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Front cover. Block 1000.0049 from Naga (photograph courtesy Karla Kroper). Above. Pottery jar with decoration of sorghum heads from BMC 60, Berber (photograph courtesy Mahmoud Suliman Bashir).

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Giraffes at Faras – the exchange of goods and ideas across Kush

Loretta Kilroe

Introduction

The presence of handmade jars decorated with giraffes has been noted in the Kushite cemetery at Faras. Similar handmade motifs on jars can be found across central Sudan (e.g., Nelluah: Garcea Guinea and Texidor 1965, fig. 28.2; Gabati: Edwards 1998, fig. 6.21 <7401>; Berber: Mahmoud Suliman Bashir 2019, 76), but the image was particularly prolific in Lower Nubia (David 2018, 482), where it also unusually occurred in wheelmade examples.

Exchange patterns within the Kushite state were complex and probably included multi-faceted levels of trade, with domestic, small scale, seasonal, and state-sponsored systems all likely to have played a part in the movement of goods between regions and communities. The giraffe jars at Faras point to specialised production and exchange within and across the handmade and wheelmade industries, but the reoccurrence of the animal across other Kushite media points to a more widely relevant role in Kushite symbolic vocabulary. As such, examination of these vessels can give us an insight into the exchange of both goods and ideas across a wide area.

This article will present giraffe pots from Faras and their context, before placing them into a wider context of giraffe symbolism across Kushite culture. In particular, it will explore potential meanings behind the image, and how its use might add to our understanding of modes of production and exchange within Faras.

Giraffes at Faras

The vast necropolis at Faras was located *c*. 40km south of the 2nd Cataract, now lost beneath Lake Nasser/ Nubia. Its location on a particularly fertile part of the floodplain was probably a contributing factor for the area containing high levels of archaeological remains dating from the A-Group period onwards, and it was still settled when the raising of the Aswan dam led to forced evacuations of the area in 1964 (Dafalla 1975). The Kushite cemetery is thought to be one of the richest contemporary burial grounds in Lower Nubia (Francigny 2006) and was linked to a settlement that was unfortunately left unexcavated, but likely included residential and temple areas surrounded by a fortified enclosure, while later medieval ceramic production workshops (Adams 1986, 16-22) probably had their antecedents somewhere on the site in this period. The site was excavated by F. Ll. Griffith between 1910-1912 (Griffith 1924), and found to contain at least 2000 graves, including those belonging to viceroys (*peseto*), and he suggested it was in use between the 1st century BC and the 3rd century AD. The necropolis contained a range of tomb styles with cave burials, bricked rectangular graves and niche graves as well as pyramids (originally identified as mastabas). Burial repertoires suggest the associated settlement was wealthy and its inhabitants had access to trading routes linked to Egypt and the wider Mediterranean world, with ceramic, glass and bronze items imported from Egypt and even as far as Italy (Bishop-Wright 2021, 393).

Eight pots decorated with giraffes were found in the necropolis (Figure 1). Six of these were handmade, bag-shaped deoxidised jars with rounded bases, embellished with rough burnishing and punctated decoration featuring geometric patterning outlining the top and bottom of a register, with the motif of a giraffe added inside (Figure 2). These represent the only examples of faunal decoration in the handmade industry at Faras (Bishop-Wright 2021, 243).

The remaining two jars were wheelmade. These were oxidised jars with an ovoid body and cylindrical neck. The giraffe is painted in brown on a beige slip, interspersed with trees and human figures (Figure 3).

Kilroe, L. 2023 [http://doi.org/10.32028/SN27pp247-256].

Grave	Туре	Industry	Location	Other grave goods
752	Lateral niche	Handmade	Ashmolean	Wheelmade cup, wheelmade jar.
880	Pit	Handmade	Unknown	Wheelmade jar, wheelmade cup, 2 lekythoi.
881	Grave	Handmade	Unknown	2 wheelmade jar.
978	Lateral niche	Handmade	Munich	Lekythos, bronze bowl.
1090	Pyramid	Wheelmade	Unknown	On surface, 2 <i>ba</i> statues; in top fill, many frags of painted vessels and cups; in northern filling, wheelmade cup, 2 feeders; in SE compartment, wheelmade amphora, 2 wheelmade cups, 8 feeders, frags of glass bottle, small figures and beads, faience Sekhmet pendant; in vaulted chamber with giraffe pot, 2 wheelmade jars, 3 wheelmade cups, 2 feeders, 1 wheelmade bowl.
1226	Lateral niche	Handmade	Unknown	1 wheelmade bowl, 2 small wheelmade pot, 2 lekythos, 1 amphora.
2006	Pit	Wheelmade	British Museum	3 wheelmade jar, 1 amphora, 3 wheelmade cups, 1 wheelmade vase, 2 lekythos, 1 bronze bowl, 1 cauldron, 1 bronze patera, 1 bronze bezel.
2025	Lateral niche	Handmade	Munich	3 wheelmade cups, 1 wheelmade jug, 1 wheelmade jar, 1 wheelmade pot.

Figure 1. Table showing the giraffe pots at Faras, their locations and accompanying grave goods.

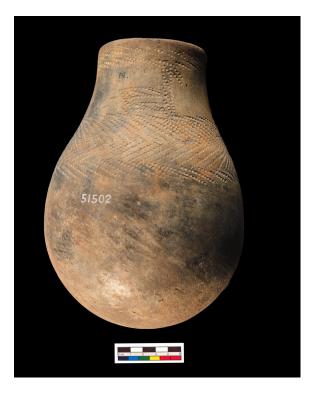


Figure 2. Example of handmade giraffe pot from Faras. EA51502 (photo by L. Kilroe reproduced with permission © The Trustees of the British Museum).



Figure 3. Example of wheelmade giraffe pot from Faras. EA51561 (photo by L. Kilroe reproduced with permission © The Trustees of the British Museum).

Recent reassessment of the graves at Faras by Henry Bishop-Wright (2021; 2023) has allowed us to suggest dates for the giraffe pots found here. The handmade jars have been identified as belonging to the category of Form 3 jars assigned to Period 2A by correspondence analysis (Bishop-Wright 2021, fig. 4.35), which included 96 graves at Faras (Bishop Wright 2021, 174-184). They can thus now be dated to approximately 21BC-75AD. In the following Period 2B, the giraffes vanish and the decoration on black burnished jars moves to simple geometric motifs (Bishop-Wright 2021, 221), so this decoration is quite time-specific.

On the wheelmade examples, the style of decoration marks these two pots as being part of the 'Prisoner Painter' school, identified by the drawing of eyes and ears with one brushstroke (Wenig 1978, 98). These are now suggested to date between 100-145AD, slightly later than the handmade examples. Bishop-Wright has further hypothesised that the large quantity of vessels at Faras that can be ascribed to this painter is indicative that this was the location of the production workshop (Bishop-Wright 1921, 294), which if true would mean that at least these two giraffe jars are confirmed as being produced in Lower Nubia.

Burials containing giraffe pots are generally concentrated in the north-western end of the cemetery (Figure 4), which fits with the proposed restricted time use. The burials containing wheelmade pots, Grave 2006 and Grave 1090, are however slightly (in the case of 2006) and severely (in the case of 1090) removed from this cluster, perhaps due to their later date or other unknown factors – Grave 1090 is a pyramid containing particularly wealthy goods, and seems to have been located in a more 'elite' section of the necropolis, which was perhaps related to this outlying position.

Scholars have tended to distinguish handmade and wheelmade pottery via several, often highly spurious, assumptions regarding the industry behind each. Handmade pottery is often cited as produced by women (e.g., Wenig 1978, 98; Adams 1986, 38; Nordström 2004, 250), and is generally considered cheap, domestic in nature, produced in the home and used very locally. Wheelmade pottery, in contrast, is often considered a more standardised industry, with men producing vessels in specialist workshops and vessels traded over long distances. Much of this is based on evidence from Egypt, where tomb reliefs occasionally depict pottery workshops (Doherty 2020; Kilroe 2023). This however does not take into account the higher value placed on ceramic vessels among ancient Sudanese cultures, including (and often especially) handmade examples. It is notable, for example, that the handmade giraffe jars at Faras are not restricted to poor burials, and are often accompanied by wheelmade pots and other luxurious material (see Figure 1). In Grave 752, for example, the handmade jar was topped with a wheelmade cup in the standard grave offering designed to emphasise the importance of drinking and feasting (Griffith 1924, 105); while in Grave 978, another example was topped with a bronze bowl (Griffith 1924, 116). The example in Grave 1226 was accompanied by two lekythoi and an amphora, items related to table practices common in Egypt and the Hellenistic world (Griffith 1924, 135-136). Both the handmade and wheelmade examples appear to be high quality items, in a wider context of a wealthy settlement, and linked to a package around drinking and feasting.

The giraffe motif across Kush

Handmade jars embellished with the giraffe motif have been found more broadly in Kushite cemeteries across Lower Nubia outside of Faras, at Qustul (Williams 1991, fig. 109b, 127a, 162b, 172b), Nelluah (Garcia-Guinea and Texidor 1965, fig. 9.1, pl. X), Nag el Arab (Argin) (Pellicer and Llongueras 1965, fig. 28.8), Aksha (Vila 1967, fig. 42b-c, 58e, 59, 69d 71a, 72b, 253c), Gemai (Bates and Dunham 1927, pl. LXIII figs 22, 26) and Buhen (Randall-MacIver and Woolley 1910, pl. 69, nos 10625, 10627 and 10437), as well as further south at Gabati (Edwards 1998, fig. 6.21 <7401>), Berber (Mahmoud Suliman Bashir 2019, 76), el Kadada (Geus 1984, 75) and Sennar (Addison 1935, pl. VI 10). Only 7 examples of wheelmade jars with a painted giraffe



Figure 4. Map showing location of graves containing giraffe pots at Faras marked in red (after Griffith 1924, pl. XIV).

decoration are known in total, all in Lower Nubia, at Faras, Karanog (Randall-MacIver and Woolley 1910, pls 41-43, 45, 53, 61 and 99), and Argin (British Museum collection, EA30712) (Figure 5).¹ Giraffes also occur as a decorative feature on other vessels in central Sudan – at el Ahamda south, impressed giraffes occur on redware jars (El-Tayeb and Gar El Nabi 1998, fig. 11), while at Jebel Moya, incised giraffes decorated jars and a bowl (Addison 1949, pl. XCVII). In almost all cases, the motif was added to jar forms, suggesting that the iconography was linked to a particular content.

Although it has been suggested that the handmade giraffe pots are a regional specialisation of Lower Nubia (David 2018, 482), the presence of similar pots in central Sudan suggests the vessels were part of a broader exchange pattern. The concentration of giraffe pots in Lower Nubia may be a result of excavation bias, or alternatively point to a direct trading link between the Gabati/el Kadada region and Lower Nubia, perhaps relating to the migration patterns of itinerant potters.

The giraffe jars also need to be contextualised within a broader framework of giraffe imagery that occurs on other Kushite media (Kilroe 2023), suggesting giraffes had a wider symbolic relevance; in particular, on Kushite graffiti and rock art. Giraffes occur as rock art at Us Island in the Fourth Cataract (Kleinitz 2007, 225, fig. 7), and as graffiti in temple contexts at Musawwarrat es-Sufra (Hintze 1979, figs 49-52; Kleinitz 2014, pl. 8) and Temple Ku. 1500 at El-Kurru (Emberling and Davis 2019, Graffiti T115). It is difficult to date graffiti, but these have been identified as Meroitic due to their style and positioning (Kleinitz 2014, 100). A giraffe also featured on a blue faience plaque in Burial 503 in the Western Cemetery at Meroe (Dunham 1963, fig. 12e, g). In many cases, giraffes are shown feeding from trees, showing a shared ideological motif across media.



Figure 5. Wheelmade giraffe pot from Argin. EA30712 (photo by L. Kilroe reproduced with permission © The Trustees of the British Museum).

¹ The latter is a particularly detailed example but unfortunately has little detailed provenance, being presented to the British Museum in 1899 and its sole findspot noted as 'Argin'. Somers-Clarke was excavating in Egypt in 1899 and it is suggested he crossed the border during this time and picked up the vessel, perhaps as a surface find from a partially denuded tomb, or it was presented to him by local villagers. Its style is clearly Kushite.

Discussion

Although the giraffe motif has been suggested to be Egyptian in origin (e.g., Török 2011, 284), there is little evidence for its popularity in Egypt after the Predynastic, other than the inclusion of giraffes in Nubian tribute scenes in tombs (see Kilroe 2023). Evidence instead points to this motif being indigenous, with even the giraffes on wheelmade pottery showing a distinct Kushite style, in common with examples found on stone and faience. Evidence from Faras now suggests that these wheelmade examples represent inspiration from the handmade industry.

The handmade giraffe jars at Faras are part of a wider network of handmade finewares that continued to be produced and distributed across Kush alongside wheelmade vessels (e.g., Lenoble 1995; David 2019; Kilroe 2021; Kilroe and Spataro 2023). The wide distribution of standardised examples contradicts ideas of handmade pottery being solely a domestic endeavour (Török 2011, 244) and rather suggests many were produced in specialised workshops. Indeed, the umbrella term 'handmade' covers a wide range of diverse *chaînes opèratoires* (David and Evina 2016), other than simple coarse ware, and there is a vast amount of evidence that handmade pottery was often made by specialists, standardised, and traded (Edwards 2014, 53). In the case of the giraffe pots, the presence of this standardised motif across the Middle Nile suggests the jars were made to a specific design by a particular group, with the decoration a key part of the vessel, intended to link it with a specific content (David 2018, 482).

The use of the giraffe in this context suggests it is part of a widely understood visual language (Kleinitz 2014, 100-101), as relevant at Faras as at Gabati. The animal's presence on multiple forms of Kushite media, including graffiti, rock art, pottery and faience, suggests that the giraffe held an important symbolic meaning in Kushite iconography. However, it is notable that this does not translate to elite contexts, such as temple reliefs at Meroe, Naga or Musawwarrat es-Sufra. Giraffe iconography is also absent from the handmade fineware vessels at Meroe. This probably relates to the dichotomy visible between official iconography and indigenous iconography, which rarely overlap, and may represent the existence of 'Great' and 'Little' traditions within Kushite belief systems (for a discussion of these in Egypt see Goody 1986; Kemp 2005, 111; Bussman 2016). Handmade pottery, for example, displayed a visual symbolism outside of and separate to the religious imagery that we see in official, monumental contexts (Edwards 2014, 58). This does not always represent aesthetic representations of the natural world; in many cases, the meaning of handmade decoration is elusive. Furthermore, it is notable that giraffes were extinct from Lower Nubia by this period, and so do not represent the contemporary landscape, although evidence suggests they lived further south until the 19th century (Żurawski 2019, 98) so Kushites to the south would have come into contact with them. O'Connor (1993, 106) has also noted that if the idea was to represent the ecology of central Sudan accurately, it is surprising that we do not find elephants also decorating pots - suggesting that there are more complex reasons behind what was considered appropriate to embellish pots. How then should we understand the meaning behind this motif?

Giraffe symbolism

The giraffe appears to have been more widely relevant to Kushite belief structures, both in central Kush, where the giraffe may have been seen in the landscape, and in Lower Nubia, where it was probably only encountered infrequently through travel to more peripheral zones. The absence of giraffes in elite contexts such as temple and funerary chapel reliefs does suggest that a giraffe deity did not exist in Kush in the same manner as deities such as Amun or Apedemak. However, its presence on multiple indigenous media does support the idea of a spiritual relevance to the giraffe.

It has been suggested that the giraffe was a heliotropic animal (e.g., Westendorf 2006; Cannuyer 2010, 125-127), with the animal's height, colouring and positioning suggesting solar links in Egyptian Neolithic

rock art. Obviously, this is far removed in both time and space from Kush. The giraffe also appears as a determinative in the verb *sr*, to foretell, a word that first occurs in the Pyramid Texts, with the indication that the giraffe was conceptually linked with foresight (Erman and Grapow 1920, 189; Cannuyer 2010, 227ff). Although the giraffe was common in predynastic contexts, they are notably absent from Egyptian media after the early Old Kingdom, apart from sporadic appearances as exotica in New Kingdom funerary tribute scenes (see Kilroe 2023 for discussion).

Earlier use of the giraffe within Sudan is more useful for interpreting its meaning in Kush. Giraffes are common on rock art in Sudan from the Neolithic (e.g., Dunbar 1941, figs 1, 7-12, 69, 75, 85; Helström 1970, Section K; Otto and Buschendorf-Otto 1993, 255-269, 276, 346-357; Judd 2006; Williams 2010, 45), but also occur on pottery and eggshells in Abkan/A-Group contexts (Williams 1986, pl. 88; Williams 1989, pls 8-11). They next reappear prominently in Kerma, where herds feature as painted decoration in Temples KU II and XI (Reisner 1923; Bonnet 2000, fig. 58) and giraffe shapes are used as furniture and clothing accessories ((Reisner 1923, pls 58 1, 60 2). Giraffes were clearly hunted at this stage, with giraffe hair bracelets and tails found at Kerma (Reisner 1923, 289 nos 138-139) and these items were also shown in Egyptian tomb reliefs, but the almost total lack of giraffe faunal remains is puzzling and perhaps suggests a tradition of butchering on site, far from settlements (Jakob Bro-Jørgensen pers. comm.). As such, their appearance on Kushite media is perhaps indicative of long-standing oral traditions around giraffes within the Middle Nile Region. The geometric patterns on handmade pottery represent layers of accompanying indigenous meaning that we do not currently understand (e.g., Eckert 2008, 85) - zig-zag patterning that can be seen on multiple jars, for example, has been suggested to show rain (Addison 1949, 208-209). The fact these show strong parallels with Kushite tattoo patterns (e.g., Vila 1967, pl. XIVXIX) suggests handmade decoration is part of a broader cultural language existing alongside official iconography in the Middle Nile.

References to giraffes in two Ptolemaic inscriptions at Philae may also be linked to Kush. An inscription in a small chapel dating to the reign of Ptolemy VIII mentions the appearance of Horus, who is greeted by 'the beautiful monkeys who jump for joy, while the panthers and giraffes turn in circles' (Daumas 1958, 315-317) while another relief on the Great Pylon dating to the reign of Ptolemy VI describes gifts from the region around Kerma, and references 'the beautiful monkeys who dance, the panthers and giraffes who turn in circles' (Cannuyer 2010, 176). Although no giraffes are depicted here, their reference in a site known to be important to contemporary Kushites is notable (Emberling and Davis 2019), especially as this is accompanied by a reference to Kerma, and may suggest the giraffe did hold some sort of solar link in Kushite belief.

It is important to note that giraffes remained associated with Kush in a wider Near Eastern context. Giraffes were exported as an exotic symbol of Kush, with the animal included in parades including in Alexandria under Ptolemy II (Athenaeus, Deiphnosophistae V.201C), and Rome for the triumph of Caesar over Egypt (Dio Cassius XLIII, 21; Pliny VIII, xxvii, 69-70), while a Kushite delegation to Xerxes in the Apadana at Persepolis shows an animal suggested to be an attempted giraffe (Lewis and Lloyd-Llewellyn 2020). These will in all likelihood have entered the Hellenistic world via Meroitic trading routes; however, their representation in general is more representative of ideas of exoticism surrounding the giraffe in the Eastern Mediterranean, rather than any indigenous ideology.

Faras and its place within Kush

The presence of handmade giraffe pots at Faras indicates that the city was linked to a long distribution network stretching from central Sudan. Lower Nubia may have been one end of a direct exchange route from central Sudan, where we find a second cluster of giraffe imagery. Their distribution suggests that

handmade pottery was traded extensively, presumably as a specialised product (David 2018, 482), or for a specific use. The vessels may have travelled via merchants, but it is also possible that they were produced and moved by itinerant potters. In Darfur in the 1970s, Tobert noted that women among the Zaghawa would travel to the outskirts of cities every year to produce and sell specific vessels to townsdwellers. This level of production leaves little permanent mark on the landscape (Tobert 1988). No handmade production workshops have been identified in Nubia, and production of the giraffe pots was probably similarly ephemeral.

Given the restriction of wheelmade giraffe pots to Lower Nubia, coupled with the slightly later dating now identified at Faras, it is likely that the wheelmade giraffe pots were a regional development of Lower Nubia, inspired by the handmade examples being imported in. This cultural exchange between two supposedly segregated industries should caution us against assuming a rigid division between the two. The presence of giraffe imagery at Faras – something seen at multiple sites in central Sudan – further solidifies our understanding of a shared Kushite symbolic vocabulary, above and beyond monumental iconography. Whatever the meaning behind the giraffe, it was clearly as popular and relevant to communities in Lower Nubia as it was in the south.

Conclusion

Handmade giraffe pots appear in Faras between 21BC-75AD, in six graves clustered close together in the north-western part of the Faras Necropolis. These are part of a wider contemporary popularity in Lower Nubia, which prompted imitations in wheelmade jars at Faras, Karanog, and Argin at a slightly later period.

Identifying the systems behind Kushite trade and exchange across the Middle Nile Region is difficult (David 2018, 481), especially when we look at the trade and exchange of ideas over and above physical objects. However the giraffe pots tell us that long-distance trade across Kush was not restricted to the wheelmade industry, and that multiple forms of exchange were happening simultaneously. Analysis of the fabrics of the giraffe pots in the future would potentially give us insight into the manufacturing locales of these vessels and their trading routes. It is equally difficult to quantify how the symbolism behind the giraffe image may have been shared and whether it meant something different to potters in the wheel industry or consumers in Lower Nubia. However, the prevalence of the motif across multiple forms of media suggests the giraffe held an important role in non-elite contexts, perhaps as a physical output of broader oral traditions circulating in the Middle Nile over a long period of time. That these also occur in Faras is an important indicator of the city's place within the diverse layers of Kushite culture.

References

Adams, W. Y. 1986. Ceramic Industries of Medieval Nubia. Lexington.

Addison, F. 1935. 'Antiquities at Sennar', Sudan Notes and Records 18 (2). 288–293.

Addison, F. 1949. The Wellcome Excavations in the Sudan. vol. 1: Jebel Moya (Text), vol. 2: Jebel Moya (Plates), London-New York, Toronto.

Athenaeus, Deiphnosophistae V.201C.

- Bates, O. and D. Dunham. 1927 Excavation at Gammai. Cambridge. Bishop-Wright, H. C. 2021. Chronology and Connectivity at Meroitic Faras. PhD thesis, Exeter University. Exeter.
- Bishop-Wright, H. C. 2023. 'Chronology, correspondence analysis, and Lower Nubia in the 3rd Century BC: a reassessment of the Meroitic cemetery at Faras', *Sudan & Nubia* 27, 230-246

Bonnet, C. 2000. Edifces et Rites Funéraires à Kerma. Paris.

Bussmann, R. 2016. 'Great and little traditions in Egyptology', in M. Ullmann (ed.), Ägyptologische Tempeltagung: ägyptische Tempel zwischen Normierung und Individualität. München, 29.-31. Wiesbaden, 37-48.

- Cannuyer, C. 2010. La Girafe dans L'Egypte Ancienne et le Verbe Śr. Étude de lexicographie et de symbolique animalière. Bruxelles.
- O'Connor, D. 1993. Ancient Nubia. Egypt's Rival in Africa. Philadelphia.
- Dafalla, H. 1975. The Nubian Exodus. London.
- Daumas, F. 1958. Les mammisis des temples égyptiens. Paris.
- David, R. 2018. 'Funerary ceramics and Meroitic economy: a first insight', in M. Honegger (eds), Nubian Archaeology in the 21st century. Proceedings of the Thirteenth International Conference for Nubian Studies, Neuchâtel, 1st-6th September 2014, 481-488.
- David, R. 2019. 'Ceramic industries of Meroitic Sudan', in D. Raue (ed.), *Handbook of Ancient Nubia*. Berlin-Boston, 875-895.
- David, R. and M. Evina. 2016. 'Introduction à l'évolution des chaînes opératoires des céramiques méroïtiques,' *Dotawo: A Journal of Nubian Studies* 3, 83-126.
- Dio Cassius. Roman History.
- Doherty, S. K. 2020. 'Investigating Dynastic Egyptian Pottery-Making: Archaeological and Ethnographical Considerations', in A. Hodgkinson and C. Lelek Tvetmarken (eds), *Approaches to the Analysis of Production Activity at Archaeological Sites*. Oxford, 122–140.
- Dunbar, J. H. 1941. The Rock-pictures of Lower Nubia. Cairo.
- Dunham, D. 1963. The West and South Cemeteries at Meroe. Boston.
- Eckert, S. 2008. Pottery and Practice: The Expression of Identity at Pottery Mound and Hummingbird Pueblo. Albuquerque.
- Edwards, D. N. 1998. Gabati: A Meroitic, Post-Meroitic and Medieval Cemetery in Central Sudan, vol. 1, BAR-IS 740, Oxford.
- Edwards, D. N. 2014. 'Early Meroitic pottery and the creation of an early imperial culture?' In A. Lohwasser and P. Wolf (eds), *Ein Forscherleben Zwischen den Welten. Zum 80. Geburtstag Steffen Wenig.* Berlin, 51-63.
- Emberling, G. and S. Davis 2019. *Graffiti as Devotion*. The Kelsey Museum of Archaeology. [https://exhibitions.kelsey. lsa.umich.edu/graffiti-el-kurru/index.php].
- Erman, A. and H. Grapow 1930. Wörterbuch der Aegyptischen Sprache 4. Leipzig.
- Francigny, V, 2006. 'Faras oublié, Cahier de Recherches de l'Institut de Papyrologie et d'Égyptologie de Lille (Paris/Lille) 26, 99-106.
- Garcia Guinea, M. and J. Teixidor. 1965. 'La necropolis meroitica de Nelluah (Argin Sur, Sudan)', *Memorias de la misión* arqueológica en Nubia 6.
- Geus, F. 1984. Rescuing Sudan Ancient Cultures: a cooperation between France and the Sudan in the field of archaeology. Khartoum.
- Goody, J. 1986. The logic of writing and the organisation of Society. Cambridge.
- Griffith, F. L. 1924. 'Oxford Excavations in Nubia', Annals of Archaeology and Anthropology 11, 141-180.
- Helström, P. 1970. The Rock-Drawings. Scandinavian Joint Expedition to Sudanese Nubia volumes 1:1 and 1:2. Odense.
- Hintze, U. 1979. 'The graffiti from the Great Enclosure at Musawwwarat es Sufra', Meroitica 5, 135-150.
- Judd, T. 2006. 'Presumed giraffe petroglyphs in the Eastern Desert of Egypt: style, location and Nubian comparisons', Rock Art Research 23, 59-70.
- Kemp, B. 2005. Ancient Egypt. Anatomy of a Civilisation. London.
- Kilroe, L. 2021. 'Meroitic black-burnished wares at Faras: shared motifs and symbols across Sudan', *Bulletin de liaison de la Céramique Égyptienne* 30, 153-174.
- Kilroe, L. 2023. 'Unwritten compulsion: social integration, norms and self-control at Kurgus in Medieval Nubia', in A. Loktionov (ed.), *Compulsion and Control in Ancient Egypt.* Oxford, 101-117.
- Kilroe, L. and M. Spataro. 2023. 'Two sherds from Faras seeking evidence for the handmade finewares industry during the Meroitic period', *Bulletin de liaison de la Céramique Égyptienne* 32.
- Kilroe, L. 2023. 'Giants of the sands. The giraffe and its place in symbolic vocabulary in the Kingdom of Kush, Sudan',

Journal of African Archaeology 21(2), 1-20.

- Kleinitz, C. 2007. 'Rock art landscapes of the Fourth Nile Cataract: characterisations and first comparisons', in: C. Näser and M. Lange (eds), *Proceedings of the Second International Conference on the Archaeology of the Fourth Nile Cataract.* Meroitica 23, 213-234.
- Kleinitz, C. 2014. 'The graffiti of Musawwarat es-Sufra: current research on historic inscriptions, images and markings at the Great Enclosure', *Sudan & Nubia* 18, 93-103.
- Lenoble, P. 1995. 'la petite bouteille noire, un récipient méroéen de la libation funéraire', *Archaéologie du Nil Moyen* 7, 143-162.
- Lewis, S. and L. Llewellyn Jones 2020. The Culture of Animals in Antiquity, A Sourcebook with Commentaries. London.

Mahmoud Suliman Bashir 2019. 'The role of sorghum beer and porridge in Meroitic society: New evidence from the meroitic cemetery at berber, northern Sudan', *South African Archaeological Bulletin* 74 (210), 76–81.

- Nordström, H.-Å. 2004. 'Pottery', in D. A. Welsby and J. R. Anderson (eds), Sudan. Ancient Treasures. London.
- Otto, K.-H. and G. Buschendorf-Otto, 1993. Felsbilder aus dem sudanesischen Nubien. Teil I. Text. Publikation der Nubien-Expedition 1961-1963. Band 2.

Pellicer and Llongueras 1965. Las necropolis meroiticas del grupo "x" y cristianas de Nag-el-Arab (Argin, Sudan). Madrid. Pliny. Naturalis Historia.

Randall-MacIver, D. and L. Woolley. 1910. Buhen. Philadelphia.

Reisner, G. 1923. Excavations at Kerma: Parts I-III, HAS 5, Cambridge.

El-Tayeb, M. and G. Gar el Nabi 1998. The Meroitic Cemetery at Al Ahamda. Gdańsk.

Tobert, N. 1998. The Ethnoarchaeology of the Zaghawa of Darfur (Sudan). BAR International Series, Cambridge.

Török, L. 2011. Hellenizing Art in Ancient Nubia 300BC-AD250 and its Egyptian models. A Study in "Acculturation". Leiden.

Vila, A. 1967. Aksha II, Le Cimetière Méroitique d'Aksha. Paris.

Wenig, S. 1978. Africa in Antiquity. The Arts of Ancient Nubia and the Sudan. Brooklyn.

Westendorf, W. 2006. 'Die frühzeitlichen Prunkpaletten – Die Deutung ihrer kosmischen Darstellungen und das Weiterleben der Motive in geschichtlicher Zeit', in G. Moers, H. Behlmer, K. Demuss and K. Widmaier (eds), *izn.t dr.w. Feschrift für Friedrich Junge.* Göttingen.

Williams, B. B. 1986. The A-Group Royal Cemetery at Qustul: Cemetery L. Oriental Institute Nubian Expedition. Chicago.

Williams, B. B. 1989. Neolithic, A-Group and post A-Group remains from Cemeteries W, V, S, Q, T and a cave east of Cemetery K. Oriental Institute Nubian Expedition. Chicago.

Williams, B. B. 1991. *Meroitic Remains from Qustul Cemetery Q, Ballana Cemetery B, and a Ballana Settlement*. OINE 8. Chicago. Williams, E. 2010. *The Giraffe*. London.

Żurawski, B. 2019. 'Discourses with the Holy: text and image graffiti from the pilgrimage churches of Saint Raphael the Archangel in Banganarti, Sudan', in G. Emberling and S. Davis (eds), *Graffiti as Devotion*. Ann Arbor, 87-104.