

Elena A. A. Garcea

## Pottery Manufactures at Sai Island, Sudan

---

It is widely accepted that pottery manufactures are among the best cultural markers in archaeology, as well as in ethnoarchaeology (e.g., Rice 1996; Gosselain 2000). Also with regards to Nubian ceramics, Gatto (2002a) and Lange and Nordström (2006) have observed that ceramic variables reflect specific cultural contexts. This paper considers the pottery manufactures from two sites on Sai Island: a Khartoum Variant site (8-B-10C) and a Pre-Kerma site (8-B-52A). The analysis of these ceramics provides the opportunity to revise the geographic ranges and cultural influences that reached Sai Island from both the north and the south during the critical periods that predate animal husbandry on one hand, in the Khartoum Variant, and the import/use of domestic cereals on the other, in the Pre-Kerma period.

### **The geographic position of Sai Island**

Sai Island is located between the Second and the Third Cataracts of the Nile, about 30 km south of the Batn el-Hagar, a vast rocky outcrop that long challenged crossings for its harsh terrain (Fig. 1). However, the presence of the Batn el-Hagar just north of Sai was not only a disadvantage for the inhabitants of the island as it often protected and favoured the island as a strategic stronghold, which was, in fact, continually occupied from the Palaeolithic to the Ottoman and present periods. As a matter of fact, although the Batn el-Hagar was a rough land, it was not an insuperable barrier. Thanks to its geographic position, Sai could receive

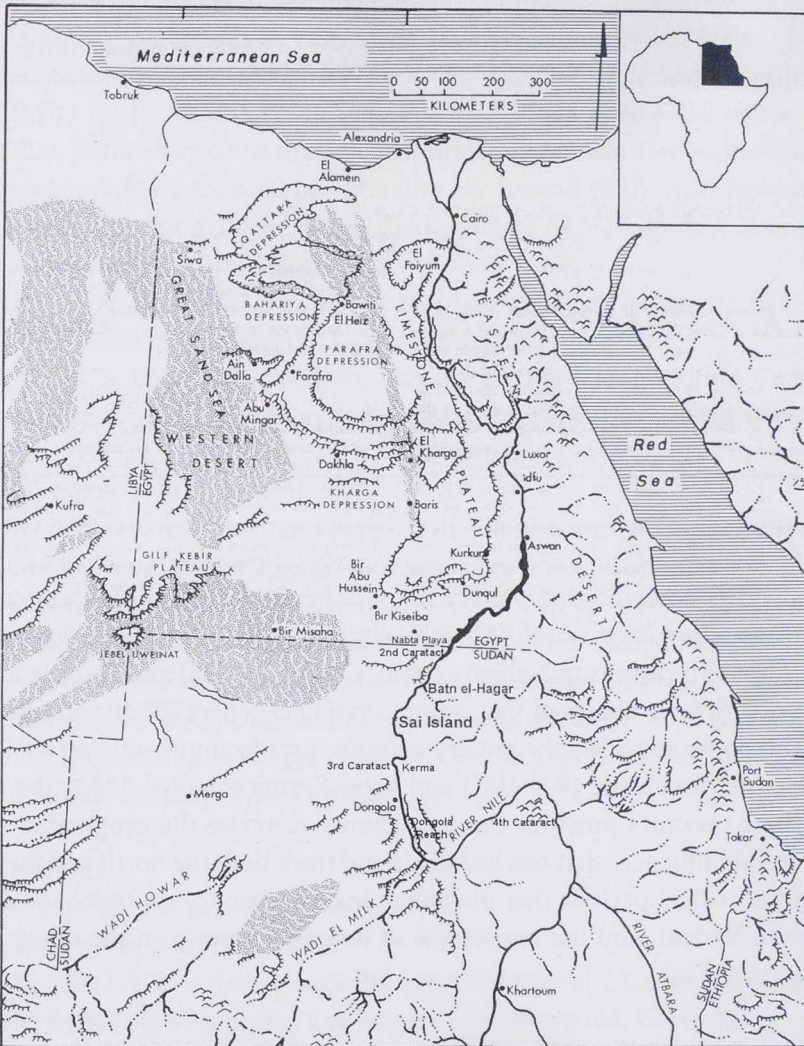


Fig. 1. Map of Nubia (adapted from Wendorf *et al.* 1993).

cultural influences from both Upper Nubia to the south and Lower Nubia to the north, as well as the oases of the Western Desert. Therefore, Sai could be affected by different, northerly and southerly, cultural orbits at the same time.

With regards to the cultural periods dealt with in this paper, various distribution maps exist for the Khartoum-related traditions and the Pre-Kerma period. The Khartoum Variant, according to Shiner (1968), who suggested this term, derives from the Early Khartoum and covers the area stretching from Khartoum to Wadi

Halfa. Therefore, it seemed that, during the Early Holocene, ceramic traditions originated from the south. More recently, Gatto (2006a) observed that the Khartoum Variant has more affinities with the Nabta-Kiseiba area than the Khartoum province. Usai (2004, 2005) also distinguished the Khartoum Variant from the Early Khartoum on the basis of lithic technology, and Jesse (2002) noticed a distinction in the pottery traditions from the Khartoum province and the region of the Second Cataract. Furthermore, Riemer and Jesse (2006) recorded the Khartoum style of pottery farther north than Nabta and Kiseiba, as far as Dakhla Oasis. Sai would then be in the middle of an area extending from Kerma/El Barga to the Second Cataract and farther north.

The Pre-Kerma culture was defined by Bonnet (1988), when he first found a settlement below the eastern cemetery at Kerma. Honegger (2004a) suggested that the site of Kerma does not designate the southern border of this culture, there being evidence in the northern Dongola Reach and beyond the Forth Cataract. At the same time, he indicated an overlapping of the Pre-Kerma and the A-Group around the Second Cataract area (Honegger 2004b). The analysis of the Pre-Kerma pottery from Sai Island also provides some new 'food for thought' on the question of the possible interferences between the Pre-Kerma and the A-Group.

### The ceramic assemblages and the analytical methods

The Khartoum Variant ceramic assemblage comes from an extensive excavation (105 square m) at Site 8-B-10C (Fig. 2), which brought to light a complex habitation floor including seven hut floors, three hearths, three rubbish pits, and one-hundred postholes. Charcoal from the hearths was dated to  $5980 \pm 40$  BP ( $4950-4770$  cal. BC) (KIA-24464) and  $6080 \pm 35$  BP ( $5070-4900$  cal. BC) (KIA-24463) (Garcea 2006-07).

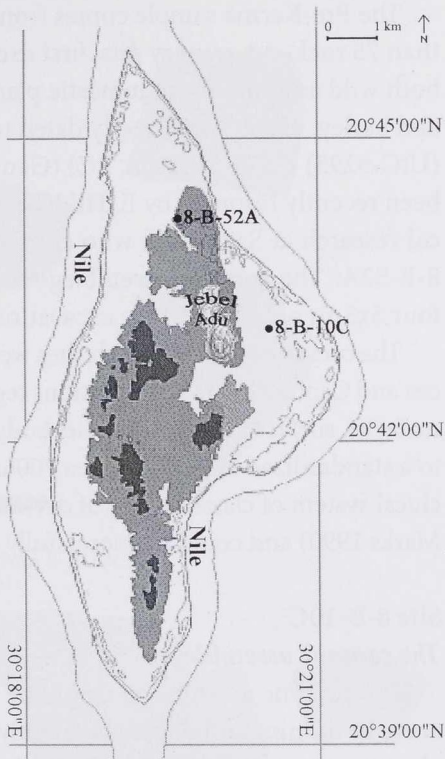


Fig. 2. Location map of sites 8-B-10C and 8-B-52A at Sai Island (adapted from Van Peer *et al.* 2003).

The Pre-Kerma sample comes from Site 8-B-52A (Fig. 2) which features more than 75 rock-cut granary pits, first excavated by F. Geus and his team, who found both wild and imported domestic plants. Domestic crops included emmer wheat and barley, which was directly dated to 4142±48 BP (UtC-5294) and 4151±44 BP (UtC-5295) (2872-2612 cal. BC) (Geus 1998, 2004). The excavation of the site has been recently resumed by E. Hildebrand (2006-07), in charge of the ethnobotanical research at Sai Island, who entrusted me with the study of the pottery from 8-B-52A. The ceramic assemblage that I analysed comes from the *décapage* of four 5x5-m squares and the excavation of two granary pits (59 and 67).

The ceramic data from both sites were processed with a relational database (Garcea and Caputo 2004). Observations regarded type, size and frequency of tempering material, surface treatment, vessel body parts, thickness, and decoration, according to a standardized system (Garcea 2006a, 2008). The database integrated the hierarchical system of classification of decorations devised by Caneva (1988; Caneva and Marks 1990) and could be successfully extended to the Pre-Kerma pottery.

### Site 8-B-10C

#### *The ceramic assemblage*

The ceramic assemblage from Site 8-B-10C has a gritty texture due to a large amount of mineral inclusions, mainly of quartz and feldspar, but also mica and plant tempers. A thin layer of fine clay was applied on the surfaces as a self-slip. Rims often show milled and notched impressions (Fig. 3), as those that Gatto (2002b: 70-71) identified in the Nabta and El Jerar complexes.

Generally speaking, decorations are less common than in the Early Khartoum assemblages. Many sherds (76.2%) are not decorated and even those with decorations exhibit banded, not continuous, decorations. Dotted wavy line decorations often display symmetrical waves to form a series of specular semicircles; waves can be long, short, or arch-shaped (Fig. 4). Finally, the spatial distribution of the artefacts was plotted in relation with the architectural features. Pottery is concentrated on the eastern side of the site, outside the hut floors (Fig. 5) and differs from that of lithic *débitage* and tools, which are more frequent between the huts.

#### *8-B-10C in the Khartoum Variant context*

The ceramic assemblage from Site 8-B-10C can be undoubtedly assigned to the Khartoum Variant, which also shows great similarities with the Nabta-Kiseiba area. However, it seems surprising that the pottery from six Khartoum Variant sites collected by the Scandinavian Joint Expedition, the Combined Prehistoric Expe-



Fig. 3. Rimsherds from 8-B-10C.

dition, and Myers' excavations, which Gatto (2006a) has recently thoroughly reviewed, include only 15% undecorated sherds against 76.2% in the 8-B-10C assemblage. Although there may be other explanations, one is tempted to suspect that not all undecorated sherds had been collected in the past.

The absence of incised wavy line decorations both in the Khartoum Variant, as well as at El Barga (Honegger 2004c), is one of the most relevant differences from Early Khartoum. The lack of wavy line decorations represents a significant affinity with the pottery of Saharan Early Holocene foragers. Moreover, the presence of short dotted wavy lines suggests another connection with the Sahara, as indicated by Jesse (2004).

The hut floor unearthed at 8-B-10C has parallels with the mud plastered floor at Site CPE 2016 (Shiner 1968), the hut at El-Barga near Kerma, and the hut floors in the Nabta-Kiseiba region (Wendorf *et al.* 2001). Such articulated architectural

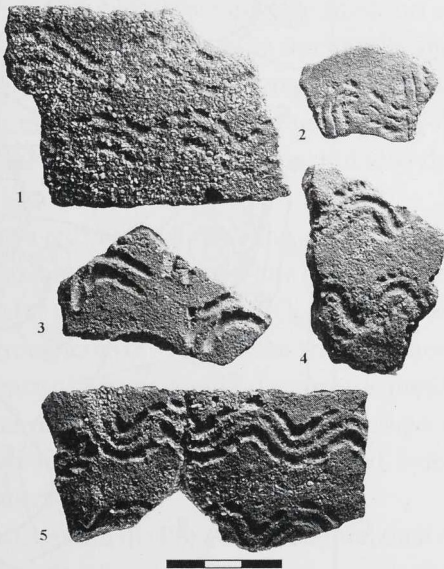


Fig. 4. Dotted wavy line sherds from 8-B-10C.

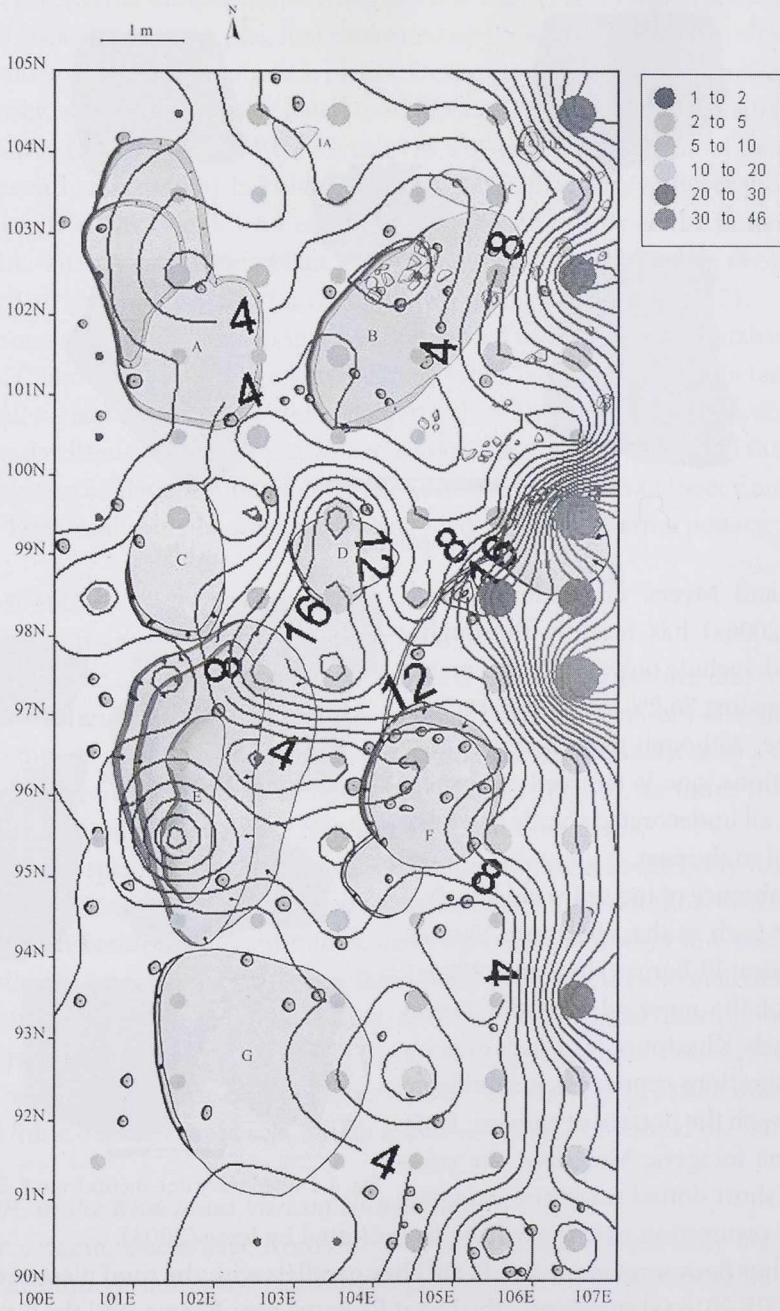


Fig. 5. Contour map and classed post map of pottery from 8-B-10C.

features confirm that foragers also in this part of Nubia had developed a settlement system based on a great degree of sedentism (Garcea 2006b). As the updated chronology of the Khartoum Variant spans between 8000 and 6000 BP (Gatto 2006a), 8-B-10C, dated around 6000 BP, represents the end of the Khartoum Variant, when sedentism had considerably increased.

Finally, considering that Site 8-B-10C represents a single cultural phase and was occupied over a seemingly short time period, the variation in fabric types and decorations cannot reflect diachronic changes, but rather functional or stylistic differences.

### Site 8-B-52A

#### *The ceramic assemblage*

Site 8-B-52A provided a large quantity of potsherds from the layer on top of the granary pits (silos) that was removed with the *décapage* technique. Their frequency is not homogeneous in every square, but it is lower in the areas with the largest pits. Vessel shapes predominantly include globular bowls or store jars with inverted rims (Fig. 6). All vessels from the silos have inverted rims. Bowls with everted or straight walls (Fig. 7) are extremely rare, conforming the function of the site as a location for storing goods. Some store jars have very thick walls and must have been of very large sizes. Wall thicknesses indicate a considerable presence of very thin (below 5 mm) vessels in the assemblage, the frequency of 6-7-mm thick vessels, and the importance of 8-10-mm thick containers, but also the relevance of very thick (11-24-mm) store jars.

Surfaces show a coating usually made with a red or brown wash and are burnished; ripple marks are occasionally visible. Mineral tempers can have a low angularity degree, suggesting that aeolian sand was selected as tempering material. Organic tempers are frequent and mostly tubular, processed from herbivore dung. Rims show different types of decorative techniques, with a frequency of herringbone and geometric motifs (Fig. 8). Black topped, plain or impressed, ware is also present. The rocker technique is very common on body parts and exhibits both plain and dotted zigzags (Fig. 9). Some surfaces are very well polished and show a lustre (Fig. 10).

Some of these samples show clear similarities with the Pre-Kerma culture, such as the geometric and herringbone motifs. However, others seem to raise some doubts on this cultural attribution. When Geus (1998: 93) first discovered Site 8-B-52A, he could not clearly associate its pottery to a precise cultural period, but he was able to assert that it was made "between the end of the Neolithic and the beginning of the *Kerma Ancien*". He noted that similar pottery occurred in the Batn el-Hagar and at Armant in Upper Egypt and reported Bourriau and Nordström's opinions, who

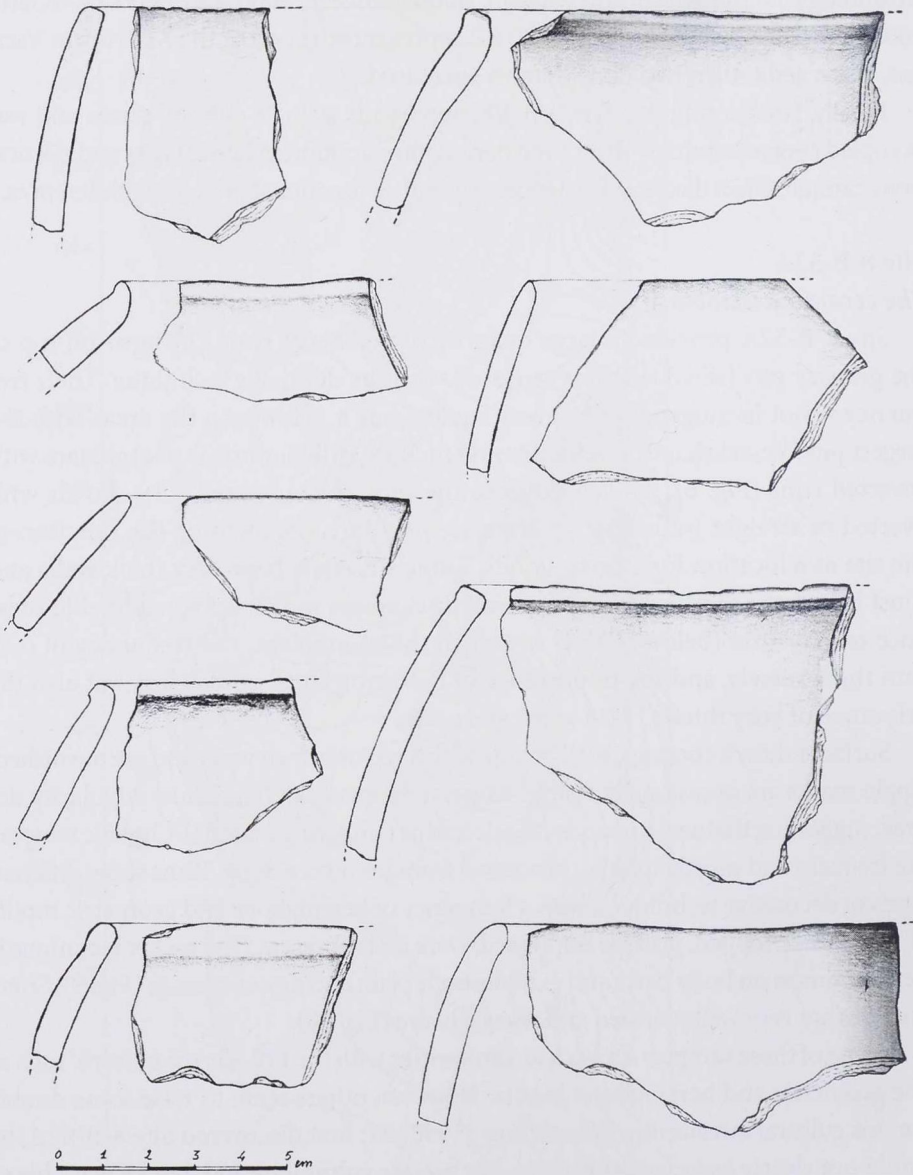


Fig. 6. Globular bowls and store jars from 8-B-52A.



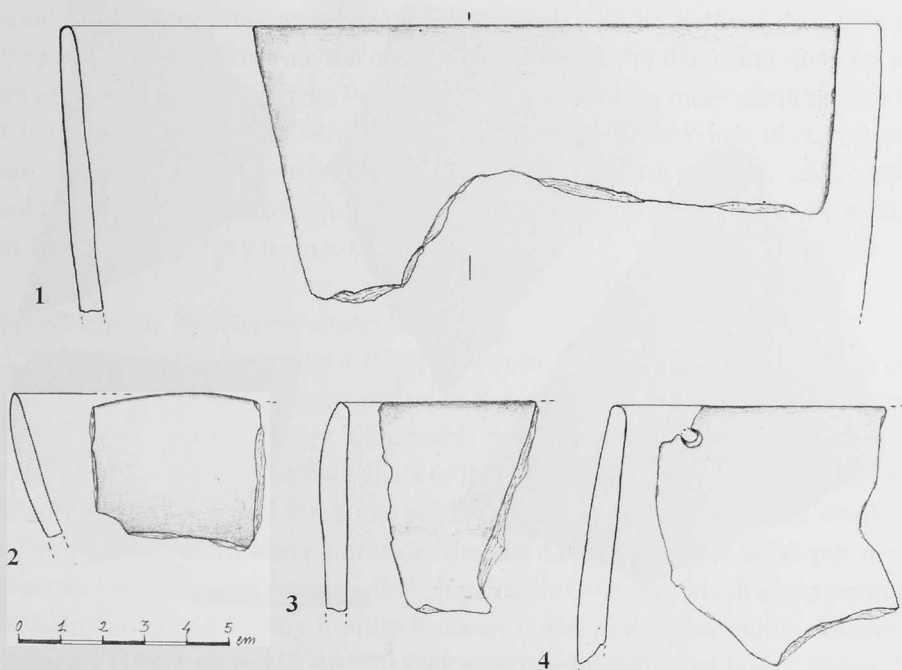


Fig. 7. Bowls with everted and straight walls from 8-B-52A.

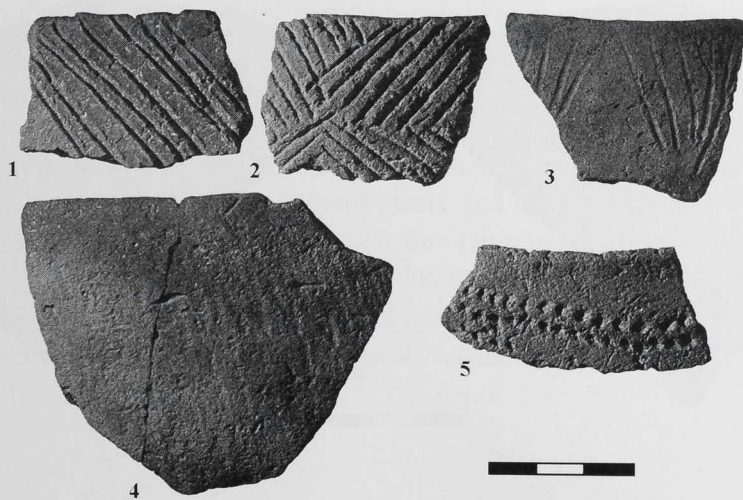


Fig. 8. Rimsherds from 8-B-52A.



Fig. 9. Rocker decorations from 8-B-52A.



Fig. 10. Polished and burnished sherd with lustre: a. Outside; b. Inside.

had seen the pottery and noticed some imported Egyptian specimens. Nevertheless, based on the age of the site, between 2800 and 2600 BC, he assigned the site to the Pre-Kerma period. However, the ceramic sample indicates that some elements can not be fully associated with the Pre-Kerma period and show more affinities with the A-Group. Such “suspicious” elements include thin walls, open bowls, beakers or vessels with straight walls, burnished zigzag decorations, lustre surfaces, black topped and black internal surfaces, and fine-medium textures (Gatto 2006b), which occur on 2.00% of the pottery from 8-B-52A.

### ***8-B-52A in the Pre-Kerma context***

Considering the age of Site 8-B-52A, between 2800 and 2600 calBC, which corresponds to the Late Pre-Kerma period in Kerma (Honegger 2004a), and the presence of some A-Group pottery, it is possible that some exchanges across the Batn el-Hagar occurred during the final phase of the A-Group. As a matter of fact, Gratien (1986) had already noted that some beads and some pots from Sai were similar to A-Group samples. She also pointed out that the *Kerma Ancien* at Sai shows strong affinities, even identities, with the first phase of the C-Group, which again positions Sai Island at an overlapping frontier between Lower and Upper Nubia. Moreover, Honegger (1997) suggested that the supposed ‘depopulation’ of Lower Nubia that took place around 2800 BC may have driven some human groups toward the south. Thus, if they reached the Kerma basin, they must have gone across Sai Island. On the other hand, biological evidence suggests continuity with minimal gene flow between the A-Group and the C-Group people (Prowse and Lovell 1995). Therefore, Lower Nubia must not have been completely depopulated, even though a few groups may have explored farther territories to the south.

A final evidence of the presence of A-Group influences at Sai Island comes from the archaeobotanical sample. A-Group populations had a mixed economy, including domestic wheat, barley, leguminous plants, and small and large livestock. Imported emmer wheat and barley were also found in some of the granary pits at Site 8-B-52A (Geus 1998, 2004; Hildebrand 2006-07). Provided that domestic plants arrived at Sai from the north by means of transactions with A-Group people, it is plausible that other goods, including ceramic vessels, reached the island.

## REFERENCES

- BONNET, C. 1988. Les fouilles archéologiques de Kerma (Soudan): rapport préliminaire sur les campagnes de 1986-87 et 1987-88. *Genava* 36: 5-20.
- CANEVA, I. (ed.) 1988. *El Geili. The History of a Middle Nile Environment, 7000 B.C.-A.D. 1500*. BAR International Series 424. Oxford.
- CANEVA, I. and A. E. MARKS. 1990. More on the Shaqadud pottery: Evidence for Saharo-Nilotic connections during the 6th-4th millennium B.C. *Archéologie du Nil Moyen* 4: 11-35.
- GARCEA, E. A. A. 2006a. The endless glory of a site: esh-Shaheinab in the Sudanese prehistory. In: I. Caneva, A. Roccati (eds), *Acta Nubica. Proceedings of the X International Conference on Nubian Studies*: 95-102. Roma. Istituto Poligrafico e Zecca dello Stato.
- GARCEA, E. A. A. 2006b. Semi-permanent foragers in semi-arid environments of North Africa. *World Archaeology* 38(2): 197-219.
- GARCEA, E. A. A. 2006-07. The Holocene prehistory at Sai Island, Sudan. *Cahiers de Recherches de L'Institut de Papyrologie et d'Égyptologie de Lille* 26: 107-113.
- GARCEA, E. A. A. 2008. The ceramics from Adrar Bous and surroundings. In: J. D. Clark, D. Gifford-Gonzalez (eds), *Adrar Bous: Archaeology of a Central Saharan Granitic Ring Complex in Niger*: 245-289. Tervuren. Royal Museum for Central Africa.
- GARCEA, E. A. A. and A. CAPUTO. 2004. Outils statistiques pour l'étude de la production et de l'utilisation de la céramique au Sahara et au Soudan. *Préhistoire Anthropologie Méditerranéennes* 13: 87-96.
- GATTO, M. C. 2002a. Ceramic Traditions and Cultural Territories: the Nubian Group in Prehistory. *Sudan & Nubia* 6: 8-19.
- GATTO, M. C. 2002b. Early Neolithic Pottery of the Nabta-Kiseiba Area: Stylistic Attributes and Regional Relationships. In: K. Nelson and Associates (eds), *Holocene Settlement of the Egyptian Sahara. Volume 2: The Pottery of Nabta Playa*: 65-78. New York. Kluwer Academic/Plenum.
- GATTO, M. C. 2006a. The Khartoum Variant pottery in context: rethinking the Early and Middle Holocene Nubian sequence. *Archéologie du Nil Moyen* 10: 57-72.
- GATTO, M. C. 2006b. The Nubian A-Group: a reassessment. *Archéo-Nil* 16: 61-76.
- GEUS, F. 1998. Sai 1996-1997. *Archéologie du Nil Moyen* 8: 85-126.
- GEUS, F. 2004. Pre-Kerma Storage Pits in Sai Island. In: T. Kendall (ed.), *Nubian Studies. Proceedings of the Ninth Conference of the International Society of*

- Nubian Studies*, 1998: 46-51. Boston. Museum of Fine Arts and Northeastern University.
- GOSSELAIN, O. P. 2000. Materializing Identities: An African Perspective. *Journal of Archaeological Method and Theory* 7(3): 187-217.
- GRATIEN, B. 1986. *Saï I. La nécropole Kerma*. Paris. Centre national de la recherche scientifique.
- HILDEBRAND, E. 2006-07. The significance of Sai Island for early plant food production in Sudan. *Cahiers de Recherches de l'Institut de Papyrologie et d'Égyptologie de Lille* 26: 173-181.
- HONEGGER, M. 1997. Kerma: l'agglomération pré-Kerma. *Genava* 45: 113-118.
- HONEGGER, M. 2004a. The Pre-Kerma: a cultural group from Upper Nubia prior to the Kerma civilisation. *Sudan & Nubia* 8: 38-46.
- HONEGGER, M. 2004b. The Pre-Kerma Period. In: D. Welsby, J. Anderson (eds), *Sudan Ancient Treasures*: 61-63. London. British Museum Press.
- HONEGGER, M. 2004c. Settlement and cemeteries of the Mesolithic and Early Neolithic at el-Barga (Kerma region). *Sudan & Nubia* 8: 27-33.
- JESSE, F. 2002. Wavy Line Ceramics: Evidence from Northeastern Africa. In: K. Nelson and Associates (eds), *Holocene Settlement of the Egyptian Sahara. Volume 2: The Pottery of Nabta Playa*: 79-96. New York. Kluwer Academic/Plenum.
- JESSE, F. 2004. No link between the central Sahara and the Nile Valley? (Dotted) Wavy Line ceramics in the Wadi Howar, Sudan. In: T. Kendall (ed.), *Nubian Studies. Proceedings of the Ninth Conference of the International Society of Nubian Studies, 1998*: 296-308. Boston. Museum of Fine Arts and Northeastern University.
- LANGE, M. and H.-A. NORDSTRÖM. 2006. Abkan Connections - The relationship between the Abkan culture in the Nile Valley and Early Nubian sites from the Laqiya Region (Eastern Sahara, Northwest Sudan). In: K. Kroeper, M. Chłodnicki, M. Kobusiewicz (eds), *Archaeology of Early Northeastern Africa*: 297-312. Studies in African Archaeology 9. Poznań. Poznań Archaeological Museum.
- PROWSE, T. L. and N. C. LOVELL. 1995. Biological Continuity Between the A and C-Groups in Lower Nubia: Evidence From Cranial Non-Metric Traits. *International Journal of Osteoarchaeology* 5(2): 103-114.
- RICE, P. M. 1996. Recent Ceramic Analysis: 1. Function, Style, and Origins. *Journal of Archaeological Research* 4(2): 133-163.
- RIEMER, H. and F. JESSE. 2006. When decoration made its way: the northern extent of the Khartoum-style pottery in the eastern Sahara. In: I. Caneva,

- A. Roccati (eds), *Acta Nubica. Proceedings of the X International Conference of Nubian Studies*: 63-72. Rome. Istituto Poligrafico e Zecca dello Stato.
- SHINER, J. L. 1968. The Khartoum Variant Industry. In: F. Wendorf (ed.), *The Prehistory of Nubia* vol. 2: 768-790. Dallas. Fort Burgwin Research Centre and Southern Methodist University Press.
- USAI, D. 2004. Early Khartoum and Related Groups. In: T. Kendall (ed.), *Nubian Studies. Proceedings of the Ninth Conference of the International Society of Nubian Studies, 1998*: 419-435. Boston. Museum of Fine Arts and Northeastern University.
- USAI, D. 2005. Early Holocene Seasonal Movements between the Desert and the Nile Valley. Details from the Lithic Industry of some Khartoum Variant and some Nabta/Kiseiba Sites. *Journal of African Archaeology* 3(1): 103-115.
- VAN PEER, P., FULLAGAR, R., STOKES, S., BAILEY, R. M., MOYERSONS, J., STEENHOUDT, F., GEERTS, A., VANDERBEKEN, T., DAPPER, M. DE, GEUS, F. 2003. The Early to Middle Stone Age Transition and the Emergence of Modern Human Behaviour at site 8-B-11, Sai Island, Sudan. *Journal of Human Evolution* 45: 187-193.
- WENDORE, F. and R. SCHILD and Associates (eds). 2001. *Holocene Settlement of the Egyptian Sahara. Volume 1: The Archaeology of Nabta Playa*. New York. Kluwer Academic/Plenum.
- WENDORE, F., SCHILD, R., CLOSE, A. E. and Associates (eds). 1993. *Egypt During the Last Interglacial: The Middle Paleolithic of Bir Tarfawi and Bir Sahara East*. New York. Plenum Press.

### Acknowledgments

I wish to sincerely thank the director of the Mission Archéologique de l'Île de Saï, Didier Devauchelle of the University Charles-de-Gaulle Lille 3, for letting me continue to be in charge of the later prehistory at Sai Island as originally granted by Francis Geus. I am extremely grateful to Elisabeth Hildebrand for entrusting me with the study of the Pre-Kerma ceramics and for her support and fruitful discussions in the field. I am also indebted to Maria Carmela Gatto and Hans-Ake Nordström, who took the time to look at some of the 8-B-52A sample and shared their knowledge on the A-Group ceramics. This research was funded by the Michela Shiff Giorgini Foundation (in 2006) and the University of Cassino.