The Nile Delta as a centre of cultural interactions between Upper Egypt and the Southern Levant in the 4th millennium BC
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The prehistoric sequence at Sais: temporal and regional connections

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Introduction

In 2005, Excavation 8 at Sais (Sa el-Hagar, Western Delta, Egypt) focussed on the Prehistoric area of the site and preliminary results of the work were presented in Poznan in 2007 (Wilson & Gilbert 2012). The final publication, Sais II: The Prehistoric Period, will be completed by 2014.[1] This paper will present results from the analysis of the material found, including a discussion of the taphonomy of the Delta floodplain site and prospects for future work in such environments. In addition, the wider connections of this site will be explored through the evidence of the pottery assemblages.

Site stratigraphy: temporal and environmental (Figs. 1-2)

The site comprised a 10mx10m trench on the western edge of the Great Pit at Sa el-Hagar. Using a non-stop dewatering system the excavation reached a maximum depth of 3m below the ground surface. The upper layers consisted of smashed and pulverised Saite period material from Dynasty 26 in massive pits and dumps, which then gave way to:

• Sais III: a Buto-Maadi period mud structure, covered by a deflated pottery and small find mass (contexts [8008], [8009], [8014]);
• an alluvial layer up to 1m thick in places, effectively forming a permeable seal between Sais II and Sais III (context [8012]);

[1] The following team members were responsible for specialist studies: Gregory Gilbert (chipped stone tools), Geoffrey Tassie (chipped/unchipped and ground stone tools and small-find artefacts), Penelope Wilson (pottery), Veerle Linseele (fish-bones), Louise Bertini and Salima Ikram (animal bones), Alan Clapham (botanical material). I am also grateful to Joanne Rowland, Said El Assal, Emad el Shennawi, Mohamed Abd El Aziz, Mohamed Osman, Ibrahim Desouqi, Ahmed Bilal and Chief Inspectors Said Mitwally and Fatma Rageb for their assistance, as well as the large local workforce from Sa el-Hagar and supervisors from Qift led by Reis Ali El Mahadras. Thanks to Agnieszka Mączyńska for the organisation of the conference.

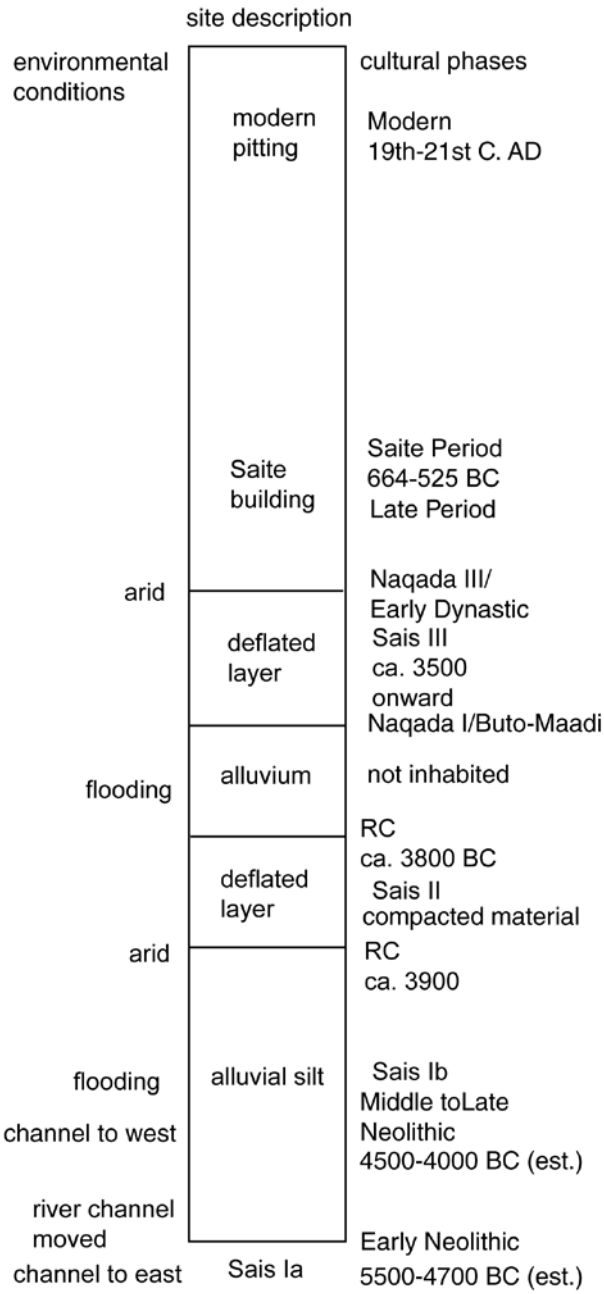

Figure 1. Temporal and environmental chart showing a schematic impression of the site through time. The height of the column is representative only.

• Sais II: a layer of mixed, deflated and perhaps disturbed Neolithic material (context [8013] and including pit fills [8016], [8019], [8018]);
• Sais I an undeflated and relatively intact settlement area (Sais Ib, contexts [8021] to [8030]), lying upon an earlier Neolithic fish processing midden (Sais Ia, contexts [8032] and [8033]).

Sais I: Neolithic

The lower stratum of Sais I comprised a thick layer of burnt material including thousands of fish bones, a few chipped stone tools and pottery fragments. This highly distinctive stratum was re-designated as Sais Ia and can be identified as a fish processing midden relating to the capture, killing and preparation of fish for consumption, storage and, perhaps, onward shipment elsewhere. The fish bones were found in small fragments, which were often burnt white or grey and difficult to identify.

Table 1. Fish bone analysis from Excavation 8 phases (by V. Linseele).

	Saïs II - hand	Saïs II - float	Saïs II - sieve	**Saïs II - all**	Saïs I - mid. - hand	Saïs I - mid. - float	Saïs I - mid. - sieve	Saïs I - mid. -all	Saïs I - other -hand	**Saïs I - all**	**TOTAL - n**	**TOTAL - %**
Polypterus sp.	-	-	4	**4**	8	31	8	47	1	**48**	**52**	**1,03**
Hyperopisus bebe	-	-	-	**0**	1	-		1	-	**1**	**1**	**0,02**
Mormyridae (elephant-snout fish)	-	-	-	**0**	19	5	9	33	1	**0**	**34**	**0,67**
Mugilidae (mullet)	1	-	-	**1**	-	-		-	-	**0**	**1**	**0,02**
Alestes sp.	-	-	-	**0**	-	2		2	-	**2**	**2**	**0,04**
Hydrocynus sp. (tigerfish)	-	-	-	**0**	4	-		4	-	**4**	**4**	**0,08**
Cyprinidae (barbel family)	-	1	-	**1**	-	4	2	6	-	**6**	**7**	**0,14**
Clarias gariepinus (clariid catfish)	-	-	-	**-**	17	-		17	-	**17**	**17**	
Clarias sp. (clariid catfish)	3	1	1	**5**	59	6	16	81	1	**82**	**87**	
Clariidae (clariid catfish)	72	5	20	**97**	2573	290	445	3308	33	**3341**	**3438**	**70, 19**
Schilbe sp. (catfish)	-	-	-	**0**	4	-		4	-	**4**	**4**	**0,08**
Bagrus sp. (bagrid catfish)	4	-	3	**7**	216	1		217	5	**222**	**252**	**5,11**
Synodontis schall (Synodontis catfish)	-	-	-	**0**	2	-		2	-	**2**	**2**	**-**
Synodontis sp. (Synodontis catfish)	2	1	1	**4**	35	1	23	59	-	**59**	**51**	**1,05**
Lates niloticus (Nile perch)	9	-	-	**9**	82	1		83	12	**95**	**108**	**2,14**
tilapia (Tilapiini)	11	3	13	**27**	535	110	11	656	3	**659**	**980**	**19,42**
Identified fish	102	11	42	**155**	3561	451	4	4016	56	**4072**	**5046**	**100,00**
Unidentified fish	83	509	-	**592**	2541	5139	305	7985	51	**8036**	**10612**	
Total fish	287	531	84	**747**	6102	5590	823	12515	107	**12622**	**15658**	

Overall, around a third of the 15,000 bones in the sample were identified to species level by Linseele and, of these, most common were clariid catfish, which represent 70% of the identified fish remains (Tab. 1). It should be noted that the bony skull bones of catfish survive well, so this may have skewed the overall percentages of fish within the sample. Tilapia is the second most important species, with 19% of the identified remains, followed, in order of importance by bagrid catfish, Nile perch, Synodontis catfish and *Polypterus* sp.

Minor faunal elements (less than 1% of the identified remains) are elephant-snout fish, cyprinidae, tigerfish, *Alestes* sp., *Hyperopisus bebe* and *Schilbe* sp. (also a catfish). Clariid catfish are usually common at Holocene sites in the Egyptian Nile Valley, but their proportion at Sais is extremely high. By comparison, at Kom K and Kom W in the Fayum, tilapia is the most common taxon, followed by clariid catfish. The Sais sample also contains a great number of young fish of all kinds, suggesting that they were caught *en masse*, perhaps by net fishing, at the beginning of the inundation as well as the receding floods. During low water level, the deep water species were also caught, perhaps by harpooning or in cover-pots or by hand. The fish were then processed, perhaps by the removal of heads, fins and vertebrae and these elements could have been used as fuel, resulting in their burnt appearance. The fish meat could have been smoke-cured, salted or boiled. A possible hearth structure with a large vessel next to it was found in the area, suggesting that some types of fish could have been heat processed, such as by boiling.

The pottery in this layer consisted of ovoid, red and black polished vessels, some with fish-bone motifs and it seems likely that the fish were packed into these vessels. Those marked with the fish-bone motif may have included bones, while other unmarked pots could have suggested a de-boned product. The fish could have been stored in the vessels for consumption during the year, or perhaps transported elsewhere. The fact that the vessels resemble those from Merimde Ursicht I (Eiwanger 1984: 19-20, Taf. 18-21, 70) may suggest at least a cultural, if not a production link. For some reason, perhaps because of the river position and the marshiness of the land to the north, the Sais area represented a premium fish catching place. Merimde, upon the desert edge, may have been less a place where fishing was done as where some processed material was taken, hence the 'small-scale' of the site.

The few stone tools in Sais Ia included bladelet and blade tools and small points, most of which were burnt. There were also hammer axes and a lower grinder, the latter suggesting some other processing of the fish material or perhaps other food processing. The fish midden seems to have been on the edge of a river bank as it dived steeply down to the east of the trench. Traces of the fish midden have been found in drill core augers to the south as far away as the new Police Station, approximately 400m to the south-east, suggesting that there had been intensive activity here – but whether these deposits were the result of seasonal visits or of a more permanent settlement is not clear. The date of the Sais Ia phase can be established only by comparison with Merimde I, dated to between 4830 and 4540 BC (Wilson 2006: 100) according to radiocarbon dates, and perhaps earlier, according to Eiwanger's reconstruction of the Neolithic period, into the sixth millennium (Hendrickx 1999: 18). It would seem safe to designate Sais Ia as an Early Neolithic phase, from the fifth millennium BC, but to bear in mind the possibility of an Epipalaeolithic phase such as that documented in the Fayum, for the Qarunian, ending around 6000 BC (Shirai 2010: 52).

At some time, there seems to have been a change in the local environmental conditions at Sais and perhaps a change in the river orientation. Palaeoenvironmental reconstruction by Zeinab Lotfi from Mansoura University showed a series of sand banks upon which the fish-Neolithic of Sais Ia was established, with the river flowing between an area of high

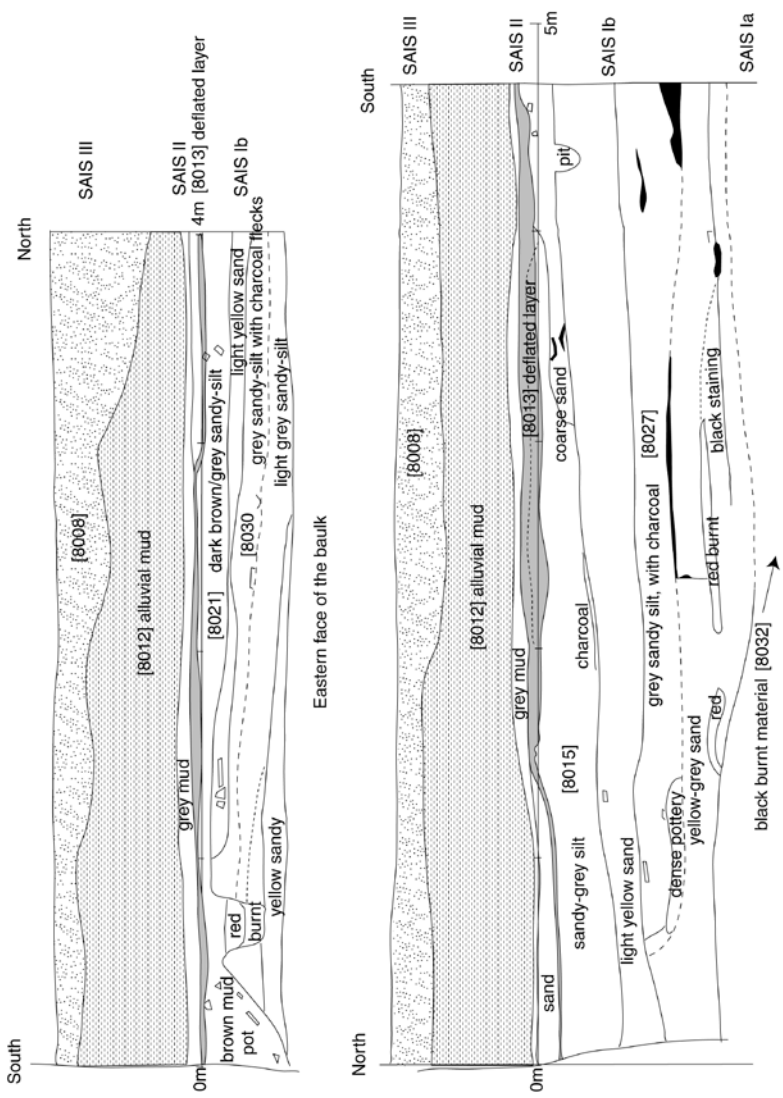

Figure 2. Eastern and western faces of the baulk left through Excavation 8, showing the phases and layers. Sais III is represented by [8008], as [8009] lay to the west of it.

sand to the west and another sand hill further to the north-east. The river shifted, perhaps to the west of the site, and caused a reorganisation of the human exploitation of the area (El-Shahat *et al.* 2005: fig. 4). A settlement was established inside the river bend, most likely on the east bank of a main river branch and this stratum was re-designated as Sais Ib, from the Middle to Late Neolithic Period. There is likely to have been a time gap between Sais Ia and Ib and once the area was flooded and sediments deposited upon the former river bank, settlement could have begun relatively soon after. This hiatus between Sais Ia and Sais Ib could be mirrored by an apparent distinction at Merimde between the Ursicht I phase and the later strata (Eiwanger 1984: 59). The time between the two phases at Sais is not known, but there was a clear functional and cultural shift as the fish midden site gave way to an area of settlement of Neolithic character, incorporating aspects of hunter-gatherer exploitation as well as evidence of the domestication of crops and animals and thus being more redolent of Merimde Level II onwards.

The fragile traces of the later settlement Sais Ib (Late Neolithic) were preserved as colour changes in the sandy-alluvial matrix as red-black patterns with 'negative' yellow, sandy areas where organics or solid objects had once stood. There were darker areas, some deep pits (which may have been dug down from later layers) and small-scale pitting in the south-west corner of the trench. More precise radiocarbon dates from this stratum than have previously been published (Wilson & Gilbert 2012; Wilson *et al. in press*: Appendix 7, tab. 2):

Table 2. Radiocarbon dates from Sais Ib (BetaAnalytic).

Context	Calibrated radiocarbon dates
[8022] pitted area	Cal BC 3960 to 3770
[8024]	Cal BC 3970 to 3710
[8023]	Cal BC 4230 to 3980

It is likely that people's activities in the settlement changed throughout the year or, perhaps, different parts of the community were organised to carry out different agricultural tasks resulting in specialist agriculturalists, with particular people in the community designated to 'organise' them. The stone tool repertoire from Sais Ib reflects a range of activities, with a sophisticated chipped stone blade and bladelet industry, a large amount of debitage and a few cores suggesting that the material was worked and reworked at the site. The cutting blades may be mostly for use in preparing animal carcasses – that is skinning, defleshing, hide scraping – or for cutting and whittling reeds and branches, pointed tools could have been used for piercing skins or matting, while the sickle stones (bifacial example [8021], L367) suggest that cutting of grasses or cereals was also undertaken. Upper and lower stone grinders, handaxes, hammerstones and also a fragment of a saddle quern in the south-east quadrant of the trench suggest particular areas set aside for specific tasks – in this case, the processing of food or other raw materials.

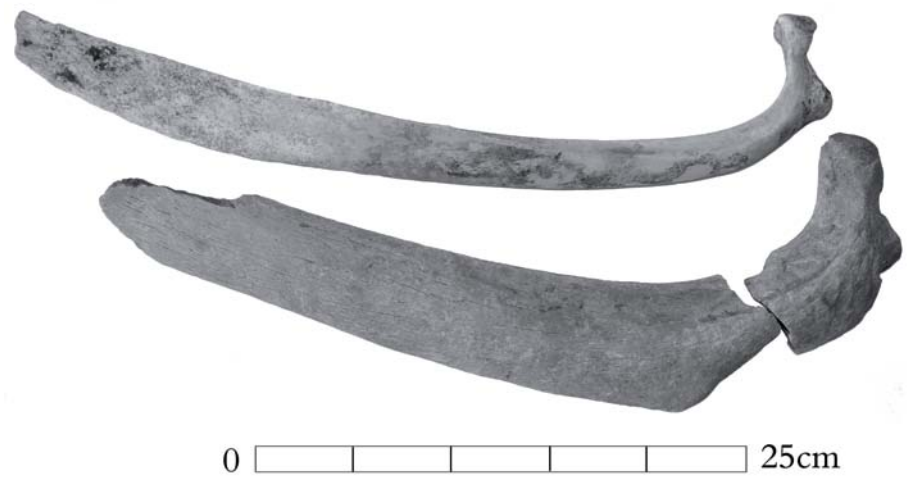

Figure 3. Wild bull rib from [8021] (bottom), compared with modern domesticated cow rib (top) (photo by L. Bertini and S. Ikram).

Although organic material was very poorly preserved in general in Excavation 8, a small number of poorly preserved hulled 6-row barley grains (*Hordeum vulgare*) were identified from [8017] and [8030] as well as some likely emmer wheat glume bases (*Triticum dicoccum*). Silicified wheat (*Triticum* sp.) awns were also present: the silicification is a result of burning cereal chaff. The other crop remains recovered from the Neolithic contexts was of a pea (*Pisum sativum*). The greatest proportion of the prehistoric charred plant assemblages were of weed seeds. These included docks (*Rumex* sp.), nettle-leaved goosefoot (*Chenopodium murale*), vetch/vetchling (*Vicia/Lathyrus* sp.), cleavers (*Galium* sp.), darnel (*Lolium temulentum*), oat/brome (*Avena/Bromus* sp.), canary grass (*Phalaris* sp.), possible wild barley (*cf Hordeum murinum*) and grass seeds. Grass stems were also identified. These weed seeds may have been associated with the gathering of cereal crops, but also could be fodder kept for the feeding of animals or use within the settlements as fuel and in constructions.

Animal bones in the Neolithic contexts also reflect the relative importance of types of domestic versus wild animals. A *Bos primigenius* (auroch) rib (Fig. 3) was found in the Sais Ib phase as well as bones from domesticated cattle, a few sheep/goat, but the most frequent domesticated animal was the pig. The pigs seem to have been bred until between 12-15 months old, then killed and were probably used for meat primarily, as well as skin, fat and bone material. It is not clear whether they too were packed into pots and preserved, but the meat and fat may also have required some processing such as rendering and boiling down. The large storage jars and deep vats in the pottery repertoire may have been well suited for this purpose. By this period there was already a well-established pig husbandry regime, which continued into the Predynastic period. A harpoon and hippopotamus skull fragment also suggest that riverine hunting was still undertaken, as might be expected.

The development of activity from fish processing to a settled hunting and agricultural area may be due to gradual changes in climatic conditions from 4600 BC onwards, with the onset of the Middle Holocene Moist phase (Tassie *in press*: 191-194). If there were people moving into the Delta area, then there may be preferred locations where Neolithic settlements could be found. In addition, concomitant socio-economic changes had an impact on both the agricultural potential of the Delta and upon Egyptian 'culture' as a whole throughout the flooded lands of the Nile. This particular moment, when Delta people were able to exploit their environment to the maximum using both hunting and domestication of crops and animals, may represent an ideal, but short-lived, phenomenon in Neolithic Egypt.

Sais II: transitional or mixed?

The Sais II phase containing the bulk of the artefactual and pottery material – some 80000 sherds and 4076 stone tools – is confusing as it contains material that can be directly related to the late Predynastic-Early Dynastic material as well as to the Neolithic tradition. Overall, however, the chipped stone tools, with examples of bifacial arrow-heads, knives and sickle blades are more indicative of the Late Neolithic technologies and more representative of the earlier phases of the site. The real problem is that the layer [8013] seems to be the deflated remains of substantial, thick settlement debris, which was then covered by alluvial mud all over the site. The east section of the excavation shows a layer of just over a metre in depth of alluvium between the base of the Sais Phase III sands and the deflated Sais Phase II pottery 'carpet', similar to the situation apparent in the north and west section. A further complication was that a trench had been cut through the southern part of the area during the Saite period, and removed all of the upper layers as far as the deflated Phase II. It is not clear how there could be such mixing of sherd material from the Neolithic and Buto-Maadi periods when, apparently, there was a seal between the two phases. The explanation may be that, although the mud acted as a barrier, there may have been thinner areas of coverage or later pits dug through the alluvial layer, which allowed pottery and other material to 'move' due to bioturbation in waterlogged conditions. That is to say that, within the floodplain regime, when the silts are covered by water, the substrata turn into a mass of liquid mud. Due to currents and water pressure, movement is possible for pottery and stone material, which can sink through the liquid until it is blocked and thus settles. The deflated Neolithic layer could have provided that block and, therefore, material from the upper Buto-Maadi layers settled there. Very little archaeological material was found in the alluvial mud layer itself, suggesting that it was an archaeologically neutral zone.

A second possibility is that the alluvial mud was deposited after some Predynastic settlement had begun directly on top of the late Neolithic layers. This would then imply that there was a transition between the Neolithic and Predynastic material with a short time interval between them. It would represent a very fast cultural change or displacement, however, which seems unfeasible and so and the first possibility of mixing due to taphonomic processes is the most likely scenario to explain the character of the Sais II phase.

Although Sais II provided the most numerous examples of types of pottery vessels, all of this material should be regarded as, more or less, without context. This can be demonstrated by the analysis of the decorated pottery fragments: within Sais II there were pottery sherds in straw-tempered fabric, decorated with impressed dots in V-designs and finger-nail impressions, typical of the earliest levels at Buto (VON DER WAY 1997: Taf. 39) and highly polished pottery with fish-bone incised decoration, typical of Merimde Ursicht Phase I. A ledge-handle from a Levantine import-type jar also suggested the later phases of the site. The stone tools also include some tabular flints, which Gilbert suggests may have come through contacts with the Levant during the period when the Neolithic 'package' of grain and animal domestication first arrived in Egypt. The route by which this transfer occurred is debatable, although a combination of sea and land-route over Sinai to Maadi is possible. The tools, otherwise, belong to the bifacial Late Neolithic tradition of Merimde and the Fayum. Animal bone from Sais II was again highly fragmentary and difficult to identify but there continued to be quantities of pig, cattle and sheep/goat bones suggesting that domesticated herds were present in the Late Neolithic phase.

Overall, the material was indicative of the deflated Neolithic strata with some contamination from layers above, caused by bioturbation through thinner mud deposits and pitting from above. Although the phase produced much material, it was very eroded and fragmentary and without firm context, so can only be used within these limitations.

Sais III: Buto-Maadi period

The layer Sais III was originally thought to be a Buto-Maadi phase and thus dated to around 3500 BC, but the pottery may be a little more diverse in date range after comparison with other published material, particularly that from Buto (KÖHLER 1998) and Tell el-Farkha (JUCHA 2005), as well as examples from Adaïma in Upper Egypt (BUCHEZ 2002). The deposition of the pottery has to be firstly understood before an attempt at reconciling the various dates for it can be made.

Firstly, there seemed to be some kind of mud structure, [8014], in the Predynastic layer and the pottery was associated with it. The structure survived only as the last few courses of mud and could not certainly be described as mud brick. During the excavation it seemed possible that the structure either had rounded corners or a niched façade. When compared with the Tell el-Farkha range of niched tombs and rounded (CHŁODNICKI & CIAŁOWICZ 2001: 89) structural features on a range of buildings, this seems a more than likely suggestion. The Saite structure had been truncated above and at the southern end and the northern extent was not apparent in the Excavation 8 trench. Pottery was deposited at the edge of the structure, but was perhaps the remnant of a greater pottery mass washed down from somewhere else. The mass was quite compacted and perhaps sunk into hollows, suggesting that some of it had also been affected by water erosion and deflation. The pottery was excavated in non-defined layers labelled A-G, but it was noted that there were concentrations in depressions of pits. When these are mapped from the

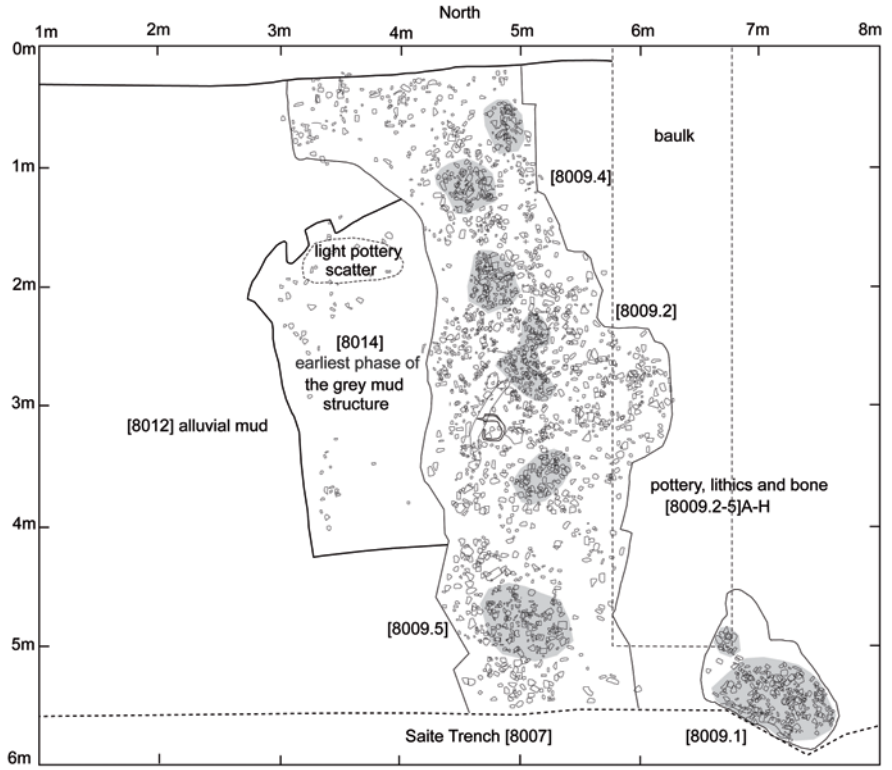

Figure 4. Plan of [8009] and [8014] showing the concentrated locations of material caught in pits or depressions (grey).

overlaid plans it seems there may have been a series of postholes or deposit pits around the edge of the structure (Fig. 4). The types of vessels suggest the wide range of activities that may be connected with the mud structure and the deposited pottery (Fig. 5). There are large pot-stands which could have been used to hold some of the larger storage vessels, including jars with restricted necks in a variety of shapes and degrees of roundedness. Some vessels had straight necks, which may imply that they were deliberately suited to pouring; while the rolled rim vessels were designed for sealing with a cloth/leather or a plate and then decanting. Large storage jars suggest the presence of solid as well as liquid goods. Small pointed-based bag-jars ("lemon pots") as well as traditional bag-shaped jars suggest drinking cups perhaps for something in smaller quantities such as sieved beer. The local beer would have more like a porridge and perhaps was sieved and poured into the small bag shaped jars so that it could be consumed more easily. The pointed base jars could also have been used for drinking a milk product, hence the udder-like shape of the vessel, but some kind of residue analysis would need to be carried out on better preserved examples. There were also bread plates made of coarseware alongside very fine fragments of beautiful red

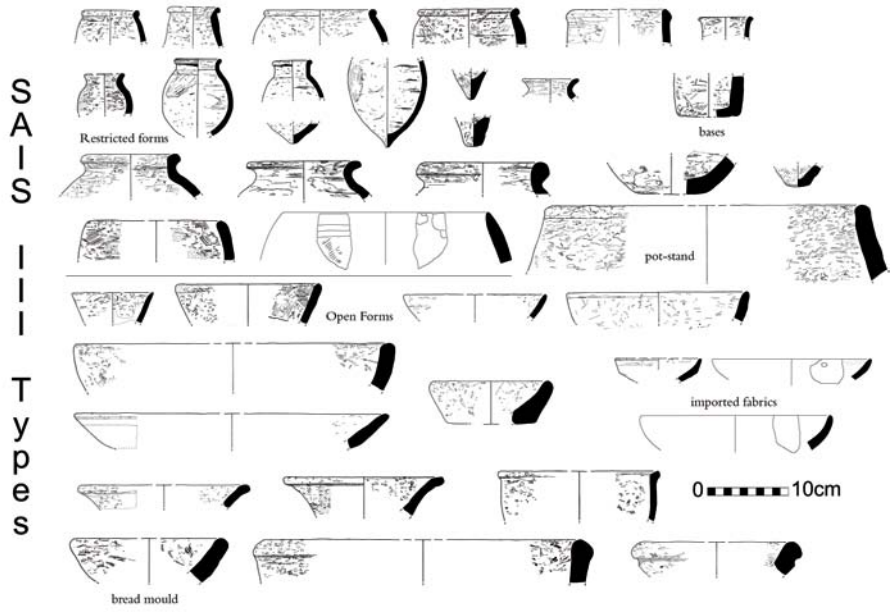

Figure 5. Phase Sais III, Buto-Maadi period types of pottery.

or black polished cups. Some of these may be imports from Upper Egypt. There were also some sherds from Levantine vessels including small bowls, necked jars, painted sherds and wavy-handled storage jars.

In addition, a significant number of fibrous-sherds ("Fasernware", Köhler 1998: 10-11) have also been identified[2] (Tab. 3).

Table 3. Pottery from the Sais III phase, by ware type.

Type	Smooth	Polish	No Slip	Red	Black	Brown	No surface	Total
Tempered (no fibres)	8631 66.8%	426 3.3%	10 2.3%	30 7%	179 42%	207 48.6%	3863 29.8%	12920 *71.5%*
Untempered (no fibres)	1813 51.4%	532 15%	3 0.6%	63 11.8%	173 32.5%	293 55%	1180 33.5%	3525 *19.5%*
Fibrous	203 20.8%	774 79%	81 11%	112 15.2%	272 36.8%	274 37%	36 3.7%	978 *5.4%*
V. fine untempered								59 *0.33%*
Coarse								316 *1.7%*
Import								57 *0.3%*
Marl								204 *1.1%*
Total								**18059**

[2] Thanks are due to Karl G. Lorenz, Shippensburg University of Pennsylvania.

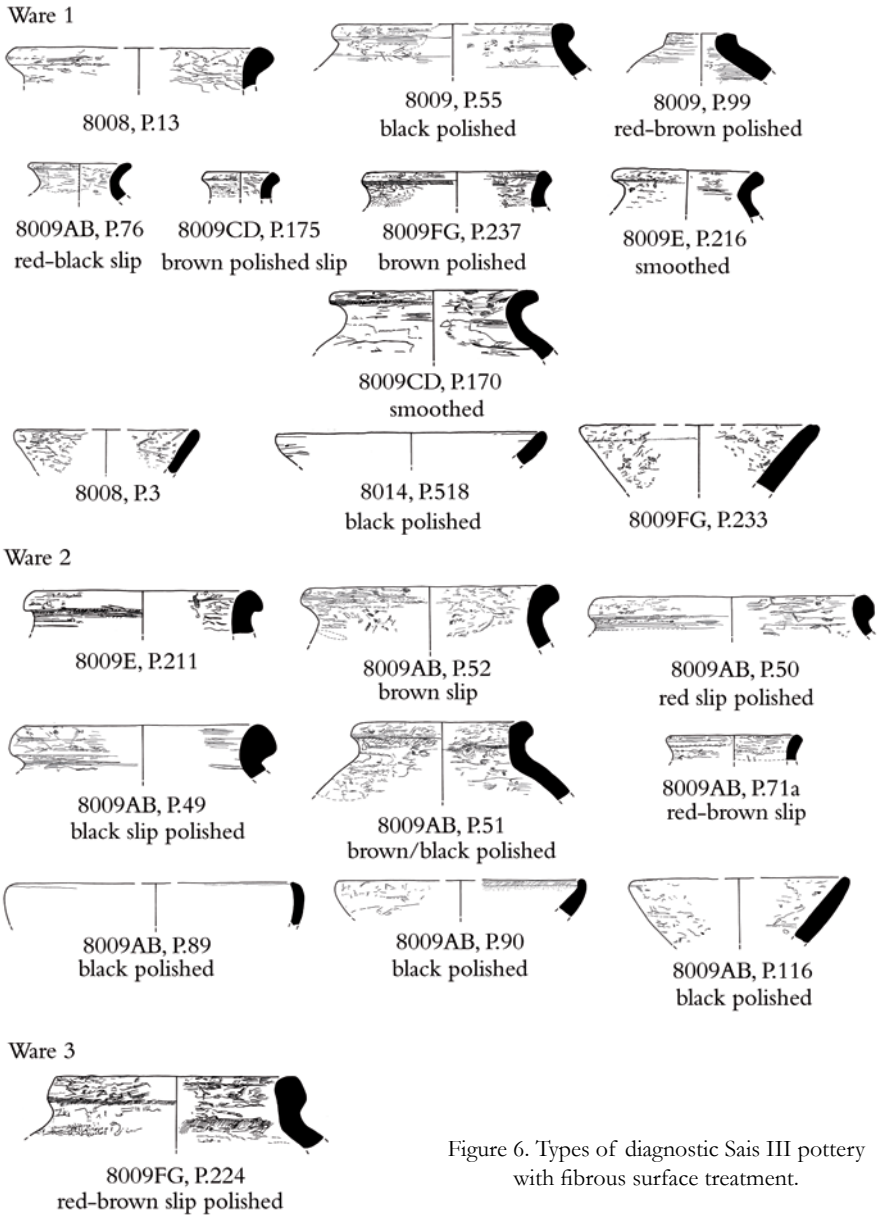

Figure 6. Types of diagnostic Sais III pottery with fibrous surface treatment.

The fibrous pottery was primarily identified from the surfaces of sherds, particularly where they had been slipped, then either smoothed or polished. In total, 978 sherds were identified out of 18059 sherds with fibrous surface treatment, that is 5.4% constituting examples of both untempered and chaff/grit tempered wares. As tempered ware was most

numerous in this phase (71.5%), so most of the sherds were classified as belonging to this category. Of the fibrous pottery 79% were polished and of those about one third (37%) were black and brown each; with red slipped at 15.2% and 11% were not slipped at all. The remaining 20.8% of the fibrous pottery was smoothed, as far as could be determined from the condition of the material. From the diagnostic sherds (Fig. 6), large storage jars as well as bowls had this surface treatment, and the interior surfaces of some of the sherds also suggested that they had been brushed (Figs. 7-8). As has been suggested by Köhler, the kind of fibres used may be something like flax fibres, which are extremely fine, but also strong and may have been used to give the fabric of the pottery extra malleability or strength. The fibres were extremely difficult to see by visual examination, even with a hand lens and it is possible that much of the pottery from this phase could also have contained this temper, but that it went unrecognised. The identification of both the impressed V-decoration and the fibrous pottery in material from Upper (Adaïma; Buchez 2002: 217) as well as Lower Egypt now makes it likely that this was not a Lower Egyptian cultural trait, but rather that there was already an underlying 'Egyptian' cultural system in the Nile Valley and Delta, with some regional adaptations depending upon the local conditions and specific nature of the sites (Köhler 2008).

Figure 7. Black slipped sherd, outside, burnished in horizontal lines.

Figure 8. Red slipped sherd, inside, with brush marks.

Overall, the wide range of types, forms and wares of the pottery immediately suggests a deflated deposition, as does the date range from the Naqada II period into the Late Predynastic or even Early Dynastic period (after comparison with the Tell el-Farkha sequence, Jucha 2005). This would accord well with the traditional assumption that Sais was an important centre in the late Predynastic to Early Dynastic period. The presence of a predictable waterway running past the site, a link with Buto and perhaps an older original settlement here strengthen the rationale for the presence of the site.

The problems of this floodplain environment in creating peculiar taphonomic processes then serve as a useful warning for the quality of contextualised material in future floodplain excavation. To complicate things further, however, it is also clear that in the Sais III layer people were digging down into the earlier Phases. Pits in several places, including one deep pit [8030].2 in the south-east of the trench with groups of small pointed-base jars at the bottom of it are suggestive of some kind of intentional deposition at the bottom of a pit. Although pottery vessels were sometimes placed at the bottom of post-holes to prevent the wooden posts from becoming rotten too quickly, the material is likely to have broken into pieces, whereas the material in [8030].2 remained reasonably intact. The pottery may then have been structured deposition within a post-hole pit, with 'offerings' at the base; or perhaps even a gift for those ancestors in the earlier layers. GILBERT has suggested that some of the flint material in the Buto-Maadi layer was reworked from the Neolithic material, so the later settlers could have been mining for raw chert and stone and perhaps pottery (for pigment) as well as other materials. Such a connection with the earlier layers suggests that the people living at Sais in Predynastic times had a sense of the past and an interest in it. The contact with past communities may have been a purely material one, however, in that chert, quartzite and some limestone was easily available by digging pits downward instead of having to rely on supply lines from the desert areas. It would perhaps have shown that this was a kind of ancestral land and given some sense of a link with past people, if not an idea of ancestral possession. This might explain, partially, the way in which the Predynastic people came to be settled in this area. Was there some retained memory of a previous settlement? Or was it simply that with changing river patterns this area once again became a habitable bankside perhaps linked to Buto to the north by a waterway and thus it had a clear strategic value?

Figure 9. Pot mark, [8009], P.196.

One sherd ([8009], P.196) seems to preserve the remains of what may be a deliberate pot marking or even sign (Fig. 9). The sherd is broken through the pot mark, but appears to show an oval with pointed ends which has been incised along one edge into the clay and 'shaved' or worked into the clay along the other edge. Furthermore, after a gap at the other side of the sherd there is a raised moulding, perhaps from the end of a second mark, with a slightly forked or bipartite end. This tantalising glimpse of a marked vessel may suggest part of the wider redistribution network to which Sais belonged.

A comparison of the main types of pottery from all of the phases show the increase in variety of vessels in Sais III (Figs. 10-11). In particular, the ovoid-jars and steep sided bowls of the Neolithic give way to a host of necked and restricted shapes that suggest

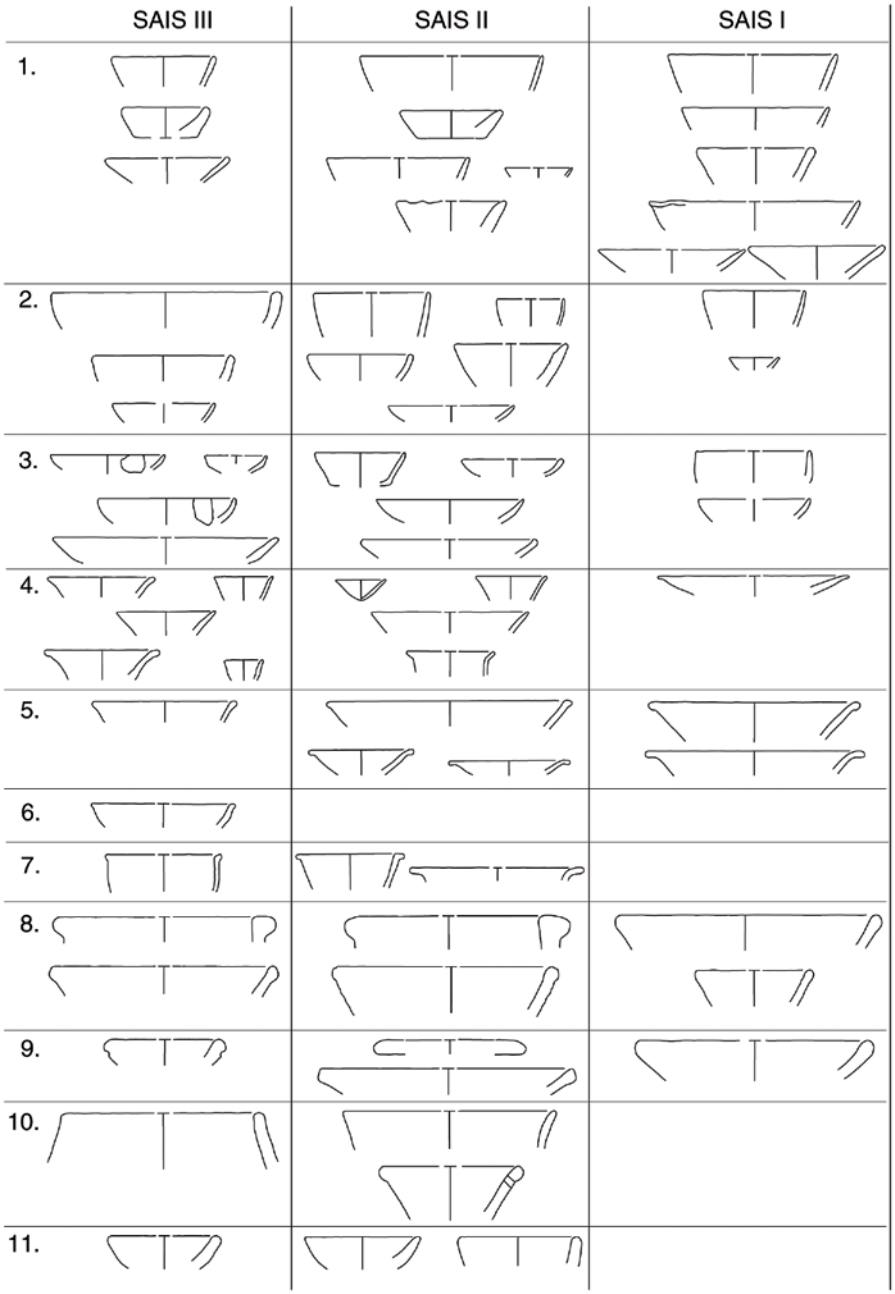

Figure 10. Open pottery types compared across Prehistoric phases. 1. Straight sided bowls; 2. Incurved bowls; 3. Shallow, carinated bowls; 4. Slightly everted rim vessels; 5. Modelled, everted rim bowls; 6. Shouldered bowls; 7. Ledged rim bowls; 8. Vats and large bowls; 9. Trays and platters; 10. Pot-stands; 11. Bread moulds.

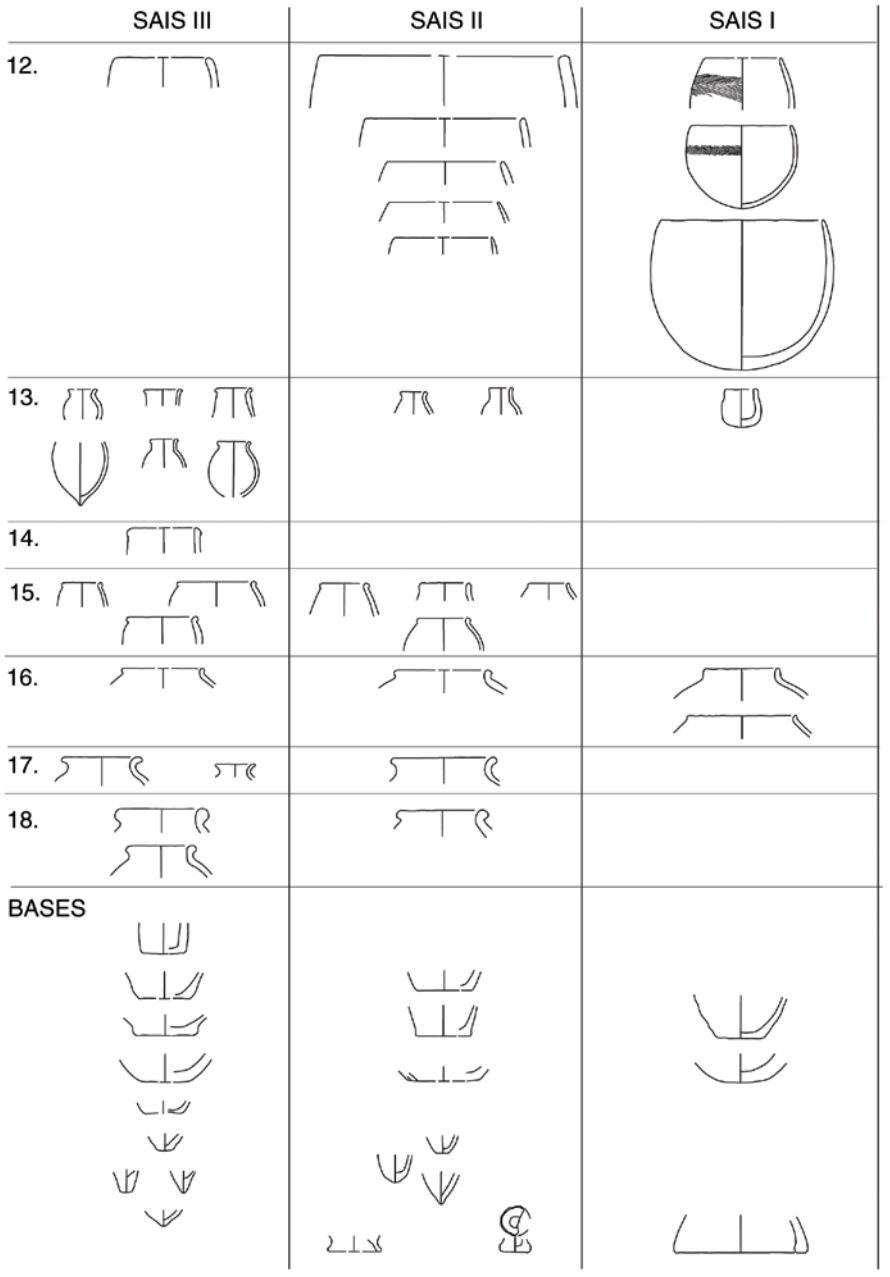

Figure 11. Restricted pottery types compared across phases. 12. 'Hole-mouth' and ovoid jars, inturned bowls; 13. Small, necked beakers; 14. Cylinder jars; 15. Narrow jars; 16. Broad jars; 17. Everted neck jars; 18. Large jars, modelled rims; Bases.

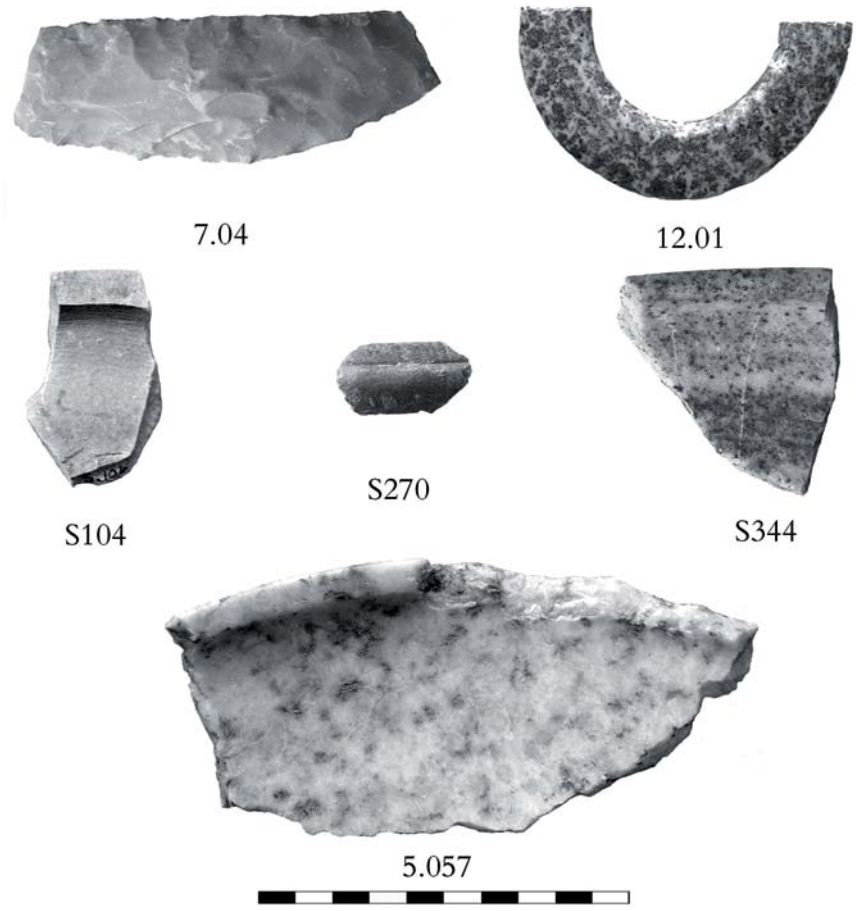

Figure 12. Early Dynastic material from excavations in the Northern Enclosure.

an increase in storage and transportation. The smaller vessels may also suggest more focus on individualised portions of food, drink or other consumables and thus an increase in social hierarchy or at least an interest in serving food, fat and unguents in individual portions. In turn, vessels designed specially for feasting, and vessels marked with signs imply a more organised and hierarchical social structure. The arrival of bread and beer manufacture can also be seen in the pottery technology, again suggesting a real difference between the Neolithic and Predynastic communities (Wengrow 2006: 87-89, 92-98). If the pottery suggests increased storage facilities, the stone tools are rather more prosaic in their functionality. Cores, sickle blades and bladelets suggest a dependence upon stone for fine cutting and piercing, but the smaller number of such tools in Sais III suggests that perhaps copper was an important part of tool making at this time. It has not survived, however, in any state.

This area may not have been the only zone of the Predynastic settlement in the area. In excavations in the Northern Enclosure area of the site a small but exquisite collection of Early Dynastic material (Fig. 12) has been found from later contexts as residual or reused artefacts. Fragments of stone bowls made of "Chephren diorite" suggest links with funerary material from other Early Dynastic cemeteries and in the excavation of a Late Ramesside storage magazine (Excavation 12), half of a diorite disk was found. It had been used as a pot-stand. Parallels to this material are known from Abydos and Saqqara Early Dynastic tombs. This material may suggest that there was an Early Dynastic cemetery approximately half a kilometre to the north-east of a slightly older Predynastic area, something also suggested at Buto with the link between the early Buto-Maadi material at El-Qerdawi and the later Early Dynastic material at Tell Fara'in.

Summary

While engaged with the publication of the Sais material from the Prehistoric phases, a number of unexpected issues have arisen which require clarification. Firstly, the impact of the floodplain environment on the taphonomic sequences of the site and the consequences for understanding the interrelations of the archaeological phases. It seems that the Sais II pottery carpet, context [8013], must be excluded from the archaeological discussion and can only be used to provide exemplars of specific types of stone tool or pottery vessel. Even the [8009] Buto-Maadi period and late Predynastic period material layer seems to be deflated and rather devoid of context, with its relationship to the mud feature unclear and affected by later digging through the site.

Secondly, there has been the difficulty of differentiating between taphonomic processes and the real physical links between the Early Dynastic people and the underlying Neolithic layers. Can the pits dug into the early layers, through the alluvial mud be attributed to curiosity, interest in the past, a real family connection and remembrance of 'ancestors'? Or was it just a case of accidental findings of 'stuff' at the bottom of holes which led to the wider exploitation of relatively easily accessible quarries of stone, chert and pot-pigments? On the other hand, water erosion may have created the pits and concentrations of anthropogenic material.

Thirdly, the dating of the Phase III Buto-Maadi material, in particular the pottery, is heavily dependent upon comparisons from other sites which have not proven to be completely satisfactory. The broad range for the material is from Nagada IIc through to the beginning of Dynasty I (that is Phases 1 to 5 of Tell el-Farkha and covering Schicht III at Buto), but it is not possible at Sais to create a more refined phasing or differentiation in use of the site because of the deflation of Phase III. The approximate 'real' chronology is thus from 3500 to around 3100 BC, a period of four hundred years. It seems most unlikely that the [8009] context took such a long time to form and, therefore, once again the taphonomic conditions hinder a real understanding of the nature and dated phases of the site. If these conditions prevail elsewhere in the floodplain, it seems that excavations in such areas may be hindered in understanding finer stratigraphical

sequences because of the conditions. An archaeological explanation for the Buto-Maadi material could be that the mud(brick) structure was built and filled with vessels of the earlier date; it was emptied later and reused; the later material was then dumped out of it at another date. Subsequent water logging created a dense compaction of the material resulting in the context [8009]. Without further evidence, however, it is not possible to be certain about the exact nature of such deposits.

On the one hand, then the discoveries at Sais suggest a great potential for evidence of the earliest phases of the Delta development, but the pristine layers here are deep down in the earliest Neolithic period where there is a very specific function of the site. For Sais itself, the story of this early fishing community deserves some further exploration and the tantalising hint of more extensive early Dynastic activity both in the southern and northern zones suggests an early bi-focal centre at Sais, perhaps linked with Memphis – or its forerunner which must lie in this area but is not yet discovered – as a 'daughter' settlement. While the eastern delta provided the resources of copper and contacts to the Levantine littoral, Sais offered access to the heartland of the Delta with its papyrus, linen, pigs and fish – commodities it could supply in great quantities to the centre. Evidence of connections both geographically (horizontally) and temporally (vertically) very much suggest that no site can be seen in isolation and that only by combining our efforts can the wider understanding of early Egyptian complex culture as a whole continue to advance.

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