

# The Archaeology of Sudan and Nubia

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## Key Words

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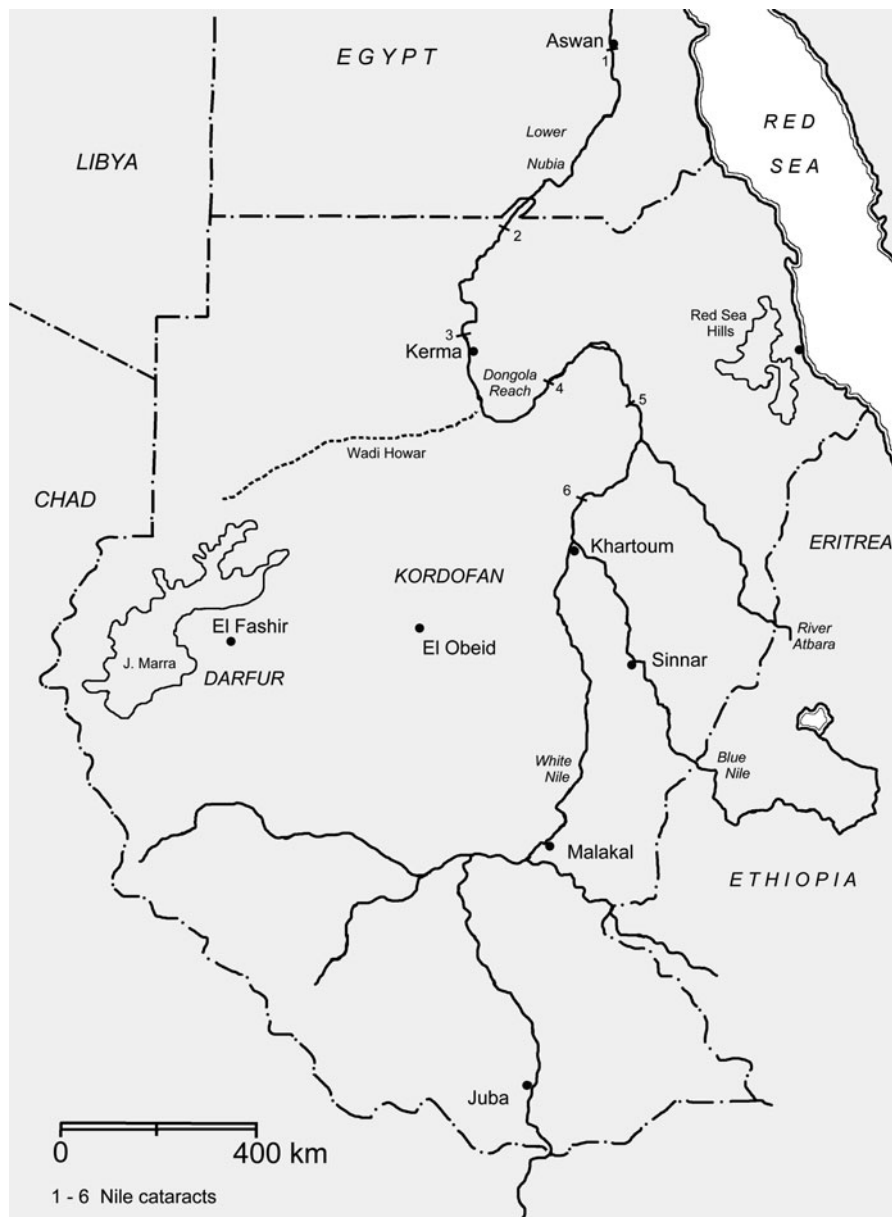
## Abstract

This review explores recent research within the territory of the modern Sudan and Nubia. One special interest of this region's history and archaeology lies in its role as a zone of interaction between diverse cultural traditions linking sub-Saharan Africa, Egypt, the Mediterranean world, and beyond. The exceptionally early development of large-scale polities in the Middle Nile also offers remarkable opportunities for exploring the archaeology of the development of political power as well as for exploring research topics of a wide significance, both within and beyond African archaeology, such as the development of agriculture, urbanism, and metallurgy. The unique opportunities offered by the Nile corridor for trans-Saharan contacts have also ensured that the region's archaeology provides an extraordinary scope for exploring the interplay and interaction of indigenous and external cultural traditions, often very obviously manifested in the material worlds of the region: from their encounters with Pharaonic Egypt to the incorporation of Nubian kingdoms into medieval Christendom and the creation of new Arab and Muslim identities in the postmedieval world.

## INTRODUCTION

The archaeology of the modern Sudan, concerned with a large part of eastern Sudanic Africa and its Sahelian/Saharan margins, has vast potential, ranging as it does from the margins of Egypt to Equatorial Central Africa, and from the Red Sea world to the Chad Basin (**Figure 1**). Although archaeology in

the region started at a relatively early date, largely as an extension of Egyptological research on Egypt's Nubian frontier, its relationship with research under way elsewhere in sub-Saharan Africa has often been uncertain, and its potential to engage with issues of more general anthropological interest has not always been well-represented. One



**Figure 1**

Sudan and neighboring countries.

dominant research concern has remained with the more monumental remains and arts of its early civilizations, emphasizing the influences of Pharaonic (and later) Egypt in the Middle Nile. A limited range of largely external (primarily Egyptian and Arabic) documentary sources has also played a major role in framing the history of the region. A colonial ambivalence toward non-Arabized (African) parts of the country, notably South Sudan, has also left large areas as the preserve of ethnographic investigation rather than archaeology (Crawford 1948, Edwards 2003, Wengrow 2003).

Limited resources have also been thinly spread across a vast and varied region, leaving some areas relatively well-researched, whereas others are still largely unknown archaeologically. Other circumstances have also served to create particular research foci, most obviously with a series of twentieth-century salvage archaeology programs in the Nubian north, where ~500 km of the Nile valley was flooded by the reservoir behind the Aswan dams (Adams 1977). Such reactive work has continued in response to dam construction on the Fourth Cataract (Paner 1998, Welsby 2003), as well as in areas under threat from expanding agriculture (Welsby 2002a) and infrastructure projects (Mallinson et al. 1996). These salvage efforts may be set against more focused research programs, for example the BOS (Besiedlungsgeschichte der Ost-Sahara) and ACACIA (Arid Climate, Adaptation and Cultural Innovation in Africa) programs exploring large tracts of the Egyptian and Sudanese Sahara (Jennerstrasse 8 2002; Jesse 2003, 2006; Keding 1996; Lange 2006).

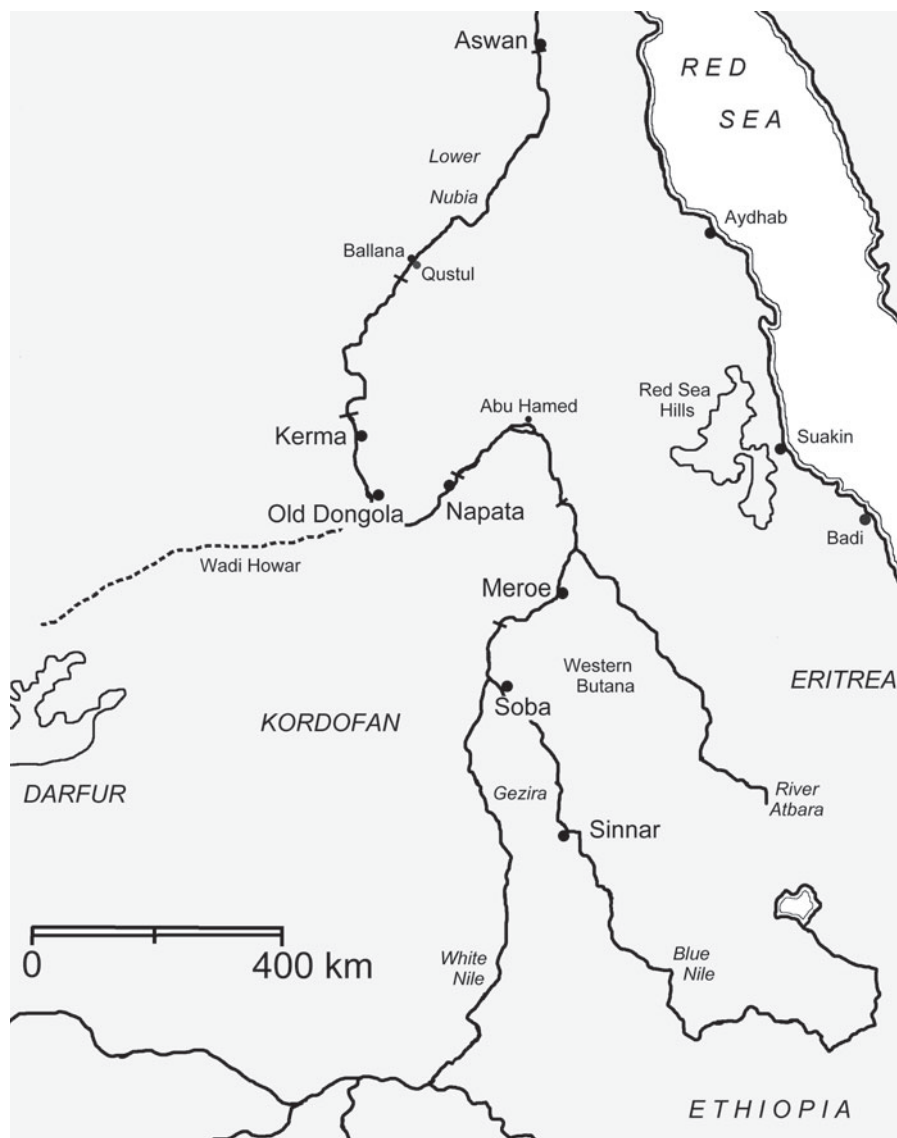
Over time, cultural and political developments within the region were also very uneven, in keeping with mosaic qualities of the social, political, and technological landscapes encountered in many parts of sub-Saharan Africa (Stahl 2004). Some regions (notably, parts of riverine central-northern Sudan/Nubia) were, from an early date, the foci of a series of kingdoms (Kerma, Napata, Meroe), the earliest in sub-Saharan Africa

(Figure 2). The hills and margins of Jebel Marra in Darfur became another such political focus from the medieval period, relating to regions both to the east and to the west, toward Lake Chad. Other areas, such as the poorly watered plains of Kordofan, were peripheries to such regions, rarely developing their own centers of power (Stiansen & Kevane 1998), whereas parts of eastern Sudan looked also to the Red Sea. The often harsh environment of the clay plains of the Upper Nile likely presented special problems for survival (Johnson 1991). However, evidence for direct links with the civilizations and cultures of the Ethiopian Highlands (Phillipson 1998) has remained elusive. In addition, environmental change, especially the greater aridity during the later Holocene, often transformed landscapes and affected human possibilities.

Spanning such a vast and varied region, much current research remains focused on the (still necessary) construction and elaboration of cultural-historical sequences, building on and refining frameworks defined in northern Nubia a century ago (Reisner 1910), with a strong emphasis on central riverine areas. More synthetic and thematic research, typically concerned with the development of agriculture, settlement landscapes and urbanism, metallurgy, and social complexity, remains more limited, despite the considerable scope for such investigations. An exceptionally long history of long-distance contacts, along the Nile corridor across the Saharan divide, also invites investigations of the varied cultural interactions and encounters these produced, if no longer as the one-sided encounters envisaged by George Reisner (1910) a century ago, who saw the history of Nubia as “hardly more than an account of its use or neglect by Egypt” (p. 348). This review examines recent research in this region in relation to these themes.

## EARLY HOLOCENE ORIGINS

The major climatic changes of the early Holocene (~8500 BC) saw the desert margins

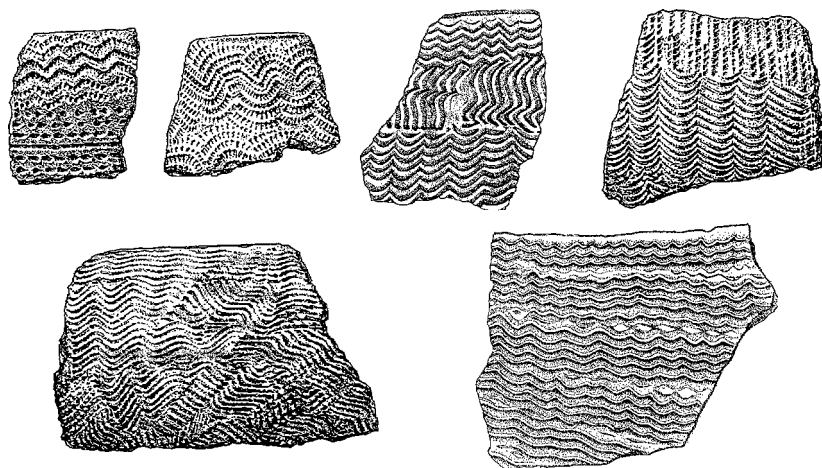


**Figure 2**

Urban and other centers of Nubia and the Middle Nile.

shift significantly northward within a relatively few centuries (Kuper & Kropelin 2006); the increasingly favorable environmental conditions allowed a recolonization of northern Africa, which had been largely uninhabited desert for many millennia. Across the varied landscapes of Sudanic/Sahelian Africa, new populations of pottery-using hunter-fisher-gatherers appeared, coming from the south. In the parts of the Sudan explored by archaeologists, investigators

have found the distinctive Wavy Line pottery (first identified at Khartoum in 1944) of these early Holocene populations (Figure 3). Their sites are found in central riverine areas close to the confluence of the Niles and around the mouth of the Atbara, along the Wadi Howar, and the northern Dongola Reach, as well as along the Blue and White Niles south of Khartoum (Arkell 1949, Caneva 1983, Fernandez 2003, Haaland 1995).



**Figure 3**

Incised Wavy Line and Impressed Wavy Line (Dotted Wavy Line) pottery from central Sudan (after Arkell 1949 and Caneva 1991).

Similar decorated pottery is found across much of Sudanic and Saharan Africa (Sutton 1977) and is some of the oldest pottery in the world, with radiocarbon dates as early as ~8000 BC; obviously there may be still earlier examples yet to be found (Close 1995). Within this widespread tradition, the existence of some significant, even if still poorly understood, regional diversity is becoming increasingly apparent. Styles of Incised Wavy Line pottery, although known from as far west as modern northern Chad, are most abundant in the Nile valley in the Khartoum region. Such pottery may be distinguished from the more widely distributed Impressed Wavy Line (Dotted Wavy Line) pottery, regional variants of which are found across Saharan/Sahelian Africa (Jesse 2004). Better definition of the relationship of the Sudanese material to these wider traditions, and their chronology, would now seem a priority for future work and will demand coordinating research at an unusually large scale.

The often extensive and dense spreads of material found at early Holocene sites in central Sudan seem to relate to quite settled and long-lived occupations that relied on varied strategies of hunting, fishing, and gathering (Arkell 1949, Caneva 1983, Fernandez 2003, Haaland 1995). Evidence of grinding stones also suggests the use of edible riparian roots

and tubers, as documented in epi-Palaeolithic sites in Egypt (Hillman 1989), as well as the wild grains of the savannahs (Barich 1998; Harlan 1989). Spear fishing is also a prominent feature of many riverine occupation sites, although no direct evidence of boats, as found in the Lake Chad region (Breunig 1996), has yet been found. Such sites have a particular value for research into many key debates about shifts between foraging and food production and trajectories into and out of sedentism (Barker 2006).

### THE NEOLITHIC—THE BEGINNING OF HERDING AND FARMING

As elsewhere in sub-Saharan Africa, a largely pastoral primary Neolithic (Marshall & Hildebrand 2002) was followed much later by the appearance of domesticated crops, while researchers assume that wild plant foods continued to be widely used (Harlan 1989; Neumann 2003, 2005). In northerly areas, the sixth millennium BC saw increasingly dry conditions, providing an environmental impetus to Saharan populations to seek more favorable and well-watered environments toward the south as well as in the Nile valley (Kuper & Kropelin 2006). The same period also saw the first appearance of domestic livestock

in northeast Africa. Although some debate continues to surround an independent Early Holocene domestication of cattle in northeast Africa (Gifford-Gonzales 2005, Wendorf & Schild 1998), there is reliable evidence for domesticated cattle in the plains west of the Egyptian Nile only by ~6000 BC (Marshall 2000). Domesticated sheep and goats, originating in the Levant, also entered the region, probably along more than one route, becoming increasingly widespread during the sixth millennium (Close 2002, Gautier 2001, Vermeersch et al. 1994). Domestic livestock was present in riverine northern and central Sudan by ~5000 BC, spreading southward to reach northern Kenya in ~3000 BC. Researchers are also beginning to explore possible linkages between such shifts and African linguistic data (Ehret 2001).

The impact of the arrival of livestock and a shift toward food production in the region was both slow and uneven; hunter-gatherer populations persisted in many regions for centuries and, in some places, for millennia. Moving beyond questions of origin, research considers the social processes involved in the spread of herding, still a major issue for sub-Saharan Africa (Barker 2006, Gifford-Gonzales 2005, Smith 1992). How the development of pastoralism may or may not be linked with the development and cultivation of domesticated crops also requires closer attention. The impact of the southward diffusion of barley and wheat (key elements of the Egyptian Neolithic) into limited northern riverine areas a millennium later (Geus 2004) also needs to be considered. Later developments suggest that the exploitation of perhaps both wild and later domestic plants may have established an agricultural base in the north that was not found elsewhere in the Middle Nile until significantly later. The domestication of indigenous Sudanic crops occurred much later. Current evidence suggests that indigenous Sudanic crops such as sorghum may not have been domesticated until as late as the first millennium BC (Fuller 2004, Haaland 1999).

With changing environmental conditions and the addition of livestock herding, new patterns of landscape occupation appeared, with significant regional variability in the adoption of pastoralism and its implications. Work in the northwestern plains of the Sudan has been particularly successful in tracing the development of regional cultural traditions (Jennerstrasse 8 2002, Keding 1996, Lange 2006) increasingly distinct from those in the riverine environments of the Nile valley. In the Khartoum region evidence suggests that livestock herding led to greater mobility, at least on a seasonal basis (Caneva 1991, Haaland 1981), bringing a more dispersed settlement pattern than was seen with the Mesolithic hunter-fisher-gatherer occupation. The potential social impact of the shift to herding is also beginning to be considered. Looking beyond purely economic interpretations of variability in the character of sites, particularly in relation to the presence of domestic fauna (Fernandez 2003, Marks & Mohammed-Ali 1991), scholars are now considering the potential special roles of some sites as possible foci for collective activities (Ariotti & Oxby 1997, Haaland 1987). A northern focus for Neolithic settlement lay in the region of Dongola and Kerma with both settlements and cemeteries spread along a number of Nile palaeochannels, but with relatively little Neolithic settlement in more northerly areas of Nubia. Current work increasingly suggests that Neolithic populations in this region developed along rather different lines than did populations in central Sudan. This notion is supported by the discovery of the first structural remains of Neolithic settlements, clustered wooden roundhouses and animal enclosures (Honegger 2001) within a quite densely settled landscape. The large size (with up to 1000 burials) and longevity (in use for several centuries) of some cemeteries (Reinold 2001, 2002) also introduced new foci into the inhabited landscapes of the region.

Sudan's rich and often well-preserved Neolithic archaeology increasingly suggests the possibility for interesting comparative



studies with contemporary developments in the Egyptian Lower Nile, especially with regard to mortuary archaeology (Wengrow 2006, pp. 69–70). Indeed considerable cultural similarities existed among the riverine Neolithic populations from central Sudan as far north as (Badarian) Middle Egypt during the fifth millennium bc. This cultural uniformity markedly disappeared during the early fourth millennium bc when increasing cereal cultivation, sedentism, and water transport during the early Naqada period began to transform life in the Egyptian Nile valley.

Much evidence also demonstrates the extension of long-distance material exchanges in the Middle Nile during the Neolithic period. Ideas as well as artifacts were moving, most obviously evident in the diffusion of polished stone technologies, not only polished stone axes and mace heads but also beads, as in southwest Asia (Wright & Garrard 2003). Although hard stone tools are prominent elements of mortuary assemblages, little attempt has yet been made to systematically identify their sources and to explore the social and material conditions of their production, exchange, and use. During the fourth millennium bc, exchanges along the Nile with the developing polities in Upper Egypt also became increasingly evident, with Egyptian imports appearing in late Neolithic sites in northern Nubia (Lower Nubia). The first copper tools were being traded into northern Nubia by the later fourth millennium bc.

The changing nature of encounters between Egypt and Nubia is very striking. During the fourth millennium bc, Egyptian imports were increasingly penetrating southward into Lower Nubia. By the late fourth millennium they were commonly found as far south as the Second Cataract, sometimes in great abundance. A distinctive combination of indigenous and imported Egyptian material has indeed long defined the late Neolithic of Lower Nubia as a discrete regional culture, the A-Group (Gatto 1997, Nordstrom 1972, Smith 1991, Williams 1986). The great wealth of Egyptian material apparent in some of the

latest A-Group burials has suggested the existence of regional elites linked with contemporary Egyptian kings of the late Predynastic period. The basis of such exchanges still remains uncertain. Egyptian access to gold coming from the eastern deserts is possible, although it may well be that the local elites were acting as gatekeeper intermediaries into the undoubtedly more densely populated and productive regions lying further to the south. Egyptian military campaigns in Lower Nubia at the beginning of the third millennium bc, however, were almost certainly responsible for the disappearance of the A-Group population north of the Second Cataract.

## KERMA AND KUSH

The archaeology of the third and second millennia bc remains dominated by the development of the first larger-scale polities in the Middle Nile, centered on the Kerma-Dongola region and their relations with Egypt. By ~2500 bc a settlement and religious site at Kerma began to develop into a political center that, over the next 1000 years, came to dominate ~1000 km of the Nile valley and its hinterlands (Bonnet 1990, Gratien 1978, Reisner 1923). Indigenous populations also reestablished themselves in Lower Nubia (known there as the C-Group), constituting the northernmost of what were initially a series of small kingdoms/chiefdoms, which were recorded in contemporary Egyptian records. The kingdom of Kush, as the Egyptians knew it, centered on Kerma, was able by the second millennium bc to pose a significant threat to Pharaonic Egypt. The threat was removed only by the conquest of Kerma by the New Kingdom pharaohs of Egypt around 1450 bc. As in Egypt, the appearance of such polities may have played an important role in the development of more specialized pastoralist societies, most evident on their eastern margins (Sadr 1991).

The material manifestations of the Kushites are identified in a relatively homogeneous cultural tradition now known to

extend as far up the Nile as the Abu Hamed region, although as yet not into central Sudan where little occupation of this period has yet been recognized north of the Gezira region. Such evidence as is available further south suggests the development of more mobile pastoral ways of life, leaving relatively slight material traces (Fernandez 2003). In contrast, Kushite/Kerma settlement in northern Sudan has left a rich burial and settlement record, focused on the remarkable settlement of ancient Kerma and its associated necropolis. The settlement, occupied for at least 1000 years and ultimately covering an area of ~20 hectares, became the first urban community of the Sudan. Centered on a great religious complex (Bonnet 2004) it remains as yet the only such settlement so far discovered in the Middle Nile. Its religious core suggests one function it may have had, but its relationship with the wider settlement landscape still remains poorly understood. Kerma's uniqueness is further suggested by the vast scale of its cemetery, with more than 20,000 graves spanning a millennium. The most impressive burials, vast tumuli 70–80 m across, contained huge material wealth; wealth in livestock was represented in hundreds, and sometimes thousands, of cattle skulls deposited around the graves, along with fine pottery, metal work, exotic Egyptian imports, and ultimately large numbers of human sacrifices (Bonnet 2000, Reisner 1923). If these are indeed the tombs of the Kushite kings and sacrificed subjects, we should perhaps be seeking more explicit linkages between religious power and the development of Kushite kingship at Kerma.

The strong emphasis on livestock in mortuary practice seems likely to relate to a strong pastoral component in subsistence, as well as a symbolic importance, although we still have little excavated data from settlement sites. Stable isotope studies provide some general confirmation of a shift away from tropical C4 plants over time (Iacumin et al. 1998), probably to be linked to a growing dietary role for wheat and barley, which are both temperate (C3) crops. On the basis of current evi-

dence, such an agricultural base appears limited to Kerma sites of northern riverine Sudan during later prehistory. Much of the prehistoric rock art of northern Sudan is also dated to this period. This art, in which cattle and game figure prominently (**Figure 4**), is a particularly prominent feature of the rocky landscapes of northern Nubia (Edwards 2006, Kleinitz 2004). Large corpora of rock drawings have been recorded (Hellstrom 1970, Otto & Buschendorf-Otto 1993), although little analysis of this rich resource has yet been undertaken.

The materiality of Kushite-Egyptian contacts and encounters, accessible through abundant and often extremely rich archaeological assemblages, has barely begun to be explored. The Kushites were active trading partners with Egypt, and there is considerable scope for exploring the ebb and flow of Egyptian artifacts entering the Kushite domain and passing between different value systems. Such differences are visible in other domains, as between Kushite and Egyptian responses to the landscape apparent in their rock drawings and inscriptions (Edwards 2006). The ebb and flow of military conflict were also significant features of this relationship, with the Egyptian kings of the Middle Kingdom (~2050–1750 bc) conquering Lower Nubia, establishing a fortified military frontier south of the Second Cataract. If their massive fortresses have attracted much attention (e.g., Dunham 1967, Dunham & Janssen 1960, Emery et al. 1979), the history and archaeology of the northern Kushite populations (the C-Group) again provide a remarkable opportunity to study early “colonial” interactions in those areas of Nubia conquered by the Pharaonic Egyptian state (Adams 1984, Smith 1995). During later periods of weak Egyptian royal power, the kings of Kerma were in turn able to re-enter Lower Nubia, at times raiding into Egypt itself ~1575–1550 bc (Davies 2003). Revived Egyptian royal and military power during the New Kingdom (1550–1070 bc) finally saw the Egyptian kings reoccupying Lower Nubia and pushing south to destroy



Kerma itself. The kings established a colonial administration in areas north of the Third Cataract, while exerting a more uncertain control further south; the extraction of gold was a prime imperative behind their presence. With a substantial body of archaeological material available, the nature and impact of the Egyptian colonial presence is now beginning to be explored, with an increasingly sophisticated theoretical base (Morkot 1991; Säve-Söderbergh 1991; Smith 1995, 2003).

## NAPATA AND MEROE

The nature of political and social changes following the end of Egyptian rule in Nubia remains obscure: Very little is known of the archaeology of the late second and early first millennia BC. However, by the eighth century BC, a new Kushite kingdom had appeared in the Dongola Reach, centered on the Napata region (Vincentelli 2006). In the absence of texts, its political origins remain unknown but should be sought in a revival of the power of local elites as Egyptian influence on their southern borders weakened. Long-established narratives, which, in varied guises, have sought to find external Egyptian origins for the kingdom, look increasingly unconvincing (Morkot 2003) and historically unnecessary in a region with long-established traditions of kingship.

The history of this revived Kushite kingdom (Torok 1997a; Welsby 1996) has traditionally been divided into two main periods, the Napatan and Meroitic. A Kushite conquest of Egypt during the mid-eighth century BC and their subsequent century-long rule there, as the XXVth Dynasty (Morkot 2000), ensured some historical record of a kingdom whose origins remain largely invisible in the archaeological record. The Napatan/Kushite kings adapted many Egyptian cultural practices, contemporary and ancient, which became important parts in creating a distinctive new Kushite culture. Most obvious among the practices was pyramid burial

(Figure 5), which they transferred to their Sudanese homelands. The Egyptian records also provide a sketchy political/dynastic history of this period. Until recently, most archaeological work has focused on monumental remains (temples, palaces, and tombs) from this period both in Egypt and the Sudan (Dunham 1950, 1955, 1970; Macadam 1949; Torok 1997b); relatively little is known as yet about wider social or economic conditions or indeed the wider settlement landscapes of the period.

Around 300 BC a shift in the royal cemeteries from the Napata region to Meroe defines a new and distinct Meroitic period, although other archaeological or historical information about the Kushite state during this potentially important period of change is very limited. The full extent of the kingdom and how it may have fluctuated over time remains unclear, but settlement sites are known from riverine areas from the Blue Nile south of Khartoum to northern Nubia as well as within the Western Butana. As such, the kingdom's reach was probably more extensive than any state in the region before the nineteenth century AD even if, as is common in Sudanic Africa, centralized political authority may have been quite fragile and unevenly spread (Edwards 1996, 1998). This move to the south probably relates to dynastic/political changes, although cultural changes during the later Meroitic period are also evident. These changes are seen in the influence of external contacts, in cultural and material links with Ptolemaic and then Roman Egypt, and in indigenous cultural traditions rooted in Sudanic Africa. Egyptian cults, some possibly established in the region since the second millennium BC, coexisted with those of indigenous deities (Zabkar 1975), both using Egyptian styles of monumental architecture (Dunham 1970, Torok 2002).

The complex and varied nature of Meroitic material culture and forms of practice is also becoming better understood. Mortuary practice was quite variable with some distinctive practices, often with strong links to Egyptian cults, restricted to the royal and elite

milieu. These coexisted with much more widespread practices, which were grounded in longstanding Sudanic traditions. Wheelmade ceramic industries drew on Hellenistic models and replicated indigenous handmade forms as well. The symbolic repertoires in its decorative arts also related both to those of the Sudanic world (e.g., elephant, giraffe, ostrich, sorghum, and cattle) and to those ultimately derived from the Egyptian, Hellenistic, and Roman worlds. Both were used in the construction of what may be considered an elite imperial culture (Edwards 2004a, Ch. 6). Royal control of external trading links seems likely to have been a significant source of political power.

Research has traditionally focused on larger monumental sites, notably the pyramid cemeteries (Dunham 1957, 1963), temples, and the royal capital at Meroe (Garstang et al. 1911, Shinnie & Anderson 2004, Shinnie & Bradley 1980, Torok 1997b), with little excavation beyond such sites. Despite considerable work at Meroe, many questions remain about the character of the settlement there, not the least of which regard its urban character. The identification of several other large settlements in the region, and some limited excavations (Wolf 2002), does suggest the development of densely settled urban centers, at least in the Meroe region, although still very little is known about their functions or about the wider character of regional settlement. In the only well-studied part of the Meroitic kingdom, its northern margins in Lower/Middle Nubia, settlement seems likely to have been very atypical with regard to the maintenance of communication along the Nile route across the Sahara to Egypt (Edwards 1996).

The Kushite period also saw technological innovation, with evidence of significant ironworking at Meroe by the middle of the first millennium BC. Its control may have been a significant source of royal power. However, early suggestions that ironworking traditions elsewhere in sub-Saharan Africa might have derived from Meroe now seem unlikely

(Rehren 2001), and indeed its spread into many areas of the Sudan may have been slow. This period also saw the earliest written indigenous language in the Sudan (Rilly 2007), when the indigenous Meroitic language (almost certainly a North Eastern Sudanic language) began to be written in its own unique script, in the third century BC.

## **THE END OF MEROE AND THE CREATION OF THE NUBIAN KINGDOMS**

Explaining the disappearance of the Meroitic kingdom as a political unit some time around 300–350 AD remains problematic. Suggestions that (Nubian) barbarian invasions destroyed Meroe (echoing more traditional and familiar narratives of the fall of Rome) or that Ethiopian/Axumite kings might have conquered Meroe have little evidence to support them. Instead, how political collapse may or may not be related to observed cultural changes in the late and post-Meroitic centuries is an area of increasing debate (Edwards 2004a, Ch. 7; Lenoble & Sharif 1992).

Meroe and other urban settlements declined and disappeared as centers of population. None seems to have survived into the medieval period. The temples and palaces and the royal cemetery at Meroe also went out of use and were abandoned. The use of Meroitic writing also ended by the fifth century. Although historical records are lacking, the archaeological evidence suggests that with the disappearance of a central authority and the unifying imperial culture it generated, new and more diverse regional cultures developed. It now seems increasingly likely that the new cultural forms once thought to be indicative of the barbarian conquerors of Meroe, e.g., in burial practice and ceramic culture, may be grounded in preexisting cultural traditions within the Meroitic kingdom (Lenoble 1997). In spatial terms, the new regional cultural forms in turn somewhat correspond with an emerging series of smaller political units, consolidated into three regional powers by

the sixth century AD: Nobadia/Noubadia in Lower Nubia, Makuria in the Dongola Reach, and Alodia in central Sudan, with Makuria later absorbing Nobadia. The Nobadians, on the Romano-Egyptian frontier, retained close contacts with late Roman Egypt during this period, most visible in large quantities of imported objects buried in the spectacular royal and elite burials at Ballana and Qustul (Emery 1938, Farid 1963).

This new political order was soon closely linked with Christianity, with “official” (if doubtless incomplete) accounts surviving the conversion of all three kingdoms during the sixth century (Adams 1977, Kirwan 1987). Christianity’s arrival also encouraged new links with the north and remains the defining cultural development of the medieval period within riverine Nubia, bringing it within the realm of eastern Christendom. New settlement landscapes also emerged with the spread of new crops and cropping regimes based around waterwheel irrigation. This technology was introduced in late Roman Egypt and established the basis for forms of irrigated farming for communities in northern Nubia, which survived into modern times. Pastoral opportunities were also transformed with the spread of camel pastoralism through more arid areas, probably closely linked with new Arab populations entering the region over extended periods.

External contacts took on a new dimension with the introduction of the institutions of the Church, most obviously represented by its churches and monasteries (**Figure 6**). Focused studies on the architecture, monuments, and associated arts (notably wall paintings), as familiar elsewhere in the Christian world, still tend to dominate this field of research (e.g., Jakobielski & Scholz 2001, Welsby 2002b). How Christianity shaped and transformed medieval Nubian societies, however, is an issue still little addressed (Edwards 2001, 2004, Ch. 8), and the distinctiveness of much medieval Nubian material culture (for ceramics see Adams 1986) also suggests the need to consider

more carefully indigenous Nubian reception of and responses to Christianity. Greek was already in use as an official language, at least in the north, and Coptic, which was linked to the Alexandrian patriarchate, also came to be quite widely used in the Church. Some time in the early medieval period, varieties of Nile Nubian languages also became the primary communal languages of central riverine Sudan, with a written vernacular (Browne 2002) developed by the late eighth century; people also began to call themselves Nubians.

New settlement landscapes emerged in the medieval period. New regional centers emerged with the kingdom of Makuria centered on Old Dongola (Jakobielski & Scholz 2001), and the southernmost kingdom of Alodia at Soba, a sprawling town a little upstream of modern Khartoum on the Blue Nile (Welsby 1998, Welsby & Daniels 1991). Although the northern Nubian kingdoms were bound largely to the Nile banks, Alodia had its hinterland in the Sudanic belt and the Gezira region, with medieval settlements identifiable along the Blue Nile, at least as far south as Sinnar. The dynamics of medieval settlement remain little explored, although excavated settlements commonly display complex histories, similarly apparent in studies of Nubian churches (Adams 1965, Gartkiewicz 1982). With very little indigenous historical documentation, what are doubtless complex social and political histories can often be supplemented by little more than king lists and largely external (Arabic) accounts (Spaulding 1995, Vantini 1975) of changing relations with the caliphate and their Egyptian neighbors. Material evidence of contacts with the Islamic world may be gauged in archaeological finds of imported materials. These range from utilitarian pottery, mainly into Lower Nubia (Adams 1986), to more exotic materials such as fine cloth, glass, and glazed pottery coming from Egypt, Syria, and beyond.

As well as the Nubian kingdoms of the riverine Sudan, other kingdoms were developing in the later medieval period in Darfur, as they were elsewhere in Sudanic Africa

(O'Fahey & Spaulding 1974). However, archaeological research has as yet been able to add little to historical narratives from this region. Nonetheless, some claims of material evidence for links between the Nubian kingdoms and those of Darfur now seem unfounded (McGregor 2001). The history of the eastern Sudan was rather different during this period. Along the Red Sea coast, several important ports developed, operating within Islamic trading networks linking Egypt and the Near East with Arabia and the Indian Ocean. The Nubian kings may have controlled some parts of the east, but most seem to have remained in the hands of the nomadic Beja. Trading ports developed at sites such as Suakin, ar-Rih/Badi, and Aydhah, some also serving as hubs for Muslim pilgrims heading for Jeddah, the port of the Holy Places. Although little archaeology has as yet been done on such sites, Islamic tombstones that commemorate the presence of Arabian merchant families on the Red Sea coast and indeed the early incorporation of this area into the Islamic world have been found (Kawatoko 1993a,b).

## THE END OF THE MEDIEVAL KINGDOMS AND POSTMEDIEVAL SUDAN

Relatively little is known of the later history of the medieval Nubian kingdoms, and the archaeology of the late medieval period remains elusive in most areas. Arab historical accounts suggest that dynastic struggles, during which the first Muslim king of Dongola was installed in the early fourteenth century (Figure 7), may have weakened their political structures (Welsby 2002b). There are no historical records of whether the Black Death, which devastated both Egypt and Ethiopia (Benedictow 2004, Borsch 2005), penetrated the Middle Nile, although a contraction of settlement in riverine Nubia is apparent during the later medieval period. Increasing evidence for groups claiming Arab and Islamic identities marks the ongoing development of

new dominant communal identities, which have characterized most of northern Sudan in modern times.

Traditional approaches have tended to characterize the study of the postmedieval period in the region as an Islamic archaeology in succession to a Christian medieval archaeology (Adams 1987, Soghayroun Elzein 2004). The material world of the postmedieval Funj state centered on Sinnar (Adams 1977; Crawford 1951) in central Sudan has yet to be significantly researched. In the west, little may be added to what the historical records can tell us of the Sultanate of Darfur (O'Fahey 1980), known to be engaged in trade with Egypt (Walz 1978, 1979) but still little explored archaeologically (Haser 2000, McGregor 2001, Musa 2004). Following the conquest of the region by Muhammed Ali in 1820, the 60-year period of the Turkiyya (also known as the Egyptian, Turco-Egyptian, or Ottoman period) was centrally important to the development of the modern Sudanese state, through the process of geographical expansion, which established its modern form, and its impact on Sudanese identities.

Understanding the spread of Islam and the new Arab identities that have become so closely interwoven with it may be one priority for future work. A recognition that the impact of such forces remains uneven, with a limited impact on large parts of the Sudan even today, is also important. This further suggests the need for regional and local archaeologies that may capture something of the diversity of the country's historical experiences, not the least of which are those concerned with internal conflict and resistance to the shifting power of the central riverine state(s) before and during the Colonial period (Edwards 2004b). Such debates, of course, have particular resonance at the present time, when issues of Sudanese identities and their entanglements with religion have been so hotly debated and indeed fought over in a series of civil wars in southern Sudan (Johnson 2003) and currently in Darfur.

## CONCLUSION

This necessarily superficial review has attempted to discuss some key topics and research themes, which are now becoming possible to address in this vast and varied region. Over a long time period, the spatial scales of analysis vary widely, from the potentially pan-Sudanic traditions of early Holocene hunter-fisher-gatherers to highly specific niches occupied by Nubian riverine farmers of recent millennia. The importance of recognizing wider linkages is also increasingly apparent. The abundance and wealth of the Neolithic archaeology of the Middle Nile, which is only now emerging, invites profitable comparative studies with the Egyptian Lower Nile and has considerable potential to contribute to larger debates concerning the origins of food production in sub-Saharan Africa, as well as the Egyptian Nile valley and its social implications.

The exceptionally early development of large-scale polities in the Middle Nile also offers remarkable opportunities for exploring the growth of political power and its archae-

ological manifestations. Examining the role of royal capitals and urban centers in the long history of kingdoms in the Middle Nile also has obvious potential for comparative studies of their still poorly understood functional roles, for example as centers of power (political and religious), consumption, and trade. Our knowledge of some four millennia in which such urban centers have been so scarce also provides a useful point of departure for their study, as markedly unusual elements of settlement landscapes. The unique opportunities which the Nile corridor offered for trans-Saharan contacts also ensure the special interest of this region as a zone of interaction between diverse cultural traditions in sub-Saharan Africa, Egypt, the Mediterranean world, and elsewhere, across millennia. Moving beyond more traditional assumptions of cultural domination and the emulation of higher civilizations—as earlier generations may have assumed—the region offers extraordinary scope for exploring the interplay and interaction of varied Sudanic and external cultural traditions, which have produced an exceptionally rich and varied archaeology.

## DISCLOSURE STATEMENT

The author is not aware of any biases that might be perceived as affecting the objectivity of this review.

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**Figure 4**

Rock drawings probably dating to the fourth-third millennia BC in the Third Cataract region (photo D. Edwards).



**Figure 5**

Meroitic royal pyramids of the first century BC at Jebel Barkal, North Sudan (photo D. Edwards).





**Figure 6**  
A ninth-century church with granite columns excavated at Old Dongola (photo D. Edwards).



**Figure 7**  
The royal throne or audience hall at Old Dongola, built in the ninth century and converted into a mosque in AD 1307 (AH 707) (photo D. Edwards).





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## Errata

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