

# **Egypt at Its Origins 4**

*The Fourth International Conference on Predynastic and  
Early Dynastic Egypt*

July 26 – July 30, 2011

**Abstracts**  
*(preliminary)*

Edited by Diana Craig Patch and Matthew Douglas Adams

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The Fourth International Conference on Predynastic & Early Dynastic Egypt

## **Egypt at Its Origins 4: The Fourth International Conference on Predynastic and Early Dynastic Egypt**

To be held July 26 – July 30, 2011 at the Metropolitan Museum of Art, New York.

Co-hosted by the Metropolitan Museum of Art and the Institute of Fine Arts, New York University.

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**ABSTRACTS**

**The Molding Power of Ideology: Political Transformations of Predynastic Egypt**

*(Paper)*

Branislav ANĐELKOVIĆ

*University of Belgrade, Serbia*

Since most of the factors comprising the natural setting of the Nilotic environment are to a greater or lesser degree present all along the river – granting the inhabitants of its banks the privileges of numerous favorable conditions, including resource concentration, it is evident that the single fertile seed which conceived one of the earliest and longest lived states, was exclusively the culture of Naqada. Ideological “patterns of continuity,” archaeologically perceivable as early as Naqada I, that constitute the most distinctive hallmarks of nascent Egyptian civilization, are, to a great extent, defined by the concept of Divine Ruler, as a charismatic amalgam of sacral authority, ideological values, economic and military power. Divine Kingship “presiding over everything,” acting as an eternal promise to nullify chaos, enemies and death, seems to be a key ideological issue in the rapid political transformation of predynastic Egypt. Such a concept properly fits the description of “religion with a decided coercive overlay.” A cyclic “sense of order” promulgated by annual Nile flooding, and underlying conceptualized “cosmological relations,” joined with the might of a victorious ruler and his brandished mace, molded the Naqadian social tissue of relationships, obligations and behavior, that in their turn justified warfare to obtain any valued resource, enhanced territorial expansion, and eventually enabled full political consolidation. The religious, organizational, geographical and political structuring of the society is additionally suggested by the so-called standards, comprising poles surmounted by cult images. A complex, multi-layered social construct of display-oriented and power-concerned relations and set of values, including certain artifacts, representations, meanings and symbols, clearly distinguished Naqada culture practices and traditions, both in Upper and from Naqada IIC onwards Lower Egypt, from the Lower Egyptian slow-motion communities with their vanishing Neolithic-managed/minded lifestyle. The constant expansion of Naqada culture and its collective identity irreversibly transformed the political landscape of pre-dynastic Egypt.

**Pots of the Living: An Examination of the Ceramic Industry in the Predynastic Settlement at el-Mahâsna** *(Paper)*

David ANDERSON, Dustin PEASLEY and Kyra KAERCHER

*University of Wisconsin-La Crosse, USA*

Excavations conducted since 1995 within the settlement at el-Mahâsna produced an extensive assemblage of ceramic material including both sherds and complete vessels. These materials originate from both typical domestic areas as well as contexts directly associated with a ritual complex. This paper will present the results of a detailed analysis of the assemblage including a discussion of the nature of the ceramics at el-Mahâsna, as well as a comparison with assemblages from other contemporaneous Upper Egyptian

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settlements. A brief comparison with vessels recovered by Ayrton and Loat in 1909 from el-Mahâsna's cemetery area will also be discussed. Special attention will be given to an examination of the spatial distribution of various ceramic wares and forms within the settlement at el-Mahâsna as it relates to a reconstruction of possible elite activities and ritual practices within this Naqada I-II period community. Finally, evidence of interregional interaction between el-Mahâsna and other areas of Upper and Lower Egypt as seen in the ceramic assemblage will be presented.

### **Sociological Aspects of the Development of the Phonetic Writing in the Predynastic Inscriptions and Potmarks (Paper)**

Alain ANSELIN

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In the first dynasties of Egyptian civilization, the engraved, incised, and inked hieroglyphic inscriptions on wooden or ivory tablets, labels, mud seals, stelae, stone vessels, and pottery saw a remarkable growth. Their mapping is closely linked with the expansion of the political structures from the South to the North. These inscriptions characterize the rise of phonetization, which was supported by the sociological extension of writing into administration and royal ideology during the First Dynasty. The majorities of inscriptions refer to royal events and ceremonies, and consist of the names of gods, persons, products, domains, and elliptic sets of logograms of the potmarks whose usage then reached its apogee. Predynastic inscriptions, like those of the tablet of Hemaka, are comparable to the well-established mapping of the royal tombs in Abydos and those of their officials in Saqqara, which distribute elite titles and functions between Upper Egypt, *mdh.w mdhw.w nsw*, and Lower Egypt, *ntm.w bit*. These may include those marked with personal names, titles, elite standard funerary offering lists, as well as those without names or titles. In such cases, a consideration of potmarks incised on pre-fired containers whose comparative "chronological range(s) of the potmarks and geographic mapping of the occurrences of their similar groups" may be beneficial.<sup>1</sup> Personal names are particularly intelligible clauses in the Egyptian language, and are mobilizing grammatical forms that extend the economy of the hieroglyphic system to the first notations of gender and number endings; of *sdm.f* forms of verbal predicate and pronominal affixes of conjugation, and of imperative, imperfective, and perfective participles that require specific marks often written with mono-consonant hieroglyphs.<sup>2</sup> Scribes utilized the semographic and phonographic bivalence of ideograms by referring to concrete objects in terms of conceptual models belonging to Egyptian culture, and by using a systematically contiguous feature of the phonetic value they represent. Thus, the phonetic articulation and *desemanticization* of the iconic sign emerged from such *conceptual innovations* of hieroglyphy. The contextual extension of this *new tool* implicates users in a *pragmatic of writing*, related to their status and their cultural norms, which involves the development of the phonetic strategy, as is detected in the script of names and titles. As Predynastic- Dynasty IV seals demonstrate, scribes often phonetically complemented the spelling of their titles in order to signal themselves as the phonetic author.<sup>3</sup> Phonetic complements are reading guides and indicators of a system. These are the same signs as those of an ideographic wording, but they no longer form the same system of signs. Some *stelae* of Dynasties I and II, as that of the scribe *s3n sps*, "sign" this innovation by phonetization of the offerings' names. The

desemanticization of the iconic sign as a phonetic one involves a parallel semantic strategy that develops the existent use of ideograms selected as generic, the determinatives. The process of semantic determination is particularly visible in the offering lists of the same stelae, with sets of products phonetically written, whereby each is associated with a respective type of vessel rather than a prototypic one. Potmarks are primarily found on wine and beer jars, and occasionally on bowls sealed with clay bearing cylinder seal impressions.<sup>4</sup> Potmarks may serve as a sociological mirror for a comparative study in phonetic strategy. Initially, pre-formal hieroglyphs were utilized, which are less elaborate than the *sealing* hieroglyphs found in the same tombs and impressed by officials who controlled the distribution of funerary goods. Thereafter, potmarks in Upper and Lower Egypt share the same two-sign set, which is ordered by syntax and uses phonetic metaphors, such as the hoe and bird signs. While this may signify a common origin within the same workshops or domain, it may also reflect an unequal use of hieroglyphy, likely related to the social distance between the high officials and the craftsmen who supplied their funerary offerings, considering the recipients' *stele* were marked phonetically.

<sup>1</sup> VAN DEN BRINK, E.C.M. Mail 02 (23 10 2005) to Potmark Workshop: 1-9.

<sup>2</sup> KAHL, J., BRETSCHNEIDER, M. & KNEISSLER, B., 2004. *Frühägyptisches Wörterbuch. Dritte Lieferung h-H*. Wiesbaden.

<sup>3</sup> ANSELIN, A., 2008a. Signes et mots des nombres en Égyptien ancien—Quelques éléments d'analyse et de réflexion [in:] MIDANT-REYNES, B. & TRISTANT, Y. (eds.), ROWLAND, J. AND HENDRICKX, S. (coll.), *Egypt at its Origins 2, Proceedings of the international conference "Origin of the State, Predynastic and Early Dynastic Egypt," Toulouse (France), 5th–8th September 2005*. Leuven: 851–885.

ANSELIN, A., 2008b. L'Intention phonétique III. Le Potier et le Scribe. *Cahiers Caribéens d'Égyptologie* 11: 83–102.

<sup>4</sup> VAN DEN BRINK, E.C.M., 2008. The International Potmarks Workshop: While at London or After or How to Progress with the Study of Early Dynastic Potmarks [in:] FRIEDMAN, R. & MCNAMARA, L. (eds.), *Abstracts of Papers Presented at the Third International Colloquium on Predynastic and Early Dynastic Egypt*. London: 27-31.

### **Recent Excavations at HK11C, Hierakonpolis (Paper)**

Masahiro BABA

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Recent investigations at HK11C, located on the wadi terrace along the south of the Great Wadi Abu Suffian, demonstrate that it is a large industrial area of the Predynastic period, which has the potential to yield relatively undisturbed remains. In 2003, the Hierakonpolis Expedition initiated a new investigation at HK11C after a magnetometer survey showed strong anomalies in the area. Excavations at Operation B, one of the strong anomalies, revealed a remarkable installation consisting of an array of pit-kilns for pottery making and five freestanding vats for the grain-based food cooking arranged in two rows. From the associated pottery sherds, the complex could be dated to the first half of the Naqada II period.

In 2010, further magnetometer surveys were carried that detected new anomalies. Among them, Square C10-11 was the largest, and excavations revealed part of a large wall structure measuring 11.5m long and 0.8m high at max. Inside the wall was completely

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filled with heaped charcoal and ash. In other anomalies, thick charcoal layers were accumulated on the original ground of the wadi terrace. From these evidences, it appears that the landscape of HK11C had been substantially changed by industrial activity. The seemingly organized disposal of refuse from earlier structures may indicate a highly developed industry undertaken over a significant length of time. This paper will present the recent works that expose and explain the spatial layout and setting.

### **The Origins of Royal Cult** (*Paper*)

Laurel BESTOCK

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Christian KNOBLAUCH

*University of Vienna, Austria*

When did royal cult begin in Egypt? Discoveries over the past ten years have pushed back our knowledge of royal funerary enclosures at Abydos – apparently a type of royal temple – to the reign of Aha. Reasonable arguments can be made either that these were the first such buildings constructed or that similar monuments existed earlier. Supporting the former is the small size and anomalous multiplicity of enclosures from Aha's reign, as well as the fact that he was the first to build a monumental tomb. Supporting the latter is the mysterious shrinkage of royal tombs following tomb U-j. Günter Dreyer, for instance, has suggested that the small size and simplicity of the tombs of Iry-Hor, Ka and Narmer are due to the accommodation of additional funerary functions at now-lost enclosures. New evidence from Brown University's excavations in the Abydos North Cemetery may clarify the picture. A number of artifacts dating to Dynasty 0 or the early First Dynasty have been found in an area north of the known enclosures. Finds include seal impressions and ceramic vessels; the latter, while not in their original context, strongly suggest the presence of a nearby, unknown subsidiary grave of the type frequently found adjacent to enclosures. It is possible to date these finds within the narrow Iry Hor – Narmer window, and it is hoped that excavations in the winter of 2010-11 will shed further light. In this paper, we will use the evidence of a possible new enclosure to discuss not only when royal cult might have begun but also what this means for our understanding of emergent kingship and ideology.

### **The Sealings and the *pr-wr* Labels from Tomb U-j at Umm el-Qaab (Abydos) – Reconsidered** (*Paper*)

Baruch BRANDL

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The suggested reconstructions of the impressions found on the clay sealings from tomb U-j at Umm el-Qaab (Abydos) were generally accepted, in spite of their unique appearance. An accurate examination of the published material has indicated that those impressions should not be considered as cylinder seal impressions. According to our observations, two different types of objects made the impressions. One of those types clearly concludes that the seal impressions from tomb U-j were locally made.



The small group of nine labels from the same tomb with depictions of the *pr-wr*, or the Predynastic national shrine of Upper Egypt at Hierakonpolis, may contribute to the understanding of its original shape and the later developments up to the Old Kingdom Period. As a by-product, the last observation may contribute as well to the identification of the Predynastic bull's/elephant's head amulets.

### **Tell el-Iswid South, Eastern Nile Delta: The Corpus of Lower Egyptian Cultures and Naqada III Pottery (Paper)**

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The Predynastic site of Tell el-Iswid South was occupied from the Buto I period through the beginning of the Old Kingdom. Excavations conducted since 2006 by a French team directed by B. Midant-Reynes (IFAO) have revealed both settlement and a few graves. Many thousands of potsherds, as well as a small number of whole vessels, were discovered at two main areas (areas 1 and 4). Numerous pottery types from Lower Egyptian cultures and Naqada III periods have been identified. Both coarse and fine wares of Nile silt and Marl clay are represented. The examination of the various characteristics of the pottery, such as fabric type, surface treatment, mode of production, and the shape and style of decoration, has allowed a reliable chronological sequence to be distinguished according to the stratigraphy of the two areas. The pottery of the Buto period comes from the lower strata achieved in the two main areas, associated with structures like postholes or remains of kilns. A Naqada IIIB corpus is related to area 4, where a well-preserved building of mud bricks is currently excavated. The corpus from area 1, where graves and several architectural stages have been recognized, belongs mainly to the Naqada IIIC-IIID-(3<sup>rd</sup> Dynasty) phases. This paper aims to present the development of the Lower Egyptian cultures and the Naqada III pottery at the site, indexed with other corpi from Deltaic sites (*e.g.* Buto, Tell el-Farkha, Minshat Abu Omar, Helwan), in order to replace the data in the context of the Egyptian state formation.

### **Tell el-Iswid South, Eastern Nile Delta: Predynastic Mudbrick Settlement Architecture (Paper)**

Nathalie BUCHEZ

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The Predynastic Tell el-Iswid South site in Sharqiyah Province was discovered in 1987 by the Amsterdam University Survey Expedition. Since 2006, excavations of the site directed by Béatrix Midant-Reynes have confirmed the presence of several Predynastic architectural phases between Naqada IIIB and the beginning of the Old Kingdom. During the first field campaigns, research concentrated on the study of the chrono-stratigraphy and on the understanding of the development of the Predynastic settlement from a spatial point of view. Therefore, there is a relatively precise idea of the rhythm of the reconstructions on the Southwest part of the site. Since 2010, excavations focused on a well-preserved mudbrick building discovered through magnetic prospection in 2009.

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This paper aims to present what appears as a Nagada IIIB vast domestic unit highlighting the technical data collected on brick architecture and exploring the functional aspects of its spatial organization.

### **Kinship, Sacred Leadership, and Conditions for the Emergence of the Egyptian State** (*Paper*)

Marcelo CAMPAGNO

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In the mid-fourth millennium BC, crucial changes occurred in the Nile Valley, leading to the formation of a State society, in which a small group imposes its supremacy based on the legitimate monopoly of coercion. This process takes place in a scenario formerly characterized by communities organized through the social predominance of kinship ties. Given that the logic of kinship impedes the possibility of strong social differentiation within a society, the advent of the State requires a context that transcends kinship networks. In Krakow (2002) and London (2008) colloquia, I considered two Naqada II contexts that could allow propitious conditions for the State emergence –namely, Upper Egyptian conquest wars, and concentration of population in urban nuclei such as Hierakonpolis– inasmuch as both dynamics could imply new permanent bonds between previously autonomous kin networks.

Here I will consider a different context that may also be propitious for the advent of the State: societies with sacred leadership, in which leaders are conceived as de-socialized beings regarding their own communities, and therefore, as external beings regarding the kinship principles. This non-kin condition of sacred leaders allows them to be implied in practices not strictly compatible with the kinship logic: for instance, they can be the only ones in having permanent relations with strangers (fugitives, captives, newcomers), incorporated into the community in a subordinate position. Thus, sacred leaders are *in* the society but *apart from* its organizing logic, and this de-socialized condition seems to facilitate the emergence of new practices not ruled by the kinship logic, such as the ones that the State advent implies.

Could there have been in Predynastic Nile Valley sacred leaderships as the ones the ethnographers describe in diverse African societies? Inasmuch as the king is directly identified as a god, in some way Egyptian divine kingship can be seen as the paroxysm of such sacred leaderships. To investigate the issue further, this paper proposes a double reflection on the possible evidence regarding the symbolic status of Predynastic leadership in the Nile Valley, and on the theoretical perspectives that emerge from connecting the nature of sacred leadership to the problem of the origin of the Egyptian State.

### **Beginnings of Mud-brick Architecture in Egypt. A Case Study from Tell el-Farkha** (*Paper*)

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Examples of mudbrick architecture in Egypt are scarce and occur relatively late, as compared to first appearance of mudbrick architecture in the Middle East. Based on South Town excavations in Naqada, many researchers theorize that mudbrick architecture appeared in Egypt around the end of the Naqada II period. Developed architecture is noted, however, it reveals little about its origins.

A few of the oldest examples of brick architecture in Egypt come from Tell el-Farkha. In 2003, a 1.4m thick wall, surrounding a carefully planned rectangular area in which breweries were located, was discovered at West Kom. The wall dates to the Naqada IIB/C period, and was raised by the Lower Egyptian population prior to Naqadian presence in the area.

Ever stronger walls were discovered in 2008 and 2009 at the Central Kom. These were constructed directly on sand, or on a very thin cultural layer created during an early phase of Lower Egyptian culture, and reinforced earlier wooden enclosures. The first mudbrick enclosure, currently ca. 60-80cm in height, was based on a carefully measured plan in which a 1.6m thick wall surrounded an area at least 25m x 25m in size. Within this enclosure were two separate rooms, one in the corner, measuring 2.4m x 5.2m, and another in the south, measuring ca. 6m x 8m. Brick walls determined separate zones of the settlement, sectioning the interior while also enclosing it. While mudbrick construction wasn't foreign to the Lower Egyptian populous, it is believed that houses constructed with dried bricks only became common under Naqadian influence. The shift from wood to mudbrick construction was possibly a result of climate change, due to the expansion of farming and the exploitation of local wood resources, which increased the use of Nile mud as a construction material.

**Beginnings of the Naqadian occupation of the Nile Delta. A View from Tell el-Farkha** (*Paper*)

Krzysztof M. CIAŁOWICZ

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Polish excavations at Tell el-Farkha began in 1998, and many important discoveries connected with Pre- and Early Dynastic periods have since been made. Of these, most notable is the oldest brewery complex from the Lower Egyptian or Proto- and Early Dynastic administrative-cultic centre, in which two shrines with cultic deposits were discovered. New information regarding the political situation during Naqada IIIA-B has been determined. For example, during the Protodynastic Period, it appears that there were at least a few migrations to the Delta, led by different political centres from Upper Egypt. However, our knowledge surrounding the commencement of Naqadian occupation of the Delta is limited. Recent excavations at Tell el-Farkha provide evidence that the relations between Lower and Upper Egypt during the Lower Egyptian cultural period were more developed than was previously understood. These conclusions are substantiated by the pottery, tools, weapons and jewellery imported from the South,

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which was discovered in Tell el-Farkha's first Naqada building. The eastern section of this structure was explored some years ago, and forthcoming excavations will focus on the western section. The areas excavated to date measure several hundred square meters, and the structure is divided into several compartments surrounding a courtyard, separated by mudbrick walls measuring 1–2.5m wide. The building's inhabitants were considerably engaged in trade, as evidenced by the range of objects found: storage vessels, decorated and undecorated seals, fragments of Palestinian vessels, and small finds that may have served in counting purposes. A fire destroyed the structure, but it is known whether it resulted from a natural catastrophe or if it was an intentional human action. Several questions arose based on the aforementioned discoveries: 1) was the first Naqadian occupation of the Delta connected only with trade or did political reasons also play a role? 2) what was the nature of relations between the autochthonous inhabitants of the Delta and the Southern newcomers, and 3) what causes led to the final collapse of the Lower Egyptian culture?

### **Digital Documentation and Three-dimensional Reconstruction of Predynastic-Early Dynastic Rock Art in Aswan** (*Poster*)

Antonio CURCI and Alberto URCIA

*University of Bologna, Italy*

The documentation of rock art through the use of tridimensional and photogrammetric techniques, as an addition to more classical recording methodologies, has become in recent years one of the major research activities of the Aswan-Kom Ombo Archaeological Project. Although those techniques are well known in other contexts, their use in the study of Egyptian rock art is still at an initial stage. We are now working on shaping a specific protocol of the main steps of which are: location and georeferencing of the artistic evidence; tridimensional recording of the geomorphological context; tridimensional and photogrammetric recording of every detail (every figure); data processing and virtual restoration. A major improvement in data collecting is marked by the use of the image station, which can rapidly collect and process a large amount of data by combining laser scanning and photogrammetric surveying.

Thus far, our efforts have been devoted to the recording of the major Predynastic-Early Dynastic rock art localities: namely, Khor Abu Subeira South 1 (KASS1), in Wadi Abu Subeira and Nag el-Hamdulab, in West Bank Aswan. The archaeological record, analysis, and interpretation of both sites will be presented by other team members during the conference. This presentation will focus on the opportunities those new technologies present for the study of rock art, particularly in areas such as the Nile Valley, where sites are have been badly damaged by modern human activities. Impressive results of our work include the tridimensional reconstruction of sites' landscape and the virtual restoration of the main scene in Hamdulab, the latter possible thanks to old photos from the Abachi's Archives at the Chicago House.

### **A New Look at Copper Trade during the Early Dynastic Period** (*Paper*)

Marcin CZARNOWICZ  
*Jagiellonian University, Poland*

Copper was one of the most valuable materials traded between the southern Levant and Egypt during the period of state formation. Recent scholars have recreated the circulation process of copper and copper tools, particularly during the southern Levantine Chalcolithic period. Unfortunately, little was known about the mining, smelting and manufacturing of copper during the following period, known as the Early Bronze Age I. In many instances, scholars based more on predictions rather than archaeological evidence; for example, many believe that copper tools were manufactured in Egypt rather than in the Levant during the beginning of the late Lower Egyptian culture, using copper ingots found at Maadi to substantiate such theories. However, recent archaeological finds shed new light on this belief, as the finding of copper produced in southern Jordan-Tall al-Magass and Tall Hujayrat al-Ghuzlan should be noted. Also of importance was the discovery of sites where copper tools were manufactured, such as Ashkelon-Barnea in Israel. Further research regarding Lower Egyptian and Nagada culture should be conducted, with particular regard to the excavations at Tell el-Farkha where a unique group of copper tools were found. Copper objects from Nagadian sites closely compare to those from Israeli manufacturers, revealing that they may have been produced in the Levant rather than in Egypt. Other objects, however, such as harpoons or bracelets typical of Nagadian tradition, were likely manufactured in Egypt using black copper traded from Southern Levant via Nagadian trading outposts located in southern Israel. Recent data from important sites connected to copper production will be presented. As well, a comparison between the unique group of copper objects from Tell el-Farkha, Egyptian finds, and specimens from Israel, seeks to reopen the discussion surrounding the pattern copper trade during the early dynastic period.

**Life, Death and the Divine in the Rayayna Desert (*Paper*)**

Deborah DARNELL  
*Yale University, USA*

In its early years, the Theban Desert Road Survey identified important Predynastic, Early Dynastic, Pharaonic, and later remains in the desert west of modern Rayayna, suggesting that further exploration at this southern edge of the Theban nome would be fruitful. In April of 2001, the author, accompanied by two keen workmen, a really great inspector, and the obligatory (but always helpful) security officer, began a month-long survey of the deeper desert beyond Rayayna and Rizeiqat. Methodical foot surveys, coupled with the energy and enthusiasm of this small team, yielded surprisingly rich results. The distinctive ceramic forms and fabrics we encountered, showing great similarities to the Tasian and early A-Group corpora, clearly linked the newly-dubbed Rayayna Culture with Nubian/Sudanese and Western Desert Neolithic groups. Decorated boulders bearing an iconographically astonishing array of pecked images were but the first tantalizing hint of the rich representational evidence of their beliefs that the Rayaynans left in the desert. This paper will briefly discuss four major sites (three of which were found in the initial survey): 1) a rock shelter with important botanical, faunal, lithic, and ceramic

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assemblages (the ‘Cave of the Wooden Pegs’); 2) a decorated rock shelter complex of apparent great religious significance (the ‘Cave of the Hands’); 3) a burial feature with multiple interments (the ‘Rayayna Burial Feature’); and 4) a campsite and possible additional burial site (the ‘Beaker Feature’). The results of excavation and study of this material illustrate the range of ancient activity in the area, and the relationship of the Rayayna culture to Tasian, Early A-Group, Abkan, and the Western Desert traditions, as well as to Predynastic Egyptian cultures of the Nile Valley.

### **Divine Navigation in the Desert—Recently Discovered Rock Art Tableaux in the Western Desert and the Origins of the Royal Ritualist in the Egyptian Temple**

*(Paper)*

John C. DARNELL

*Yale University, USA*

Rock inscriptions in the Egyptian and Nubian Deserts provide a rich corpus of Predynastic and Protodynastic iconography, complementing the oft discussed but comparatively more meager evidence from decorated ceramics, small objects, and the rare painted fabrics and plaster. Recent discoveries in the Western Desert, in the hinterlands of Aswan, Hosh, and Thebes, provide additional royal tableaux that augment the known depictions of Dynasty 0 rulers.

The cycle of images at Nag Hamdulab, in the Western Desert overlooking the Nile just north of Aswan, reveal a hybrid of earlier, Predynastic tableaux of royal power, and later religious images in which the human ruler dominates the individual events of an ensemble of images. An early hieroglyphic annotation to one of the vignettes in the larger cycle at Nag Hamdulab provides for the first time a label to the so-called Jubilee tableaux of the late Predynastic Period.

The Hamdulab cycle—along with other Predynastic and Protodynastic nautical tableaux—emphasizes the importance of boats in early royal imagery and ritual, and the use of nautical scenes to create landscape-altering, place-making “theaters” in the desert. The portable boat of a deity, as seen in the Qa-a Wadi images of the late First Dynasty, and probably in Wadi Abu Subeira, is the means of transporting images of divinity in the all-important festivals of Egyptian religion. Later sacred barks—such as that of Amun depicted on the back of the Third Pylon of Karnak—reveal a hull decorated with scenes of the daily ritual—the divine vessel bears temple decoration, and embodies the temple as the core thereof; the floating larger vessel becomes the temple for the smaller, portable bark it bears. In the decoration of the vessel, and the actions of the king on the vessel, the scene of the bark of Amun on the Third Pylon brings together sacred navigation, military imagery, and the great hecatomb of offerings by the royal ritualist. This unity of vessel and ritual site, boat as temple, finds its best and earliest pedigree in rock inscription sites such as that at Nag Hamdulab.

### **Early Egyptian Niche Architecture from the Perspective of Tell el-Farkha *(Paper)***

Joanna DEBOWSKA-LUDWIN  
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Recent excavations in the Tell el-Farkha necropolis have unearthed new evidence on the development of early Egyptian niche architecture. The most recently excavated sector reveals examples of elaborate sepulchral building activity, architectural experiments that began in Dynasty 0 and lasted through the beginning of Dynasty 1, during a highly prosperous period for the Nile Delta region. The structure sequence recorded at Tell el-Farkha shows examples of single, double, and multiple niches, which likely represent early architectural stages that precipitated the typical niche-decorated-facades so characteristic of large mastabas in the Memphite region.

Niches are located on the outer Northern, Eastern, and Southern walls of massive mudbrick superstructures, while the absence of niches on the Western wall remains speculative. The shape of the niches may signify a cultic function, considering decorative niches were developed and became typical of later periods. Burial elements customary for such structures were noted, and include numerous offerings, funerary feast remains, as well as ochre and subsidiary burials, indicating that ritual practices were reserved for the most influential members of the Tell el-Farkha community.

Research in Tell el-Farkha appears to confirm the Lower Egyptian origin of niche-decorated mastaba tombs, the quality of which is exceptional, unique and experimental within the evolution of the Egyptian niche architecture. However, these early structures were likely restricted to select society members, an observation that calls for renewed discussion regarding the emergence of Egyptian elites.

### **Developing a Radiocarbon-Based Chronology for the Formation of the Egyptian State** (*Poster*)

Michael W. DEE

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David WENGROW

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Andrew J. SHORTLAND

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Alice STEVENSON

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Fiona BROCK, Amber G. E. HOOD and Christopher BRONK RAMSEY

*University of Oxford, United Kingdom*

One of the central impediments to any coherent model of Egyptian state formation is the lack of a universally accepted chronology. Traditional seriation is prone to subjectivity and complicated by variations in material culture from site to site. Common problems include local stylistic differences, changes in patterns of clustering, and even the absence of whole item classes. Furthermore, by their very nature, relative dating methods cannot address questions of duration. Petrie knew that the interval of time between Sequence

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Date 40-41, for example, would not necessarily correspond to that between 41-42; however, such intervals may in fact prove highly irregular. Finally, seriation cannot reveal the ordering of contexts assigned the same Sequence Date at different locations. As a result, it cannot determine the rate and direction of change across the country. Such information, fundamental to any model of state formation, can only be obtained by absolute dating. In 2010, the University of Oxford Radiocarbon Accelerator Unit published a radiocarbon-based chronology spanning the 3<sup>rd</sup>-20<sup>th</sup> dynasties of ancient Egypt.<sup>1</sup> The approach involved integrating both archaeological and radiometric information within a mathematical framework. Known as Bayesian modelling, the technique allowed unprecedented levels of precision to be obtained, in some cases reaching 20 years (at 95% probability). Further funding has since been secured to examine the time over which the state emerged, including its origins in the Badarian and Predynastic periods. This paper introduces the basic principles behind Bayesian modelling and outlines its application to the problem of state formation in Egypt, as well as the wider expectations of the current investigation.

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<sup>1</sup> BRONK RAMSEY, C., ET AL., 2010. Radiocarbon-Based Chronology for Dynastic Egypt. *Science* 328 (5985): 1554-1557.

### **The Burnt Human Remains from the Elite Cemetery at Hierakonpolis** (*Paper*)

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Burned human remains from Predynastic Egyptian contexts are rare and unexpected. However, recent excavations within the elite cemetery at Hierakonpolis (Locality 6) have uncovered skeletal remains with discoloration and fracture patterns consistent with cremation. The burned remains were uncovered from Tomb 32, a large rectangular tomb within a fenced enclosure, and associated with two subsidiary faunal burials. While the tomb contained the fragmentary remains of at least seven individuals, only two showed clear evidence of fire exposure. One is likely female, based upon a fragment of frontal bone. The second is a probable male represented by a left mastoid. Both are adults. Discoloration of the fragments is consistent with low temperature (200-600°C) fire exposure. It is suggested that the act of cremation may have been a symbolic, punitive action, and may have served to demonstrate the power and status of the individual to whom Tomb 32 was dedicated.

### **An Enigmatic Palette (MMA 28.9.8) and the Origin of the Horus Name** (*Paper*)

Günter DREYER

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The Horus name, the oldest of the canonical royal names, consists of three elements: the name proper, the palace-façade (*serekh*) and the falcon on top of it. Variations in the writing of the name on labels, palettes, jar and seal inscriptions during late Dynasty 0 through Dynasty 1 show that the falcon and the *serekh* were combined with the king's



name in different steps. Earlier inscriptions lead to the conclusion that the palace-façade replaced another sign for the royal estate and the falcon refers to a historic ruler named 'Horus'.

**The Nilotic Fauna in the Light of New Discoveries at Hierakonpolis (Paper)**

Xavier DROUX

*University of Oxford, United Kingdom*

During the Naqada I-IIc period, animals representative of the Nilotic fauna, such as the hippopotamus and the crocodile, were commonly represented on painted vessels, in rock art, or in three dimensions as figurines (for a general discussion on hippopotamus representations, see X. Droux, "Twinned hippopotamus figurines," in R. Friedman *et al.*, *Egypt at Its Origins 3*, (forthcoming)). Archeozoological remains of crocodiles and hippopotami are not uncommon, especially at Hierakonpolis, where their presence is attested both in ceremonial and funerary contexts. In recent years, a survey of the concession revealed new rock drawings depicting hippopotami, while excavations in the Elite Cemetery at HK6 brought to light several artefacts and zooarchaeological remains associated with the hippopotamus.<sup>1</sup> The latest discoveries suggest that if at least three hippopotami were buried at HK6, one crocodile burial was also present on the site. This situation is somewhat parallel to that of the ceremonial area, or "locus of ritual activity," at HK29A, where hippopotami and crocodiles remains were found, among other game bones.<sup>2</sup>

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<sup>1</sup> FRIEDMAN, R. ET AL., 2009. Report on the 2006-2007 Season of the Hierakonpolis expedition. *ASAE* 83: 191-234.

VAN NEER, W. & LINSEELE, V. 2009. Animal Hospital: Healed Animal Bones from HK6. *Nekhen News* 21: 11-12.

<sup>2</sup> LINSEELE, V.; VAN NEER, W. & FRIEDMAN, R. 2009. Special Animals From a Special Place? The Fauna From the Predynastic Temple at Hierakonpolis (HK29A). *JARCE* 45: 105-136.

**Study of Grinding Tools As Examples of Predynastic Domestic Activities and Crafts**

*(Poster)*

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Analysis of grinding tools is essential to understanding the nature of Predynastic domestic and craft activities. At Adaïma and Tell el Iswid, samples were taken of the surface of grinding stones in order to perform an analysis of pollen grains, starches and phytoliths. In an archaeological context, they offer significant potential to reconstruct the nature of plants used but also the succession of treatments imposed upon plants, particularly cereals. As demonstrated in studies of the function of prehistoric agricultural tools, analysis of phytoliths can detail the different stages of cereals processing.

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Phytoliths are plant components that are separated from the seed via various cereal-processing stages in order to be ground. Seeds do not contain phytoliths, but their presence- particularly the dendritic cells- on the grinding stone's surface then questions the occurrence of previous threshing and winnowing. Similar results can be obtained from analysis of the surface of bread moulds. The results show that the use of grinding stones is not limited to milling techniques but presents likely applications in the work of linen, jujube, and palm tree.

### **Naqada I - Early Naqada II Decorated Rhomboid Palettes - A Neglected Iconographic Source** (*Paper*)

Merel EYCKERMAN and Stan HENDRICKX  
*MAD-Faculty, Hasselt, Belgium*

The well-known decorated relief palettes of the late Naqada II through early Naqada III period have frequently attracted the attention of scholars, but this is far less so for the earlier rhomboid palettes with engraved decoration, which date to the Naqada I through early Naqada II period. The former have only been commented on occasionally in the publication of individual pieces and several of them have never been published. Presently, 35 decorated rhomboid palettes have been identified. They have all been drawn and documented, allowing for detailed iconographic analysis. Although the decoration differs greatly, a few groups can nevertheless be distinguished. The first group depicts hunting scenes, both in the Nilotic and desert environment. Next, there are individual animals, some of which may be related to the hunting scenes. A third group consists of signs that are seemingly non-figurative, but most likely represent animal horns. Furthermore, there are several palettes entirely unique decoration.

On the Naqada II-III palettes, as well as many earlier palettes, hunting conveys the idea of "order over chaos." This places the latter more firmly within the intellectual context of the Naqada culture and means that they can no longer be considered as simply "exceptionally engraved" objects. In this respect, the decorated rhomboid palettes are an important source of documentation that contribute to our understanding of the continuity of iconographic themes throughout the Predynastic period.

### **Wadi Sura: The Origins of Ancient Egyptian Mythology and Symbolism in the Western Desert?** (*Paper*)

Frank FÖRSTER and Heiko RIEMER  
*University of Cologne, Germany*

Part 1: Introduction and iconographic evidence (F. Förster).

Part 2: Archaeological evidence (H. Riemer).

The views that Predynastic Egypt was both a gift of the Nile and a result of climatically induced migrations from the Western Desert have endured for a decade. This position

has generally been accepted, as well as supported by archaeological assessments, for instance, data that evidences parallels between the ceramic and lithic traditions in the oases or at Djara. Indeed, some scholars claim to have discovered parallels between the prehistoric rock art at Wadi Sura, some 700 km west of the Nile in the Gilf Kebir region, and ancient Egyptian religion and mythology. In 2009, the University of Cologne, the Cologne University of Applied Sciences, and the German Archaeological Institute in Cairo, started a new project on Wadi Sura's rock art and its archaeological context. The rock art style has become known as the "Wadi Sura style" and features so-called "swimmers," "headless beasts," and a wide range of human figures and scenes. The archaeological and occupational context provided by more than 300 sites in the area indicates a chronological affiliation between this style and the Gilf B phase, c. 6500-4400 BC, defined by an economy primarily based on hunting and gathering. In light of this new evidence, it appears highly speculative that a direct link exists between the cultural concepts displayed in the imagery of Wadi Sura and those of the Nile Valley cultures.

**Excavations at Hierakonpolis HK6: The Tomb 16 complex** (*Paper*)

Reneé FRIEDMAN

*British Museum, United Kingdom*

Recent excavations in the elite cemetery HK6 at Hierakonpolis have revealed an extensive wood-built mortuary compound dating to the Naqada Ic-II period. In the central part of the cemetery, an interlocking network of fences, centered on the large and rich Tomb 16, surround a variety of tombs and tomb groupings. These satellite graves contain not only what has been interpreted as family and courtiers in the inner rung, but also a series of over 45 animals, buried whole, forming the perimeter. These animals include domestic livestock, dogs, cats, baboons and also an elephant, aurochs, hartebeest and hippopotamus. Evidence that these animals were held in captivity for some time before their death gives insight into the physical reality behind early iconographies of power. The complex as a whole shows that complex social and religious arrangements were in place, with strong leaders able to marshal labor and exotic resources and express their authority in a variety of ways.

**Nag el-Qarmila and the Periphery of the Naqada Culture** (*Paper*)

Maria Carmela GATTO

*Yale University, USA*

Since 2007, the Aswan-Kom Ombo Archaeological Project has been investigating the Predynastic settlement and cemetery of Nag el-Qarmila, located North of Aswan. Although the sites are heavily disturbed by past and modern human activities, information gathered thus far, together with that already available from past excavations in the region, is revealing the existence of a local variant of the Naqada culture in the First Cataract area, which is also noted in the Western Desert between Kurkur and Rayayna and likely in the Eastern Desert as well. Among the peculiarities of such

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variants there are: the presence of animal burials associated to the earliest Naqada phase (Naqada IC-IIA); the common use of shale tempered wares in both domestic and funerary contexts; the greater percentage of shale pottery compared to localities such as Hierakonpolis and Adaima; and, the strong and consistent occurrence of Nubian elements in the material culture. Data from the excavation will be described, put in the context of the First Cataract, and compared with the desert evidence, so as to propose a preliminary definition of what the Naqada culture consisted of at its periphery.

### **Hair Iconography during the Naqadian Period: Dressing/Undressing the Hair in Ritual Performance** (*Poster*)

Gwenola GRAFF

*Institut de Recherche pour le Développement, France*

This presentation concerns hair iconography of the Predynastic period and takes into account both iconographic representations (painted vases, wall paintings, and *ronde bosse* sculptures) as well as material cultural items related to hair dressing, such as combs, pins, pearls, and previously published archaeological remains of preserved dried-hair. The aim of this short contribution does not deal with the entire question of hair and hairdressing, rather it focuses on the opposition between bald (both male or female) and “hirsute” ruffled figures. This opposition is analyzed in a ritual context in order to understand the relevance of hair representations within Predynastic iconography.

### **Occupation and Settlement at Hierakonpolis – A Rock Art Perspective** (*Paper*)

Fred HARDTKE

*The Hierakonpolis Project, Egypt*

Hierakonpolis (ancient Nekhen) near Edfu, in Upper Egypt, is well known for its late Predynastic and Early Dynastic archaeological localities, which have been excavated and researched over many decades. These localities lie adjacent to rock beds and hills that present rock art and inscriptions representing a very broad span of time. While much of the rock art faces areas that saw permanent settlements or funerary sites, there are also a number of seasonal or temporary campsites and shelters incorporating petroglyphs ranging from abstract compositions to fauna and boats. The rock art recorded to date seems to share themes with other Predynastic sites in the region while still maintaining its own unique style, such as elements representing possible early royal iconography. The themes depicted in the rock art and its close proximity to areas rich in archaeological heritage present unique research opportunities in associating the two, as well as in assisting the understanding of habitation patterns and activities around Hierakonpolis. This paper will present the results of three seasons of intensive survey of the site’s rock art, and some initial insights into its relationship with the activities, functions and chronologies of the overall archaeological localities at Hierakonpolis.

### **Social and Gender-Specific Differentiation in Predynastic Cemetery U at**

**Umm el-Qaab/Abydos (*Paper*)**

Rita HARTMANN

*German Archaeological Institute (DAI), Egypt*

Since 1985, the Predynastic Cemetery U at Umm el-Qaab/Abydos has been completely excavated and investigated by the German Archaeological Institute Cairo. Most of the approximately 680 tombs belonging to the cemetery were found disturbed by both the activities of plunderers and the former work of E. Amélineau and E. Peet. Nevertheless, the remains of the tomb equipments provided new information concerning grave goods and burial customs as well as the development of the cemetery from a rural burial place in early Naqada I to an elite necropolis of early kings in the Naqada III-period.

Pottery as grave goods was very well represented in all phases, so that it was possible to establish an internal chronological frame for Cemetery U, particularly to distinguish sub-phases for the earliest stages of the Naqada culture. Based on this chronological sequence, an investigation of the social and gender-specific differentiation of the community buried in cemetery U was conducted. The number of grave goods and the grave size are usually seen as indicators for the social rank of the deceased, as they are usually thought to show the effort rendered by the bereaved for his funeral. Beside this, the sort and individual selection of grave goods are of importance, because special pieces are often of sentimental value. The statistical analysis incorporated the pottery inventories of 300 tombs of the Naqada I-II-period. For each sub-phase the distribution of types and numbers of vessels and the grave size in relation to sex and age were examined. Differences in the tomb equipment and C-ware pots with depictions of symbols of power reflecting ideological concepts are without doubt first indications of a social stratification of the population already in early Naqada I, thus shifting the beginning of the process of state formation into the early 4<sup>th</sup> millennium BC.

**Investigating the Naqada Region 1978-1981 (*Paper*)**

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Joris VAN WETERING

*The Netherlands*

Geoffrey J. TASSIE

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Between 1978 and 1981, an extensive investigation took place on the west bank of the Nile between modern Ballas (northern border) and modern Danfiq (southern border). The work was carried out under the directorship of Prof. F.A. Hassan, then Washington State University, USA. The goals were to investigate the pattern of settlement and subsistence in the region and to analyse the cultural processes that led to the emergence of complex society in Egypt.

A survey of the low desert between Ballas and Danfiq (22km) to a width of 400 meters was conducted and revealed many previously unrecorded sites and provided the exact location of known sites. At selected sites test excavations were conducted, whereas at site

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Kh.3, near Hagir Menchia, more extensive excavation was undertaken within the settlement and its associated cemetery.

Since 2007 a documentation and digitisation project of all the original written material pertaining to this project has been underway. This has also included digitising all the original photographic material, plans, sections and maps. During 2009 the project moved to the inventorying of the material collected during the course of the project, which mainly consisted of ceramics and lithics. Currently the work is being prepared for full publication. Here, an overview of the results of the project is presented as well as the implications of the study of settlement patterns, subsistence and state formation.

### **Dressing the Dead: Animal Skin Clothing from Cemetery N7000 at Naga-ed-Der 1** *(Poster)*

Marwa HELMY

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Animal skin wraps and garments are believed to have been widely used in the Predynastic period, especially during the Badarian and early Naqada periods, yet they are poorly represented in Predynastic artifact assemblages. This is due in part to the way animal skin is preserved, which leaves little of the artifact's original structure and quality. It is also due to the inadequate documentation methods, some now lost, conducted by late 19<sup>th</sup> century and early 20<sup>th</sup> century excavators. As a result, the majority of data on animal skin clothing that dates from the Predynastic period consists of disconcerted remarks on the presence or absence of skin, of varying sizes, with or without hair and stitching. The excellent state of organic materials, including animal skin artifacts, at the Predynastic cemetery N7000 at Naga-ed-der, has been noted and cited by several scholars. However, since their excavation and safe storage at UC Berkeley's Phoebe A. Hearst Museum, these artifacts have not been examined. This research examines the primary data on leather clothing (pouches & kilts), incorporating current ethno-archaeological research in order to understand the typological and technological features of leather artifacts from cemetery N7000 at Naga-ed-Der. This study is part of a doctoral research project that examines the economics and content of Predynastic tomb production. This presentation will explore how a study of the leather artifacts from cemetery N7000 adds to our knowledge of the Predynastic society.

### **The Dynasty 0 Rock Art Complex at Naq' el-Hamdulab (Aswan, Egypt) *(Paper)***

Stan HENDRICKX and Merel EYCKERMAN

*MAD-Faculty Hasselt, Belgium*

John C. DARNELL and Maria Carmela GATTO

*Yale University, USA*

The relocated and newly discovered rock art sites at Naq' el-Hamdulab<sup>1</sup> present the most extensive iconographic ensemble available for late Predynastic through Early Dynastic times. Unfortunately, several sites have been heavily damaged during the last decades. At present, five sites are known at short distance from each other, on the rocks confining

the sandy plain west of the village of Naq' el-Hamdulab. Two further sites, which are now lost, were identified after photographic documentation from the Labib Habachi Archive (Chicago House, Luxor). The archive furthermore allowed reconstruction of recently damaged areas from the other sites.

The main themes of the tableaux are boat processions, military victory, and hunting. An anonymous king wearing the white crown is shown in three tableaux and defines the context for all the sites. The royal images are only one aspect correlating the tableaux of the different sites. Boats are the second important returning element. Style particularities demonstrate that all the main tableaux with human figuration are the work of the same hand. It can be discussed whether or not all the tableaux are part of a premeditated “grand scheme” or the consequence of adding scene upon scene. However, the setting of the individual sites differs and reflects the conceptualisation of the landscape, confirming the unity of the sites. The exceptional character of the Naq' el-Hamdulab sites allows new reflections on the interpretation of (late) Predynastic rock art and the developing Egyptian iconography of Dynasties 0 and 1.

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<sup>1</sup> HENDRICKX, S. & GATTO, M.C., 2009. A rediscovered Late Predynastic – Early Dynastic Royal Scene from Gharb Aswan. *Sahara* 20: 147-150.

HENDRICKX, S. ET AL., 2009. A Lost Late Predynastic - Early Dynastic Royal Scene from Gharb Aswan. *Archéo-Nil* 19: 169-178.

STOREMYR, P., 2009. A Prehistoric Geometric Rock Art Landscape by the First Nile Cataract. *Archéo-Nil* 19: 121-150.

### **Establishing Border Control – Early Dynastic Stone Tools from Elephantine (*Paper*)**

Thomas HIKADE

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The archaeological site of Elephantine is concentrated on the southern tip of the island with the earliest archaeological remains dating to Naqada IID2/IIIA1. Around 3000 BC the area used for habitation and burials had grown to approximately 300 x 130m and the settlement was assumed to be no more than 20,000m<sup>2</sup>. Based on the pottery analysis it is clear that the population of the East Island consisted of Egyptians and Nubians living side by side. From the 1<sup>st</sup> Dynasty onwards the island of Elephantine with its important strategic location at the 1<sup>st</sup> cataract gained in significance as the political frontier of Egypt and soon a mudbrick fortress was constructed. Subsequently, the town expanded in the East Town and the enclosure wall was strengthened in the Northeast Town. Overall, the lithic assemblages from Elephantine of the 3<sup>rd</sup> millennium BCE contain a limited group of formal tool categories such as sickle blades, some scrapers, bi-truncated regular blade tools, and bifacial knives. At the same time there is a fair amount of non-formal, simple flake and blade tools present. These two major categories stand for the dichotomy of the lithic assemblages from Elephantine: one local tradition using available pebbles for simple tools, the second a statewide lithic industry using mined flint with a limited variety of tool classes. These limitations, however, reflect not a decrease in sophistication but rather hint at the smooth logistics to exploit raw materials, manufacture tools and distribute them throughout the country on a large scale by the central authority

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during the early 3<sup>rd</sup> millennium BC. In the case of Elephantine this means that during the Early Dynastic Period, the newly formed central authority established control of the southern border, and the crown also heavily interfered and controlled the manufacturing and distribution of standardized stone tools in the country.

### **Imitations of Imports: Foreign Style Pottery of the el-Amra Settlement** (*Paper*)

Jane A. HILL

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The archaeological site of El-Amra is situated on the low desert, about 9 km south of the well-known site of Abydos. The site is best known for its cemeteries, which were excavated by D. Randall-MacIver and A. Wilkin in the winter of 1900–1901. More recent investigations conducted by the author at el-Amra uncovered evidence of a walled settlement dating to the late Predynastic period (Naqada IIc-d to Naqada IIIb period). Many aspects of this early settlement are of interest, but one of the most striking features of the artifacts recovered are the number of domestic as well as trade pottery types which have affinities with the EBA Ib1 culture of southern Palestine, attested at sites such as Tel ‘Erani. Possible models for the interactions between Upper Egypt and southern Palestine during the late Predynastic/Early Dynastic periods will be discussed and critiqued in light of this new evidence. Additionally, local traditions of foreign style adoption and adaptation at el-Amra in the Predynastic will be discussed drawing on evidence from both domestic and mortuary contexts.

### **The Application of Optically Stimulated Luminescence Dating to Naqada IIIC-D Ceramics Assemblages** (*Poster*)

Amber HOOD and Jean-Luc SCHWENNINGER

*University of Oxford, United Kingdom*

Traditionally, the field of luminescence dating has been severely limited in Egyptology, as for most of the past two decades material suitable for analysis has not been able to be removed from Egypt to be analyzed in a luminescence laboratory. Furthermore, Egypt does not at present have the laboratory facilities required for luminescence dating within the country. Although there are several studies from the 1980s incorporating thermoluminescence (TL) dating of Egyptian ceramics from contemporary excavations, there have been significant technological improvements to the field of luminescence since 1985, when Huntley *et al.* introduced optically stimulated luminescence (OSL) as a technique which can improve dramatically upon results obtainable through TL dating alone.

This paper discusses two recent developments made at RLHA of benefit to Early Dynastic chronological studies. Firstly, it examines preliminary results obtained from recent OSL dating of the Turah ceramics collection at the Kuntshistorisches Museum, Vienna. This paper will also explain the newly devised minimal extraction technique (MET), designed specifically to obtain samples for OSL dating from museum objects



without causing undue destruction to the artifact. Finally, this paper will discuss the implications of the OSL data in relation to the relative ceramic chronology for the Naqada IIIC-D period, with specific attention being paid to both the Turah assemblage and the proposed analysis to be carried out upon other contemporary ceramics and the possibilities of this research for furthering the understanding of the ceramic typology and chronology of Naqada IIIC-D.

**The Brick Architecture of a new Tomb from the Early Dynastic Cemetery at South Abydos (Paper)**

Yaser Mahmoud HUSSEIN

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The Early Dynastic cemetery at South Abydos is about 435m south of the temple of Seti I and about 1146m southeast of Umm el-Qaab. Fourteen mud brick tombs have been discovered to date. The cemetery extends to the north under the modern village. The part of the cemetery exposed covers an area roughly 50x70m. At its most basic each tomb consists of large square or rectangular brick lined pit. In most cases the tombs have 2 or 3 additional side chambers probably for grave goods. An exception to this general rule is tomb no. IV. It is unique in shape, having a burial chamber (D 2x2.80m) surrounded by six subsidiary rooms, three in the north (A .90x.40m, B .72x.40m, C .92x.42m) and the remainder in the south (E .94x.48m, F .66x.52m, G .84x.50m). Most of the tombs were built with bricks laid in alternative courses of headers and stretchers and were covered with two kinds of plaster (sand plaster and mud plaster).

At the last conference (Egypt at its Origins 3) I talked about the cemetery in general and specifically about tombs no. I, II and IV, including a description of some of the finds from the surface cleaning. In this paper I will concentrate on the newly discovered tomb no. XIV. It is the tomb of a child (according to the human remains). The tomb's size and rich grave goods seem to suggest that this child had an important father. Finally I will present an overview of the tomb's architecture, the variety of wood used in both the tomb's ceiling and coffin, and the following aspects of the brick construction:

1. The composition of the bricks, whether fired or unfired.
2. The dimensions of the bricks.
3. The bonding, preferably described by means of a corpus of bonds.
4. The distribution of any reed matting or timber tie beams in the brickwork.
5. The nature of the mortar.
6. Details of any plaster.
7. The occurrence of stamped bricks.
8. Any special usages or bricks of special form.

**Towards Mummification: New Evidence of the Use of Complex Embalming 'Recipes' in Badarian and Predynastic Burials (Paper)**

Jana JONES

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*Macquarie University, Australia*

Traditional theories postulate that in the Neolithic and Chalcolithic periods (fifth and fourth millennia BC) bodies were naturally desiccated through the action of the desert environment, without the application of resins or embalming agents. Recent chemical investigations of Badarian and Predynastic period funerary wrappings from the Brunton excavations at Mostagedda, now in the collection of the Bolton Museum in the United Kingdom, have shown the presence of complex mixtures of organic compounds. Analysis by gas chromatography-mass spectrometry (GC-MS) and thermal desorption/pyrolysis (TD/Py)-GC-MS at the Department of Chemistry, University of York, has identified a number of imported, exotic compounds similar to those used in the mummification process when it had reached its height some three millennia later. Thick layers of linen impregnated with some kind of resinous substance and wrapped around parts of a number of bodies have been examined at Hierakonpolis, from the Predynastic cemetery HK43. These observations were based on physical appearance only; no biochemical analyses have been carried out. The current work complements the Hierakonpolis evidence, which at present cannot easily be analyzed scientifically, but also shows that these 'experiments' towards mummification had already begun during the Badarian period. Further, the source of the components of the embalming mixtures sheds new light on our understanding of trade relations during this period. Radiocarbon dating was carried out on a number of these textile samples in order to provide calendrical calibration of the archaeological evidence for these Mostagedda burials. Investigation is continuing into how these processes evolved and developed during the period of State formation.

### **The North-Eastern Part of the Nile Delta during Naqada III Period (*Paper*)**

Mariusz A. JUCHA

*Jagiellonian University, Poland*

Recent research in the Nile Delta confirms that existing sites during the Naqada III period had great significance both in developing contacts between Egypt and Canaan, as well as in the process of Egypt's state formation. They also prove that the North-Eastern Delta had been densely populated. In addition to several sites already explored, Predynastic-Early Dynastic occupation was also confirmed at Tell el-Murra, Tell Abu el-Halyat, Tell Akhdar, Tell Gez. el-Faras and Minshat Radwan, which were visited during the Polish Archaeological Survey in Ash-Sharqiyyah Governorate.

As a result, the increase in data has allowed us to compare materials found at these sites (especially Tell el-Murra where the excavations are presently active) to those from Tell el-Farkha. Both sites are situated only a few kilometers away. Similarities were particularly observed among the pottery, including several forms that can be considered as chronological markers of specified phases within the Naqada III period. The chronology of several examples can be confirmed by royal names, from both the Early Dynastic and Protodynastic Periods, found at Tell el-Farkha. The occurrence of several Protodynastic rulers is of great importance; they add not only new data related to the

chronology of certain types of pottery vessels on which they occur, but also demonstrates differences between the assemblages of graves dated to the time of Iry-Hor and those prior his reign. The occurrence of Iry-Hor (two complete examples plus another fragmentarily preserved) and several older *serekhs* question the importance of his reign within the North-Eastern Nile Delta's incorporation process, as well as the possibility of local rulers' existence in this region prior to the final stages of unification.

**Archaeological evidence for funerary rituals in the context of Early Dynastic tombs at Helwan** (*Paper*)

E. Christiana KÖHLER

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The vast necropolis of Helwan comprises thousands of graves dating to the Early Dynastic and early Old Kingdom periods (c. 3200-2600 B.C.E.) that primarily served the lower and middle class inhabitants of the early city of Memphis. Over the past 14 years of excavations, the Australian (and Austrian) mission has uncovered more than 200 previously unexplored graves of these periods which provide valuable information pertaining to burial customs, funerary architecture, material culture, craft specialization, funerary beliefs, bioarchaeology and social organization of the time. Although the vast majority of graves were robbed repeatedly in ancient times, it is occasionally still possible to observe well preserved archaeological contexts, as well as certain details on artifacts, that potentially allow insights into rituals performed for or at the funeral. This paper will present some of the evidence and discuss its potential interpretations.

**Bracelets in Pre- and Early Dynastic Egypt** (*Poster*)

Antje KOHSE

*Free University Berlin, Germany*

In the Pre- and Early Dynastic periods, the dead were often buried with ceramic or stone vessels, as well as with different pieces of jewellery. An important part of this corpus of adornments is the category of bracelets. In the present paper the term 'bracelet' will be understood as a general term for objects that can be worn around the wrist or the arm, whereas the term 'bangle' describes stiff circles consisting of one piece only, and 'flexible bracelets' that are composed of beads or links and can usually be opened. In previous studies, bracelets – not only of the Pre- and Early Dynastic periods, but also of later periods in Egyptian history – received little attention. Nevertheless, bracelets are very complex objects of study, and this paper will show how the study of this type of jewellery can illuminate important aspects of Pre- and Early dynastic Egyptian society. This paper will focus on multiple issues, such as which materials were used to produce bracelets and what can be said about their distribution and the time of their usage. Another interesting aspect is which types of bracelets were most common in burials and whether the appearance of certain types is determined by space allocation or chronology. Finally, the issue of who wore bracelets and what their function was raises the question:

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were the bracelets only used as ‘accessories’ to adorn the body or did they have another, symbolic purpose?

### **The Nile Delta before Naqadians – Cultural Sequence and Development of Lower Egyptian Community** (*Paper*)

Piotr KOŁODZIEJCZYK

*Jagiellonian University, Poland*

Until recently, the Nile Delta was relatively unregistered on the archaeological map of Egypt; however, recent additions to the body of research highlight its importance. This progress requires the verification of several theories regarding participation of the Nile Delta region within Egyptian state formation. Northern Egypt has always been of significance within the history of the Egyptian state. Paradoxically, this area was, until recently, poorly investigated, and its history during the reign of the first pharaohs was almost unknown.

Recent research has changed our view of the role of the Nile Delta in the Pre- and Early Dynastic periods. It became clear that people representing different material cultures and architectonic traditions inhabited this area. This has been demonstrated by the Tell el- Farkha excavations, which indicate that the “Lower Egyptian” name for this culture seems to be more suitable.

The cultural stages preceding the appearance of Lower Egyptian culture needs to be reconsidered as well. It seems clear, on the basis of available material, that a developmental sequence can be demonstrated from the Fayum culture period up to the creation of a unified state. Therefore, it seems possible that we should consider the connection between the Fayum, Merimde and Omari communities and propose a new perspective on the period before Naqadians. A clear sequence of development shows that the Nile Delta became a part of the first pharaoh’s state not as a conquered territory but as an integral component. The most important achievements of lower Egyptian people included trade exchange with Palestine, architectural tradition, and the production of pottery and utilitarian objects. It should be stressed that archaeological investigations carried out during the last several years may provide us with new, important data that will reexamine the old hypothesis (including terminology and chronology) as well as implement a new one.

### **Imitation of Vessel Forms from the Formative Phase in Ancient Egypt: Metal, Stone, and Pottery** (*Poster*)

Robert KUHN

*University of Bonn/Leipzig, Germany*

This paper will focus on morphological clay, stone, and metal vessels, whose forms were mutually influenced during the “formative phase” of Egyptian History. Imitations of stone vessels in pottery (ex. some forms of D-Ware) are long known and have been noted

in several articles, but the forms' mutual influence has not been of special interest. An example, perhaps, can be seen in the "imitation" of the cylindrical vessel, made from light-colored marl clay, into stone versions— especially travertine – from the 1<sup>st</sup> Dynasty and onwards.

Ceramic imitations of metal wares, such as the knobbed bowls, are also well known. The possibility that these could have influenced certain forms of stone vessels, especially different kinds of "fancy forms," will be the focus of this paper. For example, stone imitation of metal ware, such as the metal 2<sup>nd</sup> Dynasty Hsmny-vessels that appear in stone during the Old Kingdom and onward.

The reasons for such imitations will also be explored. The imitation of metal and stone vessel forms in pottery can surely be related to the rareness of such materials. Stone and metal in particular are known from the tomb-inventories of the so-called "high-culture," while the imitation of pottery forms in rare materials surely has another reason and function.

**The Egyptian Bone and Ivory Artifacts from the Tell el-Farkha Site (*Paper*)**

Michal KURZYK

*Jagiellonian University, Poland*

This paper is aimed to present selected Egyptian bone and ivory artifacts from the Tell el-Farkha site, excavated through the 2010 season. These artifacts were carved from handpicked animal bones (ex. hippopotamus), fishbone or ivory, and show analogies to the other Egyptian sites.

Findings from Western, Central and Eastern Kom include everyday use objects: awls, spoons, horn and bone vessels, boxes, and pawns. Parts of weapons, such as bone and ivory arrow and spearheads, and bone-made apparel (beads) or objects of magical character (amulets) were also found. Two deposits are particularly interesting: the first, which was found during the 2004 season in Grave No. 24 (Eastern Kom), included three small bone fishes and three bone vessels; the second, from Western Kom, was discovered in Cult Room No. 211 during the 2006 season and dates to before the middle of the First Dynasty. It includes, apart from known objects made of hippopotamus tusk, some fascinating bone artifacts, for example: miniature cylindrical vessel, miniature beer jar, the cover of a box, pawn, bowl, and many more.

These artifacts, found in regular settlement areas, cult areas, as well as in the graves at Eastern Kom, were multipurpose and used for both magical and burial purposes. The bone and ivory artifacts will become an important reference of material and spiritual culture (early beliefs and magic) of the Predynastic and Early Dynastic Egypt.

**Egyptian Construction in the Early Dynastic Period (*Paper*)**

Angela LA LOGGIA

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*Macquarie University, Australia*

Throughout history people have marveled at the pyramids, from the elemental beauty of the Step Pyramid of Djoser to the monumental scale and engineering achievement of the Great Pyramid in Giza. The knowledge needed to build such grand monuments was vast, but not acquired overnight. The precursors to these structures, the massive mud brick tombs of the 1st and 2nd Dynasties, reveal a high degree of proficiency, ingenuity and capability by the architects, engineers and builders of that time.

These mud brick structures of the Early Dynastic period, when analyzed using modern engineering principles, exhibited a significant level of understanding and resourcefulness by the designers and builders, translating into fewer materials being required and shorter construction times. Whilst the amount of materials that went into some of the tombs of this period was considerable, an inadequate design would have resulted in a waste of resources and time. The construction of these structures, however, was a lengthy process, proportionate to the size and style of tomb. Project managing the construction of a tomb meant the builder was responsible for overseeing the acquisition of materials, ensuring an adequate labour force to manufacture and transport the materials to site, and making certain there was sufficient labour employed to construct the tomb.

This paper focuses on three Early Dynastic cemeteries: the royal burials at Abydos, the elite cemeteries at North Saqqara and the vast cemetery of Helwan, reserved for lower class officials and the general population. Millions of mud bricks, thousands of square meters of plastered surfaces and hundreds of trees cut down – the construction of tombs in the Early Dynastic period were huge undertakings. But how many industries were involved in such building activities? What was the size of the labor force? How long did the larger structures take to build? The materials consumed, the labor force employed and lastly the total estimated time taken to construct these tombs are presented in this paper. These structures, built almost five centuries before the Giza pyramids, reveal a structured and well-organized workforce with highly developed construction and management skills. These early builders were laying a solid foundation for future generations and the dawn of large-scale stone construction.

### **Nagadan-Lower Egyptian Interactions during the 4th Millennium BC: A Comparative Study of Pottery from the Sites in Adaima and Tell el-Farkha from the Nagada II Period (Paper)**

Agnieszka MĄCZYŃSKA

*Poznań Archaeological Museum, Poland*

The character of Nagadan-Lower Egyptian interactions remains a contested subject in the prehistory of Egypt. Discourses presented in many publications dealing with Predynastic and Protodynastic Egypt focus mostly on the character of the Nagadan-Lower Egyptian transition and the presence of Nagadans in Lower Egypt during the Nagada II period.<sup>1</sup> Each year new excavations (ex. at Tell el-Farkha or Tell el-Iswid ) bring more discoveries ensuring an ever-better understanding of the process which took place in Lower Egypt during the second half of the 4<sup>th</sup> millennium BC. Yet even with these new

discoveries at hand, we keep facing multiple problems and questions. One of them is the position of the Nagada culture and the Lower Egyptian culture in relation to one another. It is almost natural to treat Nagadans as the dominant side in the process of acculturation and in fact to give them the status of “peaceful conquerors.” However, in the last couple of years, many questions have arisen regarding this traditional approach, which in fact is not based on the real state of research.<sup>2</sup> A big step ahead in resolving this problem would be a comparative study of the Nagada and the Lower Egyptian cultures. This paper presents the results of a comparative study of the pottery dated to Nagada II period from the settlement sites in Adaima (Upper Egypt) and Tell el-Farka (Lower Egypt).<sup>3</sup>

<sup>1</sup> BUCHEZ, N. & MIDANT-RAYNES, B., 2007. Le site prédynastique de Kom el-Khilgan (Delta Oriental). Données nouvelles sur les processus d'unification culturelle au IV<sup>e</sup>-ème millénaire. *BIFAO* 107: 43–70.

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<sup>2</sup> KÖHLER, 2004, and MACZYŃSKA, in press.

<sup>3</sup> BUCHEZ, N., 2002. Le mobilier céramique [in:] MIDANT-REYNES, B. & BUCHEZ, N., *Adaima I. Économie et habitat*. Fouilles de l'Institut français d'archéologie orientale 45: 169-289. Le Caire.

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### **The Predynastic Collection for the Museum of the Confluences of Lyon (Poster)**

Karine MADRIGAL

*Musée des Confluences de Lyon, France*

The Museum of the Confluences of Lyon possesses a Predynastic collection of approximately 500 objects from excavations at Lortet, Chantre, Khozam, Gebelein, Abydos, and Roda. Major objects of this collection include two statues of “bearded men” from Gebelein.

### **The Predynastic of the Third Upper Egyptian Nome: A View from Mo'alla (Paper)**

Colleen MANASSA

*Yale University, USA*

Although Gebelein and Adaima on the west bank of the Nile are well-known centers of Predynastic activity, corresponding material has thus far been sparse on the opposite bank of the Nile. Surveys undertaken by the Mo'alla Survey Project between Debabiya and ed-Deir have revealed several locations with archaeological material of Predynastic date, which also illuminates earlier documented finds in the region. Surveys of ancient routes leading into the Eastern Desert have resulted both in the discovery of additional early

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material and an increased understanding of interactions between human activity and the topography of the Third Nome from the Predynastic Period onwards.

### **The Naqada III cemetery at Tarkhan: Evidence of an Independent Polity in the Fayum? (Paper)**

Lisa MAWDSLEY

*Monash University, Australia*

This paper explores the idea of an independent polity in the Fayum and the possibility that the extensive Naqada III cemetery at Tarkhan may have been its principal cemetery. Several named *serekhs* discovered on pottery at the cemetery have been taken as evidence that the primary urban centre operated as an independent polity with a single ruler from at least the late Naqada IIIB period, if not earlier.<sup>1</sup> Apart from these *serekhs*, there is no direct evidence that any ruler was buried at the cemetery. A recent detailed re-examination of Petrie's complete dataset suggests that there is a degree of contradiction between the textual data as represented by the *serekhs* and the mortuary data, perhaps necessitating a re-consideration of the notion of an independent polity in the Fayum.

It is now apparent that a number of large graves were constructed in the valley cemetery from the Naqada IIIA2 to early IIIC1 period. Clusters of these graves exist in the western, central and North-Eastern sections of the valley, and together with the limited data from the hill cemeteries, may indicate that a number of contemporary elite groups existed in the community of the living throughout this period. Crucial to this discussion is the fact that these groups are still visible in the late Naqada IIIB period at a time when the hypothetical Horus Crocodile appears named as ruler on two *serekh*-marked cylindrical jars. However, does the idea of a polity with a supreme ruler exclude the possibility that in support of him were distinct elite groups? This paper will discuss these elite graves and the contradictions inherent in the textual data together with the broader implications of this re-appraisal for understanding the political landscape of the Fayum.

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<sup>1</sup> DREYER, G., 1992. Horus Krokodil, ein Gegenkönig der Dynastie 0 [in:] FRIEDMAN, R. & ADAMS, B. (eds.), *The Followers of Horus: Studies dedicated to Michael Allen Hoffman, 1949-1990*. Oxford: 259-263.

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### **The Desert and the Nile Valley in the Predynastic: The View from the Great Central Oases of the Western Desert (Paper)**

Mary McDONALD

*University of Calgary, Canada*

After several decades of archaeological exploration in the Eastern Sahara, the extent of the influence of desert cultures on the development of the Predynastic in the Nile Valley is somewhat clarified. As a result of extensive work carried out in the Egyptian Western



Desert, particularly in the Nabta area, Farafra Oasis and the central Limestone Plateau, and in the central part of the Eastern Desert, a list of artifacts and features shared with the early Predynastic can be drawn up. These traits, which appear as much as half a millennium earlier in the desert, include Tasian-like beakers, black-topped pottery, a range of bifacially knapped tools, polished stone items, slab structures and certain structured hearths. Work at Dakhleh and Kharga, the two great oases in the Central Western Desert, shows both that these two entities shared virtually the same culture through much of the early and mid-Holocene, and that many of the “Predynastic” traits seem to appear there earlier than anywhere else. Thus, semi-sedentary communities with slab structures are present virtually continuously from about 7500 BC, and bifacially-knapped implements such as knives and arrowheads from at least 6400 BC. Moreover, survey work on the “Theban Desert Road” shows that there are close ties between the Nile Valley and Kharga Oasis starting from the Badarian and extending through the Predynastic, at a time when other Western Desert communities were cut off from the Nile Valley due to aridity. The long sequence developed for Late Prehistoric Dakhleh and Kharga Oases allows us more precisely to date and account for the appearance of traits which later would characterize the early stages of the Predynastic. It may also assist us with the larger task of assessing the significance of the shared traits as the groups in the Nile Valley evolved towards greater complexity.

**The Gezira Program: Human Occupation in the Nile Delta during the 4th Millennium BC. Archaeology and Environment: A view from Tell el-Iswid (Eastern Delta) (Paper)**

Béatrix MIDANT-REYNES

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Deltaic environment is inherently hostile to humans (floods, lagoons, swamps, mosquitoes). It has long been considered whether any human occupation was possible in the Nile Delta prior to the Dynastic Period. However, the geological and archaeological research conducted during the past two decades have shown that the current conditions that form the Delta as we know it today were actually in place by the 6th millennium BC. Therefore, it is possible that human occupation and agrarian activity could have existed during prehistoric times.

Situated at the crossroads of North Africa, Saharan Africa, the Mediterranean world and the Middle East, the region is the northern part of a country itself surrounded by deserts, which saw the birth of one of the first states in the world. The aim of the Gezira Program is to study the interactions between people and their environment during phases of the formation of the Egyptian state. In an ecosystem that naturally fluctuates, what kind of occupation models are characteristic from the Early Neolithic to the Early Dynastic Period? What were the implications of the transformation on the landscape and the society? What were the traces left by new forms of power emerging at the end of the millennium? And how did this situation impact on the management of the environment? The program is based on interdisciplinarity, crossing geographical and archaeological data. It found in excavations at Tell el-Iswid-South a good opportunity for understanding

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occupations in the Eastern Nile Delta in the fourth millennium. The first results will be presented here.

### **The Finery in Funerary Context at Adāima: An Anthropological Approach** (*Poster*)

Mathilde MINOTTI

*Ecole des Hautes Etudes en Sciences Sociales – CRPPM, France*

Within the framework of a Ph.D, we are currently studying the ornament from funerary context at the site of Adāima (3500-2900 BC, Upper Egypt). We use a systemic analysis to understand the object in its entirety, from its conception until its use. The ornament will tell us its history: through the distorting mirror of funeral rites, we shall try to understand the social implications of the artifact.

A quantitative and qualitative analysis of the gravesites do not seem a sufficient approach to the sociological aspects of funerary practices within a single necropolis. It seems necessary to emphasize the practices themselves, which define the rite. Funerals begin after the death of an individual and concern both the preparation of the body and funerary ornamentation. So, it is necessary to study funeral practices to identify rites and to get a better understanding of the meaning of the ornaments deposited in the tombs. For this, we apply the method of "funerary archaeology," following theories that originate from the field of anthropobiology. This analysis is presented through example(s). They will highlight the meaning of the presence of ornaments in the same measure that their "economic" value tells us about the status of the buried.

### **Evidence for Chests and Boxes from the Royal Tomb of Den at Abydos** (*Paper*)

Vera MÜLLER

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In stark contrast to the situation of some elite tombs of the First Dynasty, objects from the contemporary royal tombs are only badly preserved. Without comparative materials, the small, extant bits and pieces would often not be identifiable or attributable to specific items. This holds especially true for the shapes and designs of chests and boxes which must have played a considerable part of the royal tomb equipment - judging by the sheer amount of material left over. In the group of small finds, inlays once adorning chests and boxes constitute the largest assemblage. Most of them were made of ivory, and only a few consist of other materials, like animal bone or shell. The amount of ivory used for these items points to an extensive exploitation of elephants and hippopotami. Interestingly, examinations of the dark materials identified as ebony in older publications turned out to be very often burnt ivory. It is thus an interesting question if the color of ivory was intentionally changed or if it is a result of the later (intentional) burning of the tombs.

By comparing thousands of fragments retrieved during the old and new excavations at Umm el-Qaab to materials found at other places, similar objects from the elite tombs can

be identified, as well as some paraphernalia restricted to the royal tombs. As a consequence, the spread of the boxes' designs can give interesting insights into the extension of the styles en vogue during the First Dynasty as well as potentials for social differentiations.

**The Late/Final Neolithic of Nabta Playa: Variability in Site Function or Cultural Diversity? (Poster)**

Kit NELSON and Eman KHALIFA

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The Late/Final Neolithic (6200-4800 bp) utilization of the Nabta Playa area (Egyptian Western Desert) is varied including scattered hearths, megalithic alignments, a calendar circle and other features. Many of these are regarded as the earliest representations of features that continue into the Predynastic and Dynastic periods. Determining the relationships among these sites is complicated by the small number of excavations at sites dating to these periods, the overlapping radiocarbon ages, and the absence of a comparative framework in which to discuss similarities and differences among sites. To examine the possible relationships, this paper compares site and artifact distribution along with artifact attributes within Nabta Playa. We then compare and contrast these data with evidence from outside of Nabta Playa to address the question: Does this diversity represent multiple types of uses of this landscape or does it represent an influx of groups from different areas? These data are then used to discuss how the organization of Nabta is telling of the changes that took place during the transition to the Predynastic period.

**Reconstructing a First Dynasty Building. Case Study: the Fortress at Elephantine (Poster)**

Marinus ORMELING

*University of Leiden, The Netherlands*

Excavations by the DAIK revealed many details about the manner of building a fortress during the First Dynasty. From an architectural perspective many details of construction of the initial fortress have been researched. The first phase of the fortress was a rectangular building of 51 x 51 meters. The detailed excavations have shown the sequential phases of development, which by the end of the Third Dynasty had resulted in a fortified town that encompassed almost the entire eastern island, some 2.5 ha in size.

This presentation tries to model the building processes of the first phase of construction from the perspective of labour organization. This point of view enables us to model the total amount of labour involved in the construction of the initial fortress from the First Dynasty. Besides the labour involved with the primary activities associated with the building itself, we can also consider the additional manpower for facilitating activities like providing for food and lodgings and the administrative activities from the bureaucracy. Experimental archaeology provides information related to the restraints of

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mudbrick construction, such as the volume of building material utilized and the labour required to produce these volumes and to transport them to the building location. Based on assumptions about the numbers of men involved in the project (probably within a larger military campaign), we may estimate the length of time necessary for the construction of the first phase of this fortress. Obviously, the gained estimates are highly conjectural and do not suggest to be the factual circumstances in the beginning of the 3rd millennium BC. However, in my opinion, the data of this case study will improve our knowledge about the organization of the Early Dynastic State in Egypt.

### **A Rare Female Figurine of Unbaked Clay** (*Paper*)

Diana Craig PATCH

*The Metropolitan Museum of Art, USA*

Statues served important roles in both cult and funerary religion of ancient Egypt. Many attributes observable in Pharaonic sculpture have origins in Predynastic and Early Dynastic statuettes. Figurines dating to these periods are rare finds in both settlements and cemeteries and the few that survive are extremely important to a study of how the ancient Egyptians began to represent themselves. The ancient Egyptian collection at the Metropolitan Museum of Art includes a rare seated female statuette made from clay plaster that was acquired in 1907 from a dealer operating in Luxor. This paper presents a study of this figurine's manufacture, iconography, and place in the development of statuary from ancient Egypt.

### **Mapping in the Fourth Dimension: A Spatial-Temporal Study of the Development of Hierakonpolis during the Late Predynastic Period** (*Poster*)

Joel PAULSON

*Palomar College, USA*

Hierakonpolis has long been known as a unique site in Egypt for its wealth of data pertaining to the Late Predynastic period and the rise of dynastic Egypt. The site contains multiple components, including HK 29A an early ritual center, industrial centers at HK 11 and HK 24, and cemeteries representing the evolving social stratification that was taking place during this period. These cemeteries include HK 43, a "working class" cemetery, and elite cemetery HK 6, as well as one that Michael Hoffman suggested as being of the artisan ("middle") class, the fort cemetery. Because the site has been, for the most part, excavated well, especially in recent times, it is possible to date much of the material and, therefore, compare the development of the different loci chronologically. This paper will discuss the use of modern computer Geographic Information System (GIS) technology to trace the spatial development of various loci through time. The spatial development, in turn, reflects the shifting power structures of an elite class of people, relative to the masses, as well as the shifting environmental factors of this critical time in human history.

**From the Cradle to the Grave: Child, Infant and Fetal Burials in the Egyptian Archaeological Record** (*Paper*)

Ronika K. POWER

*Macquarie University, Australia.*

Child, infant and fetal burials are only recently being pursued as subjects worthy of independent study within Egyptology. To date, conclusions regarding this group appear to be based on assumptions rather than consultations of available historical, archaeological, and skeletal evidence. This paper presents the outcomes of exactly such a multi-disciplinary investigation carried out on the Early Dynastic archaeological record. Findings indicate that these interments represent significant research opportunities - not only to observe the ancient community's reproduction of its structure, but also to see children and infants as independent social actors who make distinct contributions to their communities, and therefore, to history.

**Stone Vessels from the Tell el-Farkha Site: Materials and Forms** (*Poster*)

Grzegorz PRYC

*Jagiellonian University, Poland*

In 2001-2010 a few dozen stone vessels were discovered in Tell el-Farkha. The most interesting are those found in closed sets (graves and structures) on the Eastern Kom and those related to the Early Dynastic Temple votive deposit from the Western Kom. Other interesting vessels were discovered at the Central Kom. The analyzed material allows one to draw mainly chronological conclusions based on stratigraphy, pottery material, and analogies to other Egyptian sites. All forms from the graves and the structures were very popular during the late Predynastic period through the end of Dynasty I. The majority of vessels, however, were made of material quite easy for processing – alabaster (travertine) and sandstone, but at the other side, some hard stones like basalt (diabase), agate and granite were used. Most of the stone vessels from the graves and settlement structures show affinities to pottery shapes. Moreover, several miniature vessels were found in the small pottery jar from the Temple deposit mentioned above. One of them with a “wavy handle” shows Palestinian influence. In the same jar, other figurines and models of various objects of the hippopotamus tusk, stone, and faience also occur. Stone vessels from the period in question served as luxurious objects. Their presence in graves and other places (for example a settlement) indicates that the place of their deposition should be interpreted as exceptional. In the case of burials, they also point to the deceased’s high social rank. Several dozen items placed in grave 55 show that we deal with just such a case.

**Divine Depictions: The Origins of Religious Iconography** (*Paper*)

Ilona REGULSKI

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Religion in ancient Egypt presents a remarkable collection of gods and goddesses, many alien or anthropomorphic in appearance. However, in the Early Dynastic period, only a few of the subsequent famous icons of the Egyptian pantheon are known and a mere handful personified and/or mentioned by name. Interestingly, a considerable number of religious beings, which do not survive in the later record, seem to have flourished. While some re-appear as obscure figures in the Pyramid texts of the Old Kingdom; others disappear all together. The reasons for this are difficult to retrieve.

When divine powers were first represented it was often as abstractions, or in forms that some have called fetishes: it was thought that in these appearances they represented particularly ancient concepts. The profound sense of identity with their natural environment felt by the Egyptians is nowhere demonstrated more explicitly than in their employment of animals as manifestations of the divine or supra-human principles governing the cosmos. Already from the First Dynasty onwards, some of the very earliest gods were represented in animal forms. They included falcon gods, a baboon known as ‘the Great White’, an ibis, several divine bulls and the canine gods Wepwawet, Khentimentiu, and Seth. Sometimes the powers take on an anthropomorphic appearance as readily as they did a zoomorphic form; such as the god Min.

This paper will shed light on the collection of early gods and the way they are referred to in the written record of the time. By surveying the available sources and their geographical distribution, we will try to reconstruct a religious landscape of the Egyptian ancient past.

### **Contact and Exchange between Egypt and the A-Group in Lower Nubia** (*Paper*)

Jane ROY

*University of British Columbia, Canada*

In the beginning there was no Egypt and no Nubia. Nations did not exist and boundaries had not been drawn. Yet a string of increasingly sedentary settlements existed in what is today Egypt and Sudan. Certainly by around 3000BC several increasingly complex chiefdoms had emerged and were beginning to define not only themselves but also their neighbours.

Until recently much of the discussion regarding the A-Group has emphasised the influence of Egypt in the region. Egyptian pottery and other artifacts found in A-Group contexts have pointed to some type of exchange system between the two regions. The lack of A-Group manufactured objects in Egyptian contexts has led to the argument that the relationship was somewhat one-sided. Yet was it? Egypt and Lower Nubia seem to have been intrinsically bound together along the Nile. How different were Egyptians and Lower Nubians during the 4<sup>th</sup> millennium BC?

This paper looks at the nature of exchange and contact between Egypt (Naqada culture) and Lower Nubia (A-Group) based on the material evidence which comes primarily from cemeteries excavated during three major salvage operations in the 20<sup>th</sup> century, including

glyphic and inscriptional material. Using anthropological and economic theories the material is used to discuss exchange patterns such as redistribution, reciprocity and market exchange. The goods themselves and the mode of exchange can tell us a great deal about how different groups viewed themselves and others. The changes and developments in these relationships potentially impacted the development towards the Egyptian state and the fate of the A-Group.

**Archaeological Investigations of the North-western Shore of Lake Qarun, Faiyum: A Preliminary Report on the Epi-Palaeolithic and Neolithic Sites (Paper)**

Khaled SAAD

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The area to the north of Lake Qarun has been subject to many archaeological investigations, most notably those by Gertrude Caton-Thompson in the 1920s and Fred Wendorf in the 1960s. These investigations revealed a virtually pristine archaeological landscape that covered the entirety of the Holocene, but also stretched back to the Palaeolithic. The discovery of Epi-Palaeolithic (7100-6200 BC) and Neolithic (5400-4200 BC) remains have made this region of great importance to understanding Egypt's early history. The Neolithic communities of the Faiyum, along with Merimde Beni Salame and Sais illustrate the mixing of Levantine imports (sheep, goats, wheat and barley), with the Nilotic economy of fishing, fowling, hunting and plant gathering. The pottery and lithics show influences from the Western Desert, Nile Delta and the Levant. These early farming communities laid the foundations for the Predynastic cultures and eventually the Pharaohs. The majority of sites, such as Kom K and Kom W, are all located to the northeast of Lake Qarun, with the area to the northwest receiving far less archaeological attention.

Due to a potential development project in the area to the northwest of Lake Qarun, where hotels and associated infrastructure are planned to bring tourists to the area to "enjoy the natural and cultural heritage," an archaeological rescue project was initiated by the SCA to assess the cultural heritage of the area. This two year archaeological survey from Qasr el-Sagha to Medinet Quta has provided a comprehensive record of all sites and monuments in the area. The results show that the area to the northwest of Lake Qarun is just as rich in archaeological remains as that to the northeast, with many new Epi-Palaeolithic and Neolithic sites being discovered (as well as Middle Palaeolithic and Pharaonic remains). The settlement patterning shows a continuation of that in the northeast, with inhabitants located around the ancient shorelines exploiting its rich aquatic resources along with hunting of game animals. Over half a million lithics have been collected and are in the process of being analysed. Of particular interest is the first Neolithic burial, an individual interred with only one grave good, a concave-based arrowhead. This project has shown not only the enormous archaeological potential of the area, but has delineated the areas to be protected from development.

**Pottery and Objects from the M Cemetery at Abu Rawash (Paper)**

## ABSTRACTS

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For the past four years a project to restudy and re-excavate the elite cemetery, known as Cemetery M at Abu Rawash, has been undertaken by Dr. Yann Tristant, under the auspices of the *Institut français d'archéologie orientale* Cairo. The cemetery had been excavated by Pierre Montet from 1913 to 1914, but was interrupted by the First World War. Excavations resumed at the site during the late 1950s under the direction of the Dutch archaeologist Adolf Klasens. The systematic re-excavation of the site and recording of the pottery material has not only provided us with evidence left by past excavators, but also from other contexts that can provide more valuable information. The pottery provides clear dating criteria, supporting Montet's dating of the site through inscriptional material. It is clear from old photographs and the examination of spoil heaps, that Montet left a great deal of pottery material on the site, providing us with various degrees of contextual information. Through a careful survey we have been able to establish a connection between tombs and related spoil heaps. Montet also left cachets of the more complete pottery forms within previously excavated tombs. In a small number of cases, Montet did not fully clear pottery material from some of the tombs, choosing to leave them within their original context. As a result of a more systematic approach to excavation of the site, we have come across contexts that indicate ancient plundering. Furthermore, we have been able to identify pre-preparation contexts. The elite cemetery was in use during one of the most dynamic stages of the Naqada Period prior to its emergence into the Old Kingdom. Unfortunately, due to the cemetery not being published as well as it might have been, it is neglected within the literature. The current project is aiming to reinstate its importance within the Memphite Region during the Naqada III Period.

### **'Small Things Forgotten' in Predynastic and Early Dynastic Egypt: Fossils, Flints and Pebbles** (*Poster*)

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A recent survey of the Egyptian collection of the Pitt Rivers Museum at the University of Oxford found a high number of fossils, unusually-shaped unmodified flints and natural pebbles that had been excavated from caches in the Predynastic settlement of Mahasna,<sup>1</sup> as well as from Predynastic graves at el-Amrah<sup>2</sup> and votive deposits at the Osiris Temple, Abydos.<sup>3</sup> In contexts such as the latter, similar natural objects have been frequently encountered and noted, but these have received less interpretive attention than other votive artifacts such as carved figurines. This paper will provide a brief overview of the forms, contexts and uses of collections of such natural objects in the Predynastic and Early Dynastic periods. From this survey it can be shown that ancient communities collected very particular types of geological specimen and that these were deployed in a range of ritual contexts. It will be argued that eye-catching, natural pieces were objects



of significance and assemblages of such pieces a source of social power in early Egypt for both elite and non-elite communities. They may also possibly form early examples of magical practice.

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<sup>1</sup> GARSTANG, J., 1903. *Mahasna and Bet Khallaf*. London.

<sup>2</sup> RANDALL-MACIVER, D. & MACE, A., 1902. *El-Amrah and Abydos*. London.

<sup>3</sup> PETRIE, W.M.F., 1903. *Abydos Part II*. London.

### **A Heating Installation and a Granary at Hierakonpolis Locality HK24B (Paper)**

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HK24B at Hierakonpolis is located near the desert edge on the west bank of Wadi Abu Suffian, where an artificial mound is formed with a large amount of ancient industrial debris, including ash, charcoal, burnt soil and pottery sherds. The mound indicates that the adjacent area was a center of industrial activities in the ancient settlement of Hierakonpolis. It had been already known that there are a heating installation and “granaries” in this area. The westernmost part of the installation was excavated by Jeremy Geller in 2007 to the south-west of the mound, and revealed four circular traces of vat features and a floor. The installation was dated to the Predynastic period (Naqada II) and supposed to have been a brewery by the excavator. Eight circular mud-brick structures were excavated by J.E. Quibell in the end 19<sup>th</sup> century, and the excavator suggested their function as “granary” and an Old Kingdom date for them, simply on the basis of formal similarity to those depicted in Old Kingdom mural paintings.

Major purposes of our excavations, from February 2010 onwards, were to uncover an entire structure of the heating installation, to excavate a circular mud-brick structure closest to it, and to clarify the chronological and functional relationships between them. The excavation was expected to provide any significant information about the structures themselves and eventually a total procedure of cereal processing from storage to cooking during the Predynastic period. The excavations unveiled the entire structure of the installation and circular structure. The installation is about 6.5 x 5m in dimensions and contained at least 10 large vats, presumably for cereal cooking. A deposit of chaff and straw near the circular structure suggested its function as granary. Details of excavation results are reported in this paper.

### **Early Dynastic Funerary Architecture: A View from the M Cemetery at Abu Rawash (Paper)**

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## ABSTRACTS

At the northern edge of the Memphite Necropolis region, 8km Northeast of Giza, stands the First Dynasty elite cemetery site of Abu Rawash. Known as the M Cemetery, it was first excavated by Pierre Montet in 1913-1914, and has since suffered almost a century of abandonment. The M Cemetery is today the object of a new project led by the *Institut français d'archéologie orientale* in Cairo, which aims to reinvestigate this little known and under published cemetery.

Within the first field season we could establish that these Early Dynastic mastabas, excavated by Montet, had dramatically suffered from accelerated erosion due to both the lack of backfilling and protection after their discovery. Significant observations have been made by the current project with regard to what survives of these massive mudbrick superstructures including impressive stone architectural elements. Notable is the clearing of a limestone slab pavement and stone enclosure around mastaba M12 and monolithic limestone portcullis slabs used to block the entrance of funeral chambers in several other mastabas.

The aim of this paper is to present main components of these Early Dynastic elite mastaba tombs, including the architecture, engineering, decoration, furnishings and grave goods from the past couple of seasons' work at Abu Rawash. The author will compare these structures with neighbouring Helwan and Saqqara cemeteries in light of chronological and socio-economic trends to demonstrate the high degree of expertise and innovation involved in the construction of the first funerary architecture in Egypt.

### **A large Rock Circle Cemetery in Dayr al-Barshā (Poster)**

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Since 2009, a large cemetery dating to the 3rd Dynasty is being excavated in the Northern Dayr al-Barshā foothills.<sup>1</sup> It is nearly 1.4km long and up to 150m wide. A smaller cemetery is located on the southern foothills. The graves are marked by a circular stone outline constructed around and over the burial container, which was placed on the bedrock. The size of the graves varies in dimension as well as in the number of stones used.

All over the Barshā hillside adults and children were buried in small wooden coffins, pottery coffins, reed coffins, large vats, jars, and baskets. Inverted pot burials have been found and several rare burials, such as tomb S153 in Adaima,<sup>2</sup> have also been discovered. Hardly any parallels are known for this kind of burial. A small 2<sup>nd</sup> Dynasty rock circle cemetery is located in El Kab<sup>3</sup> and one nearly as large, dated to the late 3<sup>rd</sup> through early 4<sup>th</sup> Dynasty, in Nuwayrāt.<sup>4</sup> Elsewhere in southern Egypt, LEGRAIN<sup>5</sup> reported that at three more sites a small dome of stones covered archaic burials. MACE and REISNER date this type of burial mainly to the late 2<sup>nd</sup> -3<sup>rd</sup> Dynasty, based on a few examples found in Naga ed-Dêr.<sup>6</sup> The site demonstrates the transition from the Early Dynastic period to the early Old Kingdom. During the presentation an overview of the Barshā burial practices will be

given, many originating from the preceding dynasties.<sup>7</sup> Other finds, including pottery, also show a clear development.

<sup>1</sup> The cemetery was discovered by STAN HENDRICKX in 2002.

<sup>2</sup> HENDRICKX, S., 1998. La nécropole de l'Est à Adaïma. Position chronologique et parallèles', *Archéo-Nil* 8: 111.

CRUBEZY, E.; JANIN, T. & MIDANT-REYNES, B., 2002. *Adaïma II. La nécropole prédynastique*. Cairo: 352-355.

<sup>3</sup> HENDRICKX, S.; HUYGE, D. & WARMENBOL, E., 2002. Un cimetière particulier de la deuxième dynastie à Elkab. *Archéo-Nil* 12: 47-54.

<sup>4</sup> GARSTANG, J., 1907. *Burial Customs of Ancient Egypt as Illustrated by Tombs of the Middle Kingdom. A Report of Excavations Made in the Necropolis of Beni Hassan During 1902-3-4*. London: 15, 26-30, Pl II. DE MEYER, M.; VERECKEN, S.; VANTHUYNE, B.; HENDRICKX, S.; OP DE BEECK, L. & WILLEMS, H., in prep. The early Old Kingdom at Nuwayrât in the 16th Upper Egyptian nome [in:] ASTON, D. (ed.), *Festschrift Janine Bourriau*.

<sup>5</sup> LEGRAIN, G., 1903. Notes d'inspection. *ASAE* 4: 220-223.

<sup>6</sup> MACE, A. C., 1909. *The Early Dynastic Cemeteries of Naga-ed-Dêr*. Leipzig: 6-10, 27-28.

REISNER, G. A., 1932. *A Provincial Cemetery of the Pyramid Age: Naga-ed-Dêr*. Berkeley: 8, type iv.

REISNER, G. A., 1936. *The Development of the Egyptian Tomb Down to the Accession of Cheops*. Cambridge: 192-194.

<sup>7</sup> HENDRICKX, S., 1998. La nécropole de l'Est à Adaïma. Position chronologique et parallèles. *Archéo-Nil* 8: 119-121, Tableau 4-5.

### **Tracing Institutional Development before Detailed Records (*Paper*)**

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Identifying and evaluating the roles of major institutions before the appearance of detailed records is a major challenge for those working to understand early state development. The tasks are important because some institutions may have been constructed by the fully-formed early state, while others existed earlier and may very well have directed state development. In Egypt, discussions have concentrated mainly on the creation of royal institutions and the temple, with their associated symbols and images. These discussions have necessarily concentrated on comparisons between early images, normally dating before Narmer, and detailed documents and images that date to the numbered dynasties. They are often closely reasoned, and have given useful results, but without some standards for evaluation, the comparisons sometimes have an elasticity that gives somewhat misleading results.

A significant question for the development of institutions has been the Coptos Colossi, and especially the date and type of temple complex where they were sited. How can we determine whether it was an Upper Egyptian temple or a simple shrine, and how do we evaluate the figures inscribed on them? These in turn raise the issue of the early royal institution itself, and the extent to which it can be traced back in time. In this case, not merely images and records, but archaeology and archaeological chronology must be brought into play to order the data. Using both images and the wider body of archaeological remains, it is possible to identify important elements of the royal tradition by the middle of the Fourth Millennium, well before fully written records. They appear in single motifs and large compositions that give us a surprisingly nuanced view of

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institutional history. This result not only indicates that Egypt's most important institutions existed well before it became what is now academically termed a state, it suggests that these institutions actually shaped its formation.