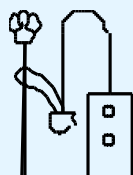


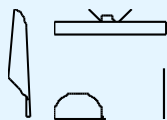
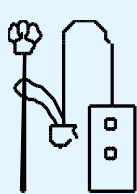
# i-Medjat

n° 13 mars 2016

*Papyrus électronique des*  *Ankhou*



**Revue caribéenne pluridisciplinaire éditée par l'Unité de Recherche-Action Guadeloupe (UNIRAG)**



**i-Medjat** n°13, mars 2016

Papyrus électronique des



Ankhon

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## Editorial

Le treizième papyrus électronique , i-Medjat poursuit la publication d'approches qui sans être nouvelles, précisent et complètent la vision globale de la civilisation égyptienne antique.

Il élargit la lecture archéologique de la formation des premières cultures égyptiennes de la vallée du Nil à l'espace géographique de son arrière-pays continental africain, en une anamnèse mesurée aux vents arides de l'histoire du climat.

Tant il est vrai que le Symposium international de Poznan *Later Prehistory of the Northeastern Africa XI. Desert and the Nile* (2015), dont nous donnons un compte-rendu enrichi des liens utiles, et la Conférence du Caire *Origins 5. Fifth international Conference of Predynastic and Early Dynastic Studies* (2014), dont nous avons rendu compte dans les i-Medjat précédents s'éclairent mutuellement.



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## ZEINAB S. HASHESH

### *Osteological study of the mummy of the fake King W3h ib rꜥ at Tell Tebilla (Late Period)*

This short text is an excerpt of the article of Zeinab S.Hashesh, *The Mummy of Fake King W3h ib rꜥ*, Cahiers Caribéens d'Egyptologie 19-20, 2015, pp.125-142.

One of the three mummies of a mastaba of the site of Tell Tebilla was announced as the king *W3h ib rꜥ* according to his name written inside its cartouche. Its stature was estimated 167.75 cm by using tibia and femur length, according to Raxter (Raxter et al 2008:147). Our study focuses on the pathologies of this mummy.

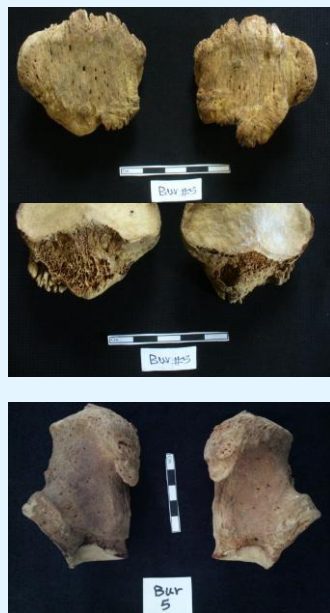
### Pathologies

The most significant discipline in the bioarchaeology analysis is paleopathology that cares with the study of ancient diseases and understanding their history. It's not restricted to a register book for health care in an ancient population, but reflects other aspects about status and nutrition. This mummy of an elderly male has over sixty years old according to his teeth and pelvis. The mummy suffered from aging diseases, and displayed a range of pathological conditions including degenerative joint disease in several positions, healed fractures, ossification of ligamentous attachments, lesions, and dental pathology as follows:

**Osteoarthritis disease** also known as degenerative joint disease (DJD) (Weiss & Jurmain 2007), this mummy was affected with inflammation that led to the loss of the cartilage of joints and affecting in this mummy in hand phalanges, feet, spine, and large weight-bearing joints, such as the hips and patella and both calcanei.

The osteoarthritic changes in joints give some insight into the occupations of the sufferers (**Figure 1**).

**Figure 1** Osteoarthritic changes on patella and calcaneus (photo Z. Hashesh)

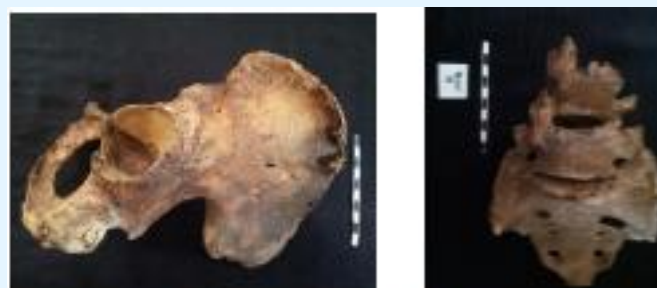


### Osteoarthritic changes on Sacrum

The sacroiliac, or SI joints, are located near the tailbone and connect the pelvis bones with the sacrum. The SI joints move less than many of the spinal joints, and they are strongly protected by ligaments. However, SI joints are often injured. Sacral injury occurred for many reasons:

- Structural leg length inequalities are caused by an actual anatomical shortening of one or more bones in the lower extremity.

- Functional leg length inequalities may be caused by muscular weakness or imbalance, pelvic inflexibility and other causes. The short extremity side is often felt SI joint pain (**Figure 2**)



**Figure 2.** Degenerative joint disease, 4th and 5th Lumber vertebra and Sacrum. (photo Zeinab Hashesh)

SI joint osteoarthritis often involves bone spurs that bridge the iliac with the sacrum. Over time, as the disease progresses, the vertebrae become fused, which increases the risk for spinal fractures.

Osteoarthritis is more likely associated with obesity. Individuals with both type 2 diabetes and obesity show an increase in both small and large joint osteoarthritis. (Kim RP, et al. 2001; 19: 132–35)

### Eburnation polish with grooves

The mummy has eburnation in two proximal phalangeal joints of the right hand caused by the loss of articular cartilage and bone-on-bone contact that produces a polished surface with a smooth, 'ivory-like' appearance.

The articular surface is observed under low magnification (5-10x) and a reflecting light source. The range of expression is recorded from least to most severe by selecting all checkboxes that apply for the articular surface under observation. Eburnation are significant markers of osteoarthritis (Rogers and Waldron, 1995: 44) (**Figure 3**).



**Figure 3.** Eburnation of proximal phalangeal joints of the right hand

### Infection disease

Infectious diseases that evolved to a chronic stage are more likely to affect the skeleton. So some skeletal disease practices specious in archaeological examples will have minimal control on overall biological function or permanence, and may not be the main cause of death.



The mummy has been suffered also from infectious disease in auricular surface right side, both radius and could be this infection injuries occurred as side effect of trauma.



**Figure 4.** Infectious disease in auricular surface right side infection injuries in superior diaphysis ulna and auricular surface.

### Fractures

The radius is the bone located on the thumb side of the forearm, and the ulna is the bone located on the side of the little finger. Depending on the force and mechanism of injury, these fractures usually involve not only the bones but also injury to some of the small ligaments in the wrist (Nunn,J 2002,177).These ligament injuries may further decrease stability of the wrist joint and create problems with eventual function of the wrist and hand. This type of injury most often results from a fall with the hand extended during landing.

Fractures of the distal radius is described by their location and position, such as open or closed, angulated or displaced. An open fracture means that the skin is not intact and that the bone may be exposed. Closed fractures have no exposed bone but may still have significant soft tissue injury (muscle, tendon, nerve, artery, and ligament). The mummy display fractures of both radius and this suggest that this man fall down and his fracture healed close time before dead (Figure 5).



**Figure 5.** Inferior and posterior view healed fracture of distal left radius and fracture in both diaphyses.

Fractures distal radius are generally more common in young men and older women (e.g., Buhr & Cooke 1959; Donaldson et al. 1990; Singer et al.1998) as everything there is exception in this case. The position of the broken part has indicated that fractures to the wrist and to the lower ends of the radius and ulna (the lower arm bones) as a result of people accidentally falling onto hard surfaces and using outstretched arms to help themselves and this also seems to be reflected in archaeological material in many ancient

cultures. In ancient Egypt and Nubia we also see a notable number of cases of fractures to the central section of these bones. The oldest surviving descriptions regarding the management of fractures stem back at least 5000 years to ancient Egyptian (Chung .k.,2012 ; Sanchez G., & Meltzer .E., 2012) a normal human response often resulting in injury to the mid-forearm. Luckily, such injuries usually heal well, as it is relatively easy to rest the forearm in order to let it heal.

**Dental pathology** As common healthy dentitions the ancient Egyptians, these mummified remains of this male has been suffered from Worn teeth, periodontal diseases, postmortem teeth loss (Forshaw. R, 2009:1).The teeth worn suggest that correlation between the age of this male and chewing a coarse fibrous food made. This food depended on bread can be high in toxic substances (Leek F 1972, 58: 126-132. 9 ; Leek F 1972, 59: 199-204).

The mummy has no caries but he is suffered also from Enamel Hypoplasia which reflects the Physiological stress, such as malnutrition or illness, resulting in linear enamel hypoplasia (LEHs) (Redford .D., 2009: 82 ; Davies .W& Walker.R., 1993 : 79) the lateral left incisor has been rotated 180 degrees from the jaw ,could be the abscess cause this rotation or opposite , any way the rotation of lateral maxilla incisor is rare case and I found modern case from Brazil have the same rotation not related with any diseases and the author said its genetic (Figures 6 & 7)



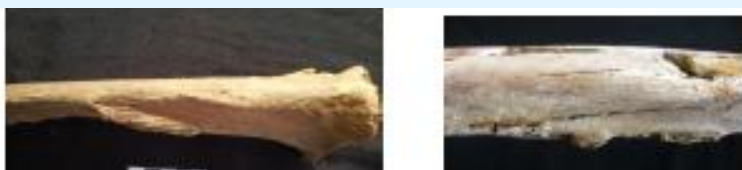
**Figure 6.** Dental pathology - Maxilla with rotation of lateral incisor and enamel hypoplasia, anterior view.



**Figure 7.** Right mandible AM toothloss superior view

## Muscle attachment

The individual workload leaves traces in the skeleton. High rates of physical labor can appear as degenerative joint disease. Muscular development results in increasing size of muscle attachment areas on bone. Women who spend a lot of time grinding corn develop deltoid tuberosities similar to those that develop among modern bodybuilders. (Cockburn,A, Cockburn,E, & Reyman A, 1998, 48) the mummy have big anterior Tibia muscle attachment in right tibia and rectus femoris on right femur which suggest that this man was used his right leg more that the left leg and could be this because his left leg was in pain Figure due to the infection in left auricular surface (**Figure 8**) .



**Figure 8.** Anterior tibia muscle attachment in right tibia and rectus femoris on right femur

## A question for a conclusion.

After this bio-archaeological analysis, the question was : Was this mummy that of the king *w3h ib r* ? Can we identify it with this king ?

The second part of our study gives elements of conclusion at : Zeinab S.Hashesh, *The Mummy of Fake King W3h ib r*, Cahiers Caribéens d'Egyptologie n° 19-20, juin 2015, pp.125-142.

## Bibliography

Ajmani, 2008 : Embalming: Principles and Legal Aspects, Delhi,  
Allen, J., 2003 : Oxford Guide: The Essential Guide to Egyptian Mythology, Berkley.  
Andrews.C., 2004 :Egyptian Mummies, British Museum.  
Aston, D.,1994:The shabti box: a typological study. Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden te Leiden 74, 21-54.  
Aufderheide, .C., 2003 : The Scientific Study of Mummies, Cambridge.  
Blouin, 2010 : Pap. Congr. XXV (Ann Arbor 2007), 2010, 85-95.  
Booth, C., 2011 : The Ancient Egyptians For Mummies.  
Chung, K., 2012 : Current Concepts in the Treatment of Distal Radius.  
Cockburn, A., Cockburn, E., & Reyman A., 1998 : Mummies, Disease and Ancient Cultures.  
Davies, W, & Walker, R., 1993 : Biological anthropology and the study of ancient Egypt.  
Dunand, F., & Lichtenberg, R, 2006 : Mummies and Death in Egypt.  
Ikram, S., & Dodson.A.,1999 : The Mummy in Ancient Egypt: Equipping the Dead for Eternity, London.  
Jurmain, R., 1999 : Stories from the Skeleton: Behavioral Reconstruction in Human Osteology. Amsterdam, Gordon & Breach.

Kim, R.P., et al.2001: Musculoskeletal complications of diabetes mellitus. *Clin. Diabetes*, 19 :132-35.

Lambert, P., 2000 ,Bioarchaeological Studies of Life in the Age of Agriculture, London  
Leek, F. F., 1972 : Teeth and bread in ancient Egypt. *Journal of Egyptian Archaeology* 58: 126-132. 9.

Leek F F. 1972 : Further studies concerning ancient Egyptian bread. *Journal of Egyptian Archaeology* 59: 199-204.

Mumford, G., 2004 : A Preliminary Reconstruction of the Temple and Settlement at Tell Tebilla (East Delta) [in:] *Egypt, Israel, and the Ancient Mediterranean World - Studies in Honor of Donald B.Redford*, G.N. Knoppers & Hirsch, A., eds, Leiden Boston: Brill., 267-286.

Müller, F. , 2012 : Egyptian Mythology.

Nunn, J., 2002 : Ancient Egyptian Medicine.

Nai Xia, 2014 : Ancient Egyptian Beads.

Parcak, S., 2012 : The Land of Egypt [in:] *A Companion to Ancient Egypt*. A.B. Lloyd, ed.. UK:-Blackwell, 3-22.

Paule, M, 2001 : Scarabées de coeur in situ. *Chronique d'Égypte*. LXXVI (2001). Bruxelles,48-56.

Pettigrew,T., 2013 : A History of Egyptian Mummies: And an Account of the Worship and Embalming.

Raxter et al, 2008 : Stature estimation in ancient Egyptians: a new technique based on anatomical reconstruction of stature, *American Journal of Medicine*.

Redford, D., 2001 : The Oxford Encyclopedia of Ancient Egypt.

Redford, D., 2009 : Delta Reports, Volume I: Research in Lower Egypt.

Reidy, R., 2010 : Eternal Egypt: Ancient Rituals for the Modern World.

Robins, G., 2008 : The Art of Ancient Egypt.

Rogers, Waldron, 2009 : A field guide to joint disease in archaeology, New York.

Sanchez, G., & Meltzer, E., 2012 : The Edwin Smith Papyrus: Updated Translation of the Trauma Treatise and Modern Medical Commentaries.

Stern, E., & Schlick, N.,1994 : Early glass of the ancient world: 1600 B.C.-A.D. 50 : Ernesto Wolf Collection.

Weiss & Jurmain 2007 : Osteoarthritis revisited: a contemporary review of aetiology.

Winkler, A, 1987: Die Egyptischen Objekt-Amulette. OBO Series Archaeologica 5. Freiburg Schweiz

Žabkar,L .,1968 :A Study of the Ba Concept in Ancient Egyptian Texts, University of Chicago Press,

## ANOTHER STUDY OF MUMMY

**Nadine Guilhou, Annie Perraud**

**Le Sarcophage du Muséum d'Histoire Naturelle de Perpignan.**  
**La momie de louefenkhonsou.**

**Les Amis de l'Égypte**  
**Imprimerie Les Presses Littéraires**  
**Saint-Estève, 2010, 268 pages, 74 planches photographiques.**





# STUDIES IN DENDRO-EGYPTOLOGY I. THE LABORATORY OF TREE-RING RESEARCH EGYPTIAN WOODEN COLLECTION

HEND SHERBINY

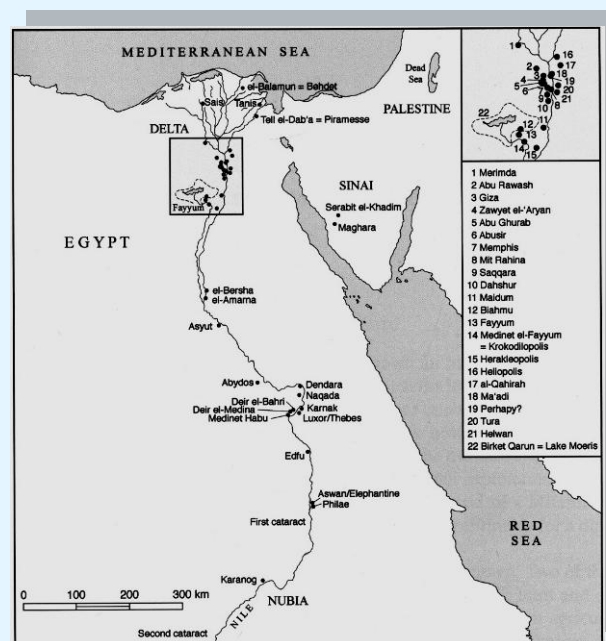
**Abstract** There is an urgent need to establish a dendrochronological record for ancient Egypt. This work focuses specifically on dendrochronological analyses of ancient Egyptian artifacts and identifies the main types of wood resources with the highest dendrochronological potential for ancient Egyptian periods. The author studies the practicalities for building a tree-ring chronology for ancient Egypt, introduces a need for a Dendro-Egyptological approach which uses the principles of dendrochronology in combination with Egyptology, and draws parallels with dendroarchaeological research across the United States. The goal of this work is to provide a framework for developing Dendro-Egyptology.

## Introduction

Dendrochronology, the science of dating tree rings, was developed in the dry environment of the American Southwest when tree-ring research was used in combination with archaeological data to understand the timing past human and environment interactions (Bannister et al. 1998: 311; Cowie 2013; Dean 1996; Douglass 1929; Haury 1935: 98; 1962; Judd 1962; Nash 1998: 261-263; 1999; 2000; Nash & Dean 2005; Reid & Whittlesey 2005; Schweingruber 1988; Speer 2010; Touchan & Hughes 2009; Webb 1983). Since that development, a similar pattern has been repeated in archaeological contexts all over the world (Bannister 1970: 1), and dendroarchaeology has become a discipline in its own right. In the Mediterranean area (Rich 2013) considerable progress has been made in constructing long tree-ring chronologies and using tree-rings to date sites and buildings (Cichocki et al. 2004: 840; Kuniholm & Striker 1987; Lev-Yadun 1992; Lev-Yadun et al. 1996; Liphshitz 1986; Touchan et al. 1998). In Egypt (**Figure 1.1**) where the potential is promising, however, very little dendrochronological work has been conducted. The goal of this thesis is to provide a framework for developing dendro-Egyptology. I begin by analyzing Egyptian wood and artifacts housed at the Laboratory of Tree-Ring Research (LTRR) and the Arizona State Museum (ASM). If these samples are appropriate tree species, and retain other attributes of dendrochronologically useful species (Ahlstrom 1985; Speer 2010; Towner 2002).

Dendrochronology is not well-known in Egypt for a number of reasons. Archaeologists still rely on Egyptian chronologies (see appendix I) based on ancient textual

sources such as Egyptian *Royal Annals*, the *Royal Canon of Turin*, *King Lists* and Manetho's *Aigyptiaka*, (see Hornung et al. 2006). Classical and Near Eastern archaeologists also rely on textual evidence (for Near Eastern texts, see Kitchen 2013); and do normally apply other dating techniques such as radiocarbon (Bronk Ramsey 2013: 29-30).



**Figure 1:** Map of Egypt showing archaeological sites (based on Baines 2013)

The material culture of Egypt, such as the Pyramids, the Great Sphinx at Giza, mummies, and treasures of the golden King Tutankhamun, has captivated the world and inspired generations of archaeologists, and is simply, in many cases, too precious and sacred to be used for dendrochronological analysis. The potential of other materials (structural timbers, etc.) has not yet been realized because the technique is not widely known in Egypt and training is not provided for field archaeologists. It is very strange that although dendrochronology was invented in Arizona decades ago, it is still not common in Egypt (Cichocki 2006: 365-366). The reason for this is mainly due to the fact that some Egyptologists believe that Egyptian chronology is stable and accurate, although that is not really the case (Shaw 2000; Hornung et al. 2006; Kitchen 2013).

To follow the model of Douglass, Bannister, and American southwestern archaeology in general (Bannister 1962; Bannister & Robinson 1975; 1992; Cordell & Fowler 2005; Dean 1978; Douglass 1929; Haury 1935: 98-99; 1962; 1994; Reid & Whittlesey 2005), the beginnings of a tree-ring record for Egypt should logically be rooted in long-lived trees that are growing in the larger region today (compare Dunwiddie 1979).

Some potential for this lies in the long lived *Juniperus phoenicea* of the Sinai Peninsula (El-Bana et al. 2010; Shmida

1977), some of which have been shown to live for more than 800 years, but their rings are often very difficult to analyze. I might be able to cross-match such samples with material from other areas — e.g. Jordan (Touchan et al. 1998), but that has yet to be attempted.



**Figure 2:** A wooden piece from Acacia Tree from a Beam from Djoser Complex, Saqqara, Third Dynasty, Old Kingdom (photo by the author).

Applying dendrochronology to Egyptian material culture has encountered some problems. Cedar and juniper have been successfully crossdated, both long lived trees that grow near each other in places such as the mountains of Lebanon, the Taurus Mountains of Turkey, and Cyprus (Kuniholm et al. 2007; Kuniholm et al. 2014: 94). Indigenous Egyptian wood (**Figure 2**) such as sycamore, tamarisk, and acacia depend on the water flow in neighboring canals rather than on prevailing climate (Kuniholm et al. 2014:94). In most museum collections of Egyptian artifacts, the word “wood” is used in description rather than identifying the exact species names (Bassir 2013). The labels for Egyptian wooden artifacts is often written as “wood” without identifying wood species. It seems that Egyptologists probably think that all kinds of indigenous wood are the same. Most of Egyptian wooden artifacts are made of acacia. Carrying out dendrochronological work on indigenous Egyptian wooden species is problematic because Kuniholm has examined more than 1000 samples of acacia for dendrochronological potential without success (Kuniholm et al. 2014:94). I also counted the rings of a cross-section from an acacia tree from Saqqara, collected in 1931 from a beam from the funerary complex of King Djoser, Third Dynasty-Old Kingdom (**Figure 1.2**). Each time I counted a different number of rings because ring boundaries are either invisible or partially invisible, and without identifying specific rings dendrochronology is not possible. Ten students were tasked with counting the rings on one of the sections Douglass collected in 1930s from an Egyptian pyramid; they generated 10 different counts (Kuniholm et al. 2014:95). Therefore, this study focuses on the

LTRR samples of cedar or juniper, in addition to briefly shedding light on the ASM samples of indigenous wood.

### **Past Work of Dendrochronology and Dendro-Egyptology**

We introduce briefly the past work of dendrochronology and Dendro-Egyptology, outlining the pioneers of dendrochronology and their efforts to establish a dendrochronological sequence for Egypt.

#### **Past Work of Dendrochronology**

Dendrochronology is the study of tree time (Nash 2002:243), and can be described as a multidisciplinary science that provides chronological, behavioral, and environmental data to an astonishing variety of fields of inquiry such as “*architectural analysis, biology, climatology, economics, ecology, fire history, forestry, geology, history, hydrology, pollution studies, political science, resource economics, sociology, volcanology, and other disciplines*” (Nash 2002:243; Speer 2010). Ferguson indicates that “*Dendrochronology or tree-ring dating*” can be defined as “*the study of the chronological sequence of annual growth rings in trees*” (Ferguson 1970:183). The main task of this science is to create a calendar date for a wood or charcoal specimen (Stokes and Smiley 1996:xi). Because tree-rings offer essential information and insights into time and past events, dendrochronology can be utilized to date material culture, establish chronologies, and define sequences. In this sense, archaeologist Fay-Cooper Cole of the University of Chicago confirms that “*Chronology is the soul of archaeology*” (Nash 1998:261-262). By the mid-20<sup>th</sup> century, dendroarchaeology became very important among archaeologists as a tool in dating material culture (Baillie 1982; Bannister 1962:508; Bannister & Robinson 1992; Dean 1978, 1996; Haury 1935:98-99; Kuniholm 2001, 2002; Speer 2010; Towner 2002:68). Although several decades have passed since this science was established, dendrochronology is still a relatively new science. Stokes and Smiley (1996:xv) state that: “*Dendrochronology, or tree-ring dating as it is often called, is defined as the study of the chronological sequence of annual growth rings in trees*”. It is pointed out that “*Dendrochronology has gained recognition among archaeologists as an accurate tool for chronological control*” (Speer 2010:152). Haury (1935:98-99) referred to the importance of tree-rings in archaeology as a potential tool for archaeologists to use in dating. More than a half century later, Dean (1978) stressed the significance of using tree-rings in dating archaeological material. It is stated that tree-rings have been used “*to verify the dating of historical works of art*” and “*to determine the origin of and trade routes for wood that has been incorporated into artifacts*” (Speer 2010:152).

The principles of crossdating were discovered by Douglass in the last century when he recognized that accurate annual dating of tree rings could be achieved by matching patterns of narrow and wide rings across trees at a site (Maxwell et al. 2011:237). He could relate dendrochronological principles to history, climatology and astronomy. In 1914, Douglass began to date wood from various historical and archaeological sites. He had collecting pieces from different regions since 1911, when he recognized the importance of crossdating long before others in that field (Kuniholm 2001:3; Schweingruber 1988:257-258). Finally, it is very important if interpreting the tree-ring dates to understand (1) past human behavior (past human behaviors as well as archeologist and dendrochronologist behaviors) (Dean 1996; Towner 2002:79), (2) the past environment (tree species affected by ancient people may refer to local species availability, and archaeological tree ring samples can be used to reconstruct past precipitation and temperature regimes and also to identify past climatic severe events) and, (3), the interaction between past human behavior and environment (Towner 2002:77).

### **Past Work of Dendro-Egyptology**

In terms of applying dendrochronology to Egyptian material culture, some dendrochronologists have been interested in exploring the possibility of establishing a dendrochronology for ancient Egypt for decades. I here present what they have done and comment on some of their pioneering works in order to shed light on the new field of Dendro-Egyptology.

### **A.E. Douglass (1867-1962): The Father of Dendrochronology**

A.E. Douglass is the Father of Dendrochronology. By the early 1920s, Douglass had pioneered the science of dendrochronology, most importantly, the principle of crossdating which he applied to a variety of different disciplines from climatology to astronomy to archaeology. He established the LTRR at the University of Arizona in 1937. During the developmental LTRR phase from 1930 to WWII, it has been pointed out that: *“Douglass pursued a passion for replicating dendroarchaeological successes in other parts of the world, specifically the Near East. His personal correspondence before WWII explores this prospect. The idea of being able to establish tree-ring dates, especially for ancient Egyptian material was a very exciting, even romantic prospect. Douglass, while consulting with James Henry Breasted of the University of Chicago...and other prominent Egyptological institutions, developed a feasibility study of ancient Egyptian wooden sarcophagi. The initial study went well ... Yet, before the specimens could be properly analyzed and substantial*

*progress towards a chronology achieved, WWII intervened, and this prospect remains unrealized”* (Creasman et al. 2012:85).

Later, that passion for the Near East would inspire Bannister to conduct extensive dendrochronological work in that important region of the ancient world (Bannister 1970:1; Bannister & Robinson 1975:213). In the 1920s, Douglass contacted several Egyptologists exploring the probability of establishing chronology for ancient Egypt based on dendrochronology. By 1932, Douglass, in consultation with numerous members of the Egyptological and museum communities, believed that enough amount of wooden material already existed in the museums of the world to make significant advance (Breasted 1933; Douglass 1932). In the 1930s, Douglass conducted a small feasibility study to crossdate tree-ring specimens of Egyptian coffins in American museums (Touchan & Hughes 2009). This occurred in the LTRR development from year 1930 to WWII (Douglass 1929; Creasman et al. 2012:81-82). Douglass tried to employ a technician to establish a chronology for Egypt based on dendrochronology, but, the technician accepted another position to work in the Southwest (Douglass 1936; Nash 1999). In 1937, Douglass established the LTRR at the University of Arizona and became its first director until his retirement in 1958 (Creasman et al. 2012:82). As a result of this passion, in 1938, Douglass received ten specimens from the Eleventh Dynasty coffin of Ipi-Ha-Ishutef (OIM 12072) from J. Wilson, director of the Oriental Institute (OI) of the University of Chicago (Teeter 2011). Douglass conducted dendrochronological work on this coffin to crossdate the specimens, but the project stopped due to the outbreak of WWII.

Applying dendrochronology to Egyptian material culture has encountered some problems. Cedar and juniper have been successfully crossdated, both long lived trees that grow near each other in places such as the mountains of Lebanon, the Taurus Mountains of Turkey, and Cyprus (Kuniholm et al. 2007; Kuniholm et al. 2014: 94). Indigenous Egyptian wood (**Figure 1.2**) such as sycamore, tamarisk, and acacia depend on the water flow in neighboring canals rather than on prevailing climate (Kuniholm et al. 2014:94). In most museum collections of Egyptian artifacts, the word “wood” is used in description rather than identifying the exact species names (Bassir 2013). The labels for Egyptian wooden artifacts is often written as “wood” without identifying wood species. It seems that Egyptologists probably think that all kinds of indigenous wood are the same. Most of Egyptian wooden artifacts are made of acacia. Carrying out dendrochronological work on indigenous Egyptian wooden species is problematic because Kuniholm has examined more than 1000 samples of acacia for dendrochronological potential without success



(Kuniholm et al. 2014:94). I also counted the rings of a cross-section from an acacia tree from Saqqara, collected in 1931 from a beam from the funerary complex of King Djoser, Third Dynasty-Old Kingdom (**Figure 1.2**). Each time I counted a different number of rings because ring boundaries are either invisible or partially invisible, and without identifying specific rings dendrochronology is not possible. Ten students were tasked with counting the rings on one of the sections Douglass collected in 1930s from an Egyptian pyramid; they generated 10 different counts (Kuniholm et al. 2014:95). Therefore, this study focuses on the LTRR samples of cedar or juniper, in addition to briefly shedding light on the ASM samples of indigenous wood.

### **E.W.Haury (1904-1992): The Southwest Archaeologist**

E.W. Haury received his BA degree in 1927 and his MA degree in 1928. Then he started teaching at the University of Arizona Department of Archaeology in the academic year 1928-1929 (Reid 1993:245-246). The following year (1929) he worked with Douglass (Bannister and Robinson 1992; Reid and Whittlesy 2005). Haury had hoped to write a dissertation on the application of tree-ring dating in Egypt (Thompson et al. 1997:158-159). In the 1930s, he gathered successfully wooden specimens from the ancient Egyptian collection at the Museum of Fine Arts in the city of Boston, stating that, “I believe it is not unlikely that tree-rings might well substantiate and possibly amplify” the chronological timetable of Egypt in the ancient phase of its long history (Haury 1935:108). However, he worked on a large collection from southern Arizona and earned his Ph.D. in anthropology on the classic period of the Hohokam culture in 1934. Thus, his research on Egyptian material was short-lived.

### **B. Bannister (1926- ): The Student of Douglass**

B. Bannister was a student of Haury and research assistant for Douglass (Touchan and Hughes 2009). As a student of Douglass (Bannister et al. 1998), the same passion for the Near East inspired Bannister; therefore, he conducted extensive dendrochronological work for archaeological tree-ring dating in that region of the ancient world (Bannister 1970; Bannister & Robinson 1975; Touchan and Hughes 2009). In the 1960s, Bannister visited Egypt and collected and examined tree-ring specimens from pyramids and coffins. For example, he examined specimens from the pyramids of the Fourth Dynasty king Sneferu (c. 2613-2589 BC) in Dahshur (Kuniholm: Personal Communication, February 2014), in order to set up a systematic tree-ring dating of ancient Egyptian archaeological sites. He confirmed the viability of cedars (*Cedrus libani*) imported in antiquity for crossdating (Bannister 1970:7; Touchan & Hughes 2009). Bannister (1970:7) concludes: “*The establishment of absolute tree-ring dates for ancient*

*Egypt might eventually be possible and the securing of core samples from living cedars of Lebanon would constitute a logical first step*”.

After analyzing those specimens that Bannister collected, Dean referred to the possibility of future successes in this area (Dean 1978). Then P.I. Kuniholm took over.

### **P.I.Kuniholm (1937-): The Head of the Middle Generation**

P.I. Kuniholm has developed Aegean and Eastern Mediterranean dendrochronological and dendro-archaeological sequences. In the 1970s, he was inspired by the work of Bannister at Gordion in Turkey and decided to conduct an extensive project by creating the basis for dendrochronology in the ancient Near East on a large scale. He began by building chronologies of living trees from several forests from southern Italy to eastern Turkey (Kuniholm & Striker 1987; Kuniholm 1990b, 1994; Touchan & Hughes 2009). Kuniholm started the Aegean dendro-chronology project with his Ph.D. dissertation on this region of the ancient world. He also founded the Cornell Dendrochronology Laboratory (now the Malcolm and Carolyn Wiener Laboratory for Aegean and Near Eastern Dendrochronology) in 1976, creating the field of archaeological dendrochronology of the Mediterranean and Near East. He was encouraged by Bannister and Dean to establish dendrochronology for ancient Egypt, and as a result, he collected a significant set of ancient Egyptian wood specimens from American museums. In 1973, he showed interest in conducting dendro-archaeological work on ancient Egyptian material culture (Kuniholm: Personal Communication, February 2014) [**Figure 1**].



**Figure 2.1:** A capital face of the goddess Hathor, Dynasty XXX, in the Metropolitan Museum of Art in New York (after Kuniholm et al. 2014:96).

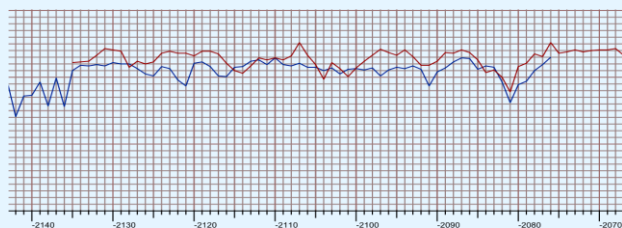
He worked on a Twelfth Dynasty Dahshur boat (Carnegie Museum of Natural History in Pittsburgh 1842-1) and a likely Eleventh Dynasty Sakkara coffin (OIM 12072),

attempting to crossdate two floating cedar chronologies from these two sites and dynasties of ancient Egypt (Kuniholm 1990a, 1991, 1992, 2007), both recently radiocarbon dated and discussed by Manning et al. (2014). In the 1990s, Kuniholm studied the coffin of Ipi-Ha-Ishutef (OIM 12072) (**Figure 3**), and conducted dendrochronological work on it (Kuniholm 1990a, 1991:3, 1992:459-460, 2007:369-370). In 1991, he states that: “*I was able to crossdate the innermost rings of the Da[h]shur Boat (in the Carnegie Museum in Pittsburgh) with a sequence from the coffin of Ipi-ha-Ishutef, an army clerk of Dynasties IX/X (in the Oriental Institute of the University of Chicago). This is the first time that we have been able to achieve inter-site crossdating of cedar wood found in Egypt (but undoubtedly imported from Lebanon)*”.



**Figure 2:** Part of the lid of Ipi's coffin (left) and the Dahshur boat during reassembly (right below) in Pittsburgh and after (right above) (Kuniholm et al. 2014:98).

Kuniholm's work suggested the coffin of Ipi a year date of 2076 BC (Kuniholm et al. 2014). A recently proposed radiocarbon range dated this coffin from 1883-2063 BC (Manning et al. 2014:405-406), very close to Kuniholm's measurement date. Kuniholm's work gave the Dahshur boat a year date of 1883 BC, while the Manning et al. (2014:406) is 2 years outside the proposed radiocarbon range from 1898-1885 BC. No terminal rings or waney edged are present on either the coffin or the boat, therefore these are *terminus post quem* dates (Kuniholm et al. 2014:99).



**Figure 2:** Screen shot of CH14&5.14C (Ipi, in blue) versus PIT555.mwn (Dahshur, in red) (after Kuniholm et al. 2014:99).

## Conclusions

Dendrochronology has been very successful in the US Southwest. Although many attempts have been made by serious scholars on Egyptian wooden material, Dendro-Egyptology is still not flourishing as a solid discipline; much work needs to be done until it becomes an accepted and deeply rooted field. The situation in the US Southwest is very deferent from that of Egypt. In US Southwest, the local wood has been used to establish master chronologies; in Egypt local wood which the ancient Egyptians used to make their artifacts is inadequate for establishing a master chronology. There are no long-lived trees, and sampling existing structures-such as mosques and other historic buildings, is not feasible. One possible avenue of research for establishing a dendrochronological sequence for Egypt, however, is analysis of existing collections.

## Bibliography

- Baillie, M. G. L. 1982 *Tree-Ring Dating and Archaeology*. University of Chicago Press.
- Bannister, B. 1962 The Interpretation of Tree-Ring Dates. *American Antiquity* 27(4):508-514.
- Bannister I 1970 Dendrochronology in the Near East: Current Research and Future Potentialities. *Proceedings of the Seventh International Congress of Anthropological and Ethnological Sciences, Moscow, 1964* 5, pp. 336-340.
- Bannister, B., R. E. Hastings, Jr., and J. Banister 1998 Remembering A. E. Douglass. *Journal of the Southwest* 40(3):307-318.
- Bannister, B., and W. J. Robinson 1975 Tree-Ring Dating in Archaeology. *World Archaeology* 7(2):210-225.
- Bannister, B., and W. J. Robinson 1992 Archaeology and Dendrochronology In *Emil W. Haury's Prehistory of the American Southwest*, edited by J. J. Reid and D. E. Doyel, pp.49-54. University of Arizona Press, Tucson.
- Breasted, J. H. 1933 *Letter to A. E. Douglass, University of Arizona, Tucson, Arizona, USA, dated November 1 1933*. Unpublished letter. On File at the Laboratory of Tree-Ring Research, University of Arizona, Tucson.
- Bronk Ramsey, C. 2013 Using Radiocarbon Evidence in Egyptian Chronological Research In *Radiocarbon and the Chronologies of Ancient Egypt*, edited by A. J. Shortland and C. Bronk Ramsey, pp.29-39. Oxbow Books, Oxford.
- Cichoeki, O., M. Bichler, G. Firneis, W. Kutschera, W. Müller, and P. Stadler 2004 Synchronization of Civilizations in the Eastern Mediterranean in the Second Millennium BC. *Natural Science Dating [in:] Tools for Constructing Chronologies: Crossing Disciplinary Boundaries*, edited by C. E. Buck and A. Millard, pp. 83-110. Springer, New York.
- Cowie, J. 2013 *Climate Change: Biological and Human Aspects*, 2nd ed. University Press Cambridge, Cambridge.
- Creasman, P. P., B. Bannister, R. H. Towner, J. S. Dean, and S. W. Leavitt 2012 Reflections on the Foundation, Persistence, and Growth of the Laboratory of Tree-Ring Research, Circa 1930-1960. *Tree-Ring Research* 68(2):81-89.
- Dean, J. S. 1978 Tree-Ring Dating in Archaeology. *University of Utah Anthropological Papers: Misc. Paper 24*, edited by J. Jennings, pp.129-163. University of Utah Press.



Dean, J. S. 1996 Dendrochronology and the Study of Human Behavior In *Tree Rings, Environment and Humanity: Proceedings of the International Conference, Tucson, Arizona 17-21 May 1994*, edited by J. S. Dean, D. M. Meko, and T. W. Swetnam, pp.461-469. Radiocarbon, Dept. of Geosciences, University of Arizona, Tucson.

Douglass, A. E. 1929 The Secret of the Southwest Solved by Talkative Tree Rings. *National Geographic Magazine* 56(6):736-770.

Dunwiddie, P. 1979 Dendrochronological Studies of Indigenous New Zealand Trees. *New Zealand Journal of Botany* 17:251-266.

El-Bana, M., K. Shaltout, A. Khalafallah, and H. Mosallam 2010 Ecological status of the Mediterranean *Juniperus phoenicea* L. Relicts in the Desert Mountains of North Sinai, Egypt. *Flora* 205:171-178.

Ferguson, C. W. 1970 Concepts and Techniques of Dendrochronology. In *Scientific Methods in Medieval Archaeology*, edited by R. Berger, pp.183-200. University of California Press, Berkeley.

Haury, E. W. 1935 Tree Rings. The Archaeologist's Time-Piece. *American Antiquity* 1(2):98-108.

Haury, E. W. 1962 HH-39: Recollections of a Dramatic Moment in Southwestern Archaeology. *Tree-Ring Bulletin* 24 (3-4):11-14.

Hornung, E., R. Krauss, and D. A. Warburton (editors) 2006 *Ancient Egyptian Chronology*. Brill, Leiden.

Judd N. M. 1962 Andrew Ellicott Douglass 1867-1962. *American Antiquity* 28(1):87-89.

Kitchen, K. A. 2013 Establishing Chronology in Pharaonic Egypt and the Ancient Near East. Interlocking Textual Sources Relating to c.1600-664 BC In *Radiocarbon and the Chronologies of Ancient Egypt*, edited by A. J. Shortland and C. Bronk Ramsey, pp.1-18. Oxbow Books, Oxford.

Kuniholm, P. I. 1980 *Dendrochronology at Gordion and on the Anatolian Plateau*. Ph.D. Dissertation. University of Pennsylvania, Philadelphia.

Kuniholm, P. I. 1990a Aegean Dendrochronology Project: 1989-1990 Results. VI. *Arkeometri Sonuclari Toplantisi*: 127-138.

Kuniholm, P. I. 1991 Aegean Dendrochronology Project. December 1991 Annual Report. <http://dendro.cornell.edu/reports/report1991.pdf>

Kuniholm, P. I. 1992 Aegean Dendrochronology Project Extensions to the Log Chronologies. VIII. *Arkeometri Sonuclari Toplantisi*: 453-464.

Kuniholm, P. I. 2001 Dendrochronology and Other Applications of Tree-Ring Studies in Archaeology In *The Handbook of Archaeological Sciences*, edited by D. R. Brothwell and A. M. Pollard, pp.1-11. John Wiley & Sons, Ltd., London.

<http://dendro.cornell.edu/articles/kuniholm2001a.pdf>

Kuniholm, P.I., and C.L. Striker 1987 Dendrochronological Investigations in the Aegean and Neighboring Regions, 1983-1986. *Journal of Field Archaeology* 14:385-398.

Kuniholm, P. I., B. Kromer, S. W. Manning, M. Newton, C. E. Latini, and M. J. Bruce 1996 Anatolian Tree Rings and the Absolute Chronology of the Eastern Mediterranean, 2220–718 BC. *Nature* 381(6585):780-783.

Kuniholm, P. I., C. B. Griggs, and M. W. Newton 2007 Evidence for Early Timber Trade in the Mediterranean [in:] *Byzantina Mediterranea. Festschrift für Johannes Koder zum 65.Geburtstag*, edited by K. Belke, E. Kisslinger, A. Külzer, and M. A. Stassinopoulou, pp.365-385. Böhlau Verlag, Wien.

Kuniholm, P. I., M. W. Newton, H. Sherbiny, and H. Bassir 2014 Dendrochronological Dating in Egypt: Work Accomplished and Future Prospects. *Radiocarbon* 56(4) and *Tree-Ring Research* 70(3):93-102.

Lev-Yadun, S. 1992 The Origin of the Cedar Beams from Al-Aqsa Mosque. Botanical, Historical and Archaeological Evidence. *Levant* 24:201-208.

Lev-Yadun, S., M. Artzy, E. Marcus, and R. Stidsing 1996 Wood Remains from Tel Nami, A Middle Bronze IIA and Late Bronze IIB Port, Local Exploitation of Trees and Levantine Cedar Trade. *Economic Botany* 50 (3):310-317.

Manning, S. W., M. W. Dee, E. M. Wild, C. Bronk Ramsey, K. Bandy, P. P. Creasman, C. B. Griggs, C. L. Pearson, A. J. Shortland, and P. Steier 2014 High-Precision Dendro-14C Dating of Two Cedar Wood Sequences from First Intermediate Period and Middle Kingdom Egypt and a Small Regional Climate-Related 14C Divergence. *Journal of Archaeological Science* 46:401-416.

Maxwell, R. S., J. A. Wixom, and A. E. Hessler 2011 A Comparison of Two Techniques for Measuring and Crossdating Tree Rings. *Dendrochronologia* 29:237-243.

Nash, S. E. 1998 Time for Collaboration. A. E. Douglass, Archaeologists, and the Establishment of Tree-Ring Dating in the American Southwest. *Journal of the Southwest* 40(3):261-305.

Nash, S. E. 1999 *Time, Trees, and Prehistory: Tree-Ring Dating and the Development of North American Archaeology, 1914-1950*. University of Utah Press, Salt Lake City.

Nash, S. E. 2000 Seven Decades of Archaeological Tree-Ring Dating. *It's About Time. A History of Archaeological Dating in North America*, edited by S. E. Nash, pp.60-83. University of Utah Press, Salt Lake City.

Nash, S. E. 2002 Archaeological Tree-Ring Dating at the Millennium. *Journal of Archaeological Research* 10(3):243-275.

Nash, S. E., and J. S. Dean 2005 Paleoenvironmental Reconstructions and Archaeology. Uniting the Social and Natural Sciences in the American Southwest and Beyond In *Southwest Archaeology in the Twentieth Century*, edited by L. S. Cordell and D. D. Fowler, pp.125-141. University of Utah Press, Salt Lake City.

Reid, J. J. 1993 Emil Walter Haury 1904-1992. *Kiva* 59 (2): 242-59.

Reid, J.J., and S. M. Whittlesy 2005 Seven Years That Reshaped Southwest Prehistory [in:] *Southwest Archaeology in the Twentieth Century*, ed. by L.S. Cordell and D.D. Fowler, pp.47-59. University of Utah Press.

Schweingruber, H. F. 1988 *Tree Rings Basics and Applications of Dendrochronology*. D. Reidel Pub. Co., Dordrecht.

Shaw, I. (editor) 2000 *The Oxford History of Ancient Egypt*. Oxford University Press.

Shmida, A. 1977 Remarks on the Palaeoclimates of Sinai, Based on the Distribution Patterns of Relict Plants In *Prehistoric Investigations in Gebel Maghara, Northern Sinai*, edited by O. Bar-Yosef and J. L. Phillips, pp.36-41. Institute of Archaeology, the Hebrew University of Jerusalem, Jerusalem.

Speer, J. H. 2010 *Fundamentals of Tree-Ring Research*. University of Arizona Press.

Stokes, M. A., and Smiley, T. L. 1996 *An Introduction to Tree-Ring Dating*. University of Arizona Press, Tucson.

Thompson, R. H., C. V. Haynes, Jr., and J. J. Reid. 1997 Emil Walter Haury. *Biographical Memoirs* 72:151-174. National Academy of Sciences of the United States of America. National Academic Press, Washington.

Touchan, R., D. Meko, and M. K. Hughes 1998 A 396-Year Reconstruction of Precipitation in Southern Jordan. *Journal of the American Water Resources Association* 35 (1):49-59.

Touchan, R. and M. K. Hughes. 2009 Dendroclimatology in the Near East and the Eastern Mediterranean Region In *Tree-Rings, Kings and Old World Archaeology and Environment. Papers Presented in Honor of Peter Ian Kuniholm*, edited by S. W. Manning and M. J. Bruce, pp.65-70. Oxbow Books, Oxford.

Towner, R. H. 2002 Archeological Dendrochronology in the Southwestern United States. *Evolutionary Anthropology* 11(2):68–84.

Webb, G. E. 1983 *Tree Rings and Telescopes. The Scientific Career of A. E. Douglass*. University of Arizona Press, Tucson.



# Five Ancient Egyptian Wooden Objects at Arizona State Museum

**Hend SHERBINY and Hussein BASSIR**

**Abstract** Although Egypt was not that rich in producing local wood of good quality, the ancient Egyptians - the elites and more especially people of lower classes used Egyptian wood in producing statuettes, coffins, funeral boxes and furniture.

The article publishes five of six wooden pieces exhibited in the Arizona State Museum at the University of Arizona, Tucson, United States of America.

These five wooden pieces are kneeling statuettes of Isis and Nephthys, a statuette of a Nubian figure, a hand, and a fragment of a painted coffin.

The sixth is a statuette of a Hawk (Horus) published in the *Cahiers Caribéens d'Égyptologie* 19-20, 2015, pp.83-88.

**Keywords** Egyptian local wood, Arizona State Museum, Isis, Nephthys, Nubian, Hand, Coffin

## Introduction

The Arizona State Museum (ASM hereafter) has a small collection of Egyptian artifacts, including ceramic vessels from the Predynastic and Dynastic Periods, lamps, statuettes, amulets, and miscellaneous artifacts from all periods. In this article, we present for the first time five of the six wooden objects from this collection, which were collected in the Nineteenth century and early Twentieth Century AD.

## Two Kneeling Wooden Female Figurines

The two figurines depict the ancient Egyptian goddesses Isis and her sister Nephthys (Servajean, 2008), the first mourners in ancient Egyptian mythology whose role was focused on mourning over the dead as they did over their dead brother Osiris, the god of the dead and the hereafter.

**Wooden Kneeling Deity Statuette: Isis or Nephthys (ASM #13203) (Figure 1)**

**Provenance:** Egypt, provenience unknown

**Material:** Wood, probably local Egyptian

**Dimensions:** H. 0.193; Max. W. from knee: 0.05; Max. Depth 0.065 m.

**Date of Acquisition:** May, 1924

**Donor:** Miss Lily S. Place, collected in Cairo in the 1920s

A kneeling figure in the attitude of prayer, carved in the round, decorated in green, reddish-brown and black paint in a slightly sloppy fashion over a ground of white gesso (plaster). Nearly intact with well-preserved painted decoration; many chips missing from surface especially from top of head. It is attached at the



bottom to a modern wooden base with a Nephthys (ASM #13203) (Photograph by Hend Sherbiny) probably modern wooden dowel. The figure holds her two parallel hands cupped and toward her face; hands are flat with indentations on top to indicate fingers. The head is block-like with painted details: long black wig with a straight line across the forehead, locks falling to her small round bare breasts and in back above her waist. The eyes are treated slightly differently, the left eye is more boldly outlined as an elongated oval with thick black eye liner surrounding the eye and continuing to the hair line; the eyeball is attached to the upper lid as if the figure is looking upward. The right eye is smaller than the left one with a large circle for the eyeball in the middle of the eye. The left eyebrow, painted in black, is thicker than the right one and is treated as a raised surface. The oval ears are carved, and in front of them are possibly painted earrings. The chin is flat on the bottom. Very high cheekbones and sunken cheeks. The skin of the face, bare upper body and the arms is painted reddish-brown. Her back is curved to her waist, her lower body is painted in green to indicate a skirt that covers her to her ankles. Her bare feet are pointed down and the bottom surface is outlined in black. A hole has been drilled in the bottom surface to receive the dowel (ancient [?]). Part of a pair with # 13204. The figure is probably made of local wood. The painting and style of carving are rather crude. It is obvious that that both statuettes came from a regional workshop and were made by a local artist. They almost certainly came from a tomb and were placed at the head and foot of the coffin, probably attached to a coffin box-put there to give the dead the

absolute protectiveness the two sisters could offer. Isis and her sister Nephthys were the prototypes for mourners in ancient Egyptian civilization when they were crying over their brother Osiris. They often appear in Egyptian art with Nephthys standing at the head of her brother (later at the head of the deceased) and Isis at his feet. Isis and Nephthys give the deceased the breath of life which the tomb owner needs to be reborn in the underworld. In ancient Egyptian art the depth of human feelings was depicted with gestures more than facial features. For example, a woman who was mourning was depicted raising one hand in front of her head, perhaps referring to throwing sand upon the head, or covering the face with a hand while crying (Malék, 2003: 289). The famous funeral scenes in ancient Egyptian art are those from Remoze's tomb (TT 55) (Kozloff, 2009: 40-50; Hodel-Hoernes, 2000; Martín Valentín, 1991: 57-78), and the vizier Nespakashuty (from Dynasty 26) (Pischikova 1998: 57-101; 2002: 967-977; 2006: 13-18). Isis appears in the Pyramid Texts over 80 times assisting the deceased king. In later periods her protective role extended to nobles and common people. According to the Heliopolitan sun cult, Isis and Osiris were children of Geb and Nut; then she became his wife and helped him rule over Egypt. After her husband's death and dismemberment by his half-brother Seth, Isis along with her sister Nephthys mourned and began to collect the parts of his scattered body. Among Isis's many aspects are as mother and protector to Horus, mother of the king, goddess of cosmic association, "great of magic" *wrt ḥkꜣw* Weret-Hekau (Ouda, 2014), mourner, and sustainer and protector of the deceased. Isis is represented in the form of a woman wearing a long tight dress and crowned with her name, the hieroglyphic "throne" sign. From the beginning of the Eighteenth Dynasty, she is crowned with the solar disk between two horns (Wilkinson, 2003: 146-149). Her special symbol is an amulet known as the "tyet." Isis is the Greek name of the Egyptian goddess "Aset" or "Eset" Ast. In fact, Isis was very well liked by the Greeks and Romans. Isis was thought to watch over the people of the Nile while her husband Osiris spread civilization to the rest of the world. In many ancient Egyptian texts, Isis is one of the Ennead, a group of nine gods and goddesses involved in the origins of all things. First there was Atum, "the all," who brought into being Shu, "air," and Tefnut, "moisture." Shu and Tefnut together had two children, Geb, "earth," and Nut, "sky." Geb and Nut had four children, Osiris, Seth, Isis and Nephthys. According to Egyptian mythology, the god Osiris was murdered by his brother Seth. Isis and her sister Nephthys collected the parts of Osiris's body, whereupon Isis brought Osiris back

to life long enough to get pregnant with his son. Isis gave birth to the god Horus, who later fought against Seth for the right to succeed Osiris on the throne. Isis, along with her husband and brother, Osiris, was most often associated with the funerary cult and the afterlife. Together with three other goddesses, she was thought to guard the internal organs of a deceased person at the time of judgment. Isis, Osiris, and Horus were especially worshipped at the city of Abydos, but reverence for all of them was widespread. Isis made the first mummy from the scattered parts of Osiris using her wings to give him the breath of life. In this operation, she magically gets pregnant by her husband Osiris in their son and heir, Horus (Shaw and Nicholson, 1995: 142; Pinch, 2002: 149-152).

Isis was associated with dawn, while her sister Nephthys was associated with twilight. An annual "Lamentations of Isis" was held in Egypt, commemorating the moment when Isis and Nephthys bewailed the death of Osiris (Griffiths, 2001: 188-191; 2002: 169-172). The identity of Isis was transformed in the Hellenistic Period as a moon goddess, and during post-Pharaonic eras, the cult of Isis expanded to become a universal cult (Belia 1998: 539-550). The ASM statuettes are poorly painted and carved possibly indicating that they were made by a regional workshop. They probably date from the Late Period to the Ptolemaic Period.

### **Wooden Kneeling Deity Statuette: Isis or Nephthys (ASM #13204) (Figure 2)**

**Provenance:** Egypt, provenience unknown

**Donor:** Miss Lily S. Place

**Material:** Wood, probably local Egyptian

**Dimensions:** H. 0.201; Max. W. from knee: 0.049; Max. Depth 0.08 m.

**Date of Acquisition:** May, 1924, collected in Cairo in the 1920s

Similar to # 13203 with some differences in the painted details; the eyes are not heavily painted; there are splotches of red paint on the right hand, left arm and right thigh; the separately-made dowel is secured to the body beneath her buttocks; there is no indication of earrings; the chest protrudes as single mound with individual breasts not indicated; the head is more rounded and the features are smoother; the hands are flat and there is no indication of fingers; on the left eye the eyeball is depicted as a streak of black paint. Nearly intact with well-preserved painted decoration; many chips missing from surface especially from top of head.

This figure appears to be part of a pair with #13203. This kneeling figure refers to either Isis or Nephthys. The remarkable feature of this statue is the falling tear from the left eye as if the artist wanted to stress the mourning role of the goddess as she cries over the deceased. Her role is complementary to her sister Isis who is in mourning and protecting the dead. Nephthys is always portrayed as a woman with her name “*nb-ḥwt*” on her head. Sometimes she is depicted stretching out her wings. Nephthys is associated with funerary concepts; she protects the Canopic jars; and she is associated with Hapi as the guardian of the lungs (Eggebrecht, 1977: 951-952). She appears in the myth of Heliopolis where her role in the Osiris myth is to support her sister Isis. Nephthys became one of the major deities who were protectors of the dead, and along with Isis, she was one of the four guardian deities of the Canopic jars (Doxey, 2001: 518-519; (Photograph by Hend Sherbiny) 2002: 275-276; Wilkinson, 2003: 159-160).



**Figure 2: Wooden Kneeling Deity**  
Statuette: Isis or Nephthys (ASM #13204)  
(Photograph by Hend Sherbiny)

### **Wooden Statuette of a Nubian Figure (ASM#A-1479) (Figure 3)**

**Provenance:** Egypt, provenience unknown

**Material:** Wood, probably local Egyptian

**Dimensions:** H. 0.18; Max. W. from knee: 0.04; Max. Depth 0.053 m.

**Date of Acquisition:** September 5, 1940

**Collector:** David E. Heineman of New Jersey, collected before 1900

**Donor:** R.E.S. Heineman

Small wooden statuette of seated figure, carved in a single piece. Nearly intact with well-preserved painted decoration; many chips missing from surface, especially from lower part of the body. The separately attached arms are missing; and the surface around the arms, especially the right one, is broken. On the right side of the statuette there is a possible ancient repair: a squarish plug used to block a break or hole in the wood. The arms were separately attached with small wooden dowels.

The skin of the face, neck, torso and legs is painted red; there are some traces of white gesso on the kilt from waist to below the knees. The figure is wearing a short dark brown wig, small fragments of white gesso on the unpainted part of the wig. The head is round and tilted slightly upward. The eyes are well carved and outlined with black eyeliner; the white in both eyes is very obvious, showing the contrast between the dark skin and the eyes. The triangular nose is wide and flat. The mouth is a barely carved surface. The cheekbones are round and the chin is flat. The neck and torso are elongated; the chest is bare with a flat stomach; a ridge separates the nude torso from the kilt. He wears a white skirt reaching below the knees. The legs carved as one block separated by a groove and the feet are distinguished only by a slight protrusion. Beneath the torso there is a hole with the remains of a small wooden dowel inside. The bottoms of the feet are outlined in black.



**Figure 3: Wooden Statuette of a Nubian Figure (ASM#A-1479)**  
(Photograph by Hend Sherbiny)

This statuette probably represents a Nubian figure, to judge from skin color. The ancient Egyptians had dealt with the Nubians since ancient times. Unlike Africans from the innermost parts of Africa, the Nubians were different. They were not isolated from the outside world because of the mountains, desert, and the ocean. Their ancient ancestral home was along the middle Nile, and they were able to communicate with other parts of Africa and the Mediterranean Sea along sea routes. The earliest Egyptian monument from Nubia is a rock inscription from the second cataract which appears to be a record of a campaign by a first dynasty king, probably Djer. From the Fourth Dynasty, under King Khafre, diorite for his statues was being quarried to the west of Toshka and a small settlement that has evidence for copper mining community in Bohén (Welsby, 2001: 551-557). In the Middle Kingdom military expeditions were sent to guard the Nile at the cataract. Lower Nubia became part of the Egyptian sphere in the New Kingdom, so many Egyptians employees, including priests, were sent to work there (Baines and Malék, 1982: 178-179; Gordon, 2001: 544-548).



This statuette probably came from a tomb of an army soldier, and not a general because it is not of high quality. It is hard to give a date for this figure but probably it is the same date as the Horus figure as they were from the same collector David E. Heineman (maybe from the same tomb) so the date could be from the Late Period to the Ptolemaic Period.

#### **A Wooden Hand (ASM #A-2989) (Figure 4)**

**Provenance:** Egypt, provenience unknown

**Material:** Wood, probably local Egyptian

**Dimensions:** H. 0.22; Max. Width: 0.07; Max. Th. 0.01 m.

**Date of Acquisition:** October 15, 1942

**Collector:** David E. Heineman, collected ca. 1900

**Donor:** R.E.S. Heineman

Nearly intact with well-preserved painted decoration. Many chips missing from upper surface. Remains of black and orange colors above a yellowish-white gesso. The side of the thumb is broken off. This is a life-sized right hand with flat and elongated fingers with slight indentations for the nails. There is a hole through the hand above the wrist for attachment. The flat underside (inside of the hand) was left unpainted. This was identified by Dows Dunham (Museum of Fine Arts, Boston) as a wooden hand from a mummy case. In our opinion, this wooden hand was part of a wooden statue, and not of a mummy-case or anthropoid coffin. Mummy cases are boxes fitting between the mummy and coffin. Mummy cases were made of cartonnage, a lightweight material made of papyrus waste and linen covered in plaster. The cartonnage material allowed the case to be molded closely with the outline of the mummy, a wonderful material for paint. Mummy cases were elaborately decorated with a variety of religious scenes (Spencer, 1982; Taylor, 1989). We believe the flat unpainted inside of the hand indicates that it was attached to a flat surface and would not have been seen.



**Figure 4: A Wooden Hand (ASM #A-2989) (Photograph Hend Sherbiny)**

The hands lay flat beside her body, with the inside of the hands invisible. The unpainted inside of the hands, therefore, makes sense. So the ASM hand could be a hand attached to a statue like that or of a wooden coffin. The ASM hand came from the collector

of Horus and the Nubian David E. Heineman, so it could be probably dated from the Late Period to the Ptolemaic Period.

#### **A Fragment of Painted Wooden Coffin (ASM #A-2990) (Figure 5)**

**Provenance:** Egypt, provenience unknown

**Material:** Wood, probably local Egyptian

**Dimensions:** L. 0.14; Max. Width: 0.035; Max. Th. 0.022 m.

**Date of Acquisition:** October 15, 1942

**Collector:** David E. Heineman, collected ca. 1900

**Donor:** R.E.S. Heineman

This fragmentary wooden piece of a coffin is broken off at the two short ends. The right side is finished and the surface is painted orange, while the finished (?) left side has no painted decoration. The pigments are well preserved with orange, green, black, and red colors over a layer of gesso, with a glaze applied to the surface. The underside is not painted (broken?). A rectangular fragment with painted decoration in registers; the registers are separated by orange bands outlined in red. The decoration in the top register is not clear; the second register from the top has vertical stripes in black, red and green; the glaze has left a messy area over part of the first and second registers. The third register has flanking squares of red and dark green with a light green stripe in the middle. The fourth register has three oval petal shapes in dark green. The bottom preserved register has on a left side a feather symbol in black and green for the letter J; above it is the symbol for lake in red, and a line in black to represent water, and a symbol of a house outlined in black.



**Figure 5: A Fragment of Painted Wooden Coffin (ASM #A-2990) (Photograph Hend Sherbiny)**

For this small piece of a coffin, independent dating evidence is of the highest value, as it does not depend on assessments of stylistic features, which may be subject to periodic revision. So the most reliable method of dating is by inscriptions which associate a coffin directly with a particular king or other well-dated historical personage, such as a God's wife of Amun or high priest (Taylor, 2003: 95-121). As for this piece of coffin it reads "Temple of Amun" so maybe it belongs to one

of high priests of Amun during the Late Period which the worship of God Amun reached its peak. There is a short inscription that probably reads, *Jmn pr*, “Temple of Amun”, perhaps part of the coffin owner’s title.

## Conclusion

Wood was used in ancient Egypt for different purposes such as making statues, furniture, coffins, and funeral boxes. Ancient Egyptian local woods are sycamore fig (*Ficus sycomorus*) *nht* (Hannig, 2006: 442; *WB* II: 282 [7-13]; Gale et al., 2000: 340-341), the Nile acacia (*Acacia nilotica*) *šndt/šnd* (Gale et al., 2000: 335-336; Hepper, 1990: 22-23), and tamarisk (*Tamarix nilotica* and *Tamarix aphylla*) *jsr* (*Wb*. I: 130; Hannig, 2006: 116-117; Gale et al. 2000: 345), Carob (*Ceratonia siliqua*) *ndm* (Baum, 1988: 162-168; Lucas and Harris, 1989: 443; Gale et al., 2000: 338), Dom Palm (*Hyphaene thebaica*) *m3m* (Hannig, 2006: 338; Gale et al., 2000: 347; Lucas and Harris, 1989: 444; Baum, 1988: 106-120), and Date Palm (*Phoenix dactylifera*) *bnrt* (Greiss, 1957: 41-48, 112, 114, 147-148; Hannig, 2006: 271; Baum, 1988: 90-106; Gale et al., 2000: 347-348). These species usually produced not good quality wood with short lengths and cross section which limited the kinds of constructions (Killen, 2001: 516-519). Ancient Egypt’s imported woods (Davies, 1989: 146-156) are cedar (*Cedrus libani*) *mrw/š* (Meiggs, 1982: 49-87; *Wb*. I: 228 [1-5]; Lucas and Harris, 1989: 432; Gale et al., 2000: 349-350; Nibbi: 2003, 69-83), and juniper from the Levant, and Cypress (*Cupressus sempervirens*) (Gale et al., 2000: 350; Hepper, 1990: 46; Lucas and Harris, 1989: 434). Although Egypt was not that rich in producing local woods of good quality, the ancient Egyptians tried very hard to overcome this problem by using what nature gave them especially people of low class who used that local wood in producing statuettes, coffins, and furniture. What we have presented here in our article are six wooden pieces of local wood and they are very poorly manufactured which suggests to us that these pieces were local art, or part of a mass production.

## Bibliography

- Baines, J. and J. Malék (1982). *Atlas of Ancient Egypt* (New York).
- Baum, N. (1988). *Arbres et Arbustes de l’Égypte Ancienne: La Liste de la Tombe Thébaine d’Inéni (no 81)* (Leuven).
- Davies, W.V. (1989). “Ancient Egyptian Timber Imports: An Analysis of Wood Coffins in the British Museum”, In W.V. Davies (ed.), *Ancient Egypt Near East and the Levant* (London): 146-156.
- Delia, D. (1998). “Isis, or the Moon”, In W. Clarysse, A. Schoors, and H. Willems (eds.), *Egyptian Religion: The Last Thousand Years: Studies Dedicated to the Memory of Jan Quaegebeur*. Vol. I (Leuven): 539-550.
- Doxey, D.M. (2001). “Nephthys”, In D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt*. Vol. II (Oxford): 518-519.

- Doxey, D.M. (2002). “Nephthys”, In D.B. Redford (ed.), *The Ancient Gods Speak: A Guide to Egyptian Religion* (Oxford): 275-276.
- Eggebrecht, A. (1977). “Hapi”, In W. Helck and E. Otto (eds.), *Lexikon der Ägyptologie*. Vol. II (Wiesbaden): 951-952.
- Forman, W. & S. Quirke (1996). *Hieroglyphs and the Afterlife in Ancient Egypt* (London).
- Gale, R., P. Gasson, N. Hepper, & G. Killen (2000). “Wood”. In P. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology* (Cambridge): 334-371.
- Gordon, A. (2001). “Foreigners”, In D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt*. Vol. I (Oxford): 544-548.
- Greiss, E.A.M. (1957). *Anatomical Identification of Some Ancient Egyptian Plant Materials* (Cairo).
- Griffiths, J.G. (2001). “Isis”, In D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt*. Vol. II (Oxford): 188-191.
- Griffiths, J.G. (2002). “Isis”, In D.B. Redford (ed.), *The Ancient Gods Speak: A Guide to Egyptian Religion* (Oxford): 169-172.
- Hannig, R. (2006). *Großes Handwörterbuch Ägyptisch-Deutsch (2800-950 V.Chr.): Die Sprache der Pharaonen* (Main am Rhein).
- Hepper, N. (1990). *Pharaoh’s Flower: The Botanical Treasures of Tutankhamun* (London).
- Hodel-Hoernes, S. (2000). *Life and Death in Ancient Egypt: Scenes from Private Tombs in New Kingdom Thebes* (Ithaca).
- Killen, G. (2001). “Woodworking”, In D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt*. Vol. III (Oxford): 516-519.
- Kozloff, P.A. (2009). “What the Workmanship in Ramose’s Tomb (TT55) Tells us about Its History”, *KMT* 20.1: 40-50.
- Leitz, C. (ed.). (2002). *Lexikon der ägyptischen Götter und Götterbezeichnungen* (Leuven).
- Lucas, A. & J.R. Harris (1989). *Ancient Egyptian Materials and Industries* (London).
- Malék, J. (2003). *Egypt: 4000 Years of Art* (London-New York).
- Meiggs, R. (1982). *Trees and Timber in the Ancient Mediterranean World* (Oxford).
- Nibbi, A. (2003). “Cedar yet Again”, *DE* 56: 69-83.
- Ouda, A.M.M. (2014). Weret-hekau “Great of Magic” in the Religious Landscape of Ancient Egypt (Ph.D. Dissertation, University College London, London).
- Pinch, G. (2002). *Handbook of Egyptian Mythology* (California).
- Pischikova, E. (1998). “Reliefs from the Tomb of the Vizier Nespakashuty Reconstruction, Iconography, and Style”, *MMJ* 33: 57-101.
- Pischikova, E. (2002). “Thirteen Images of the Vizier Nespakashuty of Dynasty 26”, In M. Eldamaty & M. Trad (eds.), *Egyptian Museum Collections around the World*. Vol. II (Cairo): 967-977.
- Pischikova, E. (2006). “Conservation and Reconstruction of the Tomb of Nespakashuty (TT 312) at Deir El Bahri II”, *BARCE* 189: 13-18.
- Servajean, F. (2008). “Duality”, In J. Dieleman and W. Wendrich (eds.), *UCLA Encyclopedia of Egyptology* (Los Angeles).
- Shaw, I. & P. Nicholson (1995). *The British Museum Dictionary of Egyptian Ancient* (Cairo).
- Martín Valentín, F. (1991). “En torno a la tumba de Ramose (No 55 de Sheikh Abd el Gurnah)”, In L.A. García Moreno & A. Pérez Largacha (eds.), *De Narmer a Ciro (3150 a. - 642 d. C.)* (Alcal de Henares): 57-78.
- Wb.*=Eрман, A. and H. Grapow (1926-1963). *Wörterbuch der Ägyptischen Sprache*. 7 vols. (Berlin).
- Welsby, D.A. (2001). “Nubia”, In D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt*. Vol. II (Oxford): 551-557.
- Wilkinson, R.H. (2003). *The Complete Gods and Goddesses of Ancient Egypt* (London).





**DESERT AND THE NILE.  
LATE PREHISTORY  
OF THE NILE BASIN  
AND THE SAHARA  
Poznan 1-4 July 2015**

<http://www.muzarp.poznan.pl/lpnea>

Un certain nombre de communications ont documenté contexte géographique et cours des contraintes climatiques qui imposent leur tempo historique aux sociétés humaines qui se développent dans l'Afrique du Nord-Est.

**Romuald SCHILD** (*A major culture change in the South Western Desert of Egypt and the 8.2 ka event*) revient sur les travaux géomorphologiques et archéologiques de la *Combined Prehistoric Expedition* (1990-2008) dans le Désert occidental de l'Egypte sur une centaine de sites du désert occidental de l'Egypte dans la région de Nabta Playa, Bir Kiseiba, Gebel Ramla et celle du Gebel El Sheb. Les horizons archéologiques les plus anciens de ce vaste réseau de fouilles sont stratifiés dans des dépôts éoliens, lacustres et fluviaux complexes, riches en traces d'habitat et vestiges fossiles de la faune et de la flore, qui ont pu fournir des datations au C14. La série comporte une suite de strates dues à l'érosion éolienne dépourvue de traces archéologiques, identifiable à la « 8.2 ka rapid, hyperarid climatic pulsation, corresponding with the 8.2 ka global cold event known from the Greenland ice cores ». L'hyperaride y sépare deux modèles culturels différents, le plus ancien, *Al Jerar, or late Final Neolithic*, basé sur la cueillette des plantes et la chasse du petit gibier, et le plus jeune, *Ru'at el Ghanam, or Middle Neolithic*, sur le pastoralisme et la chasse. «Dissimilar stylistic and technological making of the artifact assemblages in the two units reflects dramatically different modes of flint and pottery processing».

**Jan KUPER** (*Territorial patterns in the Epipalaeolithic of the Eastern Sahara*) rappelle qu'avec «the northward shift of the monsoon rain belt at the beginning of the Holocene, the Eastern Sahara was reoccupied by small groups of highly mobile Epipalaeolithic hunter-gatherers» caractérisés par une stratégie de mobilité résidentielle et produisant un éventail uniforme d'artefacts de pierre sur environ deux millénaires. Les recherches sur les assemblages lithiques de l'Egypte, du Soudan et de la Libye suggèrent un tableau d'anciens réseaux culturels distincts.

**Heiko RIEMER** (*The rock art landscape of Wadi Sura, Gilf Kebir: Results from the 2009-2015 investigations*) éclaire le tableau par les données du site de Wadi Sora dont le *rock art of the phase of hunter-gatherers* étayé par l'étude des pigments et d'un outillage lithique explicables en termes de mobilité peut être daté entre 6500-4400 cal BC...Les sites rupestres socialisent le territoire auquel ils sont intégrés, *connected by path systems*.

Pour les périodes suivantes, marquées par le développement du pastoralisme dans tout le bassin soudano-égypto-libyen, et la sédentarisation dans les oasis et la vallée du Nil, nous renvoyons le lecteur aux **Abstracts** du LPNEA XI :

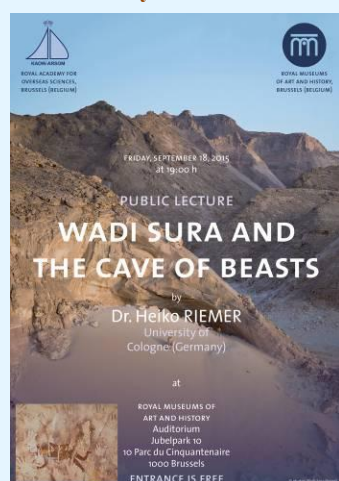
<http://www.muzarp.poznan.pl/en/activities/conferences/lpnea/abstracts/>







Synthèse de **Rudolph Kuper**, interventions de **Louis Chaix**, **Elliot Braun**, **Andres Zboray**



Présentation scientifique de Wadi Sura par **Heiko Riemer** à Poznan  
et **affiche** de sa conférence à Bruxelles destinée au grand public



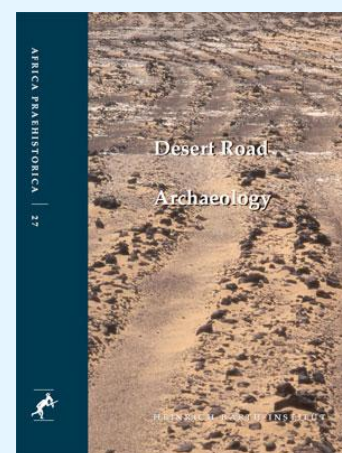
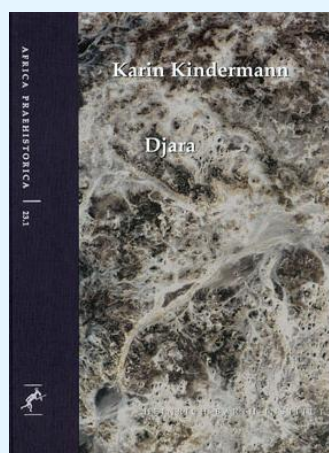
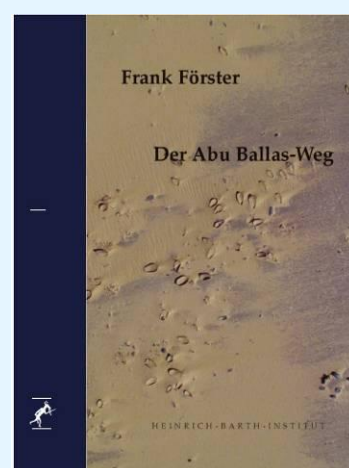
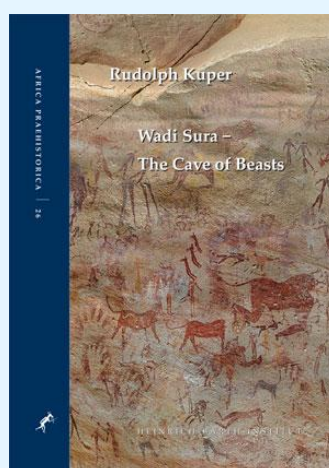
Conversations : **Romuald Schild** et **Krzysztof Cialowicz**.  
**Ulrich Hartung** et **Mariusz Jucha**.

Un congrès n'est jamais un point final, mais l'aboutissement des recherches en cours et un nouveau point de départ depuis les « **hubs** » des groupes de recherche.

L'intervention de **JOANNE ROWLAND**

*New perspectives on the use of space in and around the settlement at Merimde Beni Salama during the Neolithic (Abstracts p.33)* s'inscrit dans la constellation de ses participations aux recherches à la datation des espaces africains aussi bien qu'aux études des changements technologiques économiques et sociaux qui traversent des régions plus vastes.

(Bronk Ramsey, C., Dee, M.W., Rowland, J.M., et al., 2010. *Radiocarbon-based chronology for Dynastic Egypt*. Science 328 (5985), 1554-1559.)/ *Revolutions. Neolithisation of the Mediterranean Basin : the transition to food producing economies in North Africa and Southern Europe*, Topoi, Freie Universität, Berlin, October 29-31 2015).





On trouvera les résumés des interventions de **IKRAM MADANI AHMED**

et des membres de la délégation d'archéologues soudanais :

**Hassan Mustafa Alkhidir Ahmed, Yahia Fadl Tahir Fadl, Galia Gar el-Nabi, Mohamed Aliatih Hayati, Ahmad Hamid Nassr Hamd, Abdelrahim Mohamed Khabir** (Universités de Khartoum, Al Neelain et de Juba) dans les Abstracts du Symposium LPNEA XI de Poznan, 2015.



<http://www.muzarp.poznan.pl/en/activities/conferences/lpnea/abstracts/>

Et ci-dessous un condensé des interventions de **Heba Ibrahim (Egypte)** et de **Negood Bashier (Soudan)**.

### **Hebat Allah A. A. IBRAHIM**

*Neolithic occupants settled in several localities in the Western Desert.*

Before the first known Neolithic settlements along the Nile Valley, when the climate allowed them to have seasonal camps on shores of lake lakes were created from the rainfall that the Western Desert was receiving in that period, between 50 and 200 mm/year on the basis of fauna and flora identifications. Nabta was one of the biggest Neolithic sites of the area, 170 km southwest of Abu Simbel and 30 km north of the Egyptian-Sudanese border. The way of life of Neolithic occupants of the area differed from those who lived along the Nile Valley later. They had their own types in ceramic production, a distinctive lithic tool kit, and built the Nabta Playa megalithic ceremonial center, one of the oldest in the world, and unique in Africa. The idea of megaliths started at that large basin in the Western Desert and appears to extend to other areas in the Nile valley and some sites of the Eastern Desert during the Neolithic and into the following periods of Predynastic and Early Dynastic Egypt.



### **Negood Hassan BASHIER**

*Nile as the main transport artery in the ancient Sudan.*

As a main water artery, the Nile played a very important role in the kingdoms of ancient Sudan. The ancient Sudan population depended on the Nile in their daily lives for food and transport.

The Nile was the main trade route for the countries of the ancient world- described by historians like Herodotus, Strabo, and Pliny.

The Meroites made ships and boats to facilitate the trade on the Nile. The kingdom of Meroe took control over the trade routes and put military points along the Nile. In the ancient time, travelling on the Nile was much safer.

The shift of the trade route from the Nile to the Red Sea was one of the most crucial reasons that led to the end of the Kingdom of Meroe.



Pour les Actes des dix premiers **LPNEA** et les publications complémentaires des **Studies in African Archaeology**, nous renvoyons à :

<http://www.muzarp.poznan.pl/en/activities/publications/museum-publications/series-studies-in-african-archaeology/>

The last publication  
edited by **J.Kabacinski,**  
**M. Chlodnicki**  
& **M.Kobusiewicz**

**Hunter-Gatherers and Early Food Producing Societies in Northeastern Africa**

Edited by  
Jacek Kabaciński, Marek Chłodnicki  
and Michał Kobusiewicz



POZNAN ARCHAEOLOGICAL MUSEUM

see also <https://www.facebook.com/lpnea>



**Jacek Kabacinski, the Polish team and the Egyptian archaeologist Heba Ibrahim on the site of Gebel Ramlah (Egypt).**



**Workshop for Sudanese archaeologists in Khartoum in 2013**

# Communications

from Papers and posters, International Congress of Egyptologists XI, 2015



## **ZEINAB S.HASHESH**

*Ministry of Antiquities, Egypt*

### ***A Good Season to die: Variability in Seasonality of Death in Late Period Cemeteries***

The spatial orientation of Ancient Egyptian interments is part of a larger system of funerary ritual and beliefs, which places the body of the deceased between the realms of the dead and the living through the liminal act of burial. Though burial orientation changed over time, directionality was clearly important, and carried connotations of symbolism related to the belief in the afterlife. Interestingly, there appears to be two different symbolic connotations at play, one connected with the direction the dead were facing, and one with the position of the body as a whole. Burial alignment was closely associated with the movement of the sun across the sky, particularly from the New Kingdom onward, and the bodies of the deceased were often aligned east-west according to the setting sun, with the head to the west, towards the realm of Osiris, and facing east, towards the origin of new life. Assuming, then, that this orientation was intentional, we can use the variation in alignment – caused by the movement of the earth around the sun - to calculate the seasonality of burial in cemetery samples using different methods such as archaeoastronomy and statistical analysis of field measurement data. This paper will compare the results of the burial alignment analysis at the Late period cemeteries at Memphis Necropolis. The variation in seasonality between Cemeteries could be due to economic and religious reasons ,also the correlations between certain diseases and seasonality of death.

(Papers and posters, ICE XI 2015, in Posters, 172-173).

## **GLOBAL EGYPTIAN HERITAGE**



**IBRAHIM A. A. IBRAHIM**

### ***Networking the Global Egyptian Heritage: Fayoum as a Case Study***

The great number of Egyptian artifacts now on display in museums around the world indicates how important it is to link this heritage across the globe.

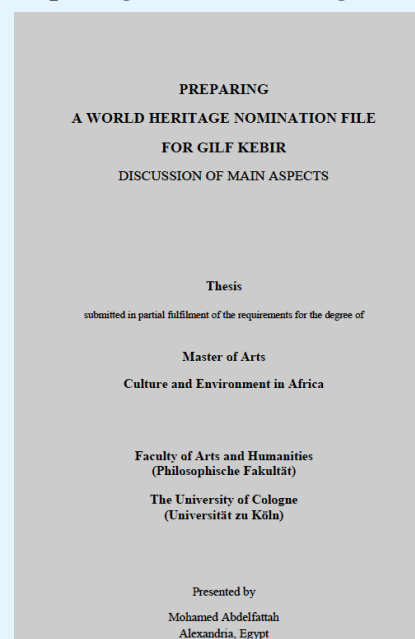
Fayoum, in particular, has been a principal region of outstanding historical significance throughout the history of Egypt, reflecting its special geographical and cultural position within the provinces of Egypt.

The Heritage of Fayoum in the world reflects the importance of the region in ancient times. Of particular note may be cited its prominence during Neolithic, Middle Kingdom, Graeco-Roman and Islamic times.

Today there are new opportunities for establishing links and connections; in directions previously unthought-of for many researchers. The paper will discuss the researcher's project concerning Fayoum heritage in the world museums with its possibilities and challenges to bridge the gaps between archaeology, museology and tourism.

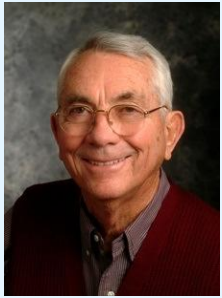
## **MOHAMED ABDELFAHATTAH**

### ***Preparing a World Heritage nomination file of Gilf Kebir***





## HOMMAGE A FRED WENDORF (1924-2015)



Né au Texas en 1924, Fred Wendorf nous a quittés le 15 juillet 2015 à l'âge de 90 ans, une dizaine de jours après le onzième **Late Prehistory of the North Eastern Africa** de Poznan (Pologne).

Il fit la Seconde Guerre Mondiale et fut très gravement blessé à la tête de son peloton lors d'un assaut contre les lignes nazi dans les Apennins en Italie. Après deux années passées dans les hopitaux militaires, il reprit en 1948 ses études (commencées en 1942) à l'Université d'Arizona et les acheva à Harvard en 1953. Après avoir conduit le projet d'archéologie préventive des sites échelonnés le long du premier pipeline de gaz naturel à avoir été construit, et contribué à la législation fédérale en ce domaine, il dirigea en 1954 les fouilles du site du « Midland Man », dont la tombe du Pleistocène tardif livra les plus anciens restes humains alors trouvés dans toute l'Amérique. Il poursuivit ses campagnes archéologiques au Texas et au Nouveau Mexique, où en 1958, il devint directeur associé du Musée de l'Etat à Santa Fé. A partir de 1964, il organisa le département d'Anthropologie de la Southern Methodist University, ses enseignements, ses formations, ses recherches.

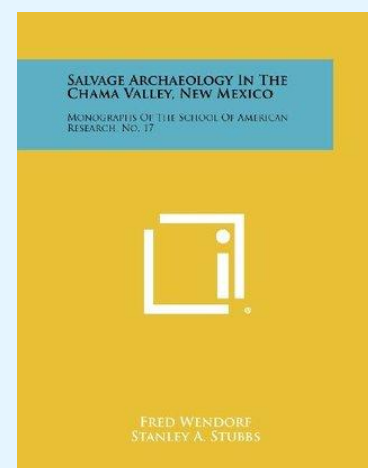
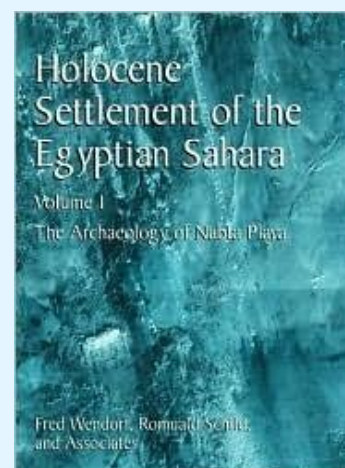
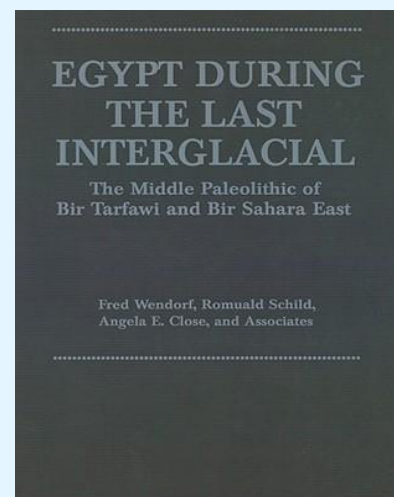
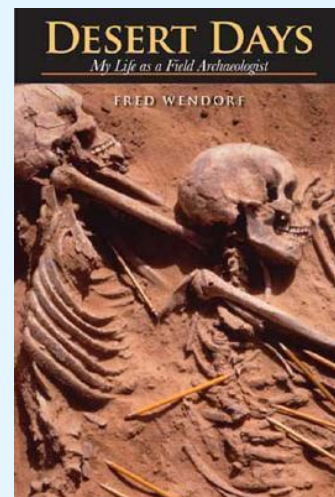
En 1962, l'**UNESCO** l'invita à intervenir dans le cadre des opérations de sauvetage des monuments de Basse Nubie pendant la construction du barrage d'Assouan. La campagne nubienne de sauvetage eut pour bénéfices collatéraux la découverte de centaines de sites préhistoriques le long du Nil de la Haute Egypte à la seconde cataracte au Soudan, et dans toute l'Afrique du nord-est (désert occidental de l'Egypte, Soudan, Ethiopie). Fred Wendorf rassembla des équipes de chercheurs anglais, français, belges, polonais et égyptiens en une **Combined Prehistoric Expedition** qu'il dirigea jusqu'en 1999, de concert avec le Professeur Romuald Schild (**Institut d'Archéologie de l'Académie Polonaise des Sciences**).

Les travaux de Fred Wendorf -sur la poterie préhistorique du Sahara et de la vallée du Nil, les tombes de taureau, les sites mégalithiques (Nabta Playa, Kubbaniya) et la complexité sociale croissante dont ils témoignent- reculent dans le temps et dans l'espace l'arrière-pays des cultures de la vallée du Nil dont va surgir la civilisation pharaonique à partir du milieu du IV<sup>e</sup> millénaire BC.

Venant -comme *Michael A. Hoffman* plus tard en 1980 à la tête de la *Hierakonpolis Expedition*- de l'archéologie amérindienne, il se trouvait sans doute moins tributaire des belles lettres classiques, indéniablement utiles par tout ce qu'elles ont ressorti du passé, souvent dans le cadre d'expéditions sponsorisées par des collectionneurs, mais longtemps posées comme mètre étalon des concepts et des paradigmes de la recherche. Aussi fut-il de ceux qui renouvelèrent une recherche aujourd'hui explosant en questionnements interdisciplinaires d'une rare fécondité, conduite dans des cadres scientifiques, universitaires et muséographiques autrement assurés et rigoureux.

(Sources exploitées : Southern Methodist University, Austin, Texas)

## QUELQUES OUVRAGES DE FRED WENDORF



## Celles qui donnent de l'avenir au passé ...

**HIER...** Au début des années cinquante du vingtième siècle, des initiatives avaient montré l'intérêt mutuel de la coopération des professionnels Egyptiens de la muséographie et de l'archéologie et des musées des pays d'autres continents.

Ainsi, le Bulletin of the Museum of Fine Arts de 1953 (LI,284,25) présente un spécialiste Egyptien "**Ahmed Youssef** at work on the reconstruction of the curtain box for the Cairo Museum and the copy for Boston".



La fin du dix-neuvième siècle s'était arrêtée aux donations en bonne et due forme d'altesses vice-royales de l'Egypte à des musées de pays voisins - dans un contexte marqué par ailleurs par l'absence de contrôle de la circulation des pièces qui serait de règle aujourd'hui. Cela faisait alors le bonheur des collectionneurs privés de l'époque et provoquait l'ire légitime de l'architecte et égyptologue Jean-Philippe Lauer.

**AUJOURD'HUI...** bien des missions internationales comprennent, en Egypte ou au Soudan, des archéologues et des spécialistes Egyptiens et Soudanais.

Mais la richesse du passé des pays de la vallée du Nil et de leurs déserts est telle que la trentaine d'**Universités égyptiennes** ayant un cursus d'égyptologie ne suffit pas à combler les besoins - aussi les missions internationales fournissent-elles aujourd'hui un recours et un cadre adéquat à la formation des archéologues de demain.

C'est ce qu'a rendu possible **Beatrix Midant-Reynes**, directrice de l'IFAO au Caire, de 2010 à 2015. L'institution propose désormais des programmes de formation aux métiers de l'archéologie de terrain, dans le cadre d'une convention de coopération passée entre l'IFAO, le **Département d'Archéologie de l'Université du Caire**, et le Ministère des Antiquités égyptien.

Assistée de **Khaled El-Enany** et de **Cedric Gobeil**, Beatrix Midant-Reynes a conduit d'octobre 2014 à fin mai 2015 la formation théorique d'une promotion de conservateurs et d'étudiants aux concepts, outils et méthodes modernes

de l'archéologie, dispensée par les archéologues de l'IFAO et des spécialistes invités intervenant dans



des domaines nouveaux - géo-archéologie, archéobotanique, archéo-zoologie, anthropologie funéraire, etc...poursuivie par une formation pratique sur les sites archéologiques où ils intégrèrent les équipes de fouilles. La formation en archéologie de terrain organisée conjointement par l'Ifao et l'Inrap s'est achevée en 2015 par la remise des rapports de stage, leur évaluation, et la sélection de deux stagiaires partis parfaire leur formation en France, sur un chantier de l'Inrap : **Yehia Elshahat Mohamed** et **Mohamed Abdel Azim**. Le nouveau directeur, Laurent Bavay plaide d'ores et déjà le renouvellement annuel du programme auprès du Ministre des Antiquités.

L'une des questions posées à Béatrix Midant-Reynes lors de son départ portait sur ses actions à la direction de l'IFAO, et notamment sur la motivation de la convention de coopération.

Voici sa réponse, recueillie sur le site de l'institution :

*Mon action s'est surtout centrée sur la volonté de donner aux jeunes générations, françaises, égyptiennes ou d'ailleurs, les moyens de s'exprimer, de développer leurs compétences et leurs talents.....*

*L'avenir de l'archéologie en Egypte est aux mains des Egyptiens eux-mêmes, qui devront alors pratiquer une archéologie qui correspond aux standards actuels exigés par la discipline. Notre rôle et celui de tous les instituts étrangers dans ce pays est de les y aider.*

L'importance de l'initiative mérite d'être soulignée. Les pays d'Afrique n'ont pas seulement une histoire, ils ont aussi des historiens - et des archéologues.

Les conventions de coopération passées entre les Etats, leurs institutions de recherche et d'enseignement, et les professionnels de l'archéologie des équipes internationales à l'oeuvre sur les sites sont un bel exemple de ce qui pourrait être fait pour développer la production du savoir historique et son partage - et inventer une fraternité humaine moderne.





## Soutenance de Thèse

### **CALLING OUT TO ISIS: THE ENDURING NUBIAN PRESENCE AT PHILAE**

*Solange  
Ashby  
Bumbaugh*

University of Chicago,  
Department of Near Eastern Languages and Civilizations *Egyptology*.



### **Dissertation Defense**

The expansion of the cult of Isis throughout the Mediterranean world demonstrates the widespread appeal of Egyptian religion in the Greco-Roman period. Often Nubian involvement in the cult of Isis is excluded from studies of this religious phenomenon. When Nubians are acknowledged, they are presented simply as pilgrims.

However, inscriptions written in Demotic, Meroitic, and Greek reveal that Nubians served as financial supporters of the temple of Isis of Philae, where they led cult services as prophets and priests, and militarily defended the sanctity of Philae's temple complex.

This dissertation examines the participation of Nubians in the cult of Isis of Philae through their prayer inscriptions and legal agreements engraved on temple walls at Philae, Dendur, Kalabsha, and Dakka during Egypt's Roman and Byzantine period (1<sup>st</sup>-5<sup>th</sup> centuries AD).

Doctoral defense was held on December 7, 2015.

The dissertation committee consisted of **Dr. Janet H. Johnson** (chair), **Dr. Robert K. Ritner**, and **Dr. Eugene Cruz-Uribe**.



### **Demotic Graffito Philae**

This study explores the political, economic, and social factors that allowed Nubians to become active in the Egyptian temples of Lower Nubia. Detailed analysis of Ptolemaic royal decrees and temple imagery explain the historical reasons for the involvement of Nubians in temple financial administration in the Dodekaschoenos. Comparison of the religious rites described in Nubian prayer inscriptions and the temple relief scenes upon which they were engraved reveals a recurring Nubian cultic focus that exhibits many similarities to Meroitic royal funerary cult practices: the ritual act of pouring funerary libations.



### **Cow-headed Isis pours a funerary libation for Osiris - Gate of Hadrian, Philae**

This work collects all epigraphic evidence of Nubian worshippers in the temples of the Dodekaschoenos – inscriptions written in Demotic, Meroitic, and Greek – to present a comprehensive description of the enduring presence of Nubians in the cult of Isis of the Dodekaschoenos.



The dissertation is divided into three chapters each of which is devoted to one of the three discrete phases of Nubian inscriptions:

Phase I: Early Roman period cult associations (AD 30-70). All inscriptions were written in Demotic.

Phase II: Meroitic royal involvement in the cult at Philae (AD 175-275); inscriptions written in Demotic, Meroitic, and Greek.

Phase III: Blemmye worship at Philae (AD 408-452). These were the last prayer inscriptions engraved at Philae.

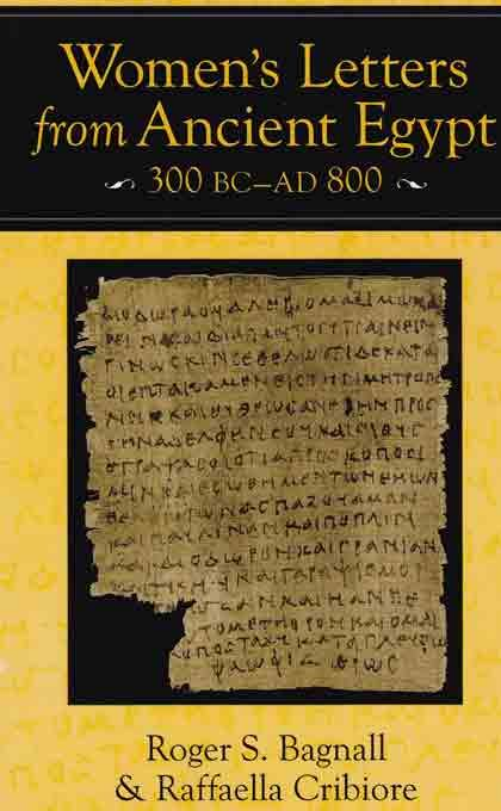
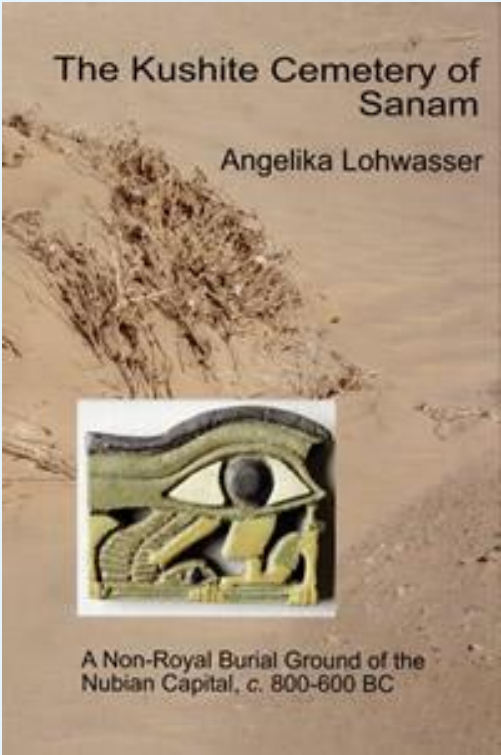


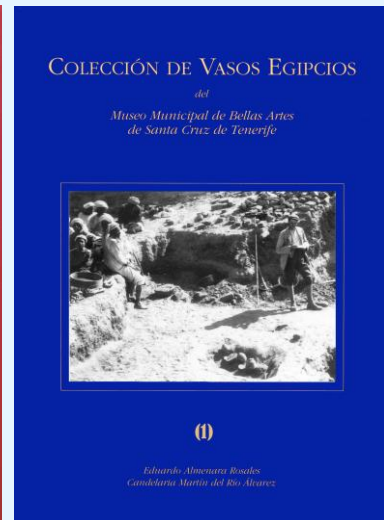
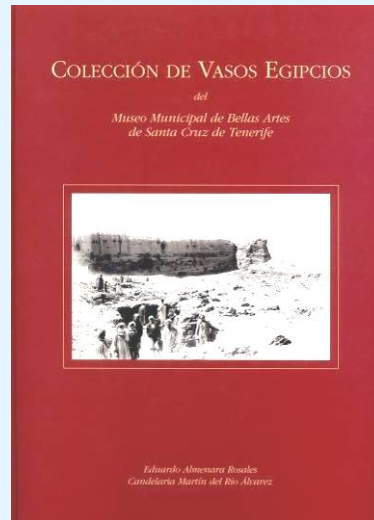
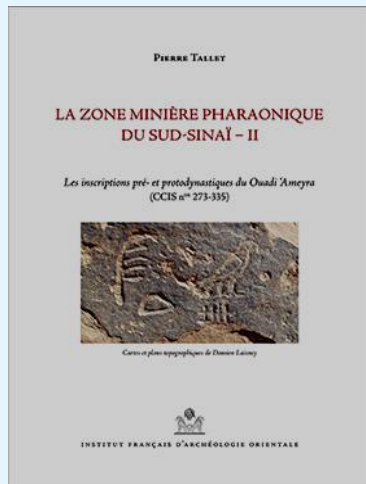
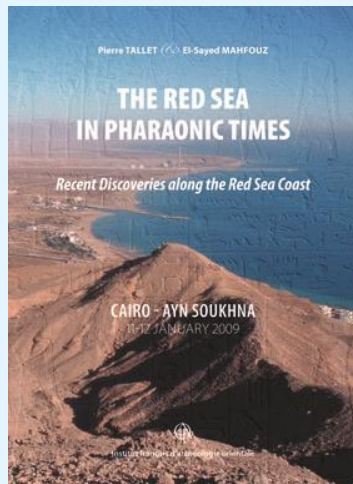
Greek Graffito of Blemmye Worshippers

Given that the earliest attested religious monument extant at Philae is a granite bark stand dedicated by the Kushite king Taharqa (690-664 BCE) and the last prayer inscription at Philae was engraved for a Blemmye priest (AD 456), the presence of Nubian worshippers at Philae spans a period in excess of one thousand years. Reasons for the enduring faithfulness of southern people in performing pilgrimages to Philae are the subject of this dissertation.

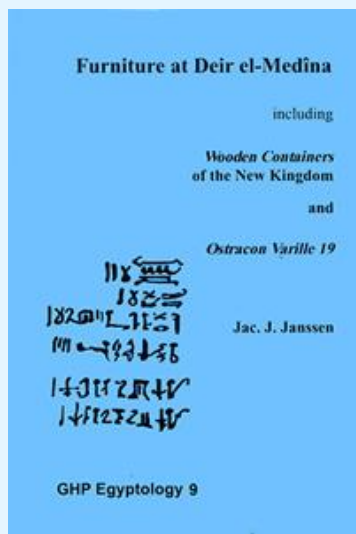
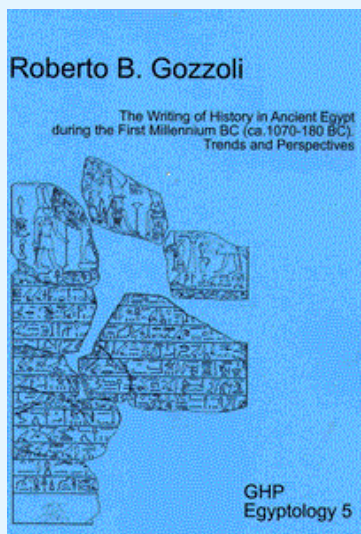
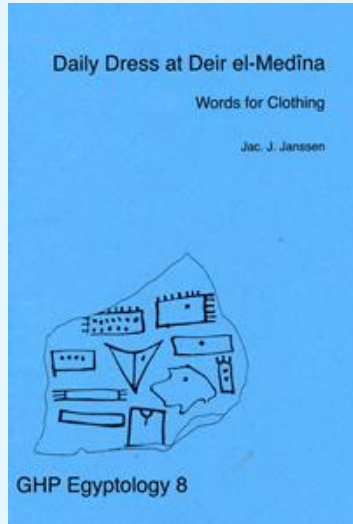
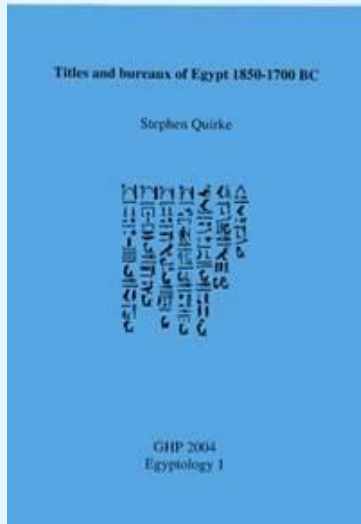


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## PARUTIONS RECENTES



## COLECCIÓN DE VASOS EGIPCIOS DEL MUSEO MUNICIPAL DE BELLAS ARTES DE SANTA CRUZ DE TENERIFE EDUARDO ALMENARA ROSALES & CANDELARIA MARTÍN DEL RÍO ÁLVAREZ.

First Edition: mayo de 2000 Second Edition: 2014  
[https://www.academia.edu/8344023/COLECCION\\_DE\\_VASOS\\_EGIPCIOS\\_del\\_Museo\\_Municipal\\_de\\_Bellas\\_Artes\\_de\\_Santa\\_Cruz\\_de\\_Tenerife\\_cap.\\_1\\_2\\_y\\_7\\_2014](https://www.academia.edu/8344023/COLECCION_DE_VASOS_EGIPCIOS_del_Museo_Municipal_de_Bellas_Artes_de_Santa_Cruz_de_Tenerife_cap._1_2_y_7_2014)

The Museo Municipal de Bellas Artes de Santa Cruz de Tenerife, Spain, holds a small collection of Egyptian objects –pottery and one stone vessel– arrived at the beginning of the XXth century. As many other collections formed at that moment, they come from the excavations organized by western archaeological institutions in Egypt. The pieces were found by W.M.F. Petrie and J. Garstang between 1898 and 1906 at Diospolis Parva, Hierakonpolis, Esna and Abydos in Predynastic and Middle Kingdom sites. They were sent to Liverpool Museum and from there to the Canary Islands as an exchange for a set of Dutch and Talavera tiles from the XVIIth and XVIIIth centuries. Arrived to the Island as interchange with Liverpool Museum on 1908, the collection have ceramics from Diospolis Parva, Hierakonpolis and Esna, and a stone vase from Abydos, tomb B7/9 - Hor Ka. The excavators of them were W. M. Flinders Petrie (Diospolis Parva and Abydos) and John Garstang (Hierakonpolis and Esna). The first edition of this book was realized in the year 2000, as complement to the exhibition of this collection. This exhibition was realized to commemorate hundred years of the foundation of the museum. In this book was gathered the information that there was at this moment, about the history of the interchange, the sites of origin, in addition to attaching a technical study on each piece. However, in subsequent years, the authors were completing data which had been left unresolved for several reasons. In the second version of 2014 (online version), novelties and updated chronological data and map have been incorporated.



# Cahiers Caribéens d'Égyptologie

N°19-20  
2015



Les  Ankhou

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**Alain Anselin**

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**Oum Ndigi**

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