

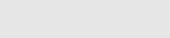


## Vienna II: Ancient Egyptian Ceramics in the 21<sup>st</sup> Century

14<sup>th</sup> – 19<sup>th</sup> May 2012

### **Preliminary Book of Abstracts**

**Legend:**

	Keynote lecture
	Paper presentation
	Poster presentation
	Workshop

## Pottery from a fourth dynasty tomb at Dashur

Susan J. Allen

In 2005, the Egyptian Expedition of the Metropolitan Museum of Art at Dahshur, directed by Dr. Dieter Arnold excavated a large mud brick mastaba north of the pyramid complex of Senwosret III.<sup>1</sup> Its burial chamber, though robbed contained an assemblage of 178 jars, Meydum ware bowls and miniature jars and plates. Additional Old Kingdom material was found in the shaft and around the remains of the superstructure. A preliminary analysis of the pottery dated it to the 4th Dynasty. The owner of this mastaba is unknown.

The discovery of a 4th Dynasty mastaba at Dahshur is not surprising as it is the location of the two great stone pyramids of Snefru, first king of the 4th Dynasty. To the east and between these two pyramids is an orderly cemetery of large mastabas for the high officials of the king (investigated by the DAIK). From 1894-95 Jacques De Morgan also found remains of Old Kingdom mastabas around the pyramid of Amenemhet II and at the edge of the gebel farther to the east towards the causeway of Senwosret III<sup>2</sup> and the MMA excavations of 2007 discovered small mud brick mastabas to the north of this causeway.<sup>3</sup>

What is interesting about the location of this large mastaba (designated NM 33) is that it located considerably farther north and lies to the east of the mastabas of the high officials of Senwosret III (Sobekemhat, Horkherty, Nebit and Khnumhotep). The discovery of a well built stone substructure of a 4th Dynasty tomb partly beneath the enclosure wall of one of these mastabas in 2001 may indicate that a substantial 4th Dynasty cemetery once existed in this area and was probably in ruins when it was covered over by the cemetery of the officials of Senwosret III more than 700 years later.<sup>4</sup> A comparison of the pottery found in this mastaba to that recovered by the German excavations in the mastabas and North Pyramid complex of Snefru as well as by Fakhry from the Valley Temple of the Bent Pyramid and assemblages from earlier 4th Dynasty tombs around the Meydum Pyramid of Snefru and later 4th Dynasty tombs at Giza may indicate more about the occupants of this tomb and cemetery.

### References:

1. Dieter Arnold and Adela Oppenheim, "No. 31.b.2 Mastaba en brique de l'Ancien Empire (NM 33)," in Nicolas Grimal et al., *Fouilles et travaux en Égypte et au Soudan 2005-2007*, *Orientalia* 76 (2007): 217-218.
2. Jacques De Morgan, *Fouilles à Dahchour, Mars-Juin 1894* (Vienna, 1895); *Fouilles à Dahshour en 1894-1895* (Vienna, 1903)
3. Dieter Arnold and Adela Oppenheim, "22.b Complexe funéraire de Sésostri III," in Nicolas Grimal et al., *Fouilles et travaux en Égypte et au Soudan 2005-2007*, *Orientalia* 77 (2008): 210.
4. Dieter Arnold, "Die letzte Ruhestätte ägyptischer Beamter: Ein Mastaba-Feld des Mittleren Reiches in Dachschr, Ägypten," *Antike Welt* 33.6 (2002): 628-629, figs. 16-17.

## Pottery from the reign of Kyan

David Aston

In Egypt it is still surprisingly rare to be able to ascribe large pottery corpora to a given king's reign, and even more difficult during any of the Intermediate Periods. However, in Spring 2006, a large pit complex, crammed with thousands of vessels, almost certainly datable to the reign

of Khyan, was discovered at Tell el-Daba. Preliminary recording of this mass of pottery was only completed in Autumn 2011, and this talk presents some first impressions of this material, which encompasses a wide variety of local pottery together with numerous imports.

## Settlement Pottery from the early Second Intermediate Period at Tell Edfu

Natasha Ayers

One of the many issues concerning the Second Intermediate Period is the difficulty in identifying the early Second Intermediate Period archaeologically outside of Tell el-Dab'a. Recent excavations at the settlement of Tell Edfu have revealed continuous occupation from the late Middle Kingdom through early Dynasty 18, into the reign of Hatshepsut/Thutmose III. A large administrative complex of the late Middle Kingdom has been excavated with more than one thousand discarded clay sealings and much pottery found covering the thick mud floors. This administrative complex fell out of use during the early Second Intermediate Period and small areas of domestic activity briefly appeared before the entire area was covered by the construction of a huge silo courtyard that held the grain reserve of the town during Dynasty 17. The corresponding ceramic sequence to this fine stratigraphy provides an opportunity to define the transition from the the late Middle Kingdom tradition to the early Second Intermediate Period tradition, as well as study the characteristics of the settlement pottery in Upper Egypt. This paper will offer preliminary results of the pottery analysis from the well-excavated and secure archaeological contexts at Tell Edfu which provide new data for the discussion of the early Second Intermediate Period.

## Settlement pottery of the Late Middle Kingdom. Quantification as means of functional analysis

Bettina Bader

The settlement of the late Middle Kingdom at Tell el-Daba (phase G/3-1), ancient Avaris yielded a variety of several house types in an irregular distribution.<sup>1</sup> The identification of the use of space in these compounds depends largely on the finds made in and around them. A powerful tool in the distinction and identification of functional areas can be seen in the quantitative characterisation of the ceramic assemblages found in conjunction with the architecture.

Another interesting question concerns the analysis of cooking pottery found in that settlement, as well as the proportion of locally produced pottery of Levantine Middle Bronze Age types as well as real imports.<sup>2</sup>

The quantitative characterisation of the pottery assemblage in turn will be achieved by means of the *estimated vessel equivalent*, or even a concept introduced by C. Orton.<sup>3</sup> Although the quantitative side of pottery studies would be an important research area to explore, the number of studies giving this information and/or using it, remains relatively small. It is also true that not in all circumstances is it viable to spend a relatively large amount of time to work out the percentages and calculate the amounts of vessel types or fabrics and wares present in any one context. But there are several instances, where it becomes crucial to know such distributions: especially in closed contexts, and this information can be of great significance, not only for settlements but also for tomb and cult related pottery. They in turn may tell us more about cultic practices.

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1. Contacts between Egypt and Syria-Palestine as seen in a Grown Settlement of the late Middle Kingdom at Tell el-Dabca/Egypt, in: J. Mynářová (ed.), Egypt and the Near East – The Crossroads, Proceedings of the International Workshop on the Relations between Egypt and the Near East in the Bronze Age Prague September 1-3, 2010, Prague 2011, 41-72.
2. Traces of Foreign Settlers in the Archaeological Record of Tell el-Dabca/Egypt, in: K. Duistermat, I. Regulski (eds.), Intercultural Contacts in the Ancient Mediterranean, Orientalia Lovaniensia Analecta 202, Peeters Leuven, Paris, Walpole, MA, 2011, 127-148.
3. C. Orton, P. Tyers, A. Vince, Pottery in Archaeology, 169-171.

## Calculating vessel capacities: A free web-based application

Laurent Bavay

Measuring the contentance of vases offers valuable informations on problems such as standardization, exchanges and trade or the correspondence between actual shapes and ancient lexica. This vast fiels of study however remains little explored, mainly because of practical reasons : it is not easy to determine the capacity of a container from fragments provided by the excavation or of vases kept in museums and too precious or fragile to be manipulated.

As part of a wider research project on « Pottery in ancient societies : Production, distribution and uses » in Brussels University, archaeologists teamed up with computer engineers to develop a new tool allowing to calculate the capacity of a vessel from its scale drawing. In an extremely simple way, the user sends a drawing and virtually fills in the vase: its capacity is automatically calculated and provided in real time.

This application is freely accessible from the website of the Centre de Recherches en Archéologie et Patrimoine at <http://crea.ulb.ac.be>. It is entirely web-based, and therefore OS-independent (works on Mac, Intel or Linux), without any installation required from the user. The test period ended in 2011, with 250 registered users so far and more than 6000 drawings sent. Although technical improvements are regularly implemented based on user feedbacks, the application is fully operational.

## La céramique mycénienne de Deir el-Medina

Laurent Bavay

Entre 2000 et 2005, six campagnes ont été menées sous l'égide de l'Institut français d'Archéologie orientale en vue de réaliser une documentation complète de la céramique du Nouvel Empire conservée dans les magasins du site de Deir el-Medina. Au cours de ce travail, un ensemble inédit de 243 fragments de céramique mycénienne a été retrouvé. Ce lot s'ajoute aux quelque 124 fragments étudiés par Martha Bell<sup>1</sup> et fait du corpus de Deir el-Medina l'un des plus importants retrouvés en Égypte. La majorité des formes représentées s'inscrit dans le répertoire de l'Helladique récent IIIB et doit par conséquent être associée à la période entre la fin de l'épisode amarnien et la fin de la XIXe dynastie. En dehors des aspects chronologiques et typologiques, la présence d'un grand nombre de vases mycéniens doit être interprétée en relation avec les modalités d'approvisionnement de la communauté de la Tombe.

### References:

1. Bell M., « Preliminary report on the Mycenaean pottery from Deir el-Medina (1979-1980) », *ASAE* 68, 1982, p. 143-163.

## The anchorite, the potter and the *kôtôn*. A glimpse on pottery production from a Coptic hermitage in the Theban necropolis

Laurent Bavay

The excavation led by the University of Brussels in Theban tomb 29 revealed that the monument had been transformed into a Coptic hermitage during the early 8th cent. AD, probably part of a larger semi-anachoretic community settled on the southern slope of Sheikh Abd el-Qurna hill. The discovery of more than 800 Coptic ostraca associated with this hermitage provides an exceptional source of information on the daily life of its inhabitant, a revered monk called Frange. Several letters among this archive refer to pottery, one being a unique document where the anchorite asks a potter to make him a

pot according to very specific characteristics. It illustrates a rarely considered (or documented) aspect of pottery production, i.e. the role of direct relations between the potter and the final user at local level. Such small-scale production meeting the particular needs of the customers probably accounts for a significant part of the pottery assemblages discovered in the Theban necropolis (and beyond), next to the ubiquitous standardized finewares produced in the Aswan area. The pottery from the Coptic settlement in TT 29 offers the opportunity to examine this question, based on a chronologically and functionally well defined archaeological context in direct relation with the written sources.

### **„Bete für mich“ - Überlegungen zur Funktion eines frühmittelalterlichen Schalentyps in Dra' Abu el-Naga, Theben-West**

Thomas Beckh

Der Vortrag basiert auf Beobachtungen, die im Rahmen des von der Fritz-Thyssen-Stiftung geförderten Projektes „Zwischen Christentum und Islam“ gemacht wurden. Im Vordergrund steht dabei das keramische Material der christlich-monastischen Einrichtungen auf dem Hügel von Dra' Abu el-Naga – allen voran das der größten Anlage vor Ort: Deir el-Bachit. Der Schwerpunkt des Vortrages liegt im Bereich „Functional analyses“ und beschäftigt sich mit der funktionalen Zuordnung eines speziellen zweikammerigen Schalentyps, der außer in Deir el-Bachit auch an anderen Fundstellen der thebanischen Westseite archäologisch nachgewiesen werden konnte. Da es darüber hinaus möglich ist, Aussagen zum Herstellungsort dieser Schalen zu treffen, ergeben sich interessante Interpretationsmöglichkeiten, nicht nur zur Versorgung einer monastischen Einrichtung mit keramischem Material, sondern auch zur Vernetzung einzelner spätantik-frühmittelalterlicher Einrichtungen auf der thebanischen Westseite. Durch Einbeziehung der teilweise vorhandenen Aufschriften sowie der textlichen Überlieferungen, sind außerdem nicht nur eine Differenzierung des Schalentyps hinsichtlich seiner Funktion möglich, sondern auch weiterreichende Überlegungen in Bezug auf eine Datierung. Darüber hinaus soll auf die Rolle dieses Schalentyps bei der Identifikation der Klosteranlage Deir el-Bachit eingegangen und damit ein umfassendes Bild der Aussagemöglichkeiten dieser speziellen Keramik aufgezeigt werden.

### **Egyptian pottery in Iron Age Israel**

Shirly Ben-Dor Evian

Egyptian and Egyptian-style pottery in Canaan and Ancient Israel has been studied as a phenomenon of the Late Bronze Age in the Levant. Little attention has been given to the later periods. However, Egyptian pottery has been found in Iron Age strata of sites such as Tel Dor, Tel Qasile, Apeh, Tel Masos, Tel Esdar, Atlit, Akhziv and others. This assemblage included imported, as well as locally produced, Egyptian bowls, “beer-jars”, jars and amphorae. A different group of vessels, from Philistia proper, included unique jugs with a hybrid Aegean-Egyptian decoration of floral and other motifs. This assemblage will be presented in full including known parallels from Egypt. Special attention will be given to the contexts and stratigraphy of the finds. This presentation will hope to illustrate a somewhat unknown aspect of Egyptian interests in the Levant during the Late New Kingdom and the Third Intermediate Period.

## **Ceramics and the export of Egyptian chronology**

Manfred Bietak

Within the trade exchange of Ancient Egypt with the eastern Mediterranean world Egyptian, Cypriot, Levantine and Aegean ceramics were shipped to destinations where excavations expose them in their context. Not only Egyptian pottery is suitable for establishing timelines across the Mediterranean, but also Middle- and Late Cypriot Wares are a very efficient tool to establish chronological links, as they more and more appear in Egyptian contexts. Within the Special Research Programme SCIEM 2000 comparative stratigraphy the assessed time spans of Egyptian, Cypriot and Levantine Wares showed by repetitive patterns from tell to tell very clearly the relationship of the Middle Bronze Age in the Levant and Cyprus with the Egyptian relative and absolute chronology.

## **Why does Egyptian pottery change?**

Janine Bourriau & Peter French

Because it changes so much every few years, pottery is one of the most useful tools for dating we have. For this we should be grateful. But why does it change? Basic needs alter relatively little: large and small jars for the transport of goods; jars again, for storage; cooking pots; eating and drinking vessels; lamps; ovens; a few specialised objects for special needs (coffins, funnels, lids, incense burners, etc). So why were the pottery types of last year/last decade/last century no longer appropriate? And does change always imply improvement?

Some major factors influencing change: political developments and conquest; improved potting technology; workshop traditions and practices; improved firing technology; improved transport links; new trading partners, their needs and the pottery styles they bring; exhaustion of clay sources or the discovery of better ones; an increase or decrease in wealth; an increase or decrease in population; centralisation/urbanisation/dispersal; family and communal living; new requirements; new vessel shapes and styles of decoration, imitated or invented; fashion; the use and abuse of power and patronage.

## **Little pot who made thee? Dost thou know who made thee?<sup>1</sup>**

Eliot Braun

Excavations in recent decades have yielded evidence of south Levantine style vessels in the earliest levels of Buto/Tell el-Fara'in in the Delta in Predynastic times and at other sites dating to the Early Dynastic period. Other pots, dated to the end of Dynasty 0 during the reigns of Ka and Narmer, of Egyptian morphology, have been found in the southern Levant; some at what appear to be Egyptian settlements, others at typically south Levantine communities. Some scholars have designated these last types as "Egyptian", despite the evidence of petrographic analyses indicating they were made of local, south Levantine clays. Such terminology blurs what I believe are important distinctions between imports and objects of foreign inspiration, especially when they are employed as "proof" of the ethnicity of potters who produced them, i.e., their identifications as either Egyptians or South Levantines.

This paper proposes the use of the terms "Egyptianized" and "South Levantinized" for indicating pots of morphology associated with these regionally identifiable traditions and suggests ideas for characterizing "hybrid" types that resulted from the cross-fertilization of them. It further suggests caution in characterizing the ethnic (i.e., regional) identities of the potters that produced them, and in the interpretation of an archaeological record

that represents what is likely to have been a complex reality.

References:

1. With apologies to William Blake.

## **Vessels of life: New evidence for creative aspects in material remains from domestic sites**

Julia Budka

Creative aspects, regeneration and rebirth are known as important issues in Ancient Egypt, well traceable in textual and pictorial data. Recent studies have demonstrated that this holds true also for archaeological datasets, and here as much for domestic contexts and daily lives as for funerary and cultic contexts.<sup>1</sup> The relevant archaeological evidence is particularly rich in the period of the New Kingdom.

Fayence vessels like the well-known Nun-bowls<sup>2</sup> and different kinds of artefacts, for example the so-called cosmetic spoons<sup>3</sup>, have been taken into account for tracing the importance of regeneration in the world of the living. A wide-ranging setting for the use of such "objects of life"<sup>4</sup> can be established. How does pottery correspond to this picture? Can we find references to creation, rebirth and regeneration also in the ceramic evidence?

The focus of the present paper will be on unpublished ceramic material from three domestic sites of the New Kingdom: the Egyptian settlement on Sai Island in Upper Nubia, the settlement of Elephantine Island and the town and temple site of Ahmose at South Abydos. Recent excavations in New Kingdom layers of these sites have yielded new finds of feminoform vessels, pottery figure vases and Hathoric vases. They find close parallels in tomb contexts and according to previous studies clearly have a cultic connotation.<sup>5</sup>

Considering the specific archaeological contexts and the associated finds at Sai, Elephantine and South Abydos, parallels from other sites as well as pictorial and textual references, a functional analysis of these types of vessels will be proposed. The main hypothesis is that like other types of artefacts, pottery vessels can illustrate the diversity of life in an Egyptian town of the New Kingdom and attest to the presence of religious/cultic/festive activities in domestic settings. The task is to try to establish a more concise understanding of the diverse references to creative aspects and regeneration in everyday life as reflected in pottery.

References:

1. E.g. G. Pinch, *Votive Offerings to Hathor*, Oxford 1993; A. Stevens, *Private Religion*, British Archaeological Reports International Series 1587, Oxford 2006, passim.
2. Cf. E.-Ch. Strauss, *Die Nunschale - Eine Gefäßgruppe des Neuen Reiches*, Münchner Ägyptologische Studien 30, München - Berlin 1974, passim.
3. Most recently G. M. Woods, *Objects of life: an analysis of the iconography and purpose of New Kingdom decorated spoons dating in particular to the reign of Amenhotep III (c. 1390 - 1352 BC)*, UCL London, MA Dissertation, London 2009.
4. G. M. Woods, *Objects of life*, London 2009.
5. Cf. J. Bourriau, Pottery Figure Vases of the New Kingdom, *Cahiers de la ceramique egyptienne* I, 1987, pp. 93-94; A. Seiler, „Erhebe dich, Vater! ..., deine Milch dir, die in den Brüsten deiner Mutter Isis ist.“ Zu Form und Funktion einer Gruppe anthropomorpher Gefäße aus der Nekropole in Dra' Abu el-Naga/Theben, in E. Czerny et al. (eds.), *Timelines. Studies in honour of Manfred Bietak*, Orientalia Lovaniensia Analecta 149, vol. 1, Leuven 2006, pp. 317-327; A. Stevens, *Private Religion*, pp. 323-329.

## Preliminary remarks about the pottery found in a late Middle Kingdom tomb in the area of the Temple of Million of Years of Amenhotep II - Western Thebes

Anna Consonni

This study is part of a PhD research in progress at the University of Pisa, concerning the pottery found in the tombs excavated in the area occupied by the Temple of Millions of Years of Amenhotep II.

In the last few years we unearthed at least two funerary structures dating back to the late Middle Kingdom. The one totally investigated is a multiple burial formed by a sloping ramp, a corridor and two small chambers. The tomb is very rich in materials, mostly ceramics: dozens of vessels, many of whom intact or totally reconstructible, displaying a wide range of shapes and functions. The tomb was partly disturbed when the area was chosen for the construction of the temple of Amenhotep II and then it was overlapped by the structures of the temple itself. The 20 human bodies with their funerary equipments were also dislocated by ancient floods. The aim of this study is at first to define in detail the chronology of the use of the tomb, by isolating the materials relating to subsequent processes which have taken place over time. The maps of distribution of the burial materials will offer the possibility to reconstruct the probable original depositional layout and to define the quantity and types of vessels used in the funerary assemblage of an individual.

As a matter of fact, this tomb shows a complete pottery assemblage useful to improve the knowledge of the necropolis located in the area between the temples of Thutmose IV and Amenhotep II, before the XVIII dynasty.

### Basic bibliography:

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A. SEILER, "Bemerkungen zum Ende des Mittleren Reiches in Theben. Erste Ergebnisse der Bearbeitung der Keramik aus Areal H", in POLZ D., SEILER A., *Die Pyramidenanlage des Königs Nub-Cheper-Re Intef in Dra' Abu el-Naga. Ein Vorbericht*, *SDAIK*, 24, 2003, pp. 49-72.

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## Fabricating history: the 'metadata' of pottery fabrics

Deborah Darnell

Though a ceramic analyst expects to be able to deduce from the fabric of a pot(herd) where and how, and perhaps for what purpose, the original vessel was created, more deeply hidden information can be extracted. This nature of this "metadata" (taking liberties with the standard use of the term) is the answer to the question: what is it possible to say about the historical events that led to the presence of a potsherd in an open context when that sherd and its location is all you have? In other words, can a

sherd tell you why it's there?

Examples from twenty years of writing history from largely unconventional types of evidence along desert routes, augmented by new ceramic corpora from pharaonic habitation sites, tombs and caches in the Theban Desert and Kharga Oasis, will demonstrate the value and utility of identifying fabrics, both familiar and novel. The joy and immediacy of 'reading the sherds' is never more apparent than when surveying in remote areas with undocumented and sparse archaeological remains. The presence of even a single sherd in such contexts can sometimes alter the history books. Specific fabrics discussed will include:

-- Second Intermediate Period Upper Egyptian "transitional marls" that do not yet have a Vienna classification. This fabric group appears to be a short-lived, temporally- and geographically-specific innovation that is found chiefly in areas under Seventeenth Dynasty Theban control.

--- the author's working classification of pharaonic Kharga Oasis fabrics. Based on macroscopic examination of potsherds and vessels of Old Kingdom through New Kingdom date from the Theban and Aswan areas, innumerable desert road sites, as well as sites within Kharga Oasis itself, this provisional descriptive outline will hopefully prove useful not only for current and future work in Kharga Oasis itself, but for the potential identification of previously unrecognized Khargan imports in Nile Valley assemblages.

Attempts in Kharga Oasis to imitate Nile Valley fabrics and techniques of vessel manufacture change in nature from the Middle Kingdom to the New Kingdom. The variations in types of clay, inclusions and firing used as the potters sought to produce vessels of the type and quality they had known in the Nile Valley with markedly different raw materials provide a fascinating study in technological experimentation by Egyptians exploring a new terrain (and in some cases, by local Oasis inhabitants trying out new elements of material culture). Purely "oasean" forms and fabrics will also be addressed.

## **État actuel de la recherche sur l'industrie amphorique égyptienne des IV<sup>e</sup>-III<sup>e</sup> siècles av. n.è.**

Catherine Defernez & Sylvie Marchand

La contribution conjointe que nous proposons, lors du prochain colloque de Vienne, vise à mettre en avant la progression des recherches entamées en 2003, dans le cadre d'un colloque tenu à l'Ifao<sup>1</sup>, sur l'existence d'une industrie amphorique égyptienne, dès les deuxième/troisième quarts du IV<sup>e</sup> siècle av. n.è., ainsi que son évolution progressive dans le courant du III<sup>e</sup> siècle.

À la lumière des trouvailles récentes faites principalement dans la partie septentrionale du Sinaï (garnison de Tell el-Herr), dans le Fayoum (ville de Tebtynis), et dans bien d'autres sites du Delta (Tell Athrib, Bouto, etc.), des données complémentaires viennent alimenter, voire affiner, les classifications naguère établies, tant sur le plan typologique que sur le plan technique. Les résultats acquis à l'issue de ces investigations autorisent de nouvelles interprétations quant au paysage économique et commercial qu'offre le territoire égyptien de la fin de l'époque pharaonique jusqu'au milieu de l'époque ptolémaïque.

Ainsi, une documentation homogène et plus complète, issue de dépôts clos bien stratifiés, a été mise au jour sur le site de Tell el-Herr, lors des dernières campagnes de fouilles ; ce qui a permis, de fait, l'identification de certaines de ces productions amphoriques d'origine présumée égyptienne (souvent qualifiées de productions « marginales ») avec des séries contemporaines connues, importées au cours du IV<sup>e</sup> siècle av. n.è. ; illustrées par des fragments infimes, souvent insignifiants, il y a quelques années, ces catégories pouvaient être difficilement associées à un ou des types recensés dans les vastes corpus amphoriques établis.

Assimilés soit à des amphores commerciales de type égéen, soit à des jarres ou récipients de type levantin, les conteneurs récemment découverts en plusieurs points du tell (confectionnés dans une argile de type marneuse orangée ou verdâtre) ont, depuis nos analyses préliminaires, bénéficié de jalons chronologiques précieux, grâce à

l'apport de vaisselles fines d'origine attique ou pseudo-attique (canthares, œnochoés, etc.), trouvées associées dans les mêmes contextes. Des dépôts prélevés à l'intérieur de certains réceptacles, de même que la présence de *dipinti* inscrits à l'encre noire sur quelques exemplaires, viennent enrichir notre connaissance sur la nature et la fonction de ces emballages.

La constance de ces séries « égyptiennes » dans certains niveaux archéologiques de Tell el-Herr et de Tebtynis paraît bien démontrer l'importance de ces réseaux commerciaux régionaux et/ou inter-régionaux au cours des IV<sup>e</sup> et III<sup>e</sup> siècles av. n.è. – parallèlement à l'introduction de nouvelles séries amphoriques importées du monde méditerranéen classique ou du début de l'époque hellénistique.

En tout état de cause, l'existence et le développement progressif de ces réseaux sur le plan économique démontrent la vitalité des ateliers amphoriques égyptiens, comme le suggèrent notablement les études archéométriques récemment réalisées au sein des laboratoires de céramologie et de restauration de l'Ifao, puis au sein du département des études géologiques de Gand; des expertises relatives aux fabriques utilisées pour la confection de ces vases, conduites par des collègues ou spécialistes œuvrant notamment dans les grands centres de consommation et de production du Delta occidental (Alexandrie, région de la Maréotide) ont, en outre, été réalisées. Mentionnons, par ailleurs, la découverte d'officines (fours, ateliers de potiers, rebus de cuisson) sur certains sites du Delta, ayant produit, semble-t-il, des assimilations de conteneurs d'origine phénicienne.

#### References:

1. Cf. C. DEFERNEZ, S. MARCHAND, « Imitations égyptiennes de conteneurs d'origine égéenne et levantine (VI<sup>e</sup> – II<sup>e</sup> s. av. J.-C.) », dans B. Mathieu, D. Meeks, M. Wissa (éd.), *L'apport de l'Égypte à l'histoire des techniques. Méthodes, chronologie et comparaisons*, BdE 142, Le Caire, 2006, p. 63-99.

## **Radiocarbon dating and predynastic ceramic seriation**

Michael Dee, D Wengrow, AJ Shortland, A Stevenson, F Brock, AGE Hood, C Bronk Ramsey

Petrie's seriation of Early Egyptian ceramics was one of the most significant achievements in prehistoric archaeology. Indeed, seriation still provides the most commonly used frame-of-reference for the relative dating of Predynastic and Early Dynastic contexts. However, several shortcomings remain with this form of chronological analysis. These include difficulties in assigning relative dates in the absence of diagnostic pottery, problems in estimating the absolute duration of cultural phases, and the issue of potential time lapses between contexts assigned the same relative date at different sites. All these problems need to be addressed before a coherent model of state formation can be established. In 2010, the University of Oxford Radiocarbon Accelerator Unit began a radiocarbon-based study of the formation of the Egyptian state. Conventional ceramic series are central to the project in two distinct ways. Firstly, as many radiocarbon dates as possible are being made on organic materials directly associated with specific ceramic types. For example, food residues adhered to the inside of pots. It is hoped that such measurements will reinforce current understanding of the ordering of different ceramic types and provide information on the period of time over which they were used. Secondly, towards the end of the project, seriation will be employed to help refine sets of radiocarbon data by using a technique known as Bayesian modelling. This will allow precise absolute dates to be produced for the beginnings and ends of cultural phases at different sites across Egypt. It is hoped that this will provide more detailed information on the sequence of events that led to the emergence of the Egyptian state.

## The evolution of Tell el-Yahudiyeh juglets: phylogenetic approaches and ceramic analysis

Michael De-Vreeze

The paper will address the idea of evolution in ceramic development using Tell el-Yahudiyeh juglets as a case-study. We will explore the possibilities of using such a framework in understanding the development of these juglets in the Middle Bronze Age Levant. The usefulness of this evolutionary framework will be related to the issue of how we currently document ceramics and create our datasets.

In recent years, the study of material culture making use of evolutionary principles and associated methods of analysis has proven successful in archaeology and anthropology (Shennan 2002; Shennan 2009; O'Brien and Lyman 2003). The idea of 'descent with modification' as applied in biology has been shown to work in a similar manner for material cultural development, where the inheritance of artefact traditions handed down from generation to generation can yield similar patterns which can be studied making use of methods such as Cladistics.

Yet so far, this approach has not been applied to many archaeological case-studies in the Near East, although we possess a vast dataset of material culture of which ceramics is a major constituent.

We will explore the evolution of Tell el-Yahudiyeh ware as a case-study. It will be argued that an evolutionary framework can unify different approaches relating to the idea of ceramic traditions (*chaîne opératoire*) and broader questions of social change and selective pressure. The Tell el-Yahudiyeh juglets form an interesting case-study because the juglets show a very significant spread in Egypt and across the Eastern Mediterranean, and their characteristics have been studied vigorously which has already yielded a detailed picture of the chronological development (Aston 2008).

For our understanding of the development of these juglets in specific contexts, the assemblage from Tell el-Dab' proofs a highly significant dataset (Aston and Bietak forth.). Tell el-Dab'a/Avaris is particularly significant because it can be seen as a 'hybrid zone' that mixes different cultural elements from distant geographical areas and shows particular developments due to the unique setting and circumstances at the site. As such the results of this case-study also relate to the broader discussion about the unique position of Tell el-Dab'a in the Middle Bronze Age cultural development in the Eastern Mediterranean (Bietak 2010).

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## Upper Egyptian Pre- / Proto-dynastic settlement ceramics. The assemblage from Petrie's "South Town" at Naqada

Grazia Di Pietro

The paper will present the results of a recent re-examination conducted by the author on the ceramic assemblage from the settlement site of Zawaydah, better known as Petrie's "South Town", Naqada.

The material was collected by the Italian Archaeological Expedition of the Istituto Universitario Orientale (today University of Naples "L'Orientale", or UNO) in the course of nine field seasons between 1977 and 1986 (Fattovich *et al.* 2007).

The *corpus* of pottery from the site represents an invaluable addition to the growing number of settlement assemblages of Predynastic / Early Dynastic Egypt, today available, and an important source of information on this critical period.

The focus of the paper will be on presenting the pottery repertoire, with emphasis on fabric and form groups. Technological aspects will also be briefly discussed. A comparison with assemblages from other contemporaneous settlements will be attempted and the possible evidence of interregional contacts, as reflected in the pottery assemblage, highlighted. Overall, the paper will provide with an opportunity to review the state of research on Pre- / Proto-dynastic settlement ceramics of Upper Egypt.

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## Embalming and cult activities through pottery found in tomb M.I.D.A.N.05 at Dra Abu el-Naga

Federica Facchetti

Pottery vases were placed inside the tombs in order to contain funerary offers, such as equipment for the funerary banquet or instruments used for rituals and activities during the burial and the other ceremonies related.

An extremely useful instrument to investigate the original function of these containers is the analysis of the context in which they were found and the connection with other finds in the tomb. However, as in MIDAN.05, this observation is not always reliable due to post depositional processes that devastated the archeological context. For this reason, it was necessary to choose other instruments, that brought to discover more information about the site and the funerary activities happened in that.

Sometimes the vase itself reveals its original use through the hieratic and demotic inscriptions written on its body. It was then possible to discover, for example, that beakers and cups were linked with embalming activities. Their presence in the burial might also suggest that the last steps of this practice, in the Late Period, could have been performed inside the tomb itself during the burial ceremony.

It happens that organic residues of the original content are found inside the vases. The content is a very useful source to understand the function of the pottery, not only because it is clearly explicative, but it also attests the last use of the container; this is extremely important in order to understand the activities that took place in the site.

Organic residues can be studied with chemical analyses like GC-MS (Gas chromatography-mass spectrometry) highlights and sometimes the results are useful to confirm that the pottery was used as a container for embalming waste, resins and perfumes.

Most of the Egyptian vessels are morphologically adapted to response at different goals. Vases with well-defined shapes or morphological and physical details were produced to satisfy their use during particular activities. Each shape or morphological detail, like

little spouts at the bottom, can for this reason be extremely meaningful.

Pottery clearly attests the long usage of tomb MIDAN.05 from the New Kingdom to the Coptic Period. The different wares help to identify groups of pottery that are chronologically homogeneous.

This study, originated from my PhD thesis, highlights an interesting group. Some vases of this group have in fact morphological details which are useful to understand their function and to suggest funerary and ritual activities.

The paper shows that the analysis of vessel function could be approached with heterogeneous and multidisciplinary techniques, such as translating the inscriptions, GC-MS analysis, comparison of the different wares from other contexts and bibliography research. The results of this study brought to a better knowledge of this objects and allowed to discover new interesting elements on burial and funerary practices.

## **Radiocarbon and pottery as dating tools for Egyptian archaeology**

Felix Höflmayer & Henning Franzmeier

The historical chronology of Egypt based on political events like kings and dynasties is the main reference for dating any archaeological context in dynastic Egypt. Since pottery is the most abundant type of artifact found on almost any Egyptian site, political terms are used to date pottery forms und assemblages usually without trying to develop an independent terminology based on pottery features alone. The well-known New Kingdom pottery phases are mainly just another way to designate political units of time and not an independent relative chronology based on material culture. Furthermore reigns end and begin suddenly within a short period of time (i.e. days or months) while material culture and its record in archaeological contexts changes more slowly.

Since direct links between pottery shapes (and their development) and the political (historical) chronology are not evenly distributed throughout history, times with good archaeological preservation (like the Tuthmoside period) are over-represented in the archaeological record while other periods (like the late Second Intermediate Period or the beginning of the 18<sup>th</sup> Dynasty) are much harder to define due to the lack of clear contexts that can be linked to clear political units. Therefore, dating by pottery alone tends to cluster archaeological contexts around well-known periods with a good archaeological record, simply because of lack of other parallels from less well-documented periods.

Potential radiocarbon samples (usually short-lived botanical remains) from clear contexts are much more abundant than political links to the historical chronology (like king's names) and are not dependent to any historical/archaeological bias concerning preservation. A direct link between time and material culture is possible and should be used not only to check the historical chronology of Egypt or simply to date layer X at site Y (as is usually done), but should be used to provide absolute dating evidence for material culture *per se*. Thorough scientific dating of contexts with diagnostic shapes could provide an independent control of pottery evolution and dating, serving also as a dating reference for archaeological contexts without suitable organic remains or links to the historical chronology.

In this contribution we present a way of linking pottery forms with absolute dates in order to provide clear and easy-to-use dating evidence for future excavations. The possibility to use radiocarbon data in order to enhance our understanding of archaeological contexts and material culture is further demonstrated by two case studies from cemeteries.

## Bes vessels from Dakhleh Oasis in the Egyptian western desert

James Gill

Bes Vessels have a long history and are found at a large number of sites throughout Egypt. Despite this, little is actually known about their role and whether they were always used in the same way throughout history. Previous studies have focused primarily on examples dating to the New Kingdom and Late Period. While some of these studies address the problem of the identity of the 'Bes' image, and others attempt to create a typology of vessels, few actually discuss the function of these vessels.

A large proportion of Bes Vessels are of unknown provenance, which makes it difficult to assess the function of these vessels. The fact that examples have been discovered in both funerary and settlement contexts only serves to complicate the issue further.

In this paper I will present a series of fragmentary and complete Bes Vessels from Dakhleh Oasis, mostly from the site of Mut el-Kharab. These appear to date to both the Late Period and Ptolemaic Period, although some examples may fall outside of this range. I will then attempt to answer a series of questions in relation to these vessels:

- a) Can the vessels be placed in some form of relative chronology?
- b) What do the find contexts tell us about the role of these vessels?
- c) Should we discuss these vessels as a single group or do different types reflect different functions?
- d) Are we correct in identifying these vessels as representations of the god Bes?

Unlike the Late Period vessels presented here, the Ptolemaic Period examples do not appear to have parallels elsewhere in Egypt. This may be a reflection of the paucity of research on Ptolemaic Bes Vessels, yet it may also point to a local oasis style that is not encountered elsewhere. This issue will also be addressed in the paper.

## 18th dynasty pottery from Gism el-Arba (Sudanese Nubia)

Brigitte Gratien & Lauriane Miellé

During 10 years, the French Archaeological Mission at Gism el-Arba (Lille University) surveyed a part of the northern Wadi el-Khowi around Kadruka (north of Dongola) and excavated several sites. One of those, GAH2, was a *Kerma classique* settlement, characterized by a high number of granaries and magazines. All of these buildings were destroyed and erased at the end of the *Kerma classique* period; the settlement was reoccupied at the beginning of the XVIII<sup>th</sup> dynasty by small brick houses and a large workshop combining one bronze kiln and pottery kilns. Besides the imports, the local pottery then shows major changes in the technique, the forms, and Nubian traditions mixed with the so-called Egyptian pottery.

The ceramic productions identified are related to domestic activities. It is roughly utilitarian pottery, the majority of which are storage containers, as jars. There is also a lot of plates / bowls / cups and potstands. They are made in Nile clay, corresponding to the Vienna System, Nile B2 and Nile C. They are often not decorated. Certain forms of ceramic seem characteristics of Nubia, and which have no parallels known in Egypt. Others forms are very common in Egypt as beer jars, bottles and flower pots.

Moreover some ceramics in Marl clay (marl A2) from Egypt were found too. The clay was used for some carinated vase and one amphora with horizontal handles. A sherd of Mycenaean pilgrim flask was identified. It is similar to another found in the nearby site of Tombos. It could give us a view of the relations between the Third Cataract with Mediterranean people.

Thanks to the study of regional and Egyptian parallels, as well as the context of discovery, all the productions of the site GAH2 are dated to the beginning up to the middle of the XVIII<sup>th</sup> dynasty, with a majority of forms from the reign of Thutmose III up to the reign of Thutmose IV.

## **The pottery of the predynastic settlement of Maadi-Wst - classification and chronology reconsidered**

Rita Hartmann

The pottery of the Predynastic Maadi-Culture of Lower Egypt is mainly known through the large-scale excavations carried out during the 1930s and 1940s in the eastern part of the Predynastic settlement site of Maadi, on behalf of the University of Cairo. The pottery surviving from this work was studied in the 1980s by I. Rizkana and J. Seeher and was published in a detailed catalogue (Rizkana/Seeher, Maadi I, AV 64, 1987). The classification of wares and the vessel typology established on the basis of this material gives a general overview of the existing corpus. For a variety of reasons, only a selection of finds from the old excavations were kept, mostly consisting in complete vessels of high quality and exceptional pieces, such as decorated sherds or sherds made of uncommon fabrics, like imports from the Levant or from Upper Egypt. As the collection is only a biased sample, the scope for a detailed statistical analysis of the material was very limited and the published results only give a distorted picture of the actual distribution of wares and shapes within the site. Also, questions relating to the chronological development of the settlement or to possible functional differences and specificities in the different living areas, especially within the subterranean dwellings, remained unanswered, not the least as a result of a lack of stratigraphical informations. The area excavated by the German Archaeological Institute in Cairo from 1999-2002 within the western part of the Predynastic settlement, albeit small in comparison to the old excavation site revealed a very rich archaeological situation, quite similar to that already known from the eastern part of the site. The stratified pottery material comprises about 100,000 sherds and 120 complete vessels. It gives us the opportunity to test whether the collection from the old excavations is representative and it offers us a chance to reassess this material. From the start it appeared that the range of fabrics identified by Rizkana and Seeher had to be extended and that a new classification was required. First results of the statistical analysis also show differences in the distribution of wares, especially of the fine wares and imports, which represent a much narrower proportion in the new set of material than in that from the eastern part of the settlement. This paper presents a new proposal for typology and classification of wares for the pottery material from the Predynastic site of Maadi, which serves as a basis for further investigations. Particular emphasis is put on the development of wares and shapes within the stratigraphical sequence, as well as on the distribution of vessel types in specific archaeological contexts, such as the subterranean houses. This does not only allow a better understanding of the chronology of Maadi, but it also contributes to the repositioning of this important site of the Lower Egyptian culture within its wider transregional context.

## **Some remarks on the imported jars from the late predynastic tomb U-j at Abydos/Umm el-Qaab**

Ulrich Hartung

The discovery of tomb U-j was one of the highlights during the excavations of the predynastic Cemetery U at Umm el-Qaab carried out by the German Archaeological Institute Cairo from 1985 until 2002. The tomb dates to Naqada IIIA1 and belongs to the group of late Predynastic brick-lined tombs which surrounds ca. 600 older tombs of the early Naqada I until Naqada IID periods. Tomb U-j is the biggest tomb of this group and it is divided into 12 chambers. Many of the chambers yielded still remains of their specific equipment, e.g., jars of Petrie's W-class (altogether 200-250 vessels, many of them with ink inscriptions) were found in the burial chamber and in one of the neighbouring rooms. Three chambers yielded predominantly Nile silt beer jars, bowls, plates and bread mould fragments, and in one of the chambers remains of wooden boxes came to light that seem to have contained clothes (to which probably small bone labels with hieroglyphic

signs were attached) and other valuable items.

In two chambers more than 200 vessels of uncommon shape and fabric were still piled up in original position, and an adjoining chamber contained fragments of further 150 such vessels. In many cases remains of the content were preserved – mainly grape pips and crusty rings adhering to the inner surface of the vessels. Their analysis proved that the vessels had contained wine. Considering the shapes and the fabrics of the vessels, several groups can be distinguished, but all of them appear to be completely “unegyptian” and most likely Levantine imports. Altogether, the assemblage sheds light on the Egyptian – Southern Levantine interrelations and illustrates the astonishing extent of the wine trade during Naqada IIIA1, i.e. already in the time before a considerable Egyptian presence becomes traceable in Southern Palestine during the Naqada IIIB (late EB IB) period.

To determine the provenance of the vessels, NA (P. McGovern) and X-ray analysis (A. Pape), as well as petrographic investigations (N. Porat/Y. Goren) have been carried out – but they led to different results. Whilst both former analysis seem to support a Southern Levantine origin of the vessels, N. Porat and Y. Goren assumed that most of the vessels were produced in Egypt, probably by Southern Levantine potters. Although these results have been published already a decade ago, until today a detailed discussion of this discrepancy amongst the involved specialists is missing.

Therefore, the paper will assess once more the results of the analysis and the arguments of the authors and evaluate them from an archaeological point of view.

## **The use of digital image processing for the recognition of ancient Egyptian ceramics**

Irmgard Hein & Pedro Lopez Garcia, Denisse Argote, Cornelius Tschegg

The classification of ancient Egyptian ceramics is widely based on fabric analysis or on shape analysis. Our interest is specifically directed towards fabric analyses. For Ancient Egypt the fabrics Egypt can be largely covered by the “Vienna system” which basically is accepted for archaeological recording. However some unidentifiable items appear often in the recording process during a field season.

Such items have given the impact to work with analytical identification methods in a different way, based on chemical or physical methods, as it was demonstrated already in the late 60ies or early 70ies by the application of NAA on ancient ceramics, or as it can be seen in the use of petrographic thin sections, as well as also by the use of other combined methods, such as XRF or ICPMS for instance. Basic questions behind such analytical studies are often to determine the origin and the properties of the material.

The choice for the applied analytical method is largely depending on the availability of ceramic samples, and therefore a considerable amount of interesting study material is excluded from analytical work.

Therefore the development of other ways for the recognition of ceramics is necessary, and within this paper, we are demonstrating the use of digital image processing. The method has been exemplified already on two independent ceramic groups (i.e. Cypriot ceramics and Mexican ceramics), which have been analyzed also by other methods, such as microscopy, XRD, XRF, ICP-MS, EPMA. These results have been successfully presented at the EMAC 2011 conference. The procedure of image analysis involves several stages, starting with the digitalization of fabric images, then preprocessing of the images, followed by particle segmentation, then quantification and classification of the particles size. The method applies mathematical methods (algorithms of segmentation of images and grain size analyses, coming from mathematical morphology theory), in order to isolate the matrix of the paste, and then to get the quantification of the morphology of the particles. Further steps are the application of morphologic operators to quantify the various types of particles and their density. From such phantom patterns statistical moments are obtained and analyzed, producing histograms of the distribution of the sizes of the various objects from an image. Several parameters (average, variance, slant and kurtosis) lead to the quantitative analyses of

the content of the ceramic paste images, the parameters are sorted with a statistical algorithm in order to differentiate between ceramic types. Currently the method is applied on images of Egyptian fabrics (taken from petrographic thin sections, f.i. from Tell el-Dab'a) and the results of this research shall be presented during the conference.

## **Die lokale Keramikproduktion von Aniba - Formen und Funktion**

Jana Helmbold

Aniba lag zirka 230 km südlich von Assuan auf dem Westufer des Nils – heute ist es im Nasser-Stausee versunken. Vermutlich ließ dort bereits Sesostris I. im Mittleren Reich eine Flußhafenfestung errichten, die im Neuen Reich zu einer Stadtanlage verändert wurde. Gut 400 m westlich der Festung wurde der ausgedehnte Friedhof S/SA mit ägyptischen Charakteristika freigelegt, dessen Freilegung zwischen 1910 bis 1914 erfolgte. Aus den insgesamt 157 Gräbern wurden fast 2000 Gefäße dokumentiert, die im Rahmen eines von der DFG geförderten Projektes (Beginn 11/2010) aufgearbeitet werden. Der Vortrag soll erste Ergebnisse der Neuaufnahme dieser Objekte vorlegen, die sich heute vor allem an den Museen in Leipzig (Ägyptisches Museum - Georg Steindorff - der Universität Leipzig) und Philadelphia (University of Pennsylvania Museum of Archaeology and Anthropology) befinden. Im Fokus der Präsentation steht hierbei insbesondere die lokale Keramikproduktion neben der typologischen Betrachtung und der damit einher gehenden funktionalen Verwendung. Dabei sollen die Gefäße auch im Verhältnis zu anderen, zeitgleichen Anlagen in Nubien betrachtet werden.

## **The pottery from the early Old Kingdom settlement at Elkab**

Stan Hendrickx

The Belgian Archaeological Mission from the Royal Museums of Art and History in Brussels, directed by Dirk Huyge, has focused its attention during two excavation campaigns (2009, 2010) at Elkab on the settlement within the Late Period Great Walls, immediately west of the temple area (Rowland et al. in press). The test excavations of 2009 resulted in the discovery of settlement remains which were once the lower layers of the tell that was almost completely leveled by seabakhin during the first half of the 19<sup>th</sup> century (Hendrickx & Eyckerman 2010). During the 2010 campaign, the stratified nature of the settlement could be studied more in detail but all results are nevertheless to be considered as preliminary for the time being.

The study of the pottery allows to recognise at least two phases. The most recent dates to the first half of the 4<sup>th</sup> dynasty and is characterised among others by the presence of early Meidum bowls of type B3c2 as defined by Op de Beeck (2004: 268), which disappear before the end of the 4th Dynasty. For the earlier phase, the number of Meidum bowls decreases while the presence of stroke polished pottery increases. Also more frequent are Nile C bowls with internal ledge and beer jars with "Kragenhals".

The ceramic material from Elkab can be compared with that from Oststadt Bauschicht VIII.1 and VIII.2 at Elephantine, dating to the late 3rd and the first half of the 4th Dynasty (Raue 1999). At that moment, the settlement at Elkab must have been of great importance, as is demonstrated by the presence of elite mastabas at the site (Huyge 2003; Op de Beeck 2009). However, given the very limited extent of the ongoing excavations, the original size and importance of the settlement cannot yet be understood.

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## **Workshop: Visualisation of ceramics**

Stan Hendrickx

The idea behind this workshop is not the development of a standard procedure for the visualisation of ceramics but rather to obtain an overview of the techniques currently used by archaeologists working in Egypt. There is no doubt that a more uniform approach would greatly benefit the possibilities for comparing pottery from different sites and excavations. But for individual excavations, drawing conventions have often been established a long time ago and of course used in many publications. It is therefore highly naive to expect that everybody involved would be willing to adapt new standards. Nevertheless, discussing techniques, their possibilities and problems, will not only allow a better understanding of previously published drawings but might also be of importance for future illustration work.

Because it would be very time consuming (and most probably rather boring) to have a large number of scholars present their illustration techniques at the conference, it seems more appropriate to work with a questionnaire distributed well in advance. The results of this will be summarised during the conference and used as platform for discussion.

## **Illuminating Bêt Khallaf: Using optically stimulated luminescence dating to reexamine the Bêt Khallaf ceramic assemblage**

Amber Hood & Jean-Luc Schwenninger

The aims of this paper are threefold. Firstly, this paper will present the first modern, scientifically determined, relative dates for ancient Egyptian ceramics using optically stimulated luminescence (OSL) dating. These results have been obtained for the Bêt Khallaf ceramic assemblage housed at the Garstang Museum of Archaeology, Liverpool. Eight diagnostic, intact vessels from the Bêt Khallaf collection will be sampled for OSL dating. The results presented will be examined and discussed in light of the typological and relative chronological sequence in which this assemblage is traditionally placed (early Old Kingdom).

Secondly, this paper will also introduce to the field of Egyptian archaeology a new OSL sampling methodology, the minimal extraction technique (MET). This technique has been employed for sampling of the Bêt Khallaf material and it is a technique that focuses particularly on obtaining samples from artefacts in as unobtrusive a manner as

possible. Thus, MET is specifically intended for sampling of objects housed in museum collections. In this paper the MET methodology will be outlined and we will demonstrate its value to ceramic enquiry, presenting it as a necessary addition to the toolbox of methodologies available to archaeologists assessing ceramic chronologies.

Analysis of these results will direct us towards our final objective: to examine the applicability of OSL dating to ancient Egyptian ceramics. This will be done by illustrating how OSL dating can best be applied to the Egyptian ceramic assemblage, firstly by demonstrating that OSL is more applicable to ceramic studies than the more traditional thermoluminescence dating technique, and secondly by discussing how OSL can be used both as a relative and as an absolute dating technique in Egyptian archaeology.

## The point of pots: the Vienna system and beyond

Linda Hulin

The analysis of material culture is a two-stage process. Firstly, the formal properties of individual objects are described; then objects are combined in an effort to identify material correlations to past events or social realities. The role of pottery in this process has evolved with the discipline of archaeology as a whole. While the aim of archaeology was to reconstruct history, then pottery studies were oriented towards the identification of cultural and chronological typologies. When archaeology aligned itself with cultural studies, then ceramic studies were directed towards matters of trade and production.

The Vienna system of fabric recording represents Egyptian archaeology's participation in the latter trend. It is determinedly practical, focused upon macroscopic description under basic field conditions. Its fabric groups are deliberately broad: it was never intended to override site-specific classification systems but instead to provide a common vocabulary for ceramicists working at different sites and a medium through which those different classifications could be compared. Local variability was left to site-specific systems in an effort to avoid an over-complication of the Vienna system that would have reduced its utility and usability. Advances in the description of the shape of individual pots have followed a similar over-arching trend, with the development of aperture and vessel indices designed to standardise nomenclature through the use of fixed mathematical formulae applied to vessel measurements although, again, the need for site-specific modification of the formulae has been recognised.

There is debate amongst ceramicists over the extent to which the procedures they have developed override emic systems of classification. Certainly the fit between etic and emic tolerances of variation needs to be addressed daily in the field during initial classification, but such concerns resonate with current archaeological theory, which is oriented towards the *habitus*. This is the locus of socialisation and cultural normalisation of the individual, a complex interplay of multiple social and physical artefacts which act upon, and are altered by, individual action. Its proper understanding demands divergent research foci: on the one hand, individual activity is prioritised through the study of agency and *chaîne opératoire*; on the other, social environment is prioritised through whole-context studies.

The Vienna system was designed, in part to move pottery studies above the level of the site; *habitus*-focused studies are trying to bring it back. The Vienna system led, not necessarily intentionally, to aggregate research questions: ceramicists engaged with production and distribution and the delineation of local and regional economies. Post-processual studies focus upon individual agency and multi-sensory environments. For ceramicists, this means concentrating upon the social implications of consumption and upon contextual analysis that cross-cut the divide between object categories. This paper explores the articulation between micro and macro levels of ceramic analysis, both in the field and beyond, and discusses the extent to which facilitate current post-processual enquiry.

## **Between New Kingdom and Napata - The pottery assemblage of the fortress Gala Abu Ahmed in Wadi Howar, Northern Sudan**

Friederike Jesse

In 1984 a massive stone-walled fortress was discovered by researchers of the University of Cologne in lower Wadi Howar (Northern Sudan), about 110 km west of the Nile Valley. The impressive structure with projecting bastions and walls up to 4m high enclosing an area of about 120 x 180m was named Gala Abu Ahmed. Small scale research done at the fortress in 2002 and 2006 by the University of Cologne's ACACIA project proved for a Kushite presence: Fragments of faience, among them pieces of New Year's flasks, could be attributed to the Napatan period (ca. 900 - 400 BCE) and indicate contact with the Egyptian sphere. The excavation work by the "Gala Abu Ahmed project" of the University of Cologne since 2008 provided a bulk of new data. Numerous archaeological finds, especially the small finds made of faience but also the pottery confirmed the attribution to the Napatan period. However, some New Kingdom sherds are also present. Radiocarbon dates oscillating between 1200 and 400 BCE also indicate a wider time frame and point to a use of the fortress in even Pre-Napatan times.

Of great interest is the large amount of pottery found in the various areas of excavation as it displays a large variety of wares and types: Besides handmade sherds, wheel-made examples are also present. Pieces made of marl clay indicate contact with Egypt. The majority of the pottery is not decorated. In some cases the rim lip shows notches giving the rim a dentate appearance. Decoration was mainly made by impression and here mat impression (or roulette) clearly dominates. Sherds with a coarse slip and finger prints belong to cooking pots.

The discovery of several fragments of Greek pottery was surprising. The sherds are mostly fragments of lekythoi and can be attributed to the 6<sup>th</sup> and 5<sup>th</sup> centuries BCE. Archaeometric analysis of three sherds clearly revealed an attic origin of the vessel fragments.

The paper intends to present the pottery assemblage of the fortified site and discuss it in comparison with other Nubian assemblages of the same period spanning from the late New Kingdom up to Napatan times.

## **Protodynastic and Early Dynastic pottery in the Nile Delta**

Mariusz Jucha

The recent research in the Nile Delta, confirm that sites which existed here during the Protodynastic and Early Dynastic periods, had great significance in the process of the state formation in Egypt. The increasing number of excavation especially in the North-Eastern part of Lower Egypt reveal many important objects, among them several dated to the period before the traditional date of unification and comparable in character to objects coming from the South of Egypt. These include, among others, pottery jars with royal names coming from the graves explored at Tell el-Farkha, the site at which beside the Naqada III cemetery also settlement dated since the Predynastic until the beginning of Old Kingdom is explored since 1998. Of the great importance are two jars, each with different *serekh* of Protodynastic rulers, found in the same grave no.91, dated to Naqada IIIB - probably at its beginning and prior to Iry-Hor. One of them, contain two HD - like signs incised instead of the palace-façade in the lower compartment. The occurrence of two jars with a name of Iry-Hor (two complete examples and probably one fragmentarily preserved) in other graves is also worth noting, as objects with his name derive mostly from Abydos and in one case from Zawiyet el-Aryan. Moreover a name of Narmer was also attested on the pottery from the graves. Beside the cemetery, a great number of pottery vessels were also found in the settlement strata at Tell el-Farkha. Further data were also collected during the excavation at Tell el-Murra, which is situated only several kilometers to the east of Tell el-Farkha. The finds include pottery vessels coming both from the settlement, which existed here since the Predynastic until the end of the Old

Kingdom, as well as graves dated to the Early Dynastic period. As a result of these work increases the amount of data that allow us to perform comparisons between pottery found at mentioned sites. The similarities among the pottery shapes were observed. Moreover well defined chronological position of some of them, dated precisely by the occurrence of jars with royal names, allows to distinguish several forms which should be consider us chronological markers of specified phases within Protodynastic and Early Dynastic periods.

## **Late Antique pottery on Elephantine Island**

Denise Katzjäger & Laura Rembart

As part of the FWF-Project „Antike Wohnkultur in Syene/Elephantine“ under the direction of Priv.-Doz. Mag. Dr. S. Ladstätter, *Austrian Archaeological Institut* (ÖAI) and in cooperation with the *Römisch-Germanisches Zentralmuseum* (RGZM), the pottery of selected late antique house complexes on the Chnumtemple areal will be analysed. The ceramic of the complex K20 will serve as a case study. This building was used as stone workshop and as metalworking factory in Late Antiquity. On the basis of the completed statistical analysis the ratio of the individual pottery groups will be demonstrated and a spectrum of forms will be developed.

In Syene/Elephantine a local large-scale pottery production existed at least since the Roman period. The vessels made of the famous "pink clay" were spread throughout Egypt. It has been determined that numerous tableware forms imitate the widespread, popular African Red Slip Sigillata, but also local forms and patterns of tableware exist. The as so-called "Aswan Fine Ware" pottery is predominant in Late Antiquity. Special forms now occur in large numbers and suggest different dining habits. Vessels with particular fabrics raise the question of imports or other types of clay used by a local production center. Not only special features of tableware but also of cooking ware will be pointed out. Casseroles made of soft Nile mud indicate a new preparation of food at the time.

The few imported sherds and the extensive local pottery production with its new forms demonstrate changes and shifts in eating habits in Late Antiquity. On the basis of selected examples, characteristics of late antique pottery will be shown and problems of dating discussed.

## **Relative chronology of pottery assemblages from the Abydos Middle Cemetery (Old Kingdom to Middle Kingdom) - Fabrics, wares and typology**

Christian Knoblauch

Recent excavations on the Abydos Middle Cemetery have uncovered a sequence of activity stretching from the late 4th Millennium BCE through to the late First Millennium BCE. Of particular importance are a series of tombs, offering places and ritual depositions that date to the mid to late 3rd and early 2nd Millenniums BCE (Old Kingdom to Middle Kingdom). The observation of the horizontal and vertical stratigraphy of these contexts in relation to one another, allow a relatively reliable non-continuous relative chronology of this area to be established over a 600 year period. Moreover, the presence of well known and datable tomb owners in this area, such as Weni the elder, enable us to anchor this sequence of cemetery development at certain points to the dynastic chronology.

Many of these contexts contained considerable quantities of well-preserved ceramics and hence are useful for constructing a series of independent relative sequences of ceramic assemblages. The current poster will present three of these complete sequences and highlight the problems and possibilities for synchronising them to formulate a local relative chronology that takes in the late Old Kingdom, the First

Intermediate Period and the Middle Kingdom. Points to be considered include changes in fabric, ware as well as the morphological variation and development of particular types over time.

## **Imports and local production in Egypt and the Levant during the Middle Bronze Age**

Karin Kopetzky

Since the excavations of Byblos in the last century it is known to the scientific community that the ties between Egypt and the Levant were closer than anticipated before. During the last two decades our knowledge of the trading contacts between the Egypt and the Levant during the periods of the MK and the SIP has significantly changed, based mainly on two excavations: Tell el-Dab<sup>ca</sup> in Egypt and Sidon on the coast of Lebanon.

While the first one is known for quite a while for its Canaanite imports, the latter only recently revealed a large amount of imported Egyptian pottery which provides a new view on the variety of exported Egyptian goods.

Beside these imports both sides produced local copies of each other's pottery. While these Egyptian-produced Canaanite shapes made up to nearly 20% of the complete amount of pottery at Tell el-Dab<sup>ca</sup> the number of the Canaanite-produced Egyptian vessels is rather small. The fabrics which were used for these copies at Tell el-Dab<sup>ca</sup> as well as Sidon give valuable information about the people, who produced and the one who required these vessels.

## **Investigations in the Persian Period at Memphis**

Sabine Laemmel

The area of Kom Tuman in Memphis is currently being investigated anew by Centre for Egyptological Studies of the Russian Academy of Sciences. The successive excavations campaigns led by the Centre were concentrated to the south east of the Palace of Apries, and have resulted in the identification and clearance of several architectural units and a series of industrial ovens. The most prominent architectural remains uncovered consists in several partly overlapping structures, which were first identified as a large single building in the 1950s and mapped on the basis of aerial photographs by Dimick, on behalf of the University of Pennsylvania's expedition to Memphis.

Although earlier surface surveys of the area suggested a predominantly Roman occupation, the pottery found in association with the architectural structures rather point to a Persian period date. It is precisely this material that furnishes the topic of the present paper.

The presence of Persian period pottery is not a novelty for Memphis, but the case of Kom Tuman is special in that it consists in an assemblage that can generally be regarded as reliable in a very disturbed site. Indeed, as it comes from stratified contexts, this material can serve to illustrate the degree of change versus continuity in the pottery sequence of the area, mainly from the early 5<sup>th</sup> to the mid 4<sup>th</sup> century BC.

However, besides refining the typological development of Persian period ceramics in the Memphite area, the material from Kom Tuman can also be used in a more theoretical way, in order to investigate local pottery production and distribution patterns as well as possible functional specialisation. This is made possible by the recent publication by B. and D. Aston of a series of pottery assemblages from Saqqara coming from Persian period shaft tombs and embalmers' caches. This pottery can be considered as funerary in character. Comparison between these assemblages and those from the contemporary domestic/residential contexts from Kom Tuman shows that virtually all the locally produced types found in the mortuary contexts are present as well in the domestic

structures. This pleads against the existence of the type of functional funerary versus domestic specialisation in the pottery of local manufacture that has been advanced in specific cases for other sites and periods. However, differences seem to be expressed in another way, namely in the variety, frequency and types of imported wares, which are much more prominent at Kom Tuman than in the necropolis. A range of hypotheses can be advanced for explaining this state of affairs, several of which will be considered and discussed in the present paper. Although interpretative argumentation here may involve concepts of trade and ethnicity, it will remain first and foremost grounded in the archaeological evidence, because in spite of being often unsatisfactory or incomplete, it is still our closest link to the ancient world.

## Pour un corpus de la céramique du Ramesseum

Guy Lecuyot

Depuis plusieurs années les fouilles entreprises au Ramesseum et dans ses abords<sup>1</sup> ont permis de mieux cerner les diverses phases de l'occupation du site qui vont de la fin du Moyen Empire à l'époque copte. Les vestiges de ces différentes périodes ne sont pas tous d'égale importance. Encore aujourd'hui, c'est le cavalier de déblais édifié par Baraize<sup>2</sup> qui recèle le plus de céramique, malheureusement rejeté pêle-mêle sans que l'on puisse définitivement établir la provenance. Cependant, il semble assuré aujourd'hui que Baraize a fait entasser les déblais des différentes parties directement à l'extérieur de ces dernières sur ce qui a été identifié depuis comme la voie processionnelle cernant le téménos sur trois côtés, au nord, à l'ouest et au sud. Par exemple au nord-ouest des milliers de fragments d'étiquettes de jarres à vin ont été retrouvées mentionnant principalement les premières années du règne de Ramsès II<sup>3</sup>; elles correspondraient au groupe des grandes salles voûtées nord-ouest qui aurait été en quelque sorte la cave à vin du Ramesseum. Dans l'angle opposé, ce sont des ébauches et des *ostraca* qui ont été découverts et qui ont servi pour proposer l'identification de l'école du temple dans ce secteur. L'étude des différentes parties du monument a permis de mettre au jour du matériel encore *in situ* même si les contextes ont été perturbés car bien sûr le monument et en particulier les tombes n'ont pas échappé au pillage. C'est ainsi que dans la partie nord et ouest des tombes de la fin du Moyen Empire recelaient encore des ensembles de vases<sup>4</sup>. L'époque ramesside n'est pas la mieux représentée même si l'étude des annexes sud a livré un abondant matériel culinaire<sup>5</sup>. La nécropole qui à partir de la Troisième Période Intermédiaire a colonisé le téménos a de son côté fourni des groupes plus ou moins importants car à dans ces périodes peu de céramiques accompagnait les défunts dans leur tombe<sup>6</sup>.

Du début du Nouvel Empire<sup>7</sup>, des vestiges ont été trouvés au nord-ouest et au sud-est avec d'une part la chapelle dite de la Reine blanche<sup>8</sup> et d'autre part la chapelle de Ouadjmes<sup>9</sup> et les dégagements effectués en profondeur dans la cour, à l'est de l'ensemble identifié comme l'école. Enfin, dans la partie du sanctuaire, quelques fragments de vases de l'époque ptolémaïque ont été mis au jour. Pour la période copte, comme Quibell<sup>10</sup> l'avait déjà noté, c'est autour des petites salles conservées du temple, salle des barques et salle des litanies, que les vestiges sont concentrés.

Ces ensembles de matériel céramique devraient nous permettre d'élaborer un large corpus de la céramique qui viendrait enrichir et compléter la documentation thébaine<sup>11</sup> entre le Moyen Empire et l'époque copte.

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## La céramique d'Ayn Asil (oasis de Dakhla) à la fin de la Première Période intermédiaire

Valérie Le Provost

À la fin de la VI<sup>e</sup> dynastie, le palais des gouverneurs de l'oasis de Dakhla occupé sous le règne du pharaon Pépy II est abandonné. Cependant, l'occupation du site se poursuit. Des habitats s'installent au sud du palais et sur sa frange ouest.

Les fouilles menées sur le site depuis plus de trente ans par les équipes de l'Institut français d'archéologie orientale du Caire, sous la direction de G. Soukiassian, se concentrent actuellement, et ce depuis quelques années, dans le secteur sud du palais. Dans cette zone, deux phases distinctes apparaissent clairement. Elles succèdent à la phase d'occupation du palais des gouverneurs en poste sous le règne de Pépy II. Ainsi, le règne de Pépy II correspond à la phase 1, la phase 2 englobe la fin de l'Ancien Empire et une partie de la Première Période intermédiaire tandis que la phase 3 est contemporaine de la fin de la Première Période Intermédiaire et de la XI<sup>e</sup> dynastie. En l'état actuel des travaux, aucun contexte clairement attribuable à la XII<sup>e</sup> dynastie n'a été découvert.

La présentation de la céramique proposée ici concerne la phase 3. Les productions céramiques contrastent nettement avec les productions des phases 1 et 2. Un changement évident des formes mais aussi des procédés technologiques témoignent d'une réelle mutation sociale. Le cadre architectural est modifié également puisque l'occupation n'a plus pour cadre un palais de gouverneurs avec ses sanctuaires de ka et ses dépendances, mais des unités d'habitation plus petites. L'ensemble architectural occupé à la phase 3 se compose de plusieurs pièces qui ont livré une quantité importante, comparativement aux périodes précédentes, de céramiques importées de la vallée du Nil et notamment de la région thébaine. Les productions à pâte calcaire de type « Qena ware » sont notamment bien représentées. Les liens avec la Haute-Égypte sont également sensibles au travers du répertoire des formes qui comprend des parallèles avec les sites de Karnak ou Dendera. En plus de relations vraisemblablement

assez étroites avec la Haute-Égypte, les rapports avec la Nubie sont également attestés par la céramique recueillie dans ce bâtiment. En effet, un ensemble de tessons de céramiques nubiennes, vraisemblablement de la culture Kerma, parmi lesquelles les traditionnelles coupes à engobe rouge poli et à bord noir, a été découvert. Il représente la première attestation importante des contacts entre Ayn Asil et la Nubie.

Ainsi, la céramique d'Ayn Asil à la fin de la Première Période intermédiaire témoigne de changements fondamentaux. Les productions locales, typologiquement comparables à celles du répertoire de Haute-Égypte présentent en outre les modifications technologiques caractéristiques des productions égyptiennes de cette époque. Dans cette période de transition, l'ancien siège du gouvernorat de l'oasis connaît une modification de sa structure architecturale mais aussi de sa culture matérielle dont les productions céramiques apportent un témoignage important et indiquent l'existence de contacts avec les centres provinciaux égyptiens et la Nubie.

### **Motherhood and breastfeeding evocation in pottery remains from the necropolises of ancient Egypt**

Maria J. López Grande

The fieldwork carried out by the Spanish expedition at Dra Abu el-Naga since 2002 has uncovered an important amount of pottery remains. Amongst them, those which allude with plastic and/or grooved, incised, impressed or painted decoration to the wet goddesses and divine midwives are particularly striking.

A fine collection of decorated vessels and sherds with modelled female breasts, some of them with hands, and/or continuous or broken wavy lines patterns has been attested. The study of their decoration, found mostly in jars but identifiable also in bowls and dishes in both silt and marl wares, deserves a comprehensive study. The peculiar design of the wavy lines, its variation on styles and execution techniques will be treated in particular as it seems to involve a deep significance related to the funerary ceremonies offered to the deceased at the time of their burials and later, in order to assist them in their eternal life. The wavy lines pattern seems to be part of the African heritage of ancient Egyptian culture, besides its undulating design should evoke the most precious liquid food for the eternal life, the milk. They also should be connected with the hair of the goddesses which were of great significance in the rituals for the afterlife: their hair and its required movement prescribe by some rituals should also be evoked by wavy lines patterns attested in these vessels.

The aim of this paper is to explain the choice of these particular motifs and the relation of these vessels with specific ceremonies where they might have had an important role as magical artifacts which still prevail unclear. We proceed with our paper by arguing that as these specific pots were widely assimilated to wet goddesses,<sup>1</sup> a comparative study of their morphological types, decorative motifs and related techniques, commends itself as an approach. This is followed by the study of the persistence of types and motifs through time in order to identify analogous treatments and the discrimination of those that must be interpreted in other terms. Then we try to ascertain something of the matrix of attitudes, values, and beliefs from which the notions related to this vessels spring, and something of the rules by which these sacred vases were generated and manipulated.

Finally we reconsider our results and their implications in the context of the ancient Egyptian cemeteries, especially in those of the Theban area.

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## **Tell el-Ghaba and its integration into the trade network of the Eastern Mediterranean in the 7th and 6th centuries BC. A comparative study of its non-local pottery**

Silvia Lupo & Claudia Kohen

Tell el-Ghaba lies in the northern coastal plain of the Sinai Peninsula, in what once was the eastern Nile Delta. It was a frontier outpost strategically located on relatively high ground in an overall low area, next to the Pelusiac branch of the Nile and on the route that linked Egypt with Palestine. Tell el-Ghaba's settlement was part of the expansionary policy towards the Levant adopted by the kings of Dynasty 26 (7<sup>th</sup>-6<sup>th</sup> centuries B.C.E.) at a time when the commercial exchange across the eastern Mediterranean was at its peak. By studying its non-local pottery and local imitations of imported vessels, we intend to reconstruct the interaction that Tell el-Ghaba had:

1) With the trade network of the Levant, the eastern Mediterranean and the Aegean.

Tell el-Ghaba's repertoire includes fragments of Levantine storage jars and mortaria, fragments of Samian and Chios amphorae and Black on Red jugs and juglets from Cyprus, among others. These imports probably arrived at a port in the Delta and were then introduced into the site through the Pelusiac branch of the Nile and/or they might have arrived by land through the south of Palestine. The port of Ruqesh, in North Sinai, probably played a key role, as it appears to have been an intermediate stop for the vessels departing from Ashkelon and was, at the same time, involved in the caravan trade through Sinai, combining the carriage of goods by sea and their distribution by land.

Local imitations of imported vessels include Phoenician torpedo-type storage jars, mushroom-lipped jars and decanters elaborated in Nile silt clays.

2) With major neighbouring sites (Defenneh, Qedwa and Tell el-Maskhuta) that were erected by the Saite kings in their plan to protect the north-eastern border of the country. The study revealed that although Tell el-Ghaba may have had contacts with these sites, the material demonstrated characteristics that were not only similar to those of such settlements, but that also had distinguishing characteristics of its own, i.e., the lack of Attic pottery and the comparatively large amount of Cypriot Black on Red juglets.

3) With Upper Egypt. A few fragments of jars elaborated in marl clays, whose center of production was the Qena/Ballas region, were found at Tell el-Ghaba. The dearth of these items, their fine manufacture and the context in which they were found at the site appear to reflect that these were luxury items brought in on an irregular basis by high-ranking officials.

## **Creating borders and crossing borders. Some comments on working with predynastic and protodynastic Egyptian pottery**

Agnieszka Mączyńska

Pottery is frequently the most abundant class of material recovered in the course of archaeological excavations. It is an important resource for interpreting the past. Each year, thousands of sherds are studied by specialists at every Egyptian site. They describe fabric, ceramic class and form of vessels. They make conclusions about their chronology, function and even provenance. Equipped with this general information they try to construct a more elaborated history from very small fragments - in fact fragments of vessels.

Working with pottery specialists - archaeologists, egyptologists or ceramologists - creates many "borders" during constructing the past. One has to remember that when

analyzing pottery, specialists use not only their scientific knowledge. Their work is also influenced by other, less defined factors which could be beyond one's control or even beyond one's consciousness. These factors are connected to one's views, religion, culture or background. Although scientists try to be unbiased at work and to expertly assess each sherd or vessel, in fact each of them constructs his/her unique vision of the past. While that past is carefully arranged, it is also sealed off and surrounded by borderlines. In the development of science it is quite natural that such "unique" visions of the past become generally accepted. Others come to rely on those visions when developing their own ones. And although we keep learning and making new discoveries, we continue to be confined to the familiar vision of the past, only replicating its borders. Egyptian pottery of the predynastic and protodynastic period is a fine example of the above phenomenon. The works of W.M.F. Petrie (1921; 1953), followed by W. Kaiser (1957) or S. Hendrickx (1996; 2006) make the foundations of each new proposal. Their typologies or relative chronology systems are generally known and although Kaiser's or Hendrickx's works are partially based on criticizing their predecessor, they continue to rely on the same vision of the past. Their deepest "borderline" is the division between the Upper and Lower Egypt, which has dominated most works on the Predynastic Egypt. This presentation will be an attempt at answering the question whether or not it is possible to cross that borderline and to present a vision of Predynastic Egypt without a distinct division into Upper Egyptian and Lower Egyptian pottery, based on an analysis of pottery from sites situated in the Upper and the Lower Egypt.

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## **Grave goods and offerings: An Early Roman pottery assemblage from Tuna el-Gebel**

Mandy Mamedow

Excavations in a Graeco-Roman cemetery to the SE of the famous animal galleries at Tuna el-Gebel uncovered a series of interments in 2004, perhaps the most significant of which is brick-constructed grave TG2006.G6. This Early Roman (Trajanic-Severan Period) grave is particularly notable for being three-chambered and decorated, and was the only one found to contain mummies and grave goods *in situ*. The pottery found in the chambers can be subdivided into three groups: grave goods, offerings and construction material. Most of the vessels that served as grave goods and offerings are intact, and comprised utilitarian bowls, cookers, jugs and amphoras. A few artefacts of cultic design were also recovered, to include offering plates and incense burners. Most vessels were made from local fabrics - handmade as well as wheel-thrown - and mostly with plain surfaces. However, some of the jugs and amphorae were partly or completely covered with a whitish slip. A similar slip was sometimes used to create decorative bands around shoulders and bodies. While much of the assemblage is characteristic of the known Early Roman Egyptian corpus, others - notably the white slipped amphorae - are much less familiar. The question therefore arises as to whether they were specially made in the region, and/or solely for funeral contexts.

## **Late Middle Kingdom through Second Intermediate Period ceramics at Umm Mawagir, Kharga Oasis: Fabrics, forms, and regional affiliations**

Colleen Manassa

In 2005, the Theban Desert Road Survey (directed by John Coleman Darnell and Deborah Darnell) discovered the site of Umm Mawagir in Kharga Oasis, and three years of excavation at the site have produced an important new corpus of late Middle Kingdom through Second Intermediate Period ceramics. Umm Mawagir contains large-scale architectural remains, including industrial areas for grain processing, bread baking, and ceramic production. The stratigraphy at the central and northern areas of the site, both within the structures and in debris areas, provides statistical analysis of forms and fabrics during the lifetime of the site. The open and closed forms, as well as the Egyptian, Nubian, and Syro-Palestinian imports, all suggest that the Umm Mawagir settlement flourished between the Thirteenth and Seventeenth Dynasties. A site in Dakhleh Oasis, Ayn Asil, which contains grain storage facilities and a comparable ceramic corpus, has similarly been dated to the Second Intermediate Period. Desert roads leading north and east of the Umm Mawagir site provide additional information about the settlement's role in Second Intermediate Period trade and possible political relationships with the other major power centers of the Thirteenth through Seventeenth Dynasties.

The ceramic corpus at Umm Mawagir provides an additional large assemblage of stratified Second Intermediate Period settlement pottery. Indices from dozens of hemispherical cup profiles confirm the dating of the site, but also provide interesting outliers as well as forms peculiar to the oasis region. The large number of spouted bowls from Umm Mawagir at all levels provides a means of comparison with other sites of similar date within Kharga Oasis, including late Middle Kingdom through Second Intermediate Period tombs from cemeteries east of Gebel Ghueita. The large, closed forms, including jars and zirs, show both Nile Valley types and local, oasis forms. Nile Valley imports appear as a small percentage of the assemblage at all levels of the site; with the exception of four Tell el-Yehudiya sherds, the imports from the Nile Valley appear to originate in Upper Egyptian ceramic traditions. Imported ceramics at Umm Mawagir also include amphorae from Syria Palestine and a much larger corpus of Middle Nubian pottery. Although a few sherds of Kerma tradition are present at Umm Mawagir, the majority of Nubian ceramics are incised bowls from the Pan Grave culture; the Pan Grave pottery includes both vessels brought from the Nile Valley and vessels manufactured in Kharga Oasis. Two wheel-made sherds with Nubian decoration offer a possible window into Egyptian-Nubian interactions at the site.

The analysis of the ceramics at Umm Mawagir has led to the creation of a fabric classification for pharaonic pottery manufactured in Kharga Oasis. Based on the Vienna System in terms of the marl/silt divisions and amounts of temper, the Kharga Oasis fabric divisions are in the process of being compared with Dakhleh Oasis fabrics and identifications of oasis imports from Nile Valley sites.

## **The cultural, chronological and historical context of the Middle Kingdom Egyptian ceramic imports from Middle Bronze Age IIa Tel Ifshar, Israel**

Ezra S. Marcus

Nearly four decades ago, Weinstein (1975) rightly rejected the long-held notion of a Middle Kingdom (MK) Egyptian empire in the Middle Bronze Age IIa (MB IIa) southern Levant. He further noted that there was little reliable evidence for any trade between the regions. Subsequent excavation and research did not produce any significant Egyptian imports, supporting this view, especially the work of Ben-Tor (2007), who demonstrated that the appearance of scarabs in the latter region began largely in the final MB IIa phase. Nevertheless, already in the 1980s, a small quantity of pottery, which was identified as Egyptian Marl A ware, was found in early MB IIa phases at Tel

Ifshar, a 4.4 ha site in the Sharon coastal plain of Israel. Despite the significance of these imports, apart from some general references in the literature, particularly a complete Marl A3 jar that was dated by Dorothea Arnold to the first half of the 19<sup>th</sup> century BCE, these finds were given either little attention or completely ignored in the discourse on Egyptian-southern Levantine relations. In truth, only with the initiation of the research project to study the MB IIA sequence at this site was the precise stratigraphic contexts and extent of the Egyptian ceramic assemblages clarified (Marcus et al. 2008a; 2008b). In total, Tel Ifshar has the equivalent of between eight and twelve Egyptian vessels, ranging in size from small bottles to large *zirs*. These finds represent the earliest MK imports to the southern Levant and are complemented by later finds from Ashkelon assigned to a 13<sup>th</sup> dynasty moat (Stager and Voss, in print) and more extensive MK imports to Sidon (Bader 2003; Bader et al. 2009; Forstner-Müller, I. et al 2006). While MB IIA Ashkelon is known solely from its fortification sequence and Sidon from tombs and fragmentary settlement remains, Tel Ifshar possesses one of, if not, *the* richest and best preserved MB IIA settlement sequences excavated to date. This preservation is a result of the fact that, following the founder settlement of Phase A “early”, the site was destroyed four times (Phases B, C2, E and G) sealing numerous finds *in situ* on floors. Egyptian imports of both wares begin in Phase A “late” (N=3), which represents the final deposits before the construction of a *mittelsaal* building in Phase B. This ca. 600 m<sup>2</sup> elite or public structure possessed the greatest number of MK pottery (N=4-7), largely concentrated in the destruction debris inside a stairwell. This elite building was rebuilt in Phase C1 and was destroyed following renovations in Phase C2; the complete Marl A3 jar was found in debris south of the building. The stratigraphic assignment of this relatively short-lived vessel together with a suite of radiocarbon determinations of single year cultigens has enabled a high precision chronology to be constructed for this site (Marcus, forthcoming). The goal of this paper is to place this rare occurrence of Egyptian pottery in “living levels” from Tel Ifshar in its proper cultural, chronological and historical contexts.

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## **Kult- und Beigabenkeramik vom Ende der 20. Dynastie aus der Grabanlage K93.12 in Dra' Abu el-Naga/Theben-West**

Susanne Michels

Das Felsgrab mit der Bezeichnung K93.12 bildet den südlichen Teil einer monumentalen Doppelgrabanlage in der Nekropole von Dra' Abu el-Naga/Theben-West. Angelegt in der frühen 18. Dynastie, wurden die beiden Gräber (K93.11 und K93.12) in der späten Ramessidenzeit für die Hohepriester des Amun von Karnak *Ramsesnacht* und dessen Sohn und Amtsnachfolger *Amenophis* zu Grabtempeln umgebaut. Am Ende der 20. Dynastie wurden beide Grabtempel schließlich im Verlauf des sog. Kriegs des Hohepriesters völlig zerstört. Die Trümmer der dabei zerschlagenen reliefdekorierten Sandsteinverkleidung und Architektur bildeten in den offenen Vorhöfen eine nahezu flächendeckende Zerstörungsschicht, welche an vielen Stellen die Befunde der späten 20. Dynastie von denen der jüngeren Nachnutzungen trennt.

Im inneren Vorhof des Grabes des Hohepriesters *Amenophis* (K93.12) wurden unter der Zerstörungsschicht große Mengen an Kultkeramik gefunden, die in unmittelbarem Zusammenhang mit einem Osirisbeet direkt vor dem Grabeingang deponiert worden waren.

Diese Keramik ist durch die „versiegelte“ Lage unterhalb des Zerstörungshorizontes bestens datiert, während einzelne Gefäße, die dem verstorbenen Hohepriester als Beigaben in die Grabkammer mitgegeben wurden, aufgrund ihrer Beschriftung mit dessen Namen und Titeln, eindeutig zugewiesen werden können. Die Gefäße aus der Grabanlage K93.12 gewähren somit einen guten Einblick in das Repertoire der Kult- und Beigabenkeramik einer Elitebestattung am Ende des Neuen Reiches.

## **Karnak: new research on the Middle Kingdom pottery (2000-2012)**

Marie Millet

The Middle Kingdom pottery is known thanks to different excavations made in different places over all the area of Karnak temples, on the east bank of Luxor area. At Karnak, the main excavations which provided Middle Kingdom pottery were led during the seventies. From 2000, the CFEETK led various excavations and studies in order to precise the chronology of the Amun temenos. Some of them have cleared Middle Kingdom structures: at the central part of Amun temple, at the south - east of the Sacred lake, in the front of Opet temple and under the osirian catacombs. These new excavations complete the knowledge about the Middle Kingdom structures, especially the settlements.

At the south-east of the Sacred lake of Amun temple in Karnak, remains of the Middle Kingdom were identified. They have been cleared in the seventies during rescue excavations at the east of the precinct wall of the New Kingdom. New archaeological research was led from 2001 to 2007. Its aim was to establish the chronology and the function of this area before the New Kingdom. The structures and the artefacts cleared during the excavations allow completing our knowledge about settlements and workshops of this zone of Karnak. Indeed, the objects belong to the craft world, to the daily life, and give information on the function and the dating of these structures. The ceramics represent the majority of the archaeological material found and they are mainly Egyptian and local even some Nubian pottery was also found. At the south - east of the Sacred lake of Amun temple in Karnak, a chronology from the First Intermediate Period to the New Kingdom could be established thanks to the ceramic typology.

In the central part of Amun temple, a program of research is led on the architectural phases of the Amun temple at the beginning of the New Kingdom. However, the excavations revealed previous and later installations, from the Middle Kingdom to the Byzantine period. The pottery could precise the stratigraphical context of the courtyards but also assert the function of this sector before the New Kingdom temple.

These excavations provide an important Middle Kingdom material and their ceramic

assemblages could be compared especially with the stratigraphy and the contexts cleared. The pottery helps to establish the chronology between the two sectors, and in some case, allows defining the function of the rooms and the quarter cleared during the excavations. This Middle Kingdom pottery is coming from archaeological contexts linked to the temple and settlements. For a wider picture, this material is compared with the pottery found in the Middle Kingdom graves of Thebes West. In this aim, the analysis could give new elements for the pottery shapes used in the daily life and kept for the after life in the Theban region. Regarding Thebes East, this study of the ceramic assemblages from Karnak will contribute to the knowledge of the Middle Kingdom pottery of this area.

### **Pottery forms, macro-fabrics and petro-fabrics: correlating evidence from Amara West**

Marie Millet & Michaela Spataro

Since 2008, renewed excavation by the British Museum at Amara West, the Pharaonic administrative centre of Upper Nubia (Kush), has offered the opportunity to re-assess the function and the chronology of the ceramic assemblages at the important urban site and its cemeteries occupied from the Late New Kingdom (c.1300-1100BC) to the early Napatan period (8<sup>th</sup>/7<sup>th</sup> century BC). The late New Kingdom is well represented through the graves in cemetery D and in dwellings in the town. On the other hand, the material is more sporadic for later periods. The aftermath of Egyptian rule (10<sup>th</sup>/9<sup>th</sup> centuries BC) is well-represented in cemetery C, but in the town the ceramics of this date are thus far restricted to the eastern zone of the town, and areas outside the New Kingdom town wall. The early Napatan period is thus far only known through poorly preserved material from surface survey, from both the settlement and cemetery D. This study is allying analysis of ceramic forms and macro-fabrics from stratified contexts with a petrographic analysis of the clay fabrics used for pottery production and the local raw material especially because there is a lack of kilns. Indeed, at present, no evidence has been found for pottery kilns at Amara West (including during the EES excavations of 1937-9, 1947-50).

The town allows a full chrono-stratigraphic approach thanks to the various architectural phases and the preserved ceramic corpus. Considering associations with other artefacts and architectural features allows room function to be proposed in many cases, and should help to define different zones of activity within the town. The range of ceramic forms is more restricted to funerary contexts, and thus far derives almost solely from burial chambers, not from any cult chapels above ground. In parallel to the typology, the composition of the macro-fabrics, using a lense of 20x, had been described in order to establish their overall classification.

Underpinning the study of forms and the macro-fabrics, a microscopic analysis of fabric samples is being undertaken at the British Museum, using minero-petrographic analysis. This allows precise delineation of various Nile silt fabrics, and can confirm or refute apparent differences in fabrics used for different forms. The vast majority of ceramics at Amara West are forms consistent with those found in contemporary Egypt, whether imported from elsewhere Egypt or produced locally. Only a small percentage (3-10%) of the ceramics are Nubian forms, typically restricted to cooking pots, though some finer wares are encountered.

## **Ceramics as an ethnic identifier: Libyans in the eastern Nile Delta during the Third Intermediate Period**

Rachel Mittelman

This study focuses on reclassifying Third Intermediate Period pottery from known Libyan sites in the Egyptian Delta (Memphis, Tanis, and Bubastis), and comparing them to a ceramic data set from Mendes, a possible site of Libyan occupation. This Mendesian corpus will be used as a case study for determining the settlement patterns of ethnic Libyans through the Late New Kingdom and Libyan Period (Dynasties 21-24, 1100 to 713 BCE). The goals of this study are: 1) To create a broader use of ceramic data as an ethnic marker; 2) To focus attention on Libyans as an ethnic group in the Delta during this period; and 3) To establish a baseline classification of Libyan ceramics in the Third Intermediate Period.

While there are numerous publications and descriptions of Late New Kingdom and Third Intermediate Period pottery, David Aston (1996) is the only scholar who has attempted to create a clear, continuous chronology for the period. His work emphasizes typology, rather than a classification, which is site specific, and lays the groundwork for Third Intermediate Period ceramic studies, but Aston himself states that much of his classification is tentative and still incomplete (Aston, 1996, p. 87).

Since Aston's publication, only Anna Wodzińska (2010) has attempted to create a general typology of Third Intermediate Period Pottery from published sources. However, while helpful as a field manual for excavators to identify their pottery on site, she does not elaborate on the problems inherent in this transitional period.

Neither Aston nor Wodzińska discuss the evolution of these pottery types; there is no indication that forms and wares differ by area, and there is no attempt to determine function or use. The absence until recently of well stratified excavations for the Late New Kingdom through the Third Intermediate Period means that new findings and theories on pottery from this time period have appeared since Aston's seminal work. In order to create a strong classification of Third Intermediate Period pottery, a well excavated site with a continuous stratigraphic sequence and abundant pottery is necessary. Mendes fulfills these criteria, and the classification of the pottery found there can help to clarify issues of Libyan ethnic identity and demographics.

The ceramic corpus in the Eastern Delta during the Third Intermediate Period reflects an evolution from traditional Egyptian pottery forms to Libyan style ceramics due to the influx of Libyan settlers into the area. This is evident in the change in wares, styles, and decorations within the ceramic corpus. By comparing ceramic data from Memphis, Tanis, and Bubastis to data collected at Mendes, a suggested Libyan center, it will be possible to identify the settlement patterns of Libyans in the Eastern Nile Delta during the Third Intermediate Period.

## **Imitation of shape or function? Thoughts on some pottery types of the 1<sup>st</sup> Dynasty**

Vera Müller

In the corpus of the 1<sup>st</sup> Dynasty a range of ceramic vessels of the same shape has been produced in different fabrics. Whereas the nature of a Nile or a marl clay is often easily identifiable, in some cases only the magnifying glass will show if a vessel consists of an extremely well levigated Nile clay, a mixed clay or a specific marl clay. For these pottery types it is interesting to ask why different fabrics were used for the same shapes. This holds especially true for so-called wine jars and small ellipsoid jars. Both shapes would suggest that they were actually used for the long-term storage of liquids. Yet it is a well-known fact that marl clays are generally better suited for holding liquids than Nile clays. But in fact, the majority of both vessel types consists of Nile clay. Although the vessels' porosity had been reduced by burnishing of the wine jars' surface, it is surprising that only a relatively small quantity of this vessel type was made of marl clay. Even more

wonderous is the fact that marl clay vessels had been painted red thus obviously imitating their Nile clay counterparts.

A red wash was not only encountered on wine-jars but also on ovoid jars made of marl clay. Whereas the marl clay variant was usually very finely and well executed, most of the ovoid jars made of Nile clay were roughly made so that it is difficult to imagine that they should have been imitated. It is therefore interesting to question the relationship between shape, function and material of the vessels. It seems obvious that the reasons of the different kinds of imitation are based on different backgrounds. Was the vessel's shape considered as more indicative than its actual properties? If this is the case, do we meet here on traditions lacking behind the change of function of certain vessel types? Or does the vessel's shape imitate other materials, like metal or stone, and became thus an icon independent of its actual properties or use? Does the use of certain fabrics merely reflect its place of production or is it mainly based on the vessel's function? Have we got products of different workshops specialized on certain clays or surface treatments?

Generally the 1<sup>st</sup> Dynasty is considered as a period in which still a lot has not been standardised yet. It has to be questioned, however, if this supposition really answers the whole scale of possibilities.

## **Saggars from Roman Memphis: Some lessons from Stoke On Trent**

Paul Nicholson

This paper looks at the production of a specialist class of pottery vessels used in the manufacture of ceramic objects. These vessels, known as saggars, are usually cylindrical and were used to contain the stacks of vessels during the firing and glazing processes.

The examples in question come from the author's recent excavations at Kom Helul, Memphis, where fragments of a large number of these vessels have been found. They were being used in the production of faience objects, notably faience vessels. Although Petrie commented on these vessels and collected some small examples during his work at Memphis in 1908 and 1910 (Petrie 1909, 1911) he did not fully understand their function or manufacture and saw them as allied to the 'stands' which he recorded at Tell el-Amarna in his work there in 1891-2 (Petrie 1894).

The way in which the vessels are manufactured, and their distorted condition from firing, at first made them difficult to interpret and initial attempts by the writer to reconstruct their original form were incorrect. Once their true form was understood it was apparent that they had features in common with pottery made in more recent times - in Britain and Europe.

By drawing on accounts of the pottery industry in Stoke on Trent in the late 19<sup>th</sup> and 20<sup>th</sup> centuries along with photographs and interviews with those who worked in the industry the processes necessary to produce a hand-made saggarr, a class of vessel which is no longer produced in Britain, are illustrated. This information can then be used to help to interpret the vessels found at Kom Helul. Although there are numerous similarities between the two industries there are also significant differences which throw light on the evolution of saggarr firing.

The paper also emphasises the need for archaeological ceramicists to record traditional, and indeed industrial, processes in the developed world as well as in the developing world. As modern industrial technology develops so craft skills are lost and with them the opportunity to better understand the technologies of the ancient past.

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## **Pottery technology and Egyptian history: petrographic studies of ceramic fabrics**

Mary Ownby

Petrographic analysis of Egyptian ceramics has revealed distinct differences for the fabrics of the Vienna System. These were first clarified by Bourriau and Nicholson (1992) for the Marl fabrics and by Bourriau et al. (2000) for the mixed Nile clay and Marl clay fabrics. More recent research has shown definable differences between the Nile clay fabrics from Giza and revealed the use of some of the Marl fabrics in the Old Kingdom. Additional petrographic analysis has explored early mixes of Nile clay and Marl clay from the Memphite region. Other unusual fabrics have also been examined petrographically, but more analyses are needed to further investigate the chronological and spatial span of the Vienna System fabrics. Such information is vital for understanding pottery technology, but also important historical and social changes in Ancient Egypt. This paper will review the conclusions of the previous studies and discuss the results of more recent work before highlighting the value of petrographic analysis for fabric studies. Areas where this method, and other scientific techniques, may prove to be most useful for ceramic research and providing data for wider archaeological questions will be discussed.

## **Preliminary report on the pottery assemblages of the 'Masons' Pottery Heap' and the 'Northern Rubbish Heap'**

Máté Petrik

The El-Lahun Survey Project, an international archaeological expedition organized by the Museum of Fine Arts, Budapest working on a concession area of almost 6.2 square miles at el-Lahun has already completed two seasons in 2008 and 2009. One of the main objectives of these seasons was the collection of surface pottery material from the pottery heap situated north of the desert edge cult temple (Petrie's 'masons' pottery heap'), on the one hand, and the northern rubbish heap located beyond the northwestern corner of the town, on the other hand.

In case of the pottery heap connected to the royal mortuary temple the collection of surface pottery during the two seasons covered almost the 70% of the total area (eight 10 by 10 meters squares), with altogether ca. 5000 non-diagnostic and 3037 diagnostic sherds collected. The preliminary observation of typological research on this material is the extremely narrow range of forms (25 forms), the closest comparanda of which is composed of the ceramic corpus of the East Block Rear Doorway Deposit of the temple of Senwosret III in South Abydos. In terms of the function of the vessel types, most of the forms can be associated with storing and serving offerings. Regarding the chronology of the ceramic material collected during the first two seasons, especially the three types with special chronological value (vessel index of the hemispherical cups, rim types and aperture index of beer jars, *zir* types) the late Middle Kingdom types are prevailing almost exclusively.

During season 2009 surface pottery collection was extended to the area of strong pottery concentration north of the settlement, where ceramic material from six 10 by 10 meters squares was collected and studied. Although the analysis of this material is still in progress, some preliminary conclusions can already be drawn. In contrast to the 'temple heap' material a much broader range of forms can be defined (ca. 40 vs. 25 forms), which appears to be a more heterogenous corpus including also New Kingdom forms and foreign pottery material as well.

## **Two heads are better than one: the collaborative characterisation of the fabric series at the fifth-sixth century AD North Tombs settlement at Amarna**

Gillian Pyke & Mary Ownby

The North Tombs settlement at Amarna in Middle Egypt is one of the several monastic foundations located around the perimeter of the Amarna plain, the site of Akhenaten's capital city. The ceramic survey comprised a surface collection at each of the dwellings, the analysis of which confirmed the domestic character of these buildings, their uniform strategy of waste disposal in specific locations, and a common repertoire of wares. The occupation of the settlement was dated to the fifth-sixth century AD through the imported and local fine- and transport wares. The lack of significant morphological development in the vessel types suggests that the settlement was relatively short-lived. A second period of activity at the site, probably in the Ottoman period, was also identified, characterised by infrequent single vessels scattered throughout the survey area, probably by local villagers visiting the area.

An important aspect of the ceramic survey was the characterisation of the fabric series, through the parallel use of field and scientific techniques. A total of 22 samples were selected for this project, representing the full range of the fabric series established through analysis of all the ceramic material. The fabrics were described separately by Pyke, using the x10 magnification of a hand-lens on a clean break, and Ownby, using thin-section analysis. While the descriptions were informed by different specialist backgrounds, they had a high degree of correspondence, with points of variation providing a platform for the discussion of questions of geology, manufacture and function.

This collaborative process of analysis demonstrated the high degree of accuracy of fabric descriptions made under field conditions, which necessarily form the starting point of the process of formulating a fabric series. The confirmation of each sampled fabric as a different type and its description through thin-section analysis provided a scientific basis for the fabric series. Most significantly, it will allow its formal comparison with series from other sites and the future characterisation of the fabrics of this period throughout Egypt.

## **The late Ptolemaic and Roman Pottery of Area 13 in Syene/Aswan (Egypt)**

Laura Rembart

The analyse of the late Ptolemaic and Roman pottery in Syene is a part of the FWF-Project „Antike Wohnkultur in Syene/Elephantine“ under the leadership of Priv.-Doz. Mag. Dr. S. Ladstätter, *Austrian Archaeological Institut (ÖAI)* and in cooperation with the *Swiss Institute of Architectural and Archaeological Research on Ancient Egypt, Cairo*. The ceramic finds, which will be presented in this paper, stem from the rescue excavations of Area 13 which is located in the southern centre of the modern Aswan. In this area some house complexes of Ptolemaic and Roman times were excavated from 2004 through 2006.

In ancient times Syene held an important significance. On the one hand the city was an important trading point with a fully functional Nile harbour and on the other hand, as the southernmost border town with the seat of the regional administration, a military post bearing responsibility for border security.

The research on the pottery of Syene firstly should give an overview of the different ceramic types and the spectrum of forms which were used in the late Ptolemaic and Roman times. In addition, it shall also be analysed how these forms changed.

Since the Roman Imperial Period the region of Syene developed into a significant centre for the production of ceramics; especially fine wares and amphorae were widely disseminated all over Egypt. The spectrum of forms of the locally produced pottery reflects Greek and Roman influences, which came to Syene with the military and Greek and Roman citizens. In late Hellenistic times vessels were produced which were oriented

towards Egyptian and Hellenistic tradition. In late Augustan times an influence of Mediterranean Sigillata can be recognised with the vessels. However, also the Egyptian traditions – such as the polychrome painting of vessels – did not disappear. The painting of table ware for example continued throughout the Roman Imperial Period and enjoyed great popularity again in Late Antiquity.

### **Fine-tuning the Vienna system: a comparison of late 18th dynasty ceramics from Amarna and Sesebi**

Pamela Rose

This paper will take as its basis the corpora of late 18th dynasty ceramics from the sites of Amarna in Middle Egypt and Sesebi, near the third cataract, almost 1000 km to the south. The two closely contemporary sites, both royal foundations, present an excellent opportunity to compare both the forms and the fabrics of the ceramics used at each site, to highlight the similarities and differences between them, and to suggest interpretations for these differences. Furthermore, the assemblages provides a foundation from which to discuss issues relating to the Vienna system of fabric classification. These include the occurrence of widely-recognised fabrics that are not included in the system, such as mixed clay fabrics, and fabrics from the western oases; the problem of 'foreign' fabrics, such as Nubian and Canaanite wares; and, perhaps most importantly, the question of the range of variability within recognised Vienna system fabric designations. The comparison of the two assemblages show that there are indeed differences within certain of the Vienna system fabrics, which clearly reflect differing manufacturing centres. Thus we are in danger of obscuring or even losing significant data relevant to pottery production if we use only the Vienna system to describe the fabric; rather, the Vienna system—at least for the period discussed here—should be treated as a starting point for classification, not the definitive and final end product.

### **La céramique de la XVIII<sup>e</sup> dynastie à Kerma (Doukki Gel): répertoire classique et style local**

Philippe Ruffieux

Située à environ 1 kilomètre au nord de la cité nubienne de Kerma, sur le site de Doukki Gel, une ville nouvelle fut fondée après la conquête de la région par Thoutmosis I<sup>er</sup>. Depuis une dizaine d'années, son quartier religieux fait l'objet de fouilles approfondies qui permettent de mieux appréhender les premiers temps de l'occupation égyptienne.

Le site paraît témoigner dès l'origine d'un caractère sacré, puisque les sanctuaires égyptiens furent bâtis à proximité de deux puits qui semblent avoir joué un rôle rituel important.

Un groupe religieux nubien d'un caractère particulier a été découvert immédiatement à l'est des temples égyptiens. Son étendue fut progressivement limitée par l'édification de puissants murs par les souverains de la XVIII<sup>e</sup> dynastie, et notamment Thoutmosis III.

L'évolution parallèle de ces deux ensembles religieux illustre bien la complexité des relations entre les deux communautés, particulièrement durant les règnes de Thoutmosis I<sup>er</sup> et Thoutmosis II<sup>1</sup>.

Le matériel céramique, plus ou moins abondant selon les secteurs, est constitué le plus souvent d'un répertoire à caractère cultuel, attendu en contexte religieux.

Peu abondante dans les niveaux ramessides, la céramique l'était en revanche dans les couches contemporaines de la période amarnienne, avec ses importants bouleversements architecturaux liés au règne d'Akhenaton. Le matériel – essentiellement fonctionnel – est homogène et en général conforme à la typologie connue en Égypte.

Les règnes d'Hatchepsout et de Thoutmosis III constituent également une période de grande activité et la céramique y est nombreuse. Caractéristique de la période, elle offre également quelques spécimens de vaisselle peinte, moins bien préservés dans les niveaux postérieurs.

La présence de tessons nubien du *Kerma Classique* semble alors résiduelle, c'est en effet dans les niveaux antérieurs, sous Thoutmosis I<sup>er</sup> et Thoutmosis II, que ces derniers sont le mieux représentés. Outre le répertoire de la céramique égyptienne de style « classique », un matériel particulier a été découvert lors des récentes campagnes, concentré principalement dans le complexe nubien. Il se distingue par un emploi fréquent du brunissage sur engobe rouge/rose, en motifs variés, et pourrait bien constituer un style local<sup>2</sup>. Des tessons similaires ont aussi été mis au jour en quantité plus modeste dans le temple égyptien oriental, confirmant ainsi la correspondance chronologique entre les horizons anciens des deux ensembles religieux.

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### **Middle Kingdom Marl C pottery from the settlement on Elephantine. (Commercial relationships between the Fayum and Upper Egypt)**

Teodozja Rzeuska

The Nile island of Elephantine located in the First Cataract region was an important political and administrative center, the capital of the first Upper Egyptian nome, and a military center with a garrison guarding the southern frontiers in different periods in its existence. It also was a trading center with an important function in the redistribution of goods, witnessed a merging of two different civilizations, Egyptian and Nubian.

Ongoing excavations by the German Institute of Archaeology and Swiss Institute for Architectural Research and Archaeology began in 1969. A considerable part of the huge mound at the southern edge of the island was explored in the course of this work (c. 200 x 100 m, h. 12 m) uncovering a town that functioned uninterrupted from the Nagada II Period to the medieval times in Egypt. One of the most important discoveries is a Middle Kingdom and Second Intermediate Period settlement which has yielded to date an enormous quantity of finds, including pottery.

The Middle Kingdom pottery for the most part comprises local material; a smaller group in the assemblage is composed of vessels imported from the north, that is, from the Fayum as well as the Eastern Delta area; and the least numerous group consists of vessels imported from the Levant. The topic of the presentation is the pottery from the Fayum area.

The assemblage discovered on Elephantine merits particular attention for a number of reasons. The town which once functioned on the island was among the best known in Egypt and displays a settlement continuity extending all through the Middle Kingdom (from the second half of the 11th through the end of the Thirteenth Dynasty); the other known urban sites, very few as a matter of fact, existed for much shorter periods.

The ceramic material is analyzed as a completely new source for chronological and commercial relations in the Middle Kingdom period between the capital and its southern peripheries.

## **Ptolemaic vase painting: An update**

Gábor Schreiber

The early Ptolemaic Period marks the beginning of the last great episode of ancient Egyptian vase painting. After the disappearance of New Kingdom painted wares Egyptian pottery rarely exhibited more than simple linear motifs for centuries, and even when it did, experiments with new styles remained short-lived and marginal. The immediate antecedents of the Ptolemaic style go back to the Late Dynastic Period, when Egypt came into closer touch with the outside world, especially the Mediterranean. In this period a new repertoire of vessels shapes came into use and a new style of vase painting was formulated using basically linear motifs. In the later 4<sup>th</sup> century BC geometric and floral motifs also appeared in the decoration. The new style seems to have been created in Theban workshops, but independent ateliers also appeared relatively soon throughout the country. Both Nile- and Marl-based vessels were decorated and there was a preference for medium- or large-sized closed shapes, which provided suitable surfaces for decoration which was usually monochrome, painted in silhouette in black pigment. Until the early Ptolemaic Period, the repertoire of painted motifs remained purely Egyptian in character, employing a wide range of linear, geometric, and floral ornaments. During the later 3<sup>rd</sup> century, however, Hellenistic decorative motifs were also adapted through the mediation of Alexandrian art.

The evolution and characteristics of this new style of vase painting have been dealt with in detail in a short monograph I published in 2003. Since then a number of new examples have been excavated and published, and a few vessels in museum collections which had previously escaped my attention can now also be integrated into the expanding corpus of this pottery. Together with an improving awareness of Hellenistic pottery in general and Ptolemaic Egyptian pottery in particular, these new finds provide an opportunity to revisit some questions of contemporary Egyptian vase painting. In the presentation I intend to return to two problems, namely the formative and Hellenizing phases of the style, and the survival of the white-ground substyle (that I term Floral Style A) into the early Imperial Period. As for the first, there now is clear evidence from Saqqara and elsewhere that the formative, linear, phase of the style drew heavily on earlier, Saite and Persian, models. I also intend to show that the Hellenization of the native style during the 3<sup>rd</sup> century BC was not only dependent on the so-called Hadra Ware but a number of other, regional Hellenistic styles also played a role in shaping the repertoire of decorative motives. Finally, a brief note will be made on the dating evidence pertaining to the last episode of this pottery complex. It now seems that the elaborately painted Marl containers of my Floral Style B ceased to be produced no later than the early 1<sup>st</sup> century BC, however, large Nile silt vessels decorated in Floral Style A continued to be made not only into the 1<sup>st</sup> century BC but the Imperial Period, possibly up to the AD 2<sup>nd</sup> century.

## **Relations and chronology- Imported vessels of the Middle and Late Bronze Age from Aniba, Cemetery S/SA**

Anne Seiler

Cemetery S/SA is situated in the vicinity of the fortress of Aniba in Lower Nubia. 38 tombs were excavated by L. Woolley and D. Randall-MacIver during their survey for the Eckley-Coxe-Expedition of the University of Pennsylvania in 1910. The Ernst-von-Sieglin Expedition 1912-1914 under the direction of G. Steindorff investigated 119 tombs. The tombs contain burials from the late Middle Kingdom up to the Third Intermediate Period.

A large amount of the pottery vessels has been moved by the excavators to the "Ägyptisches Museum - Georg Steindorff" in Leipzig and the "University of Pennsylvania Museum of Archaeology and Anthropology" in Philadelphia. In the course of a Project

funded by the German Research Foundation (DFG) the author and Jana Helmbold-Doyé are going to reinvestigate the pottery vessels from Aniba.

This lecture will focus on the numerous imported vessels of the Middle and the Late Bronze Age from the Levant, Cyprus and Greece found in the tombs of Cemetery S/SA. Imitations of foreign vessel shapes will be discussed also. It can be shown that Cemetery S/SA is one of the key sites for

1. synchronizing the chronology of the Mediterranean, the Levant and Egypt as well as for
2. reconstructing the trade relationships of Lower Nubia in the Middle and Late Bronze Age.

## Late Saite - early Persian assemblages of pottery from Abusir

Květa Smoláriková

Although the archaeological excavations of a cluster of huge and lesser Saite shaft tombs at the Saite-Persian cemetery located in the south-western part of the vast Abusir necropolis are far from being complete, they yielded hitherto a large amount of ceramics of excellent quality and unusually good state of preservation that a preliminary evaluation can be formulated. More precisely, I would like to analyze a special part of them clearly connected with the process of embalming. Several assemblages of pottery consisting of hundreds of vessels were inserted into deep subterranean structures after the embalming of the deceased was finished. They come from embalmers' deposits of the high-ranking Saite dignitaries Udjahorresnet, Iufaa and Menekhibnekau engaged in a military, administrative and sacred service at Memphis, *de facto*, the capital of the country. However, not only the repertoire of the ceramics is worth study, the same can be said about their contents - refuse embalming material: resin, myrrh, natron, linen, mud, sand, and an enormous quantity of sawdust or straw, but this is beyond our topic. From a wide range of shapes mostly restricted occurred: large bottles with ribbed neck, jars with tall cylindrical neck, drop-shaped jars and a wide variety of lids; from the open forms predominated cooking pots and shallow plates with a groove under the rim. The surface all of them was covered with fine red burnished slip. Some of these types emerged during the last decades of the 6<sup>th</sup> century and are typical only for the late Saite Period and the first decades of the First Persian domination and disappeared in the following period, they were analyzed on a small sample of pottery, already in the year 2004 by Peter French ('Distinctive Pottery from the Second Half of the 6<sup>th</sup> Century B.C.', *CCE* 7, 2004, 91-97), while others continued with more or less significant changes to the Ptolemaic Period. They are attested mostly in the Delta, but have numerous parallels across Egypt, albeit one cannot ignore also the specific features of certain assemblages retrieved from the same region, e.g. those from Saqqara and Abusir; here shapes that characterize the ceramic assemblages from Saqqara's cemeteries are basically missing from Abusir's pottery repertoire. This is the case, inter alia, of wide-mouthed jars, globular jugs or a variety of smaller globular jars. What was the reason for this discrepancy, when one can suppose that the Memphite embalmers' workshops worked side-by-side on the western desert edge?

## The Middle Kingdom potters

Danijela Stefanovic

The ancient Egyptian sources reveal various workers involved in the production of craft and art, specialized in various media. The stone masons, builders, potters, plasterers, draftsmen, sculptors, carvers, carpenters, painters and scribes were commissioned to build and decorate various objects. The pottering industry in ancient Egypt was organized on several levels (see J. Bourriau, et al., *New Kingdom pottery fabrics: Nile*

clay and mixed Nile/Marl clay fabrics from Memphis and Amarna, EES Occasional publications 14, London 2000). Potteries were attached to all important state institutions, such as temples and palaces.

The artisans responsible for the supply of ceramic vessels to the community of Deir el-Medina were termed *qd* (E. Froid, The potters: Organization, delivery, and product of work, in: *Woodcutters, potters and doorkeepers: Service personnel of the Deir el-Medina workmen*, Egyptologische Uitgaven 17, Leiden 2003, 29-62; P.F. Donnan, *Faces in Clay: Technique, Imagery and Allusion in a Corpus of Ceramic Sculpture from Ancient Egypt*, MAS 52, Mainz 2002, 87-99). Since this term can alternatively mean 'builder', these two potential meanings can create confusion (T. E. Peet, *The Great Tomb-Robberies of the Twentieth Egyptian Dynasty*, Oxford 1930, I, 96, 7; J. J. Janssen, *Commodity Prices in the Ramessid Period: An Economic Study of the Village of Necropolis Workmen at Thebes*, Leiden 1975, 40). The same is true of the Middle Kingdom / Second Intermediate Period sources. The activity of potters, variously termed as *qd*, *jqd*, and *jqd nDs*, was not generally recorded in the above mentioned periods data, particularly when compared with the numerous references to other artisans (see S. Quirke, Art' and 'the Artist' in late Middle Kingdom administration, in: *Discovering Egypt from the Neva; the egyptological legacy of Oleg D. Berlev*, ed. by S. Quirke, Berlin 2003, 85-105; Id., The Residence in Relations between Places of Knowledge, Production and Power: Middle Kingdom evidence, in: *Egyptian Royal Residences. 4th Symposium on Egyptian Royal Ideology; London, June, 1st-5th 2004*, ed. by R. Gundlach - J.H. Taylor, Wiesbaden 2004, 111-130). With a few clear exceptions, e.g. *The Teaching of Khety* which includes the profession of potter (*iqd nDs*), and an entry in pRaisner II listing various kinds of pots made by a *qd*, the nature of the sources concerning these individuals imposes limitations upon any analysis.

The aim of this paper is to discuss the individuals known to hold the titles *qd*, *iqd*, and *iqd nDs*, to identify them, if possible, as potters and to try to mark their place within the administration of art. Just as other persons involved in the various stages of the production process of objects of art or crafts, the Middle Kingdom potters were perhaps named on the monuments, but certainly not as the artists who produced or participated in production of a particular work. Their names and titles recorded on the objects of art perhaps just identify them as honorable individuals.

### **Third Dynasty pottery from the rock circle cemeteries in Dayr al-Barshā and Nuwayrāt**

Bart Vanthuyne & Stefanie Vereecken

Dayr al-Barshā is located approximately 300 km south of modern Cairo on the east bank of the Nile. During a survey in 2002 early Old Kingdom pottery was discovered close to the foothills in the northern desert plain of the site. Finds included rims from Kragenhals beer jars, meidum bowls, plates, bowls with internal rim, storage jars and pottery coffins. The latter implied that an early Old Kingdom cemetery must have been located on the northern foothills, being the earliest occupation phase of the site as yet known<sup>1</sup>. Since 2009 this cemetery is under investigation by the Belgian archaeological mission to Dayr al-Barshā. It is 1,4 km long and up to 150 m wide. Both adults and children of all ages were interred here so it appears the entire population was buried on the hillside. The tombs were constructed of large limestone boulders that were placed around and over the burial container for which a variety of objects and materials were used, e.g. pottery coffins, vats or jars, reed coffins and baskets or wooden coffins. As the coffins were generally placed directly on the bedrock small circular dome-shaped tombs covered the escarpment. The style of burial is far from sophisticated, suggesting that villagers with limited means were buried here. Besides pottery hardly any other burials goods have so far been discovered. The pottery consists of a variety of shapes and wares. Comparison with the 4th Dynasty pottery discovered by the mission in al-Shaykh Sa'īd<sup>2</sup>, indicates that the material from this cemetery pre-dates the al-Shaykh Sa'īd pottery, whilst it also post-dates known 2nd Dynasty assemblages. Therefore the

chronological spread for the pottery from this cemetery is limited to the 3rd Dynasty - Snofru period.

Nuwayrāt is located 8 km north of Banī Ḥasan on the east bank of the Nile. Whilst excavating the Middle Kingdom tombs in the latter site between 1902-4, Garstang also spent part of his time at Nuwayrāt. At this site two types of tombs are known, i.e. rock tombs and rock circle tombs, which he dates to the 3rd-4th Dynasty<sup>3</sup>. At present the cemetery is about the same size as the one in Dayr al- Barshā. A number of site visits by the mission and small surveys carried out in the rock circle cemetery in 2006 and 2011 have narrowed down the dating of these burials to the late 3rd-early 4th Dynasty<sup>4</sup>.

In the presentation a cemetery overview will be given of both sites. They represent an occupation phase that is chronologically very limited in time and the style of burial has so far hardly been researched in the past. The main focus will however be on the various pottery types and wares that are present at both locations. Interesting is the fact that differences also existed and that several vessels bearing incised decoration, for which hardly any parallels are known, are present in the corpus.

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## State versus regionalization: Interpretation of the Old Kingdom pottery assemblage of al-Shaykh Sa'id.

Stefanie Vereecken

For few years, the Dayr al-Barshā-project of the Katholieke Universiteit Leuven has been working in the nearby area of al-Shaykh Sa'id. During the 2007 survey, the first remains of an Old Kingdom occupation were discovered at the mouth of the Wādī Zabayda. In the next two years, excavations were conducted, revealing a continuous stratigraphy of Old Kingdom strata with the remains of a bakery that was part of a much larger food facility of the Early Fourth Dynasty.

The accompanying pottery assemblage exist mainly out of types that can be clearly linked to the production of bread. Numerous bDA-bread moulds en different types of bread trays were discovered together with parts of vats and basins that were used in the preparation of dough. Other types of pottery including maidum bowls, bowls with inner ledge rims, storage jars and white carinated bowls complete the pottery repertoire. These were used in the serving and storage of food and were found interspersed with food disposal heaps next to the bakery. Analysis and interpretation of the archaeological context as a whole has proven that the bakery and food facilities must have been part of a state institution that can be clearly linked to the great building projects of that time, and encompassed in a regional program of calcite alabaster exploitation. Hereby, during a rather short stay, a sizeable work force must have been sheltered at al-Shaykh Sa'id, well provided for the necessary food facilities.

The link with the state is observable in the pottery assemblage on different levels. Different pottery types, such as the large bDA-bread mould and the white carinated bowl, were hitherto exclusively linked to the Giza area, and in particular to the workmen's village. Also the exceedingly high quality of some pottery and the use of fine wares corroborates the presence of not only workmen, but also of an elite.

On the other hand, close analyses of the pottery shows that there has been also a

"regional input" during this rather short stay. Some pottery types were clearly adapted by a local workshop. Differences in fabric, shape and technique point out this regionalization. In this lecture, we will focus therefore on the differences between this state and local repertoire.

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### **Third Intermediate/Late Period pottery from North Kharga: Amun Rock and environs**

Leslie Warden

It is well known that ancient activity in the Kharga Oasis dates to at least the Middle Kingdom; evidence of this in the North Kharga desert was extremely limited. For much of the last ten years, the ceramics documented by the North Kharga Oasis Survey have been almost exclusively Roman in date. Until 2009, evidence for pre-Roman activities in our concession were extremely sparse. The largest exception, Ayn Amur, is dominated by a small temple tucked up into the escarpment. Ceramic evidence for pharaonic activities on the desert floor were documented during the 2009 season, which concentrated on Amun Rock and environs in the northwest Kharga desert. The site, named after a pharaonic graffito on the rock, is relatively small, centered on a rock outcrop into which a unassuming rock-cut tomb had been dug. No evidence of a body could be found and it is uncertain who was originally buried here. The dense scattered of ceramics in front of and surrounding the tomb entrance largely date to the Third Intermediate/Late Period and are predominantly of two specific forms: large gourds and long, torpedo-shaped bottles. The dominance of these types would suggest that they were the remains of pilgrimage activities. Roman ceramics were almost entirely absent; it seems that this portion of the desert was unused during the Roman period, perhaps due to shifting sand dunes. Additionally, to the northeast of the Amun Rock we identified two dumps filled with a largely intact contemporary forms which add diversity to the corpus and suggest some function differentiation within the site. The gourd and torpedo bottle forms were found at other sites in close proximity to Amun Rock, including Netjer Rock to the north, and do appear to be the most common types in this area. All the vessels appear to have been made of oasis clays and were most likely manufactured in the oasis. This paper will discuss several interesting characteristics for the Khargawi ceramic industry of the Third Intermediate/Late Period as indicated by this corpus. This includes a frequent use of pre-fired potmarks, a reliance upon certain forms, and a dominance of platelet heavy oasis fabrics to the seeming exclusion of any imported material. When coupled with ceramic data from later sites in our survey area, the Amun Rock material allows us to expand not only on Third Intermediate/Late Period ceramics, but also on changes in ceramic use and manufacture in the Kharga oasis.

## **Serra East fortress and regional pottery production in the Middle Kingdom**

Bruce Williams & Nadejda Reshetnikova

The great complex of fortifications erected at the Second Cataract in the late Twelfth Dynasty not only played a vital role in state security, they were hives of activity in their own right. Some of this activity was part of sustaining the garrison, such as fishing, while there may have been some other economic activity, such as gold washing, if not actually in the forts, then nearby.

Some forts actually contained evidence of manufacturing activity, also apparently related to sustaining the garrison, or perhaps even preparing weapons for action. Near Mirgissa, there were pottery kilns and at Serra East, there were kilns and other remains of a pottery workshop which should help us better understand the organization of production.

The area of the kilns was fortunately fairly well-preserved and not completely disturbed. Located above a large basin in the fort, the three kilns had a number of wasters nearby. More important, there were some fragments of unfired pottery of typical Middle Kingdom shapes. It appears that large beer jars were manufactured there of well-known types. Some of these had small indented lugs outside the rim, a specialized feature well known from El Kab, for example. Parts of three kilns were preserved, and nearby were two well-cut oblong pits with layers of clay in the bottom. These pits, which are likely to have been basins used to soak or levigate the clay, and possibly other features nearby appear to be parts of a pottery workshop placed near the center of the fortress. The organization of these features can be compared with representations to help reconstruct a pottery workshop of the period.

If a number of the vessels were locally produced, pottery from local contexts might be used effectively to trace some regional developments. Unfortunately, the forts were mostly excavated in an era when the detailed observation of strata was not practiced, and even well-defined contexts, such as deliberate dumps, were not appreciated for the chronological, technical, and cultural value they offered. There is a certain lack of precision, even in the more carefully recorded areas due to mixture. Fortunately, a few fortresses preserved some deposits that offer considerable chronological definition and cultural context. In particular, quarry dumps found outside of Semna South and Serra East fortresses contained deliberate deposits of late Middle Kingdom date that can be compared with materials from more recent excavations in Upper Egypt and even the Delta to indicate some striking special characteristics.

## **Early 18<sup>th</sup> Dynasty pottery from Tell el Retaba**

Anna Wodzinska

Tell el Retaba is located in the Eastern Delta, approx. in the middle of Wadi Tumilat. It has been excavated by the Polish-Slovak Archaeological Mission since 2007.<sup>1</sup> A very large kom hides archaeological material from the Late Period, Third Intermediate Period and New Kingdom. Some recent finds can be dated to the Second Intermediate Period - Hyksos time, which reflects the first occupation of this place. The New Kingdom ceramic material can be divided into two major groups - Ramesside and early 18<sup>th</sup> Dynasty.<sup>2</sup>

The early 18<sup>th</sup> Dynasty pottery, most probably from the time of Thutmose III, have been collected from domestic units which can be identified as houses, industrial areas, maybe also places for keeping animals. Ceramic forms represent mostly table ware. Many red coated bowls made of Nile B1 and B2 fabrics were found, often with black painted rims. Black burnished juglets appeared as well. Storage jars with large round or triangular rims and amphorae made of marl D with cream coated external surface were also present. A few imported vessels were found, representing the Cypriote Red Lustrous

Wheel-Made ware juglets and Bichrome ware.

The paper will include ceramic typology from the early 18<sup>th</sup> Dynasty Tell el Retaba together with the site fabric classification. It will also comprise comparison to other locations where early 18<sup>th</sup> Dynasty ceramics were discovered, for instance from Memphis, Saqqara, Tell el Daba<sup>3</sup> as well as Tell el Yehudiyeh.<sup>4</sup> Additionally the Tell el Retaba pottery will be analyzed according to its exact context of founding. What ceramics can tell us about the function of discovered structures? And on the other hand how the structures can help us in identification of the vessels' function?

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