern Necropolis at Giza*
- 15.30** A. Kukela, V. Seglins (Riga) *The pyramids at Dahshur – the necessary innovations before the pyramids' construction at Giza*

Coffee break 16.00–16.15

- 16.15** J. Krejčí (Prague) *The tomb of Kakaibaef and tombs of the “royals” in the Abusir pyramid necropolis*
- 16.45** M. Megahed (Prague) *New ankh-giving scenes from the funerary temple of Djedkare*
- 17.15** M. Bárta, H. Vymazalová (Prague) *Envisaging a major leap: The Old Kingdom non-royal statuaries from Abusir South*

Friday, July 4th

Institute of Archaeology

- 9.00 A. Spalinger (Auckland) *The salary payments to mortuary temples of 5th dynasty*
- 9.30 R. Gundacker (Vienna) *The names of the kings of the 5th dynasty according to Manetho's Aegyptiaca*
- 10.00 R. Legros (MAFS) *Royal decrees in Pepy Ist necropolis*

Coffee break 10.30–10.45

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- 10.45 M. Bardoňová (Prague) *The grain storage in the Old Kingdom*
- 11.15 A. Bebel, A. Wodzińska (Warsaw) *Old Kingdom bakeries: iconographic, lexical and archaeological evidences*
- 11.45 K. Arias (Prague) *Social dynamics in the material culture – Interpreting the ceramics from the complex of Princess Sheretnebtj*

Lunch break 12.15–14.00

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- 14.00 Ch. Theis (Heidelberg) *A new solution for the names found at the Pyramid Lepsius XIII in Zāwīyat al-cAryān. The Question of Nfr-kA and $\text{N}^{\text{A}} \text{L}^{\text{A}}$*
- 14.30 M. Lashien (Sydney) *The art in the tomb of Pepyankh the middle of Meir: Innovation or copying*
- 15.00 V.G. Callender (Sydney) *The art and artifice of the hieroglyphs of Akhmim in the Old Kingdom*

Coffee break 15.30–15.45

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- 15.45 V. Novakova (Prague) *Old Kingdom stone sarcophagi as indicators of social change*
- 16.15 J. Harvey (Groningen) *Old Kingdom wooden statues and beyond – new discoveries*
- 16.45 M. Odler (Prague) *Understanding Old Kingdom copper model tools*

Saturday, July 5th

Institute of Archaeology

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| 9.00 | P. Piacentini (Milan) | <i>Scribes in the Egyptian expeditions of the 3rd millennium BC</i> |
| 9.30 | K. Kuraszkiewicz (Warsaw) | <i>The tomb of Ikhi at Saqqara and the organisation of expeditions in the Old Kingdom</i> |
| 10.00 | L. Evans, A. Woods (Sydney) | <i>Entwined lives: More evidence that Niankhkhnum and Khnumhotep were twins</i> |
| 10.30 | Sh. Elsebaie (Toronto) | <i>Vanquishing the beast: Old Kingdom scenes of hippo hunting in ancient Egypt</i> |

Coffee break 11.00–11.30

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|-------|-----------------------------------|--|
| 11.30 | J. Popielska-Grzybowska (Pułtusk) | <i>Min in the Old Kingdom religious texts - different aspects of creation</i> |
| 12.00 | M. Hloučová (Prague) | <i>The god Weneg and the wng-plant in the Old Kingdom</i> |
| 12.30 | M. Nuzzolo (Naples) | <i>The sed festival depiction in Niuserra's sun temple: an attempt at reconstruction</i> |
| 13.00 | A. Ćwiek (Poznań) | <i>Eternal paths of Netjerykhet</i> |

Sunday, July 6th

The Faculty of History Building, Column Hall

- 9.00 J. Auenmüller (Berlin) *Society and iconography – on the sociological analysis of epigraphical programs of Old Kingdom elite tombs*
- 9.30 F. Welc (Warsaw) *Climate change in Egypt in the 3rd millennium BC in regional and global context*
- 10.00 J. Burn (Sydney) *Drought, famine, food and fishing: Did climate change at the end of the Old Kingdom lead to changes in food acquisition strategies?*

Coffee break 10.30–11.00

- 11.00 G. Pieke (Mannheim) *The art of reception – forms and themes of quotation in Old Kingdom tomb decoration*
- 11.30 K. Myśliwiec (Warsaw) *The Dry Moat – a new project*

Closing discussion

ABSTRACTS OF PAPERS

Katarina Arias

Czech Institute of Egyptology, Charles University, Prague

Social dynamics in the material culture – Interpreting the ceramics from the complex of Princess Sheretneby

During the excavation seasons of 2012 and 2013 in Abusir South, enormous amounts of pottery were excavated in the area of the court of Princess Sheretneby (AS 68) and its associated structures, such as the four rock-cut tombs built south and south-east of it, namely the tombs of Duaptah (AS 68a), Shepesuptah (AS 68b), Nefer (AS 68d) and the princess herself (AS 68c). In this paper, I would like to discuss several main ceramic contexts not only from the point of establishing the chronological line for the creation and development of the complex but mainly from a wider point of studying the social dynamics reflected in the pottery as the main representative of the material culture. All of the four large rock-cut tombs were built in the later part of the 5th dynasty, but their active use spans much longer period until the end of the Old Kingdom. In almost all of these tombs, further shafts were built in the course of the 5th and 6th dynasties, supposedly for other family members. The ceramics from their burial chambers and shafts could again enlighten not only their respective dating but the social dynamics and social stratification of the owners of these shafts, where possible. Furthermore, the pottery finds from the chapels of these tombs shed some light on the longevity, quality and intensity of the cultic activity in each particular tomb.

Besides the rock-cut tombs, a very large amount of ceramics also came from the stratified fill in the corridor leading to two of these tombs and from the court itself. This pottery, undoubtedly of ritual nature, shall not be discussed in detail as it is probably the result of discard from all the nearby tombs and structures and its relevancy to the given topic is very low. However, there were further 16 shafts uncovered in the area of the court and corridor, built in the course of the whole late Old Kingdom. The pottery finds from their funerary parts (burial chambers/niches and shafts) shall be compared to the ceramics from the rock-cut tombs, as they offer a nice comparative material for the study of the socio-economic status of the people buried in the complex of the princess and the general development of the social dynamics in the wider area of the Abusir South cemetery.

Johannes Auenmüller

Ägyptologisches Seminar, Freie Universität, Berlin

Society and iconography – on the sociological analysis of epigraphical programs of Old Kingdom elite tombs

The epigraphical programs of monumental Egyptian elite tombs of the Old Kingdom portray a distant world. This world, populated by pictorial elements, hieroglyphs, objects, animals and people, is constructed by graphic means following the rules of Ancient Egyptian iconic praxis and decorum. For the purpose of this paper the focus will be on the people depicted on the walls of these monuments, since they virtually form an iconographically constructed society in every tomb. In taking some case studies into account (e.g. the Mastaba of Ti, and, for comparative reasons, those tombs that were proposed by M. Fitzenreiter and M. Herb (eds.), *Dekorierete Grabanlagen im Alten Reich. Methodik und Interpretation*, IBAES 6, London 2006) the key question regarding the number of people depicted in single tombs and their social and functional differentiation will be addressed. Particular members of the tomb population are not only characterised by their social identity displayed by means of titles or explanatory inscriptions, but also by the composition and subject of scenes and their position within these contexts, their body, its habitus and posture, and their functional or status-related attributes. Iconographic characteristics pertaining to their attire and hairstyle are to be considered as socially differentiating, too. This specific sociological perspective on Old Kingdom tomb images, which has not yet been advanced so far, takes the iconographical characterisation of the people depicted as representation of social ascriptions and localisations into account. This perspective does not aim at answering the questions what these images depict or even what religious meaning they have, but it tries to focus on how the coherent pictorial system of single tombs portrays a (partial) image of a society, in the sense of an iconographic construction of social relations.

Cezary Baka

Polish Centre of Mediterranean Archaeology, University of Warsaw

A synthetic approach to the Old Kingdom settlement in the Nile Delta

The Old Kingdom settlement in the Nile Delta is archaeologically much less known than settlement's remains dating to later or even earlier periods. The discussed period was rarely a subject of interest of scholars who in majority focused their research on Third Intermediate, Late and Greco-Roman Periods as well as Predynastic - Early Dynastic times. Therefore, as it can be observed on the basis of preserved written sources, the Old Kingdom Nile Delta was an important part of the economic and administrative structure of the Egyptian state.

The aim of the present paper is to study the Old Kingdom settlement archaeological remains from 53 sites situated in the Nile Delta. At the basis of collected data it is possible to establish a theoretic model of a settlement. In its area following zones can be distinguished: place(s) of cult, settlement and necropolis areas as well as open areas used for agricultural and raising activities. Depending on the geomorphological situation of the site a model can slightly differ, e.g. at the sites of limited surface a cemetery could be localised at neighbouring levee or gezira. A static model should be fulfilled with processes of change and permanence of localisation of specific areas in a scope of an ancient settlement. The most remarkable trait in the settlement history of deltaic localities is the permanence of emplacement of cult place contrasting with mobility of other above-mentioned zones.

An analysis of distribution of Old Kingdom localities indicates a disproportion in the settlement density. In present state of development of surveys in the western Delta, this fact cannot be any more explained exclusively by disproportion in geographical distribution of research projects that once took place. A possible solution is provided by geomorphological specificity of certain areas of the Delta providing different conditions of settlement development. In the eastern Delta numerous geziras and levees facilitated a development of dense urban network. It is noteworthy that Wadi Toumilat situated in a vicinity of this densely settled area seems to be unoccupied in that time. In the south-west of the Delta good settlement conditions were assured essentially by levees. The smaller concentration of enclaves of habitable ground in a flood season could implicate the lesser settlement density. The northern Delta, with an eminent percentage of swampy areas, seems to have been much less densely settled.

The examination of deltaic localities in a scope of settlement continuity provides valuable information on the development and crisis of the settlement network that took place respectively in course and at the end of the Old Kingdom. The increase of density of the settlement network is indicated by an important quantity of localities founded in the Old Kingdom in addition to those which had been existing since an earlier period. The settlement crisis at the end of the Old Kingdom is observable in fall of quantity of recorded archaeological remains.

Martina Bardoňová

Czech Institute of Egyptology, Charles University, Prague

The grain storage in the Old Kingdom

Ancient Egypt was, like the majority of preindustrial societies, a preeminently agrarian economy. Among all of the agricultural products acquired from the fertile Egyptian land, the cereals and the cereal-based products such as bread and beer, stood out due to their economic significance. All of those were employed as medium of exchange and as a basis for wages. The importance of grain implies that an overall study of grain storage places (granaries) can yield valuable data about the redistribution of this vital commodity and consequently about the society as a whole.

When studying the granaries, there are two possible courses of conducting the research: we can either focus on the physical facility used for storing the grain, on its appearance, archaeological context etc.; or we can concentrate on a more abstract concept – that of a granary as an institution. The latter, being broader and more complex, cannot, however, be fully understood without the former. Granaries have been, naturally, a subject of a number of studies, focused either on the archaeological evidence or on the institution. Practically every year, more and more facilities revealed by the ongoing excavations are interpreted as silos, and consequently become a subject of comparison and further research. There are also studies regarding the representation of granaries within the Egyptian wall painting and funerary models. However, most of them are too narrowly focused to offer us a good general picture.

In this paper, I would like to present the database of the archaeological evidence of granaries in the Old Kingdom and the first results that the analysis of the compiled data yields us, while focusing on the following questions: What kind of granaries do we find in the treated period? Can we distinguish between the granaries bound to the central government and those having only local or private significance? Can we detect any changes in the form and location of the granaries? And lastly, can the representation of granaries within wall paintings and small-scale models help us better understand the archeological finds and vice versa? Hopefully this paper can be a small contribution to this interesting, even if complex, question.

Miroslav Bárta, Hana Vymazalová

Czech Institute of Egyptology, Charles University, Prague

Envisaging a major leap: The Old Kingdom non-royal statuary from Abusir South

There are several turning points, which can be identified in the history of the Old Kingdom. These historically brief and unique periods were marked by sudden and complex changes in several mutually unrelated spheres of society of the day. One of them constitutes the reign of King Nyuserra and the years immediately following it in the late 5th dynasty. In this time we can detect and analyse in detail major changes in society of the day including administration, religion, architecture and arts.

The discovery of a large tomb family complex in Abusir South dating to the discussed period may be used as a *prima facie* example of the anatomy of such a process. The cemetery consists not only of several typical mastaba tombs but also rock-cut tombs built in a typical Giza-fashion. The architecture and the preserved inscriptions reflect the changes in the kingship of the time and elucidate the dynamics of rising power of several wealthy families, the spread of nepotism within the central administration and the degree of containment of kingship by the non-royal sphere of high officials of the central administration.

Most of the tombs on this site can be considered to be unique due to their design, the degree of preservation or the character of genuine historical and environmental data they provide. One of the most prominent features connected to the tomb complex of a king's daughter Sheretnebtj is statuary. The statues from this tomb complex certainly represent one of the largest corpuses discovered over the last decades on the pyramid fields, and the largest in Abusir itself. Almost two dozens of statues and statue groups were discovered in the tomb of Sheretnebtj, the neighbouring tomb of Nefer, and in the corridor in front of these two tombs. The statues originate from primary contexts and can be associated with specific tomb owners and individuals attested from other archaeological and historical sources as well.

The major part of the paper will focus on a preliminary analysis and first complete presentation of the corpus as such focusing on its diachronic importance, the typology of individual statues and their specific historical significance. At the same time, the statuary types will be related to a general development of the society of the day.

Agata Bebel, Anna Wodzińska

Institute of Archaeology, University of Warsaw

Old Kingdom bakeries: iconographic, lexical and archaeological evidences

The paper will present a reconstruction of bread baking process in the Old Kingdom on the basis of iconographic, lexical and archaeological evidences.

Baking scenes belong to common decorative motifs of the Old Kingdom tombs. Most of the depictions are known from Giza, Abusir and Saqqara. They are dated, with one exception, to the 5th and 6th dynasties. The fullest picture of the bread baking was depicted in the mastaba of Ti, which shows the entire process from flour making to removing bread from molds. Other depictions, for instance in the tomb of Niankhkhnum and Khnumhotep, tomb of Wepemnofret or tomb of Kamehru, although often preserved in fragments, are also excellent sources of complementary information.

The short texts accompanying the baking scenes are also of interest. They relate to particular activities performed by the figures depicted, give names of breads moulds, cereals used, and bread. There are also short commands such as "Hold it!", "Don't let it slip away" or "Hurry up! This is hot", which vividly reflect the work of the Old Kingdom bakers.

Recent archaeological work conducted at Old Kingdom settlements provides additional evidence for baking. Several bakeries (dated the late 4th dynasty), were found in Heit el Ghurab at Giza. According to their location, size and arrangement they can be classified as: bakeries in the gallery complex producing bread almost on an industrial scale; domestic bakeries belonging to individual households of Eastern and Western towns; and a large bakery in area AA. Another well known example of bakeries comes from Ain Asil, an industrial zone of the Dakhla oasis governor's palace dated to the late 6th dynasty.

The archaeologically identified spaces can be to a certain extent linked to the baking scenes, such as storing grain in granaries, pounding grain in mortars, making flour on querns, preparing bread dough in large ceramic basins, heating bread moulds in large heaps, and baking of bread.

John Burn

Australian Centre for Egyptology, Macquarie University, Sydney

Drought, famine, food and fishing: Did climate change at the end of the Old Kingdom lead to changes in food acquisition strategies?

Much evidence exists suggesting that, at the end of the Old Kingdom, Ancient Egypt experienced a prolonged drought; the worst of which was reached about 4200 years ago. Due to these conditions, it is assumed that the resource base of the land diminished. As a direct or indirect consequence, this seemed to lead either to the fall of the Old Kingdom, with the government either unwilling or unable to cope with the new situation.

Art should reflect the culture that produced it. Since the environment influences human society, then it should be possible, therefore, to make inferences about past environmental conditions through an analysis of decorative themes and motifs. If Egypt did experience a severe drought during the late Old Kingdom, then the evolution, composition, and context of tomb scenes should reveal evidence of a developing environmental awareness. If this is the case, then an agricultural famine should result in fewer images depicting agricultural activities. Similarly, scenes representing the desert hunt should be expected to increase in frequency.

The corpus of Old Kingdom tomb themes produced by the Oxford Expedition to Egypt was investigated to see if the decoration programs in tombs changed over the time frame in question. A distribution and abundance analysis of the data was performed in order to identify if any significant changes within the succession sequence could be noticed. Within this succession, certain scenes relating to particular marshland activities were observed to come into prominence and constitute an increasing importance in the proportion of decoration themes. The data suggested that representations of fishing techniques and technologies change in proportion, complexity and form over this time. A summary of the data will be presented and a link between changing environmental conditions and the artistic evidence will be suggested. Finally a suggestion of how ecological conditions may have altered at this time will be offered.

Vivienne Gae Callender

Australian Centre for Egyptology, Macquarie University, Sydney

The art and artifice of the hieroglyphs of Akhmim in the Old Kingdom

Initiated by Dimitri Meeks, the project entitled Paléographie Hiéroglyphique has the intention of gathering as many actual signs as possible from major periods of Egyptian history in an effort to broaden the commonly used hieroglyphic Sign List devised by Sir Alan Gardiner. This ambitious project has inevitably led to an impressive expansion of the list and prompted a series of investigations into the palaeographic implications of both new signs and variant forms. Several volumes for this project have already been published by IFAO and whereas those works have concentrated on a single monument from one particular moment in history, it has been my task to prepare a collection of signs from Akhmim and its burial grounds at El-Hawawish, focusing on a much wider period: from the late Old Kingdom to the earliest years of the Middle Kingdom. An especially rich collection of unusual signs was to be found on the wooden sarcophagi from the El-Hawawish cemetery, but both the tombs and the stelae from the same place also proffered miniature examples of art and artifice that are more than worthy of your interest.

At the last Old Kingdom Art and Archaeology conference in Cambridge, there was an introduction to the project and a concentration on the features that made the Akhmim hieroglyphs candidates for inclusion under the category of Art. In this paper we will look at another group of interesting examples selected from signs that feature either original or interesting artwork, cunning artistic puns and some fantastic creatures, all of which may be new renditions of signs for you to consider. We have already been exposed to a large number of sign variations in the esteemed publications of Henry George Fischer, Edward Brovarski and others, but it can indeed be said without fear of contradiction, that the Akhmim signs constitute the most original and uncommon corpus of signs from the Old Kingdom and early First Intermediate Periods.

Andrzej Ćwiek

Adam Mickiewicz University, Archaeological Museum, Poznań

Eternal paths of Netjerykhet

Netjerykhet's Step Pyramid complex at Saqqara is a model example of *Jenseitsarchitektur*, and its overall principle was to serve the dead king's spirit. The complex should be seen as a coherent system, and not an accidental grouping of separate buildings. A new approach to this issue has been developed by Dieter Arnold. One may follow his way of reasoning in an attempt to reconstruct the ideological concept of the monument. It was meant, as it seems, not only to renew and maintain the pharaoh's existence, but also to enable his transfers around the precinct and outside it. Aboveground buildings and underground structures, together with the enclosure wall and the dry moat, which delineated the *temenos*, were interconnected by a web of magic paths. Some have already been suggested by Florence Dunn Friedman in her article on the underground panels under the pyramid and the South Tomb. It seems that more such 'paths' for the royal spirit can be traced in some otherwise unexplained subterranean structures. The same can be shown for the aboveground buildings and pathways. Following the ideas of Michel Baud, one may suggest the processional way around the precinct and, moreover, show starting points for an outer space. Specific devices enabled travelling of the king through stone. Fourteen dummy gates of the enclosure wall, as well as dead end corridors around the burial chamber, find thus their explanation. Their number and arrangement is purposeful. For the first time the ideas of the king's destiny were materialised in stone in such a manner, which created a pattern for future generations.

Marleen De Meyer

Dayr al-Barshā Project, University of Leuven, Belgium

Cultic activity in forecourt areas of the Old Kingdom rock tombs at Dayr al-Barsha

During excavations (2012-2013) in the forecourt areas of a number of late Old Kingdom rock-cut tombs on the south hill at Dayr al-Barsha, evidence of cultic activity in these forecourts has come to light. Two deposits in particular are of interest. One is a large concentration of Old Kingdom beer jars filled with mud, deposited before the entrance to two rock-cut tombs. Preliminary archaeobotanical investigation of the mud indicates that melons and figs were abundantly present as well, and charred plant remains and charcoal may be indicative of a funerary pyre. Secondly, an in situ foundation deposit was uncovered. While foundation deposits are known for the Old Kingdom, they have rarely been found in the vicinity of rock tombs. The newly discovered foundation deposit at Dayr al-Barsha was placed inside a square structure constructed of loosely built limestone blocks on top of the bedrock. It contained a large amount of finely polished red plates, a mudbrick, a flint blade, a grinding stone, and sheets of textile, all of which was covered with sterile sand. These finds will be discussed in the broader perspective of forecourt activity in the Old Kingdom rock necropolis of Dayr al-Barsha.

Wojciech Ejsmond (*University of Warsaw*)

Julia M. Chyla (*Jagiellonian University in Krakow*)

Cezary Baka (*Polish Centre of Mediterranean Archaeology, University of Warsaw*)

Dawid F. Wiczorek (*Institute of Mediterranean and Oriental Cultures, Polish Academy of Sciences*)

Piotr Witkowski (*freelance*)

The Old Kingdom at Gebelein – preliminary results of 2014 survey

Recently a new research has been initiated by a team from University of Warsaw in the archaeological site complex of Gebelein. All periods of Egyptian history are represented there, as well as nearly all types of archaeological sites, which can be found throughout Egypt. Gebelein played an important role in history of ancient Egypt. Despite many seasons of excavations conducted by numerous scholars, the site still does not occupy the place it merits in the Egyptological literature. The site complex is under threat due to expansion of agriculture and modern settlements, so further research is necessary to document remaining archaeological remains and to protect what is left.

During the survey an unknown late Old Kingdom - early First Intermediate Period necropolis was localised in the south-eastern part of Gebelein. There are several rough rock-cut tombs constructed of three major elements in plan: outside open rectangular courtyard, inner square chapel, supported by one pillar and descending passage corridor linking the latter with rectangular burial chamber. At least two recognised tombs has collapsed, the remaining ones are open and easily accessible. Unfortunately, in none of them neither decoration of outside walls nor inner walls have been preserved. It seems that the decoration has been completely obliterated by the Nile river water in the time of its highest expansion in Gebelein. Apparently, beside the remains of architecture, the only preserved datable material is pottery. The area will be closer examined and studied in the forthcoming seasons.

There are at least two more Old Kingdom cemeteries at Gebelein, which were excavated in the first half of 20th century, but not extensively published. Documentation work was initiated at one of them, which is under great threat and was already partly destroyed by bulldozers during last few years. Most of the tombs consist of shaft, niche for sarcophagus and traces of mud-brick superstructure, probably in the form of the mastaba.

During the Old Kingdom Gebelein was a significant administrative centre. That is why more studies are required to explain its role during that period. Research commenced this year is the beginning of an attempt to document and publish all remaining archaeological material from Gebelein and to develop further studies.

Sherine Elsebaie

University of Toronto, Canada

Vanquishing the beast: Old Kingdom scenes of hippo hunting in ancient Egypt

During ancient times, the Valley of the Nile was populated with hippopotami, a species of animals quite disliked by the ancient Egyptian agricultural community. Hunting those large animals - which devoured the fields and ruined the cultivations - appears then as a necessary security measure. Furthermore, hippo hunting took a religious and ritual character: vanquishing this animal as a symbol of the harmful forces of chaos and disorder was represented in many private mastabas from the Old Kingdom onwards.

The aim of this lecture is then to look carefully into the Old Kingdom scenes and explain the depicted technique used by the ancient Egyptians to hunt this large amphibian. The argument then builds up by scrutinising mythological, mortuary, and secular ancient Egyptian references to hippos in order to reveal how intricate the concept of hippo hunting was.

Linda Evans, Alexandra Woods

Australian Centre for Egyptology, Macquarie University, Sydney

Entwined lives: More evidence that Niankhkhnum and Khnumhotep were twins

The mid-5th dynasty tomb of Niankhkhnum and Khnumhotep at Saqqara has been the subject of considerable debate regarding the relationship between its owners. Most studies to date have focused on specific wall scenes where the two men touch one another in a deeply affectionate manner - both holding hands and embracing. The intimacy implied by such gestures has led to much speculation about their relationship. The behaviour represented has been interpreted in different ways: some scholars have suggested that the two were simply brothers and show filial affection; others have instead proposed that they were twins, ranging from identical to conjoined siblings; while a third hypothesis is that the scenes reveal a homosexual relationship between the pair.

This paper will present the results of our re-examination of the wall decoration in the tomb, in which we have noted a significant number of paired images where one scene or motif 'mirrors' another, e.g. two *Tilapia niloticus* speared by Khnumhotep in the portico and chapel; double lions and black kites in room 2; pairs of donkeys that carry the men into room 4, etc. Many of these details are either the first known examples in an elite tomb context or are images that are exclusive to this tomb. We propose that the frequency and placement of some of these dualities may be interpreted as visual puns that allude to the tomb owners' relationship. Such information adds further support to the proposal that Niankhkhnum and Khnumhotep were identical twins, who celebrated this aspect of their lives visually through repeated references in doubled and mirrored images.

Laurel Flentye

Eastern and G I S Cemeteries at Giza Project

The Giza Necropolis: Early influences – Meidum, Dahshur, and Saqqara

This paper will discuss the early development of the Giza Necropolis in the 4th dynasty, primarily the Eastern Cemetery (G 7000) east of Khufu's pyramid. With reference to the elite cemeteries at Meidum, Dahshur, and Saqqara, and even the early phases of the Western Cemetery at Giza, the decorative programs in the Eastern Cemetery (G 7000) will be traced through their design, iconography, ideology, and the style of the relief decoration.

The developmental process from the cemeteries at Meidum, Dahshur, and Saqqara to the early phases of the Giza Necropolis is important to early 4th dynasty relief decoration. The transition from cruciform chapels and decorated niches at Meidum, Dahshur, and Saqqara to the L-shaped chapels in the Eastern Cemetery (G 7000) at Giza, including the offering places with slab stelae in the early cemeteries of the Western Cemetery (G 1200, G 2100, and G 4000), impacted the decorative programs at Giza, formulating a new approach to the decoration of the chapels.

Despite the difference in chapel type, there is also a distinction in design and the arrangement of the iconography in the early 4th dynasty under Snefru's reign: there is a vertical hierarchy at Meidum and Saqqara, which changes to a more horizontal format in the Eastern Cemetery (G 7000) at Giza under Khufu. However, Rahotep's chapel at Meidum (Tomb 6) already foreshadows developments in design that become standardised at Giza.

The iconography of the cruciform chapels and decorated niches of Meidum, Dahshur, and Saqqara provides a repertoire of images for the Giza artisans. This compilation of prior influences coupled with the layout of the L-shaped offering chambers in the Eastern Cemetery (G 7000), some with exterior chapels, allowed the expansion of themes by integrating not only standard iconography, such as estate figures, but also images relating to cult practices at Giza itself, e.g., offering stands with bowls. Distinct scene types, such as butchery, occur in similar but atypical locations at both Saqqara and Giza, suggesting continuity between the different sites. Additionally, the decoration of the deep false door niches among the eight twin-mastabas in the Eastern Cemetery (G 7000) at Giza was probably influenced by the cruciform chapels at Meidum as well as the niches of Dahshur. The assimilation of these different images attests to the possibilities available in the creation of a new necropolis.

Finally, the distinct difference in relief style between Meidum, Dahshur, and Saqqara and Giza suggests that the transition from high, bold relief at these earlier sites to the low, delicate relief of Khufu's reign was a deliberate decision, affecting not only the style but also the technical treatments of the limestone.

Thus, an analysis of the cruciform chapels and decorated niches at Meidum, Dahshur, and Saqqara of the early 4th dynasty is crucial to understanding the development of relief decoration in the Eastern Cemetery (G 7000) at Giza, indicating there was a transitional period in which the decorative programs of these earlier sites contributed to the initial phases of the Giza Necropolis.

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The names of the kings of the 5th dynasty according to Manetho's Aegyptiaca

The king-list of Manetho's Aegyptiaca was commonly accepted as the backbone of ancient Egyptian chronology during the early days of Egyptology. Over time, however, the reputation of this ancient compilation has suffered significantly, because excavations and inscriptions revealed that the surviving version of the Aegyptiaca does not always exactly match the primary sources. Yet, one must not read Manetho's Aegyptiaca like a paper of present-day Egyptological scholarship. Instead, it is necessary to look at it as a piece of ancient scholarship, which made use of sources (texts with a, then already long-lasting history of their own) in the reading and interpretation of its own time and which was handed down in a complex tradition spanning more than two millennia. Only if the quality of Manetho's sources and the vitia and lapsus of handing down ancient Greek texts are considered, the true value of this treasure chest of historiography can be detected. Keeping in mind this highly problematic aspect of Manetho's king-list in its actual appearance, the kings' names must be reconsidered on grounds of their re-vocalised Egyptian forms, which then have to be projected into their late Egyptian (Demotic, Pre-/Proto-Coptic) emergence and investigated according to the principles of, on the one hand, Greek phonology and, on the other hand, ancient and medieval codicology and palaeography. Until now, this complex analytic process has mostly been confined to a more or less well founded comparison of bare consonantal, i.e. unvocalised, Egyptian names with their supposed Greek equivalents as found in modern editions of the Aegyptiaca. A more rigidly and precisely conducted analysis which takes into account all sources of errors and defects will allow for a re-evaluation of the Aegyptiaca itself and for the benefit of new results for Egyptian history and chronology.

The names of the kings of the 5th dynasty may serve as a prototypical example for the re-evaluation of Manetho's king-list: Userkaf, Sahure, Neferirkare, Shepseskare, Neferefre, Newoserre, Djedkare-Isesi and Unas are all recorded in the king-list of Manetho as transmitted by Julius Sextus Africanus according to the *Ecloga chronographiae* of Georgius Syncellus. Although the names as preserved have obviously been garbled and distorted in a long way of copying manuscripts over and over again, a closer look at the Greek transcriptions of these names will reveal the high quality and the still unbroken relevance of Manetho's Aegyptiaca for modern Egyptological scholarship. As will be shown, there is a, sometimes more or less difficultly, but finally clearly discernible line all the way down from the Old Kingdom to Manetho's Aegyptiaca. The examination of the names of the kings of the 5th dynasty will furthermore provide insights into the historical consciousness of the ancient Egyptians themselves and into the transmission and tradition of Egyptian history.

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Old Kingdom wooden statues and beyond – new discoveries

The material gathered together in my publication of Old Kingdom wooden statues was primarily the result of excavations conducted in the past. The fruits of those excavations are scattered in museums all over the world, and it was my pleasant task to visit most of those museums and study the statues. Nowadays, new types of ‘discovery’ have evolved that add to the known corpus. Luckily, by publishing a corpus of this type you become known as the ‘expert’ in that particular tiny corner of the field. The result is that you are contacted by museums, individuals and dealers with queries about statues they have acquired. Over the years since the publication of the corpus I have been approached by several people and institutions, and have also encountered several in museums myself, and have thus acquired knowledge of many more statues. Some of these statues are indeed pure Old Kingdom, others can be dated to the First Intermediate Period and the Middle Kingdom. All of them add to our knowledge and understanding of this category of object.

Marie Hlouchová

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The god Weneg and the *wng*-plant in the Old Kingdom

Two Utterances of the Pyramid Texts (PT 363, § 607 and PT 476, § 952) mention a deity called Weneg. Thanks to these references his roles are quite clear. Weneg is a follower and a son of the main sun god Ra; he is considered to be a protector of the cosmic order *maat* and is also said to judge the gods and to support the sky. Since the Pyramid Texts are religious texts used in royal mortuary context, Weneg was identified with deceased kings.

Weneg is attested only in the Old Kingdom period and only in the written sources. However, one particular piece of evidence of him could be dated back to the Early Dynastic Period, but it is rather speculative. Some scholars believe that isolated references for Weneg can be found in the Middle Kingdom as well, but also in this case it is difficult to be proved. It is also important to stress out that no depictions of the god exist.

The name of the god Weneg is determined with various hieroglyphic signs of plants. One of the determinatives is quite obscure. It is a depiction of a special plant called the *wng*-plant. The exact species of the plant remains yet to be identified.

As aforesaid, Weneg was one of the deities connected to the sun cult and therefore the examining of the roles of Weneg is a part of a broader project focused on the gods with solar aspects during the Old Kingdom. This project is supported by the Inner Grant of the Faculty of Arts, Charles University in Prague (VG059) and is the subject of the author's doctoral thesis.

In this paper the evidence for the god Weneg will be presented and special attention will be paid to the problematic references. It will also be tried to explain why the sources are almost exclusively limited to the Old Kingdom. The most important part of the paper will be an attempt to identify the *wng*-plant, which could help us reveal the connection of Weneg to the sun cult.

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The Egyptian annexation of Dakhla Oasis: an analysis of the material from the excavations at Mut al-Kharab

Excavations at Mut al-Kharab in Dakhla Oasis indicate that the earliest evidence for a permanent Egyptian presence on the site should be dated to 3rd–4th dynasty. This is earlier than indicated by currently-available data from other sites in the oasis, forcing a reconsideration of the timing of the Egyptian settlement in the Western Desert. In combination with these finds, there is pottery that we identify with the local Sheikh Muftah people, the last of the indigenous inhabitants to occupy the oasis before its absorption into the pharaonic sphere of influence.

These finds offer an exceptional body of evidence upon which to base an examination of the processes of Old Kingdom settlement in the Western Desert when the material culture of the indigenous groups remained distinct from that of the Egyptians. The mixed deposits at Mut al-Kharab indicate that the newcomers lived side-by-side with the oasis indigenes for a period of time. This challenges our earlier assumptions on the fate of the Sheikh Muftah that looked to processes of dispersal in response to the Egyptian presence in the oasis. On the basis of the material from Mut al-Kharab we now propose that some Sheikh Muftah groups remained within Dakhla and engaged in a complex system of interaction with the newcomers.

Clara Jeuthe

IFAO

**Current research on the indigenous and pharaonic occupation during the Old Kingdom/
FIP in Balat (Dakhla Oasis)**

The IFAO's work at Balat at the edge of Dakhla Oasis/ Western Desert mainly focuses on the pharaonic sites such as the necropolis Qilac el-Dabba and the occupation area Ayn Asil. Founded in the early 6th dynasty and being well known as the seat of the oasis' Governor up to the early Middle Kingdom, Balat was an important provincial centre. However, less is known about its beginning and the given conditions. A recently discovered and since 2013 investigated occupation area of the indigenous Sheikh Muftah group provides us with another insight into the oasis population and its development during the Old Kingdom. Clearly, the pastoral nomadic culture differs strongly from the pharaonic urban society. Yet the comparison of the material culture, in particular of the lithic inventories, allows a first understanding of possible trans-cultural influence and long-living traditions.

Hence the paper aims to introduce both the indigenous and the pharaonic occupation at Balat and to highlight the differences between them but also points out to their common features in their material culture.

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The governors of Elephantine and their funerary complexes in Qubbet el-Hawa at the end of the 6th dynasty

The necropolis of Qubbet el-Hawa is one of the major sources to study the relationships between Egypt, Nubia and the Central Nile at the end of the Old Kingdom. The reassessment of the excavations in the site has obligated us to analyze all the aspects. One of these is the chronology of the tombs of the highest officials (HAtj-a xtmtj-bjtj smr-watj) and their sequence in the government of the region of Elephantine since the first chronological datum corresponding to the reign of Merenre (Herkhuf's biography) until the First Intermediate Period.

This ambitious task will be approached from the analysis of different issues: evolution of the architecture of the funerary complexes, historical data from the inscriptions, and comparisons of the administrative titles and epithets.

The result of such approach will permit us to explain the changing relationships between Egypt and Lower Nubia in the Old Kingdom, the development of a dynamic of monumentalisation in the local funerary architecture at the end of the Old Kingdom and the raising of the first symptoms of regional autonomy at the end of the reign of Pepy II.

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A unique burial of a father and a son: Niankhpepy the black and Pepyankh the black of Meir

Despite the disagreement about the chronology of the governors of El-Qusiya, the 14th Upper Egyptian province, there is no doubt that Pepyankh the black was the son of Niankhpepy the black. Their communicating tombs A1 and A2 suggest that they were constructed as a joint project, and the figure of the son offering incense to his father on the short partition wall between their two chapels may suggest that the son was responsible for the construction and/or decoration of both tombs.¹ That a son built or decorated his father's tomb was not uncommon in ancient Egypt, and in a neighbouring province the well-known joint tomb of the nomarchs Djau and Djau/Shemai at Deir el-Gebrawi is a clear example for such a tradition.²

In examining whether Pepyankh the black was solely responsible for the preparation of the two tombs or merely completed the work begun by his father, the identity of owner of the adjacent tomb A4 must be considered. His name, Hepi the black, not only coincides with the beautiful name of Niankhpepy the black but is the most commonly used name in tomb A1, and the titles ascribed to the owners of both tombs are also very similar. Blackman had noticed this similarity in the names of the owners of tombs A1 and A4, but excluded such identification as he thought that "it is indeed most improbable that a man would have excavated for himself two large chapels side by side".³ The Australian Centre for Egyptology has recently re-cleared tomb A4 and, as a result, new information now clarifies one of the most fascinating cases of filial affection in the Old Kingdom.

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- ³ Blackman, *Meir I*, London, 1914, 10-11.

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3D reconstruction and its interpretation of the “Cave” of the Great Pyramid in an inductive approach

Approaches to the study of ancient Egypt loosely fall into two categories: inductive and deductive methods. The traditional approach is to inductively collect data from excavation sites and describe the past by piecing them together like a jigsaw puzzle. But after the introduction of processual archaeology in the 1970s, one can also deductively make a hypothesis, construct a model, and then start to collect data for explanations of the past. In the field of Egyptian archaeology, processual archaeological approaches are currently mainstream but, as a consequence, actual survey data is less frequently updated, and more importance is set on proposing a theory.

For example, the hypotheses on the construction of the great pyramid of King Khufu are numerous, but only a few actual surveys have been conducted. In particular, no observation of the core of the pyramid has been made, and theories about the structure are still hypothetical.

In the late 1980s, non-destructive surveys conducted by French and Japanese missions shed new light on the core of the great pyramid. The French mission detected possible cavities in the great pyramid using a microgravimetric technique. A later survey by a team from Waseda University also indicated the existence of cavities using electromagnetic waves. While researchers presume that in the core of the pyramid large cavities had been filled with either pure sand or small rubble and other waste materials produced during the construction, others believe that the cavities detected indicate hidden spaces for an internal spiral ramp for transporting blocks.

In 2013, a Japanese TV production company had the opportunity to climb the northeast corner of the pyramid. They were able to shoot a crevice that led to an open space (named “cave”) that is probably one section of one of the large cavities. The authors are fortunate to be allowed to use this video footage for academic research. We employed a “structure from motion” (SfM) technique using Microsoft Photosynth to reconstruct the 3D point cloud of the surface of the cave. Twenty minutes of footage was split into thirty thousand image frames, out of which we selected three hundred images shot using several smooth motions of the camera, and used these for the SfM process. As a result, we have produced, albeit in a small area, the first visible record of the actual structure of the great pyramid’s core. The cavities would have been used for the “chamber method,” which would have remarkably accelerated the work in an economical way.

The production of a 3D model from existing video footage is a new methodology in the field of archaeology of Egypt. This set of techniques can help to accumulate data for an analysis of any monuments in an inductive approach.

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An investigation into Early Dynastic - Old Kingdom relative chronology

This paper will examine the question how the relative chronology of the early Old Kingdom can be better defined on the basis of its material culture arising from the Early Dynastic Period. To date, Old Kingdom chronology is largely dependent on the historical or political chronology; material assemblages are dated accordingly, even when no royal names can be associated with such contexts as is the case with the majority of non-elite funerary and domestic contexts.

Recent excavations at Helwan between 1998-2011 (under the concession of Macquarie University and in collaboration with the University of Vienna) have brought to light a large number of non-elite tombs from the Early Dynastic to early Old Kingdom period which allow to bridge these two periods through their grave assemblages and architecture. Our on-going analyses of this material now offer first insights into the further, continuous development of late Naqada III material culture into later periods and thereby raise the question if, to what extent and how far the relative chronological framework of the Naqada Culture should be extended beyond the Early Dynastic Period.

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Pottery from SWI area – Heit el-Ghurab settlement, Giza

In 2003 AERA started clearance of an area named Standing Wall Island (SWI). It is a structure that lies at the southern edge of the GPMP site. It consists of two large enclosures (ES 1 and ES2) and an open area to the south of the enclosures (Lagoon 2) bounded by mud-mortared limestone walls. The northern area of the compound (ES 1 and ES 2) is divided into smaller sections by additional stone and mudbrick walls. What is unique about this complex is that its walls are made of stone instead of a mudbrick and are preserved to the higher level than any other walls in the area. Also, the orientation of the compound is more west of north than any other areas in of the Heit el-Ghurab.

The area has also been excavated in 2004 and later in 2011, which was, so far, the last season when the excavations were carried at the complex.

The main focus of this paper is to offer an insight into the pottery assemblage recovered during 2011 excavation season as no ceramic material were collected during previous work on the area.

Most of the pottery from SWI area is represented respectively by CD bowls, F bread moulds, AB jars and E stands. As is typical for the Heit el-Ghurab material, all of the current SWI assemblage dates to the late 4th dynasty.

Although the pottery assemblage gathered during the 2011 season is not particularly rich, containing only 391 pieces it is interesting for number of reasons. Comparing the data on the SWI pottery assemblage to other areas of the GPMP site, we can observe that generally the relative frequencies of the classes do not seem to correspond well to the known general site pattern. Although the relative frequency of E stands from SWI is similar to other areas, it is interesting that the number of CD bowls is almost twice as abundant as in other areas. Also noteworthy, the number of those bowls exceeds the number of the bread moulds, a phenomenon unique to this area of the site. Different distribution of pottery can indicate different use of the area.

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The tomb of Kakaibaef and tombs of the “royals” in the Abusir pyramid necropolis

In spring 2013, the Czech Archaeological Mission in Abusir, continued its work in the cemetery located to the south of Raneferef's mortuary complex. This work has been a part of a wide-ranging research project which is focused on the southern part of the royal pyramid necropolis. Results of this project provides us new information on the development and layout of the Abusir necropolis as well as on the situation within the royal family of the period. Conclusions of the archaeological excavation in the Tomb AC 29 enabled to ascribe this mastaba to Count Kakaibaef who was previously documented only in the relief decoration of Niuserre's mortuary temple. The architecture of the tomb does not differ from the neighbouring mastaba of King's son Nakhtsare. Despite this fact, the archaeological work also uncovered an interesting evidence of social stratification in the courtly society. Whereas the prince's tomb was separated by an enclosure wall, the tomb of Kakaibaef not. One can speculatively consider reasons for this separation which might have been based on unequal social status of both tomb-owners – of a member of the royal family and an “ordinary” dignitary of non-royal (?) origin. In this context it shall be interesting to evaluate the architecture of the tombs (excluding pyramids of kings and queens) belonging to the members of the royal family in Abusir.

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The pyramids at Dahshur – the necessary innovations before the pyramids' construction at Giza

The Dahshur Necropolis is situated just about 40 km south from Cairo and is known for several Old Kingdom pyramids, royal tombs, cult places and satellite pyramids located there. The pyramids at Dahshur are constructed in a unique manner and do not resemble other Old Kingdom pyramids built elsewhere in Egypt. The difference is not only in the size of the pyramids, the incline of their facades, location of entrances and pyramids' inner layout, but also in the quality and properties of the stone material used for the construction. Although with certain limitations, the Pyramids at Dahshur are available for studies applying non-destructive research methods, excluding direct contact with the facades of the pyramids, sampling and sample analysis outside the country. Current study is based on detailed photo documentation of the Bent Pyramid and the Red Pyramid at Dahshur and further analysis of the data obtained. The results of this analysis allowed us to evaluate the differences in the building material used and building methods applied during construction process. Additionally, analysing the photo documentation it was possible to identify major fissures and cracks visible on the facades of both pyramids, verifying the obtained results on site. Both of these major structures contributed to the development of the pyramid construction technologies and produced general requirements for large scale construction work carried out years later at the Giza plateau.

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The tomb of Ikhi in Saqqara and the organisation of expeditions in the Old Kingdom

In 2002, a rock-cut tomb was discovered in Saqqara, belonging to an official named Ikhi/Mery. Ikhi served as a god's sealer during the reign of Pepy I and was otherwise attested through expedition graffiti in Wadi Hammamat. The inscriptions found on some architectural elements of his tomb yielded information related to the staff responsible for royal expeditions during the 6th dynasty.

The archaeological work in the tomb of Ikhi was continued in 2012 and resulted in unearthing further parts of the tomb and more inscriptional evidence of the position and activities of Ikhi. Two of his previously unknown titles – those of "one who places the dread of Horus in foreign lands" and "one who brings back the produce of foreign lands to his lord" – indicate possible destinations of the expeditions in which he participated.

The new data made it possible to reconstruct the career of Ikhi, as well as that of his son, and to place both of them in a sequence of officials responsible for foreign expeditions. Moreover, it may be supposed that a major administrative reform, which was introduced during the reign of Merenre, afflicted also the personnel related to royal expeditions..

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The art in the tomb of Pepyankh the middle of Meir: Innovation or copying

It is now believed that Ppy-anx Hry-ib Pepyankh the middle of the 6th dynasty was the first to excavate a tomb at Meir, the cemetery of El-Qusiya province. The decoration of his chapel and burial chambers shows a high standard of art and a remarkable conformity in themes and details with the traditional funerary art of the period. As the two earlier nobles of El-Qusiya were buried at Quseir el-Amarna and neither of them possessed a tomb that could have provided the inspiration for the artist of Meir, it is legitimate to investigate the identity and possible origin of this artist(s).

This paper will examine the titles that likely described the artists in the Old Kingdom and then present evidence for the holders of such titles in the tomb of Pepyankh the middle. It will also look at the frequency of the appearances of such individuals in the wall scenes and their possible relationship with the tomb owner. This will be followed by an examination of all contemporary tombs in the neighbouring provinces as well as in the Memphite cemeteries with the aim of identifying men bearing the same names and holding similar titles. A study of artistic similarities between the scenes and details depicted in the tomb of Pepyankh the middle and other contemporary tombs is essential in order to demonstrate the extent to which the artists of Meir allowed themselves to be influenced by earlier works.

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A new Old Kingdom painting from the Eastern Necropolis at Giza

The author presents some preliminary results of the study of a recently discovered painting from the rock-cut tomb of Perseneb at Giza. The first account of the tomb was left by the expedition of Karl Richard Lepsius (LG 78). Afterwards, the monument was used as a dwelling place by Auguste Mariette who inhabited the tomb during his stay at Giza. Both Lepsius and Mariette described the distinctive planning of the chapel, its statues and reliefs, but did not notice any traces of paintings. During the XX century, the monument stood accessible from the village of Nazilet el-Saman and was repeatedly referred to in Egyptological publications, usually in connection with its numerous sculptures.

In 2012, members of the Russian archaeological mission at Giza started a routine architectural and epigraphic survey of the tomb of Perseneb. Unexpectedly, on the eastern wall of the room GE 21, under a thick layer of XIX century soot, fragments of a polychrome painting over a thin layer of white plaster were discovered. After removing the soot, the author could copy the painting and reconstruct its original composition characterised by a rear combination of standard scenes (a marsh scene, agricultural scenes, the journey to the West, figures of the owner and his wife). A careful study of the remaining iconographic features made it possible to date the painting to the 6th dynasty. The significance of the discovery lies in the fact that the painting is located in a chapel of a rock-cut Giza tomb rather than a mastaba.

Being a part of a complex decorative program, the recently discovered painting was used in combination with statues and fine reliefs. Its position and the scenes presented reflect the history of a gradual architectural development of the chapel. Comparing the monument with other painted chapels from Saqqara and Giza, the author discusses the problem of combination of paintings and reliefs in late Old Kingdom tombs and argues that some other minor rock-cut chapels of the Eastern necropolis, traditionally described as 'unfinished', may have been decorated with painted scenes of which some indirect evidence preserved.

Rémi Legros

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Royal decrees in Pepy I necropolis

The French Archaeological Mission at Saqqara during the last thirty years uncovered, several monuments around the Pepy I pyramid. The temples of the queens related to this Pharaoh or his successors, have delivered many objects which inform us directly on the functioning of funerary institutions at the end of the Old Kingdom.

In this point of view, royal decrees shall be considered as a critical source of data. Twenty fragments were found in different parts of the necropolis, in addition to those already known from other sites in the Memphis area, and also in Coptos or Balat. The main purpose of this paper will be to present these unpublished items, taking into account the texts, but also the archaeological and historical context.

The corpus of decrees discovered by the MafS includes fragments of widely varying size and interest. If some of them contain only a few signs, others are almost complete. The shape and form are quite representative of the documents already known. Pepy II seems to be the only mentioned king as author of the documents, which are written to the attention of various queens, mainly Ankhnespepy II and III.

Some decrees seem to clarify the relationship between the several complexes in south Saqqara, while others consider the retribution or protection of the queens' temples. Many individuals are also mentioned by their names and / or titles.

If nearly half of the fragments are too small to give a clear idea of the content of the original text, the entire documentation shows how much this juridical practice was in use at the end of the Old Kingdom, in order to regulate the access to funeral spaces and the activities taking place within them.

Ricardo Manzini

About the planning of pyramidal apartments

Drawing on the data established by archaeologists, this analysis of major pyramidal apartments has revealed an unexpected common modular design of modern conception, based on the repetition of an abacus made of square modules of identical and constant dimensions, which makes it possible to assume the existence of unsuspected planning archives. On the basis of such research, we learn that the main point of the design and of its application on the building yard was represented by the intersection of the declining entry corridor with the ground line, and that the irrelevant differences between the supposed planning intention and its effective application were due to understandable slight building errors. The fact of having incidentally found an even more exact correspondence between the abacus and all the measures of the funeral apartments in the Pyramid of Khafre is a final and probably definitive confirm of this hypothesis, which demonstrates that the actual structure is the result of some incidental necessity. Realising that such modularity of design exists in all the pyramids having funeral apartments in the external structure, while it is vague in those pyramids with the apartments under the ground level, we shall conclude that only in the first case it was essential to have an extremely exact design.

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New ankh-giving scenes from the funerary temple of Djedkare

From October 30 until November 9, 1952, the Egyptian archaeologist Ahmed Fakhry started an excavation in the pyramid complex of king Djedkare in South Saqqara. The work concentrated mainly on the funerary temple of the king. It seems that when Fakhry started his work the temple was already in a very bad state of preservation and he collected hundreds of fragments of relief decoration and statues.

Since their discovery these finds were kept in various storerooms of the Antiquity Service (now the Ministry of Antiquities), and the excavation documentation has not been available for scholars. In 2009 the boxes with the finds were recovered and the reliefs from Djedkare's funerary temple started to be documented for a future publication. Among the many fragments of decoration some pieces bearing scenes in large scale, were also observed. These fragments seem to represent parts of the ankh-giving theme.

The paper aims to provide an overview for the ankh-giving scenes from the funerary temple of Djedkare. The fragments of reliefs indicate that the scene of receiving ankh by the king occurred at least three times in his funerary temple. For instance seven small fragments can be joined together, which make part of a scene showing the king receiving ankh-signs from a goddess. Another large block, which is still in the funerary temple of Djedkare, depicts a part of a more complete scene. It shows the king sitting and receiving ankh-signs from goddess Hathor in the presence of goddess Wadjet, god Seth and god Horus Behedety. Still several other fragments of the same theme but in different scale, can be identified among the fragments from Djedkare's funerary temple, and one block with the motive of the ankh-giving can be found among the blocks that were reused in Unis' pyramid.

The paper will also aim to discuss the possible location of the ankh-giving scenes in the funerary temple of the king, and the function for the occurrence of more than one scene of ankh-giving within the temple relief decoration.

Karol Myśliwiec

Institute of Mediterranean and Oriental Cultures, Polish Academy of Sciences, Warsaw

The Dry Moat – a new project

After having unearthed and published a large part of the late Old Kingdom necropolis extending between the enclosure wall of the “Step Pyramid” and the eastern border of the “Dry Moat’s” western section (volumes I-V of the “Saqqara” series), the Polish-Egyptian mission started a new project in 2012. Its aim is a multidisciplinary study of the “Dry Moat” as a capsule of Saqqara’s history, combining excavations with geological, geophysical, palaeoclimatic, anthropological, palaeozoological, palaeobotanical, ceramological and other studies, as well as conservation of architectural remains and artifacts discovered during these excavations. Although previous work done by the mission in some parts of the “Moat”’s eastern and western rock walls’ has already brought to light some important, though not always fully understood rock-hewn tombs and cult places (e.g. the tomb of Seshemnefer, the corridor with five cult chapels and more than twenty shafts, as well as the cult chamber containing a deposit of wild animals and a unique, ritual harpoon – all of them hewn in the “Moat”’s east wall), it was the exploration of the tomb of Ikhi/Mery hewn in the structure’s west wall that yielded unusual features necessitating a more extensive research. Discovered below this tomb was another rock-hewn funeral structure, a kind of “a lower stage”, the exploration of which should take place in February/March 2015.

Vera Novakova

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Old Kingdom stone sarcophagi as indicators of social change

A fundamental monograph on Old Kingdom stone sarcophagi has been published in 1969 by Anna Maria Donadoni Roveri together with a comprehensive catalogue (omitting, however, the sarcophagi found by Borchardt in Abusir). Later excavations have brought to light new material, e. g. from Czech excavations in Abusir. Experimental work of Denys Stocks provided information about the technology of stone sarcophagi production, therefore the economic aspect of the sarcophagi's manufacture has been clarified. Other aspects of the sarcophagi have been subsequently studied by Miroslav Verner, Pietro Testa and Peter Jánosi.

A. M. Donadoni Roveri used a traditional approach to the publication of her catalogue, based on selected examples of decoration, inscriptions and typology. The present author has incorporated the data assembled by Donadoni Roveri in a database. The database includes information on the material, decoration, dimensions of the sarcophagi and titles of their owners. Its purpose was to enable a detailed examination of the social status of the owners. The typology of Donadoni Roveri was updated and adapted using new material. The results of the evaluation, as well as the new methodology, will be presented in this paper.

The present author uses statistical data to study and interpret general trends in the development of sarcophagi during the Old Kingdom. Changes in material, dimensions and decoration employed on royal and non-royal sarcophagi were examined. Special emphasis was laid on the main diachronic trends in the development of stone sarcophagi in connection with specific social status of the sarcophagus owner. The categorisation of Old Kingdom officials published by N. Kanawati was used as a basis of the evaluation, mainly due to the stratification of the middle and lower layers of officials. However, the stratification made by N. Strudwick was applied on the examined ensemble as a control process.

One of the main results is the identification of two significant turning points in the development of stone sarcophagi during the Old Kingdom: the end of the 4th and the beginning of 5th dynasty and the beginning of the 6th dynasty. It thus becomes clear that major changes in state administration were reflected in contemporaneous material culture.

Massimiliano Nuzzolo

"L'Orientale" University of Naples

The *sed* festival depiction in Niuserra's sun temple: an attempt at reconstruction

The *sed* festival depiction in Niuserra's sun temple represents the oldest known example of this kind of ritual celebration of kingship in Ancient Egypt. Although generally accepted by scholars, the reconstruction made by Kaiser in the seventies (the only one existing in this sense) is nonetheless not entirely sound and presents many doubts. Moreover, the German scholar assumed a narrative approach to the issue emphasising a describing level where the development of the ritual was put in the focus. In this paper, on the contrary, I will not only draw attention to the depiction of the scenes and the placement in their architectural setting (trying to suggest a new "unrolling" of the festival along the walls of the so-called chapel). I will also stress the different readings and semantic values of the festival which seems to refer above all to the complex defining process of Kingship during the 5th dynasty and, as a whole, during the Old Kingdom.

Martin Odler

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Understanding Old Kingdom copper model tools

The weighing of metal is repeatedly depicted within Old Kingdom tomb scenes of metal processing, in the Memphite area as well as in the provinces. We thus know that the amount of metal (mostly copper and gold) was controlled by the administration. Post-depositional history irreversibly changed the weight of artefacts and only a fraction of existing metal artefacts has been preserved. However, two artefact classes are preserved in statistically significant numbers, copper vessels and copper model tools. Metallographic analyses have shown that both classes were made with considerable effort and skill. They are very important evidence of the production of a specialised craft.

The author of the presented paper examines in an ongoing project, funded by the Grant Agency of Charles University (project no. 526112), copper artefacts from documented archaeological contexts and unpublished copper artefacts from the Czech excavations in Abusir. The documentation has so far included some of the largest collections of Old Kingdom copper artefacts in Europe (British Museum, Ashmolean Museum, Louvre, RPM Hildesheim, ÄMU Leipzig, KHM Wien, National Museum in Warsaw and Náprstek Museum in Prague). One of the aims of the project is to evaluate a hypothesis that the control of the amount of metal by administration is reflected in the morphology and dimensions of preserved objects.

The paper will present preliminary results of the project, using archaeological semiotics, proposed by Robert Preucel, as a method for definition and interpretation of model tools and vessels. The data will be evaluated statistically by analyses of variance; dimensions and coefficients of variation of the assemblages will be compared. Connections with social status, as well as diachronic and synchronic development of artefacts will be examined.

Recent studies of Old Kingdom beer jars and bread forms by Leslie Anne Warden have shown that pottery is standardised in synchronic single events (primary contexts from one tomb), but the dimensions are rather diverse in the diachronic perspective. Copper artefacts will be presented as an example of a more tightly controlled artefact category and the product of clearly definable Old Kingdom attached craft specialisation.

Patrizia Piacentini

Università degli Studi di Milano

Scribes in the Egyptian expeditions of the 3rd millennium BC

At the dawn of the 3rd millennium BC, seals or short inscriptions mention scribes controlling products or registering important data. From the 4th dynasty onwards, the administration tends to a diversification of functions, and scribes with specific skills and hierarchically organised become more and more frequent (see P. Piacentini, *Les scribes dans la société égyptienne de l'Ancien Empire*, Paris 2002).

Scribes were regularly employed in human resources management, and participated in missions to the peripheral regions. They assisted the chiefs of the expeditions and were charged of the logistics, organising the movement of products and materials, as well as their inventory, transportation from the point of origin to the point of use, etc. During the expeditions, they were also in charge of the general management and sustainment of the participants. These were duties that they accomplished also, for example, in construction sites, at the Giza Pyramids city or in temples. Higher level officials, with titles connected with literacy, could be themselves chiefs of expeditions. This is the case, for example, of the officials Weni of Abydos and Ikhi of Saqqara.

Many proofs of the presence of scribes in the expeditions have been and continue to be discovered, from Nubia to the Western and Eastern deserts, from Sinai to the recent excavated harbour site of Wadi el-Jarf. In addition to graffiti, sealings or monumental inscriptions recording this scribes' activity, they are also shown in the middle of running troops, on an interesting relief dating back to Userkare and reused in the Pyramid Temple of Amenemhat I at Lisht North.

The material and documentary evidence, the analysis of the titles, and the inferred role of these very active scribes will be presented in the communication.

Gabriele Pieke

Reiss-Engelhorn-Museen Mannheim

The art of reception – forms and themes of quotation in Old Kingdom tomb decoration

The paper will focus on the inter pictural relations and the reception of images in the context of tombs of the 5th and 6th dynasty. Despite a well-established canonical tradition in ancient Egyptian art it is obvious that every tomb demonstrates a certain desire and also the given possibility of not just simply copying a standard form but to present a very own design. Not only the layout of the architecture but especially the tomb decoration underline the effort of the artists and the patron to change the established program of scenes and the aim to add some own innovations. Other than the main cult images, which are strongly canonical and follow a fine tradition, the so-called ‘daily life’ and ‘out-door’ scenes offer much more creative freedom and indicate a variety of solutions. A main point in the process of quotation is the reinterpretation of existing images. It is evident that there are broader ranges of possibilities and also an interest in either creating new images or in using and modifying particularly rare or newly created motifs. Further the tradition of one specific place is a mayor factor for the passing on of images, herby their reception fosters the establishing of local identities. At the same time some of the newly created images do not enter the canonical tradition but are only re-produced once or twice, some of them only outside the residence necropolis.

The given examples will focus on the Teti Cemetery, demonstrating a close linkage of motifs to other important parts of Saqqara necropolis like among others the Unas Cemetery or outstanding mastabas like Ty and Ptahhotep. Hereby different kinds of reproduction are evident: direct quotation, variations and reinterpretations can be found, while the modification of the old form plays a key role in it. Overall the ‘art of reception’ underlines a high knowledge of the artists with sophisticated references, citations and transformation of images.

Joanna Popielska-Grzybowska

Pułtusk Academy of Humanities, Pułtusk

Min in the Old Kingdom religious texts – different aspects of creation

The author of the paper will attempt to reconstruct, with reference to contextual arguments, a linguistic image of the god Min as described by the Egyptians in the Old Kingdom religious texts. This is an image of Min embodied in language, and hence reconstructed from information scattered in words and phrases.

The god Min in the above-mentioned period has been studied by Ann McFarlane in her monograph *The God Min to the End of the Old Kingdom* (Sydney 1995). It is a comprehensive study, however, gives only a limited analysis of the so-called Pyramid Texts (McFarlane 1995, 253-255). Thus in the presentation the contexts of appearance of Min will be shown and scrutinised. Min was not evoked very often in the discussed texts and frequently in obscure, difficult to render and understand, but significant, passages. One of the most thought provoking fragments seems to be spell 612 where the king is summoned to raise himself and surround the Mounds of Horus and Set and to stand at the head of the Ennead as Min.

Furthermore, an interesting excerpt is also spell 665D in its version from the pyramid of Neith. It refers to the same topic, however, not generally to the Ennead, but to its body.

There are only 11 fragments where Min's name is attested in the Old Kingdom religious texts and thus they do not allow to create a complete linguistic view of the god called Min as depicted in the so-called Pyramid Texts, but they shall help understand some aspects of Egyptian cosmology figured in these writings. Moreover, it is very crucial and meaningful to study if and how Min and other gods are linked in the world's oldest religious texts. Very significant may also be his, so well discernible in the context, interrelations with the creator god.

Ann Macy Roth
New York University

Ritual activities in the life of a tomb: Some unscribed mastabas in the Western Cemetery at Giza

Studies of Old Kingdom tombs normally focus on the decoration of their chapels and the contents of their serdabs and burial chambers. Comparatively little attention has been paid to the potential of archaeological evidence to illuminate the human activities that took place in these tombs during their construction, their use, and their decay.

Between 2000 and 2005, the New York University Giza Cemetery Project (originally the Howard University Giza Cemetery Project) planned and re-cleared many of the tombs first excavated by George Andrew Reisner in the Western Cemetery at Giza, east of Mastaba G 2000. The chapels had little or no decoration, and even intact burials had few grave goods. (Several pots, four beads, and a broken offering basin were the only finds recorded from the shafts.) In the absence of relief decoration and finds, a different perspective was adopted. Using the techniques of settlement archaeology to record these small tombs, the project focused on the evidence left by human presence in the cemetery, investigating traces left by activities such as the lighting of fires, the scavenging of tomb architecture, and surreptitious cooking.

Among the more interesting results of the work were the indications of ritual activity during the building and use of the tombs, as well as during the remodelling and the addition of later burials. This paper will discuss the interpretation of this evidence and the activities it implies. Such ritual activities illuminate the beliefs and assumptions of the people who built and used these tombs, and shed new light on the attitudes of the Old Kingdom elite towards both their tombs and their dead.

Teodozja I. Rzeuska

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***Bedja* bread in the Old Kingdom and its socioeconomic implications**

From the dawn of Egyptian civilisation to the modern day, bread is one of the most staple foods. Its importance is attested by the numerous texts, funerary scenes and archaeological excavations, which provide countless data on its different kinds, shapes, names, baking and its role in the society.

The *bedja* bread was one of the most popular kinds of bread in Egypt. It was baked in special, conical ceramic moulds, which alongside beer jars are the most commonly found vessel type on archaeological sites from the Old Kingdom. Sometime between the 4th and 5th dynasty, its shaped was transformed and the rounded-based moulds became replaced by the flat-based vessels. Finding the answer to how and why this alteration occurred will allow identifying certain changes that took place within Egyptian society at that time.

Anthony Spalinger

Department of Classics and Ancient History, University of Auckland

The salary payments to mortuary temples of 5th dynasty

A discussion of the intricate timings associated with the payments to the priests in the mortuary temples of Nefeirkare and Raneferef (Neferefra) provides a useful basis to compare with my earlier work concerned with the Illahun archive of 12th dynasty. In particular, three major issues will be highlighted:

1. The date of payments to the priests (not merely the to the phyles).
2. The timings of the arrival of foods.
3. The disbursement of the foods for religious events of key importance (e.g., Wagy and Thoth).

This analysis, both calendrical and accounting, is necessary in order to determine the workings-out of a "rational" system of salaries and event timings. A recent study in *Orientalia* devoted to these two archives has provided the basis for this extension.

Christoffer Theis

Ägyptologisches Institut, Ruprecht-Karls-Universität, Heidelberg

**A new solution for the names found at the Pyramid Lepsius XIII in Zāwīyat al-^cAryān.
The Question of Nfr-kA and BA-kA**

The speech will offer a new solution concerning the names that were discovered at the beginning of the 20th century on stone blocks at the pyramid Lepsius XIII in Zāwīyat al-^cAryān. It is argued that the stones bear the names of two kings and not only one as usually supposed during the past: the cartouche of BA-kA, who is actually the builder of the tomb, and of Nfr-kA, an ephemeral king of the 3rd dynasty. On the hypothesis that these were blocks of Lepsius XIV which were later reused, the name Nfr-kA can possibly be equaled with Horus #aj-bA, which leads to the conclusion that the use of a cartouche for the proper name is also attested within his reign and not just with %A-nXt(.w) in the middle of the 3rd dynasty.

Elizabeth Thompson

Australian Centre for Egyptology, Macquarie University, Sydney

The Old Kingdom tombs at Tehna in Middle Egypt

The burials in the Old Kingdom cemetery at Tehna are known as the 'Fraser tombs' after the original excavator of the site, George Fraser, who visited the cemetery in 1893, restoring a number of the tombs and making hand copies of some of the inscriptions and reliefs which he published in an article in the *Annales du Service des Antiquités* 3 (1902). A full recording of the inscriptions, wall reliefs, sculpture and architecture of the cemetery is being undertaken by the writer as director of the Tehna Project, Australian Centre for Egyptology, Macquarie University, Sydney.

Hewn into the eastern escarpment bordering the Nile and approximately 12km north of the city of El-Minya, the tombs have a special importance in the history, art and architecture of the provinces in the Old Kingdom. Fifteen tombs are known at the site with several of the owners holding senior administrative and priestly titles associated with the local cult temple of Hathor. The cemetery is of great importance for the study of the very beginning of provincial administration, especially the financial management of religious institutions with two tombs recording biographical texts, one of which is a duty-roster for the tomb owner's family to follow after his death. The historical time frame for the cemetery is indicated by inscriptions in the tomb of Nikaiankh I who states that he was appointed to administer the area by Userkaf and that an earlier relative, Khenuka, had been sent to the province by Menkaure.

The cemetery is important for the architecture of the tombs which, although rock-cut, are separated, either completely or partially, from the escarpment to resemble the stone-built mastabas of Giza, a type of burial rare in the provinces. This apparent desire to emulate Memphite mastabas suggests a close association with the capital and this is corroborated by iconographic features in the wall reliefs and statuary. Numerous engaged statues are present in almost every tomb with one containing a pair statue of the tomb owner's mother and father. An outstanding feature of the engaged statues is the posture of husbands and wives holding hands. In statuary and relief carving where it remains intact, a high standard of craftsmanship is evident, suggesting the practiced hands of Memphite craftsmen.

The appointment of the earliest tomb owners by Menkaure and Userkaf would appear to indicate a confidence by the crown in their administrative abilities as well as a certain seniority within the ranks of the royal officials. When the recording of this important provincial cemetery is complete it should be possible to present a clearer picture of the chronology of the tombs and the relationships of the various owners within the cemetery and perhaps even with Memphis.

Joris van Wetering

Leiden

The Early Dynastic royal cemetery at Saqqara

Since 2004¹, new information has been uncovered at Saqqara that sheds light on the development of the Royal Cemetery that existed there during the Early Dynastic Period. This is especially true in relation to the 2nd dynasty Royal Tombs with the on-going excavation projects of the German Mission and the Dutch Mission. This paper will provide an overview of that development by attempting a synthesis of all the available information despite its sometimes ambiguous and incomplete nature.

The hypothesis suggested by Dr. I. Regulski² about the nature of the two tombs found by the Dutch Mission within the so-called New Kingdom Cemetery will be examined, and a comparison between the staged construction of the Tomb of King Ninetjer and the lay-out of the tomb complex under the New Kingdom Chapel of Meryneith will be used to elucidate the particulars of the use-cycle of a 2nd dynasty Royal Tomb complex.

The construction of the Step Pyramid complex with the enlargement stages and the 'Dry Moat' structure has a significant impact on the royal cemetery landscape, and creates a royal tomb that is unique in its size, architecture and symbolic / cultic setting. It is unclear to what extent the features of this complex are an innovation of the early 3rd dynasty or if they are an evolution of features already present in the Royal Tombs of the 1st and 2nd dynasties. Also it seems possible that certain features of the 'Dry Moat' structure might have purposely connected to the early 2nd dynasty royal tomb complexes so to include these structures into the multifaceted symbolic / cultic landscape created as part of the Step Pyramid complex.

By looking at the royal tomb complexes of the 2nd dynasty, the Gisir el-Mudir structure of King Khasekhemwy, and the Step Pyramid complex of King Netjerykhet as well as 2nd dynasty structures at Abydos, a better understanding can be obtained about the development of Royal Tomb architecture during the Early Dynastic Period.

References:

- ¹ van Wetering, J., 'The Royal Cemetery of the Early Dynastic Period at Saqqara and the Second Dynasty Royal Tombs', *Egypt at its Origins 1: Studies in Memory of Barbara Adams*, Leuven 2004, 1055-1080.
- ² Regulski, I., 'Investigating a new Dynasty 2 necropolis at South Saqqara', *Egypt at its Origins 3*, Leuven 2011, 293-311.

Bart Vanthuyne

Dayr al-Barshā Project, University of Leuven

Early Old Kingdom rock circle tombs, rock-cut mastabas and rock tombs in Middle Egypt

Between 2009 – 2013 very large early Old Kingdom (3rd – early 4th dynasty) rock circle cemeteries were discovered and investigated in Dayr al-Barshā, Dayr Abu Hinnis, Speos Artemidos and Nuwayrat, in Middle Egypt. It was found out that the hitherto unknown rock circle tomb, which is marked by a stone outline of boulders and smaller stones, positioned around and over the burial container that was placed directly on the bedrock or at most in a very shallow pit, appears to have been the standard tomb type in this part of Middle Egypt for a large part of the local population.

In addition both in Dayr Abu Hinnis and in Speos Artemidos a rock-cut mastaba was discovered in the vicinity of the rock circle tombs. In Middle Egypt, this type of tomb has only been found near Tehna, i.e. the so-called Fraser tombs, in al-Hemamiah. To this corpus we can now add two more examples. Although not yet studied in detail, for the moment a preliminary date of construction in the late 4th, perhaps early 5th dynasty, based on comparison with other similar tombs, is proposed.

Furthermore a new group of completely unknown Old Kingdom rock tombs, with nearby rock circle tombs, were discovered in Nuwayrat, apparently missed before by John Garstang. One tomb even still contained, be it badly damaged, statues. These were carved in the rock both on the interior and on the exterior of the tomb.

In the presentation a short overview of the four sites with the newly discovered rock circle tombs, rock-cut mastabas and rock tombs will be given.

Miroslav Verner

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Sahure: Rethinking the pyramid complex

Together with the opening of a new royal cemetery at Abusir, Sahure succeeded, after a period of political and dynastic turbulences at the end of the 4th and beginning of the 5th dynasty, in introducing an innovated plan of a pyramid complex. His pyramid complex became a model for his successors. Fortunately, Sahure's pyramid complex, including its relief decoration, ranks among the best preserved monuments of its kind from the Old Kingdom. In the paper basic features of Sahure's pyramid complex in a broader historical context will be discussed.

Fabian Welc

Cardinal Stefan Wyszyński University, Institute of Archaeology, Warsaw

Climate change in Egypt in the 3rd millennium BC in regional and global context

The paper will present wide range compilation of new geoarcheological and geological data to specify a climate variability in Egypt in the 3rd millennium BC in regional and global context. In the light of these data can be deduced that climate change especially in the Old Kingdom period is however not so univocal as considered previously. Well-known gradual aridification of the north-eastern Africa, which starting from about 5000 yrs BP, has not been unidirectional and was varied regionally, especially in northern Egypt. In spite of a distinct trend, a dry period has been interrupted by relatively wet interval occurring at 4600 – 4200 BP which will be officially called as Sub-pluvial Saqqara. In the end of this period a climate change was expressed by low floods of the Nile and occasional heavy rainfalls in northern Egypt. All these reasons caused a rapid collapse of the Old Kingdom at about 4100-4200 yrs BP.

Intensive rainfalls in northern Egypt were presumably triggered by fluctuations of the North Atlantic Oscillation. Extremely low floods in the southern part of the country were a consequence of decreased summer precipitation in the Ethiopian Highlands caused by southward shift of the summer Intertropical Convergence Zone in Africa. However, global connection of these two mega-regional climatic systems still need more investigations.

Alexandra Woods, Joyce Swinton

Australian Centre for Egyptology, Macquarie University, Sydney

Chronological considerations: Fragments from the tomb of Hetepet at Giza

The difficulties involved in dating many Old Kingdom tombs have frequently led to a variety of dates being assigned to the same monument. These dates may vary from the 4th dynasty to the First Intermediate Period as scholars apply different methods to the task. Such dating techniques include an examination of the style of the decorated features; architectural design and construction phases; the presence or absence of specific epithets/titles and perceived standardised iconographic elements as well as poor workmanship. Through a case study, this paper will highlight the challenges of dating Old Kingdom tombs and fragments and attempt to refine the date for the reliefs belonging to the tomb of Hetepet. According to Porter and Moss the tomb was originally located at Giza, probably in the West Field, and appears to be an exceptional instance of a tomb belonging exclusively to a woman who is of non-royal descent. The limestone blocks, removed by the Menas Expedition to Egypt led by C.M. Kaufman in 1909, are now housed in the Berlin Museum and the Liebieghaus Museum. The fragments are carved in raised relief and represent numerous unique and unparalleled motifs, such as the 'floating' lotus flowers and buds in the pleasure cruise scene or the tomb owner receiving refreshments while overseeing the harvesting of flax. Identifying parallels for certain details has proven problematic and may account for the dating of these fragments being roughly assigned to a broad time period.

As we have no information regarding the original location or the architectural design of the tomb and there is no general agreement in the scholarship, the dating of these fragments has to rely largely on iconographic details from the surviving scenes, namely the offering table, pleasure cruise and flax harvest scenes, as well as the structure and design of the two false doors and inscriptions. The aim of the present paper is to study these features in order to propose a refined date for the tomb by using two methods: (1) analysing the many unusual and unique details that have no currently known parallel and contrasting these with scenes presenting similar themes that may be considered the 'norm'; and (2) examining commonly represented iconographic details that are useful for dating purposes.

This paper does not claim to present the 'last word' for the dating of Hetepet's tomb as there may well be a need for further refinement of the proposed date as testing of the criteria used in this study continues. We aim to show, however, that the exercise, originally appearing to be a 'lost cause', is given new hope by applying close comparative analysis to certain scenic motifs and will highlight how the examination of iconography can assist in refining and, where necessary, modifying the long accepted dating of certain tombs and even fragments.

