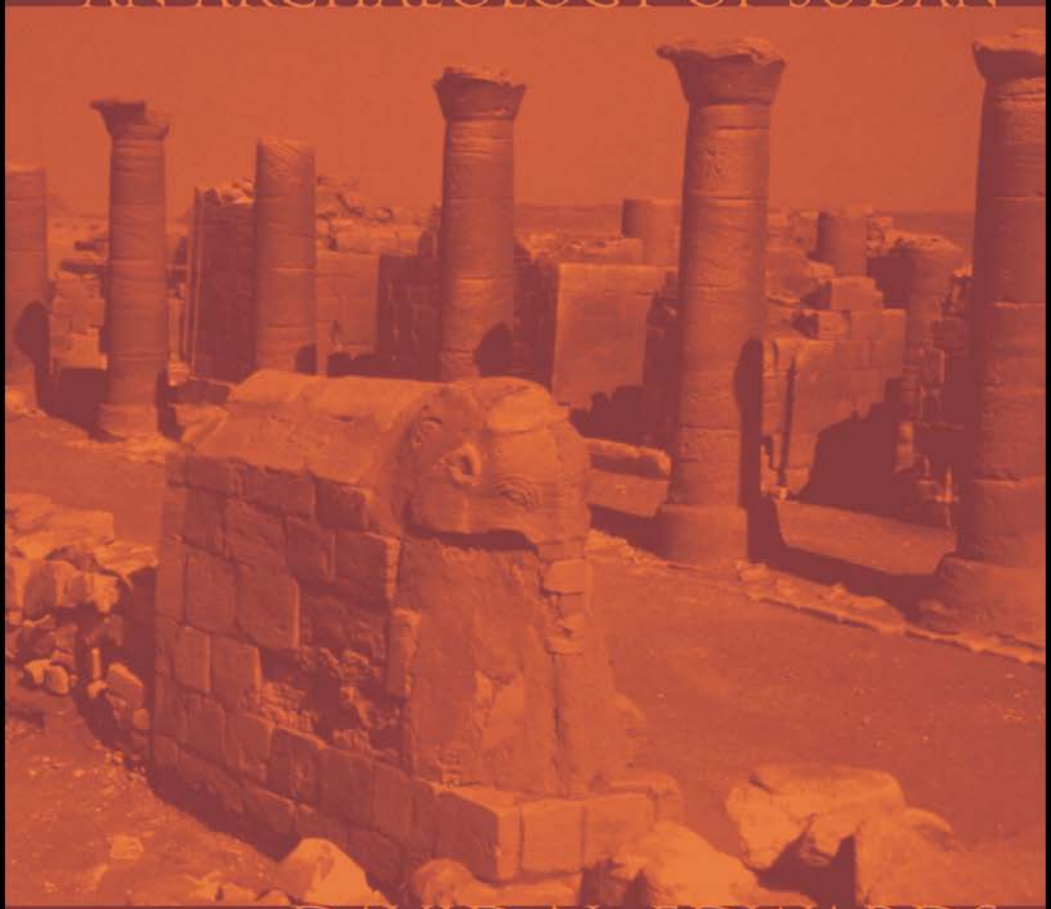
THE NUBIAN PAST

AN ARCHAEOLOGY OF SUDAN



DAVID N. EDWARDS

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THE NUBIAN PAST

This volume presents a synthesis of the archaeology of Nubia and Sudan, a region which for millennia has been where the Eurasian and sub-Saharan worlds met, and that has produced the earliest states and some of the most spectacular archaeology in sub-Saharan Africa. The first major work on this area for over 30 years, the book provides a thoroughly up-to-date review, drawing on the results of the latest research, as well as developing new interpretative frameworks.

The book breaks new ground in a number of ways, especially in moving beyond often Egyptocentric and more traditional culture-histories of 'Nubia', isolated from other areas of Africanist research. One particular concern has been to re-locate the early civilizations of the region and their archaeology within their Sudanic African context. The geographical range of the book extends far beyond the Nubian north to include wide areas of the Middle Nile Basin and what has come to be the modern Sudan. Through the period-based chapters, the distinctiveness, or otherwise, of the region's long-term history can be traced both in relation to the Sudanic world and the Egyptian Lower Nile. New ground is also broken in exploring the potential for a more broadly framed and inclusive 'historical archaeology', dealing with the Sudan's more recent past.

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THE NUBIAN PAST

An archaeology of the Sudan

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PREFACE

What is today the Republic of Sudan has an extraordinarily rich and impressive archaeological heritage. The home of the first great kingdoms of sub-Saharan Africa, over millennia it has also produced rich and diverse cultural traditions, as varied as its landscapes, ranging from the equatorial rain forests to the hyper-arid Sahara. With its vast size, its different regions have had complex histories, both internally as well as in their external relations, with links across Sudanic Africa, across the Sahara to Egypt, to the Red Sea world, the Ethiopian Highlands and East Africa. The long history of contacts between northern Sudan – Nubia proper – and Egypt has also long attracted archaeological interest in the region, leaving parts of it probably the best-known, archaeologically, anywhere in sub-Saharan Africa.

This volume provides a new introduction to the archaeology of Nubia and the wider Sudan. This is not a book about Egypt in Nubia, nor just those limited areas of northern Nubia which came in contact with Ancient Egypt. The first major work of synthesis which looked beyond such confines only emerged in the late 1970s, with W. Y. Adams's *Nubia, Corridor to Africa*. It still remains a landmark study, summarizing the state of archaeological and historical knowledge in the early 1970s in the immediate aftermath of the Nubian High Dam Campaign. It was also a landmark in exploring the potential for a more anthropological archaeology in a field largely dominated by Egyptological research traditions.

A generation after Lower Nubia disappeared beneath Lake Nasser/Nubia, much has changed. Where only a handful of sites had ever been excavated elsewhere in the Sudan prior to the 1960s, we are now looking at archaeological cultures and ancient settlement landscapes then virtually unsuspected and often with little in common with those discovered by the pioneers of Nubian archaeology in Lower Nubia. More and more, albeit tentative steps are also being taken into what have been archaeologically unknown regions. In its scope, this book can now draw on research across many parts of this vast country and can at least aspire to represent an archaeology of the Sudan as a whole. Unfortunately, our very uneven knowledge, especially with regard to its more southerly regions, still makes it impossible to really fulfil this desire. The more

we learn however, the more we also see how interesting the unknown areas are likely to be.

As well as drawing together the results of archaeological work carried out over the last 30 years, I have also tried to move beyond a merely descriptive culture-history. A new 'Sudanese' archaeology is struggling to emerge. Like Egyptology, it has traditionally tended to be quite introspective and isolated from archaeologies elsewhere, not least from other fields of African archaeology. Many of the theoretical and methodological changes which have transformed archaeology over the last 40 years often seem to have gone largely unnoticed. Meaningful dialogues have rarely been established with other disciplines working in the region, notably anthropology and history, which have produced such a rich and stimulating body of research in recent decades. With this in mind, I hope to convey some of the ways in which Nubian and Sudanese archaeology is not only fascinating in its own right but also of considerable interest for the wider study of archaeology. I would also like to at least suggest some of the potential linkages between its archaeology and that of neighbouring regions. While the Sudan has played a major role in the development of social anthropology, the potential of its archaeology has barely begun to register within the wider discipline.

Such a work is drawing upon a substantial literature, almost all in the form of specialist publications, much of it not widely circulated. It cannot make a claim to offer exhaustive coverage, but it is hoped that the most significant works of recent years are represented here. Limitations of space have often meant that many topics have not been given the sort of coverage which they might deserve. Many areas which really demand further discussion must be passed over. It has also been necessary to keep purely descriptive material to a minimum. I have however attempted to include in the Bibliography sufficient material to allow readers to further pursue subjects of interest. Its primary concern also remains with archaeology, with the material traces of the past, with cultural history. The narrative histories of kings and queens, histories of events glimpsed in largely external sources, are rather a secondary concern. One of the reasons I became an archaeologist, having begun my academic studies as a historian, was an early recognition that the endless reworking of a handful of historical sources was ultimately going to tell us relatively little of interest about the Sudan's past prior to the medieval period.

The last decade has seen the public profile of Nubian and Sudanese archaeology become much more prominent, both in the media as well as in a series of major international exhibitions. While field archaeology in the region has been flourishing over this period its future is far from secure. A generation of archaeologists who came to Nubia in the 1960s during the High Dam campaign is now taking retirement. Their replacements are few. Outside the Sudan, Sudanese archaeology is rarely taught. Knowledge is not transmitted. Where it is taught, it is usually as a 'Nubian' adjunct to Egyptological courses, in which archaeology may also be only a small part. I have never been able

to persuade an archaeology department in a British university that it might be worth teaching. However, in the absence of undergraduate teaching or university teaching staff able to sustain research in this field, its future must be very uncertain. If nothing else, it is hoped that this book may help and encourage others to explore this fascinating subject a bit more deeply, providing a springboard from which such exploration can begin.

ACKNOWLEDGMENTS

This book has come out of many years spent in the Sudan and Nubia working with archaeological projects ranging from Qasr Ibrim, in Egyptian Nubia, to the Nuba Mountains of Kordofan. Since I first came to the Sudan in 1980 many have welcomed me and encouraged my interest in their extraordinary country. Among my professional colleagues, I am especially grateful to Hassan Hussein Idris, current Director General of the National Corporation for Antiquities and Museums (NCAM), and his staff for all their support and assistance over many years. I must also thank the many staff and students in the Department of Archaeology, University of Khartoum, for their boundless hospitality, for sharing the fieldwork, and for providing me with so many opportunities which would never otherwise have been available.

Thanks are also due to many colleagues who have shared their experience and knowledge and advised and assisted with field and other research projects over many years. This includes the team at Qasr Ibrim, in the Mahas, Hambukol, Gabati, Mussawarat es Sufra and Soba. More generally, to mention but a few, Bill Adams, Julie Anderson, Charles Bonnet, Dorian Fuller, Francis Geus, Fritz Hinkel, Karla Kroeper, Tony Mills, Ahmed al-Mutassim, Ali Osman, Jacques Reinold, Claude Rilly, Pam Rose, Azhari Sadig, Stuart Tyson Smith, Intisar Soghayroun, Mahmoud el-Tayeb, Derek Welsby, Steffen Wenig, Pawel Wolf, Bogdan Żurawski are amongst those who have provided much valued assistance, advice and often access to unpublished materials. Claudia Näser and Hella Eckardt provided valuable comments of draft chapters. All errors and other deficiencies which may remain in the text of course remain mine.

A special thanks must always be made to John Alexander who has encouraged and supported my work for many years since I was graduate student. A final thanks also to colleagues at Leicester who have tolerated my enthusiasms while only having my word to go on that Nubia actually exists. Also to Lynn Taylor and all the family for years of support and missed Christmases.

1

NUBIA, THE SUDAN AND SUDANIC AFRICA

Introduction

The name of 'Nubia' has long been used to describe Egypt's southern neighbour. Various forms of the name are known, in many languages, since it first appears in classical sources. In the medieval period – known mainly through Arabic sources – Nubia was a large and often ill-defined region covering much of the modern Middle Nile Basin. More recently it has had a more restricted meaning, limited to riverine areas of northern Sudan and southern Egypt, where Nubian languages were still spoken. Historically, other names have also been applied to this region and its inhabitants, 'Kush' being a widely used term in the Ancient World, as well as 'Aithiopia'. To the Arabs, this was all part of a larger 'al-Bilad as-Sudan'.

Looking beyond Nubia, however defined, this book will also explore the wider archaeology of the modern Republic of Sudan, which includes the Middle Nile Basin and much of the Upper Nile (Figure 1.1). In its present form the Sudan is, to a large degree, a product of historical processes of the nineteenth century, if rooted in earlier periods. From the 1820s, the Funj Sultanate of Sinnar, heirs to a long history of riverine states, was incorporated into the domains of an expanding Egyptian state. Egyptian ambitions were to extend far beyond the river valley, developing long-standing Ottoman interests along the Red Sea littoral and also looking to the savannahs of the west. Moving first into Kordofan and then Darfur, as well as pushing south into the Upper Nile, their government began to draw together these disparate regions, establishing a new political and cultural hegemony which looked increasingly to a riverine 'core'. The Egyptians were briefly expelled during the Mahdiyya period (1885–98), but the re-establishment of the Anglo-Egyptian Condominium was able to finalize the form of the new state, now bounded by a series of new colonial states created during the last decades of the nineteenth century.

For archaeologists, privileging modern political boundaries, often so arbitrary in their construction, has its obvious problems, particularly in Africa. How do we define areas of study? What is an appropriate scale of analysis? The modern Sudan is vast, with an area of more than 2,500,000km^2. Comprising most of

Figure 1.1 Nubia and the Sudan

Eastern Sudanic Africa the Sudan also represents a region of hugely varied environments, or more properly a series of regions, today ranging from equatorial forests in the south to the empty Sahara in the north. Over the last 10,000 years or so, the natural environment has also varied hugely. In the Early Holocene, much of the region as a whole was a relatively open world of savannah woodlands

and grasslands, in which the Sahara was still green. Over millennia this world was gradually to fragment, increasing aridity creating some very distinctive regional environments.

Some regions where the resources of river and rainland savannahs came together, were to become the focus of a long series of early states, the earliest in sub-Saharan Africa. In the far west of the region, in modern Darfur, the hills and margins of Jebel Marra were also a focus for settlement and political development (McGregor 2001a). Other areas, such as the poorly watered plains of Kordofan, were to become 'peripheries' to such regions (Stiansen and Kevane 1998), possessing the resources for survival for their inhabitants, but never really developing their own centres of power.

Over the long term, when looking at the archaeology and history of the Sudan, there are clearly many regional histories and archaeologies, not only those of the better-known riverine core. While the boundaries of the modern Sudan may not seem to easily form a 'natural' unit of study they do provide a useful framework for studies of the longer-term, in which regional histories come together, and diverge. What are today often very disparate regions, with distinctive identities, often had much more in common in the past. Familiar distinctions of the modern world, not least between 'North' and 'South', may become increasingly blurred as we move back through the past. May we discover pasts in which all of the Sudan was the 'South'? Before moving on to the core of the book, this chapter will briefly look at how archaeology developed, how its character is changing as well as at some potentially important themes which may provide a backdrop to research in this region.

Archaeology in the Middle Nile

As the first Europeans began to enter the region during the early nineteenth century, their perceptions of the region's past were still largely derived from classical sources. In 1772, James Bruce, explorer of the Blue Nile and Ethiopia, was to first relocate the site of ancient Meroe which had lain on the fringes of the Roman Empire (Bruce 1790). The Napoleonic campaign in Egypt opened the region up to a new wave of European interest in the Nile Valley, often with strong antiquarian concerns. Early travellers who penetrated south of Egypt, for that was the route they usually took, have left us valuable and often perceptive accounts of the Middle Nile, if mainly of parts of the riverine north. With the growth of Egyptological research, more systematic recording of antiquities also began, notably with the Royal Prussian Expedition of 1842–45 (Lepsius 1849–59, 1913). While other forms of archaeology were only very slowly to become established elsewhere in sub-Saharan Africa, Egyptological interests were to remain at the heart of virtually all research in this region for the best part of a century (Adams 1998b). Systematic research in Nubia began in Egypt with the First Archaeological Survey of Nubia (Reisner 1910; Firth 1912, 1915, 1927), a response to the heightening of the original Aswan Dam in 1908–10,

which flooded some 150km of the river valley south of the First Cataract. The archaeological cultures then described by George Reisner have remained with us to today.

Largely dealing with 'Nubian' cultures in contact with pre-Dynastic and Dynastic Egypt, this pioneering work was soon complemented by further expeditions, still largely concentrated on Ancient Egypt's southern frontier in Lower Nubia. Following a reconnaissance survey of the northern Sudan by the University of Chicago during 1905–06 (Breasted 1908), the first major excavations further south were begun in 1909 at the site of ancient Meroe (Garstang *et al*. 1911) (Figure 1.2). In 1913, Reisner extended his work into northern Sudan with a series of excavations of the most impressive monumental

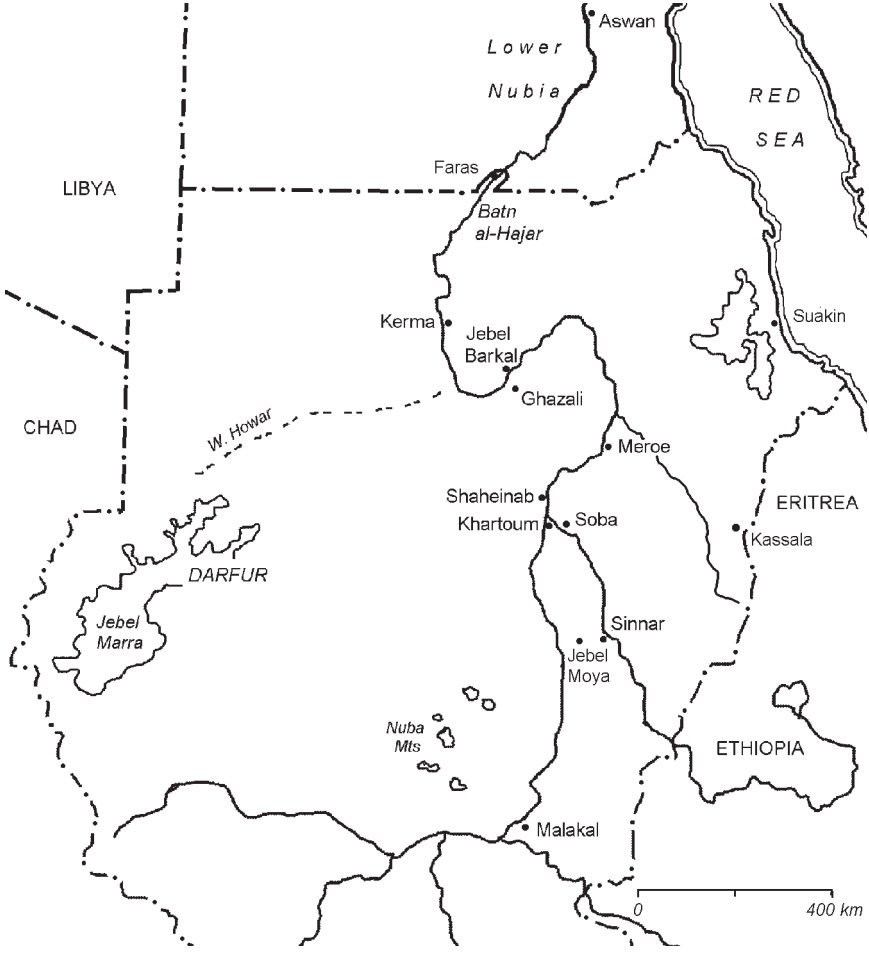

Figure 1.2 Major archaeological sites in the Middle Nile

sites in the region. He began the systematic study of the great Bronze Age centre at Kerma, and major Pharaonic sites of the third and second millennia BC, and Napatan and Meroitic (Kushite) centres of the first millennium BC. His Harvard–Boston Expedition was to dominate research in the region into the 1930s with the investigation of many of the most impressive ancient fortresses, temples and royal cemeteries. In the period 1929–34, the Second Archaeological Survey of Nubia (Emery and Kirwan 1935) extended survey coverage as far south as the Sudanese frontier. The same period also saw further important studies of later prehistoric and Pharaonic sites in Lower Nubia (e.g. Steindorf 1935, 1937) and a preliminary survey of medieval 'Christian' remains in Nubia (Monneret de Villard 1935, 1938). Regional surveys in Sudan only began after 1959 in advance of the construction of the Aswan High Dam, extending systematic fieldwork as far south as the southern end of the Batn al-Hajar region, between the Second and Third Cataracts.

Only very slowly did an interest in prehistoric archaeology develop in the region (Seligman 1914–16, 1916) or in areas outside the sphere of Egyptian influences. A notable early venture was the excavations of Sir Henry Wellcome at Jebel Moya and near Sinnar in the Gezira region in 1910–14 (Addison 1949). The first excavations of the Sudan Antiquities Service in 1944–45 began as rescue excavations within the grounds of Khartoum Hospital (Arkell 1947), discovering the first major Mesolithic/Epipalaeolithic site in this part of Sudanic Africa. This was soon followed by excavations of a Neolithic site at Shaheinab, just north of Khartoum (Arkell 1953). In the same period, Myers (1958, 1960) undertook some limited work on the Neolithic of the Second Cataract region. Such work was not however followed up until the 1970s and until relatively recently only a handful of prehistoric sites have been investigated. While the medieval archaeology of Lower Nubia, especially its churches, had received some attention from the early 1900s, more wide-ranging work was initiated in the early 1950s by the Sudan Antiquities Service with excavations at the medieval townsite of Soba (Shinnie 1961) near Khartoum and the desert monastery of Ghazali (Shinnie and Chittick 1961). Other projects of the 1950s were almost entirely restricted to the clearance of Pharaonic and Kushite monuments and finds-rich tombs.

The High Dam Campaign, at least within Sudanese Nubia, began to see more comprehensive treatment of a wider range of archaeological sites. The Survey of Sudanese Nubia also saw much more detailed survey than was ever carried out in Egyptian Lower Nubia, with the identification of more than a 1,000 sites along some 160km of the Sudanese Nile Valley. While the full results still remain unpublished, the many preliminary reports have vastly increased our knowledge of this region and its cultural history. In its aftermath and the flooding of the whole region beneath Lake Nubia, archaeology has begun to look beyond Lower Nubia and its special relationship with Egypt which was celebrated in more popular syntheses of the time such as *Egypt in Nubia* (Emery 1965) and *Nubia under the Pharaohs* (Trigger 1976). The

monumental *Nubia, Corridor to Africa* by W. Y. Adams, published in 1977, provided a first overview of the results of the successive Nubian surveys while also drawing together what was then known about the rest of the Middle Nile.

With the disappearance of Lower Nubia, archaeology has had to move south. Traditional interests in large monumental sites have remained strong, mainly in the Dongola Reach and the Shendi Reach, with an emphasis on the Kushite (Napatan and Meroitic) and medieval ('Christian') archaeology. The considerable advances in our knowledge are reflected in recent and valuable syntheses of the archaeology and history of the Kushite (Welsby 1996) and medieval (Welsby 2002a) periods. Other periods remain rather less well-served, despite a growing knowledge of the Neolithic and Bronze Age (Kerma) archaeology in several areas, while interest in the 'Islamic' post-medieval period also remains limited (see Adams 1987a; Soghayroun 2000). By the 1990s, a growing awareness has been shown of the importance of continuing field surveys, both in response to direct threats such as road construction (e.g. Mallinson *et al*. 1996) and dam projects (e.g. Paner 1998, Welsby 2003) as well as to more generalized impact of 'Development', beginning to explore areas still otherwise unknown (e.g. Eisa 1999; Welsby 2001a). Such surveys are beginning to open up the potential for more ambitious studies in settlement and landscape archaeology, moving away from traditional more site-focused work.

Archaeology has also slowly begun to penetrate some totally new areas. One major development has been the exploration of parts of northwestern Sudan, notably the Wadi Howar, the now dry river system that once linked Darfur to the Nile (Kropelin 1993). This work has transformed our knowledge of environmental change and the history of human settlement in the region during the Early and Middle Holocene. To the west, some limited fieldwork has been carried out in Darfur (Musa 1986; Ziegert 1994), building on scattered reports of ancient sites and oral traditions associated with them collected during the period of the Condominium (Arkell 1946b, 1959a, 1959b; Balfour Paul 1955). Other recent work has begun to explore the region's settlement history (Häser 2000) as well as re-examining historical and archaeological records (McGregor 2001a). Surveys and excavations have also begun east of the River Atbara and in the Kassala region (Fattovich 1990; Marks 1991; Sadr 1991). More southerly regions of the Middle and Upper Nile have however, remained largely neglected. The preserve of anthropologists during the Condominium (Wengrow 2003), despite occasional exploratory work by colonial administrators (e.g. Titherington 1923) very few archaeological projects have ever been carried out there (Kleppe 1982b; Mack and Robertshaw 1982) and the long-standing civil war has made this largely impossible for much of the period since Independence. We do however have a wealth of ethnographic descriptions (e.g. Seligman and Seligman 1932), many with a considerable historical value, dating back to the nineteenth century. Our knowledge of the archaeology of different parts of the Sudan is thus very variable, and in many areas still non-existent. Nonethe-

less, however fragmentary our knowledge, we are beginning to be able to assemble a picture of a larger whole, comprising these disparate regions.

Changing perspectives?

A century after the first pioneering projects began to work in northern Nubia, much has changed. Nubian archaeology is not just about Lower Nubia and the margins of Egypt. We are increasingly in a position to look beyond Lower Nubia, and begin to appreciate its place within wider macro-regional contexts. The cultures of Lower Nubia, once perceived as discrete entities, can increasingly be related to much more widespread traditions encountered across much of the northern Sudan. The results of new surveys in Upper Nubia are also now overshadowing the impressive archaeology of the north. Where Late Neolithic and Bronze Age cemeteries in Lower Nubia rarely held more than 100 burials, those of the Dongola Reach hold thousands. While Lower Nubian sites are often rich in imported Egyptian artefacts, their southern counterparts may display a different but often far greater wealth in indigenous materials. Where earlier generations of archaeologists were so impressed by the archaeological wealth of Lower Nubia, it is becoming clear that the region was very often peripheral to much richer and more densely populated regions further south. Such wealth as it did display and many of the more distinctive cultural features encountered there may be related to its proximity to Egypt, as a corridor linking sub-Saharan Africa to the North.

Such changing perspectives may also be accompanied by a shift away from many of the traditional preoccupations of archaeologists working in this region. Largely coming from Egyptological backgrounds, Egyptocentrism has long been pervasive. The pioneering generations, reflecting the attitudes of the day, could consider Nubian history might be 'hardly more than an account of its use or neglect by Egypt' (Reisner 1910: 348). Much early research in the Middle Nile was concerned with the 'civilizing mission' of Pharaonic Egypt and the 'North' in *Wretched Kush* (Smith 2003), very often echoing the rhetoric of Colonial governments. Such attitudes should not be surprising in an era when any evidence for African cultural achievements – Great Zimbabwe being another case in point – was only explicable in terms of external stimuli. That indigenous African cultures might be of interest in their own right was a largely foreign idea.

When the monuments and cultural achievements of Bronze Age Kerma were first discovered they were attributed largely to an Egyptian presence. Such Egyptocentrism has proved remarkably resilient. Even today, explanations for the rise of Sudanese states still look to Egyptian influences (Morkot 2003). Narratives of the Pharaonic state's conquest of Nubia are still commonly implicit in celebrations of Imperial values and the triumphs of 'civilization' (Patterson 1997). There remains an enduring fascination with the temples and fortresses of 'great' Pharaohs, while the brutal histories of military conquest

and destruction which underpinned their 'achievements' (Kemp 1989: 318–9) remain rather less closely observed. That much of Egypt's interaction with Nubia was at this level tends to be ignored. Chronologies of Bronze Age Nubia still remain structured around the historical frameworks of Pharaonic Egypt. Unfamiliar cultural forms are still simply described as 'African', as if nothing more needs to be known about them.

Prior to the 1960s, they were few voices which suggested that it might be of interest to look beyond the Egyptianized temples and monuments in order to recover other histories in the region (Figure 1.3). O.G.S. Crawford was one notable early champion of a more broad-ranging archaeology, which he forcefully argued in a famous essay 'People without a history' in the journal *Antiquity* (Crawford 1948). As he observed , the 'Sudanese . . . do not need to be told that there is such a thing as Sudanese, as distinct from Egyptian archaeology, . . . to many others this is a new idea'. Provocatively, he went on to suggest that 'the excavation of a Nilotic mound-site is more suitable to be undertaken at the present moment than that of yet another Egyptian temple' (1948: 12). More than half a century later, no more than a few trial trenches have been excavated in any such mounds (e.g. Kleppe 1982b and c). Temples continue to be cleared.

This Egyptological legacy has certainly also been an important factor in isolating archaeological research in the Sudan from that of the fledgling 'African' archaeology, especially where it might have shared interests and concerns with

Figure 1.3 New Kingdom temple at Soleb.

other parts of Sudanic Africa. That the Sudan was a region which was somehow fundamentally different from other parts of Sudanic Africa had also become a more widely held perception since Egyptian rule penetrated the region. From the early twentieth century prominent anthropologists like Herskovits (1924) would suggest that it formed a culturally and politically distinct 'culture area'. It is only relatively recently that historians have begun to argue for a realignment of research which again attempts to locate the Middle Nile within its wider Sudanic context (e.g. Horowitz 1967; Hasan and Doornbos 1979; O'Fahey and Spaulding 1974). How its 'Arab' and Islamic identities – which distinguished it from the 'African' – were also created in the post-medieval period has also become better understood. Popular perceptions, and politics, all too often still perceive an 'Arab' north and 'African' south as somehow a natural and timeless condition, rather than a creation of relatively recent history.

The necessity for broader Sudanic perspectives also begins to be more obvious as research moves away from its traditional northern riverine foci. The results of recent research in the Wadi Howar demand more wide-ranging perspectives, exploring linkages between the Nile Valley, the Chad Basin and the wider Sahara. For millennia it was an important corridor linking the Nile and the West, remaining so until such links were largely broken by the encroaching desert during the third and second millennia BC. To the west, Darfur with the Jebel Marra massif in its centre, marks another crucial area on the watershed between the Chad Basin and the Nile Basin, which has also been a frontier zone for millennia (Musa 1986). Through Kordofan it was to provide a link between central and Eastern Sudan and West Africa.

RESEARCH THEMES

Regional histories and changing environments

One key theme which lies at the heart of any construction of long-term histories of the Middle and Upper Niles must be the relationships between its many regions, and how they may have changed over time. An acknowledgement of the existence of the varied histories of different regions is indeed fundamental to any attempt to write an archaeology of the Sudan, a political entity of such recent invention. Archaeological cultures, often manifestations of political entities, were often restricted to relatively limited areas, especially in riverine northern and central Sudan. These were not, however, isolated from neighbouring areas. Over time the connections and linkages between different regions were also dynamic and shifting. In the favourable environmental conditions of the Early Holocene, populations, while sparse, were potentially part of far more extensive worlds extending over the vast savannahs in what is now Sudanic and Sahelian Africa. With ongoing desiccation, new constraints were imposed. One result of this may have been the development of increasingly distinct regional

cultural traditions, not least in what was to become the linear oasis of the Nubian corridor running through the Sahara. Such narrowing options may have become more important in the north. Elsewhere, they may have been balanced by expanding horizons. In the South, as drier conditions established more favourable savannah environments new opportunities may have been created for new ways of life, while new connections were also being established, both to the West and with Eastern Africa.

Such changing environments were clearly implicated in other long-term processes. In riverine regions, there has been a progressive shift towards the south of major political foci (Anderson and Johnson 1988), undoubtedly related to increasing arid conditions spreading from the north. During the Bronze Age, the first kingdoms of the region were established in Dongola Reach. By the mid-first millennium BC, the focus had shifted to the Shendi Reach at Meroe (Figure 1.4). A thousand years later, probably the greatest of the medieval Nubian kingdoms was centred at Soba, near the confluence of the Niles. By 1600, the heart of the Funj Sultanate lay even further south along the Blue Nile at Sinnar.

Over the millennia people engaged in complex interactions with their environments, both as victims of environmental decline as well as agents of landscape change. Major developments are likely to have occurred with the innovations associated with the 'Neolithic', first with the introduction of domesticated livestock, and later with the shift from the exploitation of wild plant resources to the management and cultivation of domesticated crops. Both

Figure 1.4 The royal pyramid cemetery outside Meroe.

of these will have entailed new forms of landscape management, both to improve grazing lands and open up new land for cultivation. The clearance of tree cover is likely to have been one essential and important element in this, even if it remains extremely difficult to gauge the degrees of forestation of the environments in which early farmers were moving, clearing land and herding their animals. Even within the better-known parts of the region such issues have yet to be addressed and many uncertainties remain. While it is commonly assumed that riverine margins will have been particularly favoured locales it is not unlikely that they will also have been densely wooded and will have required extensive clearances to fully exploit their potential. In earlier periods they will also of course have been foci for all forms of wild life, many of which will have posed additional hazards to their human inhabitants.

There will also have been shifting histories of interaction between more settled and more mobile populations. Much of this may have been environmentally determined, at least in shifting the range of the possible. As in other parts of Sudanic Africa, shorter and middle-term climate variations may have shifted the frontiers between herders and cultivators (e.g. Frantz 1979; McCann 1999a). There were also other important innovations, such as the introduction of the camel, which will have fundamentally shifted the balance between herders and farmer in more arid zones, introducing a new range of possibilities for exploitation of the desert fringes.

The ways in which we approach such longer-term developments and their relation to changing environment also need to be located within more general debates about environmental degradation. What assumptions do we bring to our models of human-environment relations in the past? Especially prominent after the devastating Sahelian droughts of the 1970s and 1980s, environmental degradation, notably in the form of 'desertication', had been a common preoccupation of many researchers in many parts of Africa since the Colonial period. Records from the period of the Condominium are often coloured by pervasive conservationist thinking which imbued both British and French Colonial attitudes (Grove 1995) where environmental control and social controls were inextricably linked.

There exist enough examples of societies in sub-Saharan Africa which probably did overtax their resources (Beinart 2000) to suggest that such concerns were not merely an invention of Colonial scholarship. To what extent this may have been the case in the Middle Nile remains unclear, such issues have yet rarely been addressed within the archaeology of the region. It has been suggested that Meroitic ironworking had a serious negative impact on the environment of the Meroe region due to the demands for charcoal (R. Haaland 1985), a classic example of technology's negative impacts. While we may calculate the demands for wood which ironworking made, we remain very poorly informed about ancient environments, at least at a level of detail which is useful practically. We still have relatively little other than more-or-less anecdotal evidence from more recent periods around which to base reconstructions

of earlier environments. Reports of early European travellers in the first half of the nineteenth century, for example, provide hints of much more densely wooded landscapes, whether in the Gezira, or the Western Butana – where local guides were afraid to venture due to the fear of lions. The introduction of river steamers onto the Nile in the mid-nineteenth century is commonly reputed to have been responsible for the clearance of vast swathes of riverside woodland. However, we are probably still poorly equipped to *imagine* earlier landscapes, beyond very coarse-grained reconstructions of shifting climate and vegetational zones. Did the first Neolithic herders move through forests of baobab and across tree-studded grasslands thickly populated with antelope and gazelle? To what extent were the inhabitants of medieval Nubian kingdoms still familiar with giraffe and seasonal movements of elephant herds? Giraffes were still plentiful in Kordofan in the nineteenth century while a few Sahelian elephants have managed to survive until today in the Gourma region of Mali. Nubian farmers alive today were brought up on tales of the dangers of the marauding hippopotamuses, probably more than a century after the last ones were shot.

Other environmental data of the quality to inform historical debates remain scarce. Some of the traditional tools of environmental archaeology may also have their limitations. The reconstruction of woodland profiles for example, derived from wood charcoal from habitation sites, may become increasingly problematic in more recent periods, where human impacts on woodlands and their distribution may have been considerable. Debates surrounding the progress of woodland clearance and desertification in the recent past should alert us to the difficulties of understanding changing environments today even with the benefits of many forms of historical data. Contrary to expectations, we may find that supposedly relict forest areas in West Africa may not be the remnants of natural landscapes, but have been deliberately constructed by villagers and their ancestors around settlements (Fairhead and Leach 1996).

Other potential sources of information remain as yet largely untapped. Of particular importance for riverine areas are the long records of Nile flood levels in the Lower Nile which, with judicious use, may provide information pertinent to the Middle Nile. Long data series, albeit of variable quality, exist in various sources covering the 'Islamic' (DePutter *et al*. 1998; Popper 1951), Ptolemaic and Roman periods (Bonneau 1971) and some Pharaonic periods (B. Bell 1970). Useful analyses exist of rainfall and flood patterns in central Sudan into recent centuries (Walsh *et al*. 1994). While the direct results of disastrously high, or failed floods in Egypt will often have been very different to those in the Middle Nile, future analyses may well provide useful indications of medium-term climatic fluctuations which may have had a significant impact on societies in the region. Some disastrous episodes, particularly major floods, may even be found in the archaeology of settlements, as has been suggested for some medieval sites in Lower Nubia (W. Y. Adams 2001, 2002).

As has been proposed in studies of Western Sudanic Africa (e.g. McCann 1999a) often extended periods of drought may also have had serious implications

for population levels and settlement distribution. If as yet we have very little idea of the extent of climatic and associated environmental changes in the Middle Nile, such studies should alert us to the fact that within the broad climatic/environmental parameters we assume for this region, there may have been significant short- and medium-term variability. The expectation should also be that there were, perhaps on many occasions, major droughts, famines and other disasters with far-reaching effects. In some areas, notably the arid riverine zones of Nubia proper, we might suspect that the impact of major disasters will have been particularly great, where the narrow focus on very limited resources along the Nile will have left communities particularly exposed. The loss of a harvest, whether due to disastrous floods or military action, could be catastrophic.

If such events are perhaps unlikely to be detectable archaeologically except in special circumstances, they certainly should not be excluded from our historical narratives. It is, for example, unlikely that the series of disastrous floods, famines, livestock disease and marked population decline which affected much of the Middle Nile in the late nineteenth century was a unique occurrence. Historical studies have shown how famines and related disasters were not infrequent in medieval and post-medieval Ethiopia (Pankhurst 1990).

Subsistence, technology and agriculture

Other larger historical themes were also being played out, as elsewhere on the continent. There is the early development of agropastoralism, and rather later an increasingly agricultural way of life across much of the region (Marshall and Hildebrand 2002). Such new ways of life were also to co-exist, often into quite recent times, with older traditions of hunter-gatherers. Metal appears to have first entered the region sometime before 3000 BC when the first copper tools were traded in from the north. During the first millennium BC, iron technology also begins to appear, as in various parts of the continent; Meroe being notable as an important early centre in sub-Saharan Africa (Rehren 2001). However, it may have taken many centuries for iron to reach some other parts of the region. Many of these processes are still very imperfectly known from archaeological data, but there are interesting possibilities that they may be traced out in other ways, for example through 'linguistic archaeology' (Ehret 1993, 2001). Such work suggests that the area of the modern Sudan was home, from an early date, to two major food-producing traditions, a Sudanese Agripastoral (sic) tradition, which broadly may be associated with Nilo-Saharan speaking peoples, as well as a putative 'Erythraean Neolithic' associated with Cushitic speaking peoples of the Red Sea margins.

Since the development of agriculture in the region, there are complex histories of plant use, cultivation and domestication, albeit still very imperfectly understood. Archaeobotanical studies in this region, as in neighbouring regions such as Ethiopia (Barnett 1999) still remain in their infancy, mirroring the often underdeveloped nature of research into African plant domesticates, when

compared with major world crops of New or Old World origin (NRC 1996). There are also histories of imported plants to be explored, often of New World origin and absorbed through European maritime powers. The merits of such new crops were often quickly recognized and in some regions have had a major impact on farming systems, demography and environments (Beinart 2000). Within the Middle Nile, we may trace histories of innovation over the long term and through much more recent periods.

The impact of the Near Eastern Neolithic extended some distance up the Nile following the adoption of wheat and barley cultivation in Egypt, being introduced into northern Nubia in the fifth and fourth millennia BC. While these temperate crops have gradually been extending their range in later centuries, it is the indigenous tropical crops, notably sorghum and millets, in their myriad forms, which have remained at the centre of agricultural regimes across the region into recent times. The tenacity of the indigenous crops is reflected in the rather limited impact of temperate grains until very recently. It has been the imperatives of 'Modernization' and 'Development' which seem to have given a new impetus to the spread of such alien crops.

In more recent times, studies of the spread of imported crops during the medieval and post-medieval periods have barely begun. Maize, tomatoes, aubergines, many beans, citrus fruits, the grape vine, chilli, tobacco are all relatively recent arrivals to the region. Many seem to have arrived from the North, moving up the Nile, passed through the Mediterranean world from the Americas, or coming from the east through Roman trade, or through the Islamic world. Some like vines largely disappeared after the medieval period. Wild foods also need to be considered. In many parts of Sudanic Africa they have remained of considerable importance into modern times (Harlan 1989). Often characterized as 'famine foods' (Tubiana and Tubiana 1977) such a name in no way does justice to the wider importance of such resources. Other indigenous crops, such as cotton, also demand further research in a part of the world where cloth has enjoyed a considerable importance, not only as a practical item but as a medium of exchange, and as highly valued and prestigious material form (Schneider and Weiner 1989).

Drawing hard distinctions between cultivators, herders and hunter-gatherers may often obscure as much as is revealed about ancient peoples and popular stereotypes may be less than useful. In most regions the relationships between pastoralists and cultivators have been complex, and dynamic. We have abundant evidence that very few peoples can be neatly categorized with these labels, and for even fewer do such labels describe timeless and unchanging ways of life. Agriculturalists keep livestock, commonly hunt and use other wild resources. The clay plains of the Upper Nile are a good example of a harsh environment where horticulture and fishing as well as pastoralism are required to survive and indeed a 'common economy' often links together different ethnic and political groups (Johnson 1991). Nomadic pastoralists represent only one extreme of the scale of a vast continuum of forms of pastoralism (Khazanov 1984), blending

with the world of cultivators. All such peoples will have needed access to 'invisible' resources such as salt (Lovejoy 1986).

Subsistence strategies may also be closely linked to ethnic identities, forming and reforming over time, so the balance between modes of subsistence may also radically shift. Within Sudan, we may find ethnographic cases of cultivators who may choose to become pastoralists, shifting from settled to mobile living styles, in the process of which they also change their ethnic identities (G. Haaland 1969, 1972). There are also many myths and stereotypes of modern African pastoralists (Hodgson 2001), which we should not uncritically transfer to the distant past. There are still, however, interesting themes to be explored. Cattle and livestock seem to have been domesticated at a relatively early date in Saharan–Sahelian regions and appeared in the central Middle Nile by the later sixth millennium BP. By the Late Neolithic, pastoralism may have become very dominant in some regions with the possible development of more specialized forms, perhaps exploiting secondary products such as milk and blood (R. Haaland 1991). How and where a significant role for milk may have arisen raises interesting questions about how lactose intolerance was overcome by these early populations.

Cultural aspects of subsistence must also be considered, exploring culinary culture or the 'foodways' of the region. Here is another important area in which the Middle Nile may be distinguished from the Egyptian Lower Nile, from an early date. While the dominance of wheat and barley in Egypt established it as a bread-eating culture, this may usefully be contrasted with the dominance of porridge and beer food regimes which have dominated many parts of the Middle Nile into recent times (Edwards 1996b). The history of the penetration of forms of breads into the region is itself an interesting area of study, interlinked with the ebb-and-flow of northern influences in the region, and cultural borrowings, especially amongst elites.

Culturally significant consumables could also be acquired in other ways, through direct trade and exchange. A very long history of the importation of wine from the north, beginning in the fourth millennium BC, provides a good example. This trade must also be explored within the context of a very long history of alcoholic beverages (grain beers) in the region, which were a dietary staple also commonly enjoying a considerable social and symbolic significance (G. Haaland 1998). That nutritional needs may not always be the prime mover in the spread of possible food-sources also requires further consideration. The Nile valley is currently the most likely route along which the domestic chicken spread into sub-Saharan Africa (MacDonald and Edwards 1993); an animal which was often to become as much a ritual and symbolic resource in sub-Saharan Africa as a subsistence resource.

Cultural landscapes and social space

Moving beyond, but closely linked with different subsistence strategies, exploring cultural understandings of the landscape seems likely to be a research area of considerable potential, if as yet hardly addressed in the archaeological literature of the region. Anthropologists are increasingly aware of the importance of cultural understandings of the landscape and how these understandings may change (e.g. Croll and Parkin 1992; Ingold 1986). We may need to look beyond simple oppositions found in western thought between nature and culture.

Processes of landscape colonization, and re-colonization, are likely to have been a recurrent theme across many millennia. This will have been occurring in the Middle Holocene as the expanding Sahara gradually forced populations towards better-watered environments, towards the south or the oasis conditions along the Nile and its tributaries. Somewhere within such movements we have a form of the 'moving frontier' of the Neolithic, in which populations who were herders were meeting others who were not (Alexander and Mohammed-Ali 1982). Some marginal landscapes were colonized, others may have remained sparsely populated, the domains of hunter-gatherers, or effectively empty for millennia. Colonization processes were also reversible and whole regions could be abandoned, as seems to have happened to Lower Nubia on a number of occasions during the Late Holocene.

Other aspects of landscapes, beyond their significance as economic resources to be exploited, remain to be explored. The hugely varied landscapes of the Sudan may have been experienced in very different ways, ranging from mountains in both the west and the east, across open savannah plains, to narrow and enclosed riverine landscapes of northern Nubia. Attitudes to landscapes, and the importance attributed to 'place' may also have been highly variable, although we may also find many commonalities in the landscape zoning, in differentiating between the settled world and the outside, between the village and the wilderness. Ethnographies (e.g. Seligman and Seligman 1932; Nadel 1947) leave little doubt that most landscapes of the region are likely to have been infused with symbolism and meanings, part of 'socially cognized landscapes' (Ashmore and Knapp 1999), marked by generations of inhabitants. Over the millennia, burial mounds, rock drawings, temples and churches all became part of the landscapes inhabited and experienced by succeeding generations.

Certain natural places and landscapes features were also to become foci for the practice of 'traditional religions'. One of the most famous of these in the archaeological literature was the 'Holy Mountain' of Jebel Barkal, the abode of the god Amun and great monumental cult centre of the second and first millennia BC (Kendall 1990, 1999). Other 'high places', such as the cliff-top of Qasr Ibrim in Lower Nubia, were also to become and remain great religious centres. Many much less prominent features were also to become places of power. Offerings were still being made in the 1950s at prominent rock features in

Darfur, marked by rock drawings from earlier centuries (Balfour Paul 1956). Hilltops in Kordofan and Darfur were the sites of sacrifices to bring the rains (Lee 1994; McGregor 2001a). 'Popular' religion found 'iconatrophic' explanations for unusual natural rock features (Vansina 1985), for example in the 'prophets footprints', often encountered in the Nubian north.

Elements of the living world may also be imbued with power and significance. In the open savannahs, baobabs in particular are commonly regarded as powerful and spiritual entities. The wild fig, for example, both as a fruit and a tree enjoys a peculiar significance over wide areas of Sudanic Africa and among Bantu peoples, often associated with myths of origin and creation. Even in the arid north, ancient trees within long-established settlements are a source of 'baraka' or blessings, and are the homes of spirits.

Settling the landscape – Urbanism

How landscapes were settled and the forms that early settlements took is still often obscure. Unlike many other parts of the world, the Neolithic may have brought greater mobility rather than have encouraged sedentism. Farming villages may have developed in only later prehistoric times, and then only in certain areas. Even where they did develop, they may well have been relatively impermanent, remaining static for decades rather than centuries. In the Middle Nile, as across most of the continent (Anderson and Rathbone 2000), the early history of urbanism still remains poorly understood. If most settlement has remained relatively dispersed and 'rural' into recent times the region also saw the development of probably the earliest urban centres in sub-Saharan Africa. Historically, while few in number, these were to have a disproportionate significance as foci of political and economic activity. Archaeology has begun to explore a number of these, ranging from Bronze Age Kerma to the medieval metropolis of Soba. Such work has revealed substantial parts of extensive townscapes, and some of our most detailed information for early urban sites anywhere on the Continent. The emerging plan of Kerma, developing during the later third and second millennia BC, reveals the face of what may be the oldest town in sub-Saharan Africa.

If there do seem to have been some remarkably early urban developments in the region, our understanding of their character remains uncertain. As recent research in western Sudanic Africa has suggested (McIntosh and McIntosh 1993), urban developments may take many forms, despite a tendency to label any large nucleated settlement as a 'town'. What we may call 'urban' formations may well have been highly variable in function(s). Many may have been centres of religious and ritual power, albeit often closely linked to political authority. Others developed as centres of trade and economic activity. In historical times such trading towns may have been deliberately set apart from political centres, a phenomenon encountered elsewhere in Sudanic Africa. Their rise and fall may have followed shifting caravan routes. Those that were political foci were

commonly also centres of consumption and display. Towns and their inhabitants may also become culturally distinct from their surrounding countryside. They may have been the homes of immigrants and traders, and of elites speaking foreign languages. Their histories were also dynamic. Many of the early urban experiments disappeared without trace; few modern Sudanese towns can claim an urban ancestry that looks back more than a few centuries.

Approaching material culture

Archaeology in this region is often still very much concerned with establishing culture-historical frameworks. More traditional approaches have also tended to take an interest in only very limited areas of material culture, most obviously in monumental architecture and cultural forms deemed to have artistic value, markers of 'civilization'. Many other materials, such as pottery, still remain little studied. While a few researchers, notably W. Y. Adams (1986), have shown Herculean industry in beginning systematic (and quantified) studies of archaeological ceramics, subsequent progress has been very slow.

The wider potential for studying material culture also remains largely neglected, not least in relation to its active use in creating and marking identities. The cultural meanings of materials themselves are little explored, although pottery, a very ancient technology, was to develop a remarkable capacity for elaboration and display in many parts of the Middle Nile. The long history of often highly decorated pottery in the Middle Nile contrasts markedly with its relegation in Egypt to a largely utilitarian artefact from the early Pharaonic period. Pottery has also drawn on the qualities of many other forms of material culture, from many sources. Pottery could draw on styles of gourd or basket decoration, rooted in Sudanic Africa. By the Bronze Age, the potters of Kerma were also replicating the forms as well as the brilliance and shininess of metal vessels. Meroitic potters also copied metal vessels, echoing the emulation of silverware by potters encountered in the Mediterranean world.

Complex exchange networks were also developed, from an early date operating over long distances, acquiring new and exotic forms of artefacts and materials. Some may have acquired desirability and aura simply due to their exotic origins (Helms 1988). Other choices in materials and artefacts may tell us much about indigenous value systems, as well as about how they changed over time. Our own presuppositions may also be challenged. While it is so often assumed that gold was a major focus of interest for ancient Kushites, as it was for the Egyptians, it is quite possible that copper and bronze may have exerted an equal, if not greater fascination, as has been the case in many parts of sub-Saharan Africa (Herbert 1984). As well as tracing the attraction of polished metals, we may also find histories of other 'enchanting objects' (Gell 1992). The technology of ground stone tools made possible elaborate stone palettes, axeheads and mace-heads as well as new possibilities for display with coloured stone beads.

The Middle Nile also represents a region where we already have rich information about mortuary culture, being a part of the world with long-established traditions of formal disposal of the dead (Geus 1991). As we begin to develop wider perspectives across time and space, it is possible to see how variable such traditions were, raising new questions on the significance of such traditions. Were notions of territoriality implied by the creation of cemeteries, a means for corporate groups to establish and maintain claims to resources? What can they tell us about belief-systems? Comparative studies might suggest that the appearance of formal cemeteries could also be associated with developments widely encountered during the Neolithic linked to new constructions of 'ancestor-hood' (Parker-Pearson 1999). It may well be that many cultural features continuing into the historic periods may well relate to ancestor cults, in some contexts perhaps transformed into state cults, even with deified rulers. Increasing monumentality and the destruction of resources seen in elite burials in different periods may be part of processes of providing godly ancestors for their successors.

Ethnicities: beyond 'Nubia'

This vast region also poses great challenges in terms of a myriad of different ethnicities, ancient and modern, including 'tribes' often painstakingly codified and even created during the last few centuries. Investigating their earlier histories presents special problems where such 'peoples' are the creation of history, continuously forming and reforming (Geary 2002). How we project modern identities into the past is most obviously an issue when dealing with the 'Nubians' in history. While this term is appropriate in the more recent history of the region – these were people who called themselves Nubians and spoke Nubian languages – it is much more problematic when dealing with earlier periods. It was perhaps only in the mid-first millennium AD that individuals might identify themselves as 'Nubians', when a sixth-century visitor to Philae could declare: 'I Theodosius, a Nubian' (*FHN* III: 1181). Where we use the term in earlier periods we risk creating a mythical and uniquely ancient ethnicity in timeless occupation of these lands.

More generally, notions of primordial ethnic identities are certainly unlikely to be helpful. With the rise of large-scale states by the first millennium BC, we are also probably concerned with ethnically and linguistically plural societies. These will have been bound together by webs of socio-political relationships with rulers drawing on many power sources. These were worlds in which identities may have been very fluid and volatile. In the large open landscapes in which labour was always scarce, settled farming populations will have been open to strangers, integrating them into their communities. More mobile herding groups will have been similarly fluid, forming and reforming ethnicities, part of processes widely encountered in African history (Kopytoff 1987). It may often be difficult to know what languages different 'peoples' may have spoken.

As in many parts of Sudanic Africa in more recent times, people may sometimes have made use of several. Languages may also have differentiated people, defining elites, as material culture and its use will also have done. In different periods, foreign languages, such as Ancient Egyptian, Greek, Coptic and Arabic may have acquired special significance as languages of the elites. That Arabic has emerged as the dominant communal language of the modern Sudan is itself of course only a relatively recent phenomenon. Other local languages, such as Meroitic and Old Nubian also came to enjoy special status as official and written languages, although we know little of their relationship with spoken languages.

Political histories

The long-term political dynamics of the region may also have had their own distinctive patterns. It seems likely that looking to models of state formation encountered in Sudanic Africa, rather than Ancient Egypt, may prove useful in understanding these early political developments in the region. Historically, the structuring of power relations and their articulation with other arenas of social and economic activity in the Sudanic world were substantially different from those encountered within the narrow confines of the Egyptian Lower Nile. We do not need to persist with purely Egyptian referents for understanding royal powers, as may be amply demonstrated by the substantial and sophisticated literature, anthropological and historical, on African forms of kingship.

More general patterns emerge amongst Sudanic civilizations, civilizations of open savannahs, usually with limited possibilities for exerting direct control over the production of subsistence resources outside a relatively limited core zone. With relatively sparse and often mobile populations exploiting abundant lands, a common feature of much of Sudanic Africa, we always need to be aware of how different this world was from that of the Egyptian Lower Nile. Control of territory may be far less important than the control of people. As is well-documented in more recent periods, states are likely to have drawn much of their wealth from the exploitation of external environments, part of what Bayart has termed a 'history of extraversion' (1993, 2000). This may take the form of exploitation of the resources of their 'peripheries', typically through raiding or other exactions but also very typically through the control of long-distance trade. In the long-term political histories of the region, we are confronted with the rise and fall of several centres where resources of power became concentrated, whether through the control of more intensive production, denser populations, trading networks, military power or religious leadership. From such bases they were able to expand their boundaries to create the first great kingdoms of sub-Saharan Africa as well as establishing wide-ranging networks of material and intellectual contacts.

2

HUNTERS, FISHERS AND GATHERERS (*c*.10,000–5000BC)

Introduction

Some 10,000 years ago, what is now the Republic of Sudan must be seen as just one part of a broader world which stretched across most of what is now Sudanic Africa, the Sahel and the Sahara. Most of northern Africa was largely uninhabitable some 18,000 years ago in a period of extreme aridity. However, as conditions improved there was a slow and gradual re-peopling of these areas. Returning rains brought life back to the desert, also gradually drawing people further north. Across Sudanic Africa we must envisage wide open landscapes, punctuated by mountain ranges and lakes, often rich in wild life and often densely wooded, across which small human populations ranged.

The dramatic changes in climate during the Holocene (the last 10,000 years) which brought these wetter conditions had a profound effect on the development of human society in the region (Figure 2.1). At the beginning of this period, rainfall was plentiful over most of what is now the Sahara. Vegetation zones probably lay somewhere in the order of 400–600km north of their present-day positions (Lioubimsteva 1995; Ritchie and Haynes 1997). While there may have been a brief arid episode of a century or so some 9000 years ago (Nicholson and Flohn 1980; Alley *et al*. 1997), after this, wetter conditions returned with an 'optimum' (i.e. wettest) phase around 8000 years ago.

Around that time, sparse grasslands and scrub (a tropical semi-desert vegetation) covered much of the modern Sahara, with a belt of Tropical Grasslands to the south, covering most of what is now northern Sudan and Chad. Within these general vegetation zones, watercourses, lakes and other features may have created complex vegetation mosaics. In the mid-Saharan mountains there was probably significant woodland cover (Street-Perrot and Perrot 1994) and it seems likely that other mountainous areas such as Jebel Marra in west Sudan were well-wooded. Most of central and southern Sudan would have lain within a Savannah belt, with areas of Tropical Rain Forest in the far southwest.

Over a possibly lengthy period, beginning perhaps in the seventh millennium BC, parts of this vast region were to see the beginning of a shift from foraging or hunter-gathering to a 'food-producing' way of life; the beginnings of the shift from the Mesolithic or Epipalaeolithic to the Neolithic. Traditional

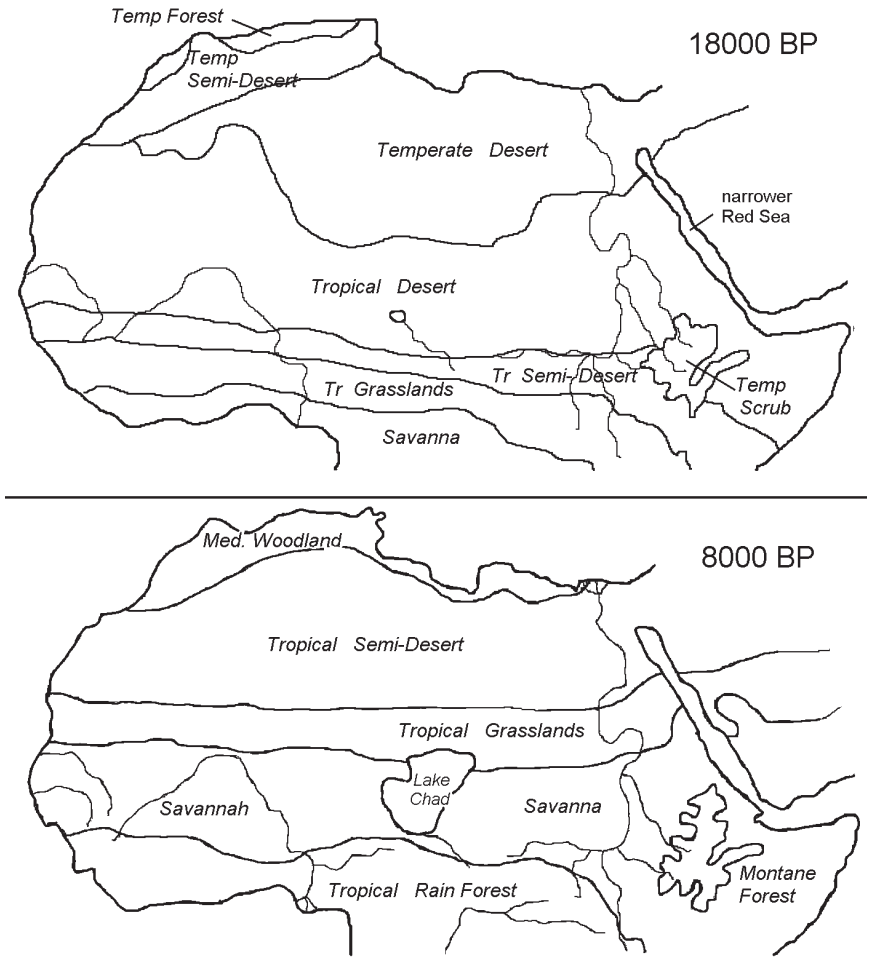

Figure 2.1 Vegetation zones across northern Africa in 18000 BP and 8000 BP
Source: based on Adams and Faure 1997

approaches to such changes, often building on conventions used in other parts of the world, commonly privilege 'economic' changes (the appearance of food 'production', especially agriculture) and technological changes (the appearance of pottery or ground-stone tools), as of particular importance in such transitions. However, as we will see in the next chapter, such conventional perceptions of the Neolithic provide only a very partial understanding of potentially very fundamental changes in social organization which were also taking place. People were to change how they lived and moved within landscapes as well as how they related to animals and the natural world around them.

Looking back: the Late Palaeolithic

The Last Glacial Maximum, around 18,000 BP (radiocarbon years) had brought extremely arid conditions to much of northern Africa, leaving much of it uninhabitable. Such conditions also affected the Middle Nile. The flow of the Nile was substantially less than in more recent periods, perhaps only 10–20 per cent of the modern annual flow. It is even possible that it ceased to flow in the dry season, reducing the deeper channels to pools in places (Close and Wendorf 1990: 42). The lowering of sea levels saw the Red Sea reduced considerably in size (Figure 2.1).

As yet, relatively little is known of the Late Pleistocene archaeology of the Middle Nile (El-Amin 1981, 1987). In the far north in Lower Nubia and Upper Egypt, a series of Late Palaeolithic lithic industries have been defined, but their possible significance for areas further south is as yet unclear where nothing comparable has yet been found. Notable amongst these is the 'Qadan culture', dated *c.*13,000–9000 BC, assigned to which are some cemeteries, at Jebel Sahaba, near the Second Cataract and at Toshka downstream of it. These remarkably early cemeteries also provided compelling evidence for the prevalence of violent death during this period, perhaps reflecting the precariousness of existence in this marginal environment (Close and Wendorf 1990: 53). Anthropological studies (Anderson 1968; Greene and Armelagos 1972) of these Final Pleistocene populations placed them in a 'northern sphere' relating them to Mechta-Afalou populations of the Mahgreb (see also Petit-Maire and Dutour 1987). One other important, if much earlier site (*c.*20,000 BP) was at Wadi Kubbaniya in Upper Egypt (Wendorf *et al*. 1988).

While largely peripheral to our main area of study, such finds from northern Nubia during this arid period are significant in reminding us that the origins of the Mesolithic/Epipalaeolithic populations which soon appeared across central Sudan must be sought to the south, perhaps in the Sudanese Upper Nile or adjoining regions of Central Africa (Cornelissen 2002), areas in which virtually no archaeological work has yet been undertaken. The possibility that such populations may have come from the east and southeast, from the Middle Atbara region and perhaps ultimately the Ethiopian Highlands has been considered, but this seems unlikely. Little evidence for Late Pleistocene occupation has been found along the Nile Valley south of the Second Cataract during surveys in Batn al-Hajar and Dal region. The only other region where such early sites are known is in a small area on the River Atbara near Khasm al Ghirba where Late Palaeolithic sites with a distinctive blade technology, as well as later sites with a flake technology, were found. The latest of the aceramic sites found in the Khasm al Ghirba area have produced lithic assemblages which seem markedly different from any found further west (Marks *et al*. 1987; Marks and Fattovitch 1989).

North and South: Changing climates and environments

Across Africa the Early Holocene wetter phase brought on much more favourable conditions within the Saharan region following its hyperarid phase. Higher rainfall brought high lake levels in Ethiopia and Chad, probably reaching their maximum extent around 8–9000 years ago. Lake Chad itself was greatly enlarged covering a massive area of some *c*.350,000km^2. Within the Middle Nile, high flood levels have been identified along the White Nile (Adamson *et al*. 1982) with wide areas flooded during the annual floods and extensive swamps and lakes remaining after the flood receded. The clay plains of the Gezira region also saw a number of braided river channels running west of the present course of the Blue Nile (Adamson 1982). Areas susceptible to high and erratic flooding are unlikely to have been attractive to settlement.

The northward shift in the monsoon belt and movement of vegetation zones which came in its wake provided the circumstances for a re-colonization of the once arid southern Sahara by populations from the south. The archaeological evidence for this will be explored in the next section. By the mid-Holocene however, conditions were becoming drier with the gradual southward shift in rainfall belts. Within this process there have been many fluctuations and as more well-dated environmental data are being accumulated, more detailed environmental reconstructions are becoming possible. Such environmental changes can also be tracked in the archaeological record. Large suites of radiocarbon dates now allow us to trace changing patterns of occupation in the deserts west of the Nile (Kuper 1989) and their ultimate abandonment. Much work has been concentrated in the western deserts of Egypt and much has been made of the possible consequences of such environmental changes on the Egyptian Lower Nile and ultimately for the 'origins of the Egyptian civilization'. While often prominent in the literature, what was happening so far north is perhaps of rather peripheral importance to our main area of study. Instead we need to look much further south, to central Sudan.

Hunter-gatherers and fishers and the Khartoum Mesolithic

In 1944, during wartime construction work in the grounds of Khartoum Hospital, the Reverend A. J. Arkell unearthed the oldest pottery-bearing settlement then known in the Middle Nile valley. 'Early Khartoum', typesite for the 'Khartoum Mesolithic' or 'Wavy Line Culture' (Arkell 1947, 1949), was at the time something of an anomaly, in representing what appeared to be a relatively permanent settlement of pottery-using hunter-gatherers, who occupied the region over a period of some 2–3,000 years. As such, it provided an early, and at the time little-remarked demonstration that alternatives existed to then current understandings of the development of pottery, commonly seen as a phenomenon of the 'Neolithic' and associated with the development of agriculture.

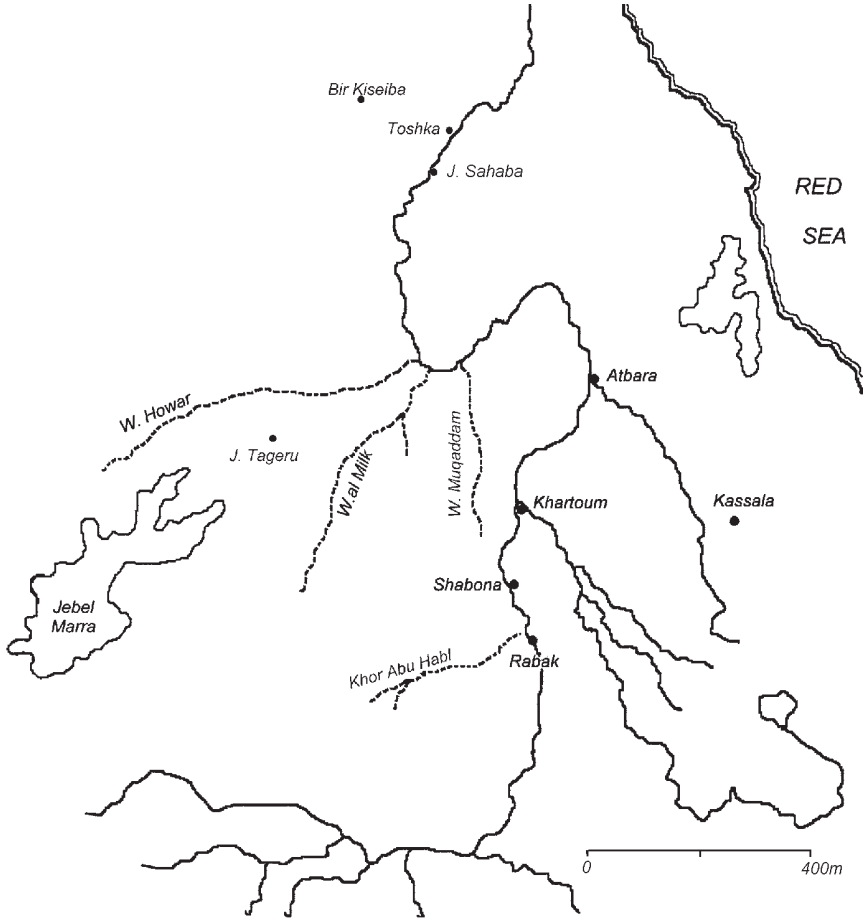

Figure 2.2 Mesolithic/Epipalaeolithic settlement in the Middle Nile

When Arkell first excavated at Khartoum Hospital, in the absence of radiocarbon dating, suggesting a date for his new site remained difficult. Today, there seems little reason to doubt that these pottery-users were well-established in the central Middle Nile by *c*.7000 BC. Numerous radiocarbon dates are now available from a number of sites in the region (Figure 2.2). From sites around Geili, north of Khartoum, dates ranging from 7750±90 BP to 6150±80 BP (*c*.6650–5000 BC) have been recorded while very similar dates come from sites on the northern Blue Nile (Fernandez *et al*. 1997). One site on the west bank of the Nile in the Sarurab area has produced a date of 9370±110 BP (Khabir 1987). Sites in a second area of research near the junction of the River Atbara and the Nile (R. Haaland 1995; Haaland and Magid 1995) have produced dates

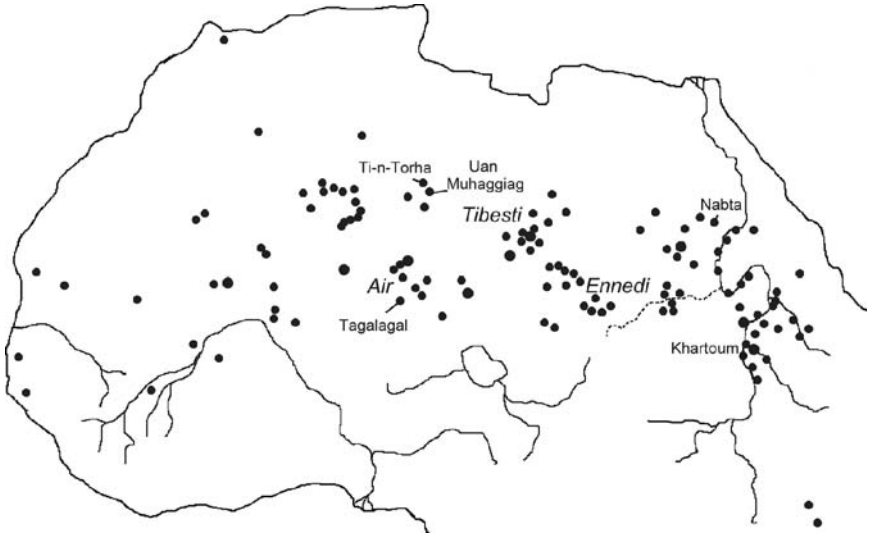

Figure 2.3 Early pottery-bearing sites in northern Africa
Source: based on Jesse 1998: Fig. 3

as early as 8640±120 BP, with most dates clustering around 8000 BP (*c*.7000 BC). Similar dates have also been found on White Nile sites. A barbed bone-point from Tagra may date to the eighth millennium BC (8370±350 BP) (Adamson *et al*. 1974) while there is a date for Shabona of 7050±120 BP, around the first half of the sixth millennium BC (Clark 1984a).

While the earliest dates require further confirmation, it is clear that they are by no means inconsistent with other early dates from similar pottery-bearing sites which have now been found spread across most of Sahelian Africa (Figure 2.3). It seems likely that pottery appeared in this vast region some time in the tenth millennium BP, probably somewhere between the Hoggar mountains and the Nile valley (Close 1995). Linked with a northward shift of populations, there seems little reason to doubt the independent inventions(s) of pottery in one or more regions of sub-Saharan Africa during the Early Holocene. The possibility of significantly earlier dates certainly cannot be excluded. Within more northerly parts of the continent however, in the Maghreb, the Mediterranean coast and in the Lower Nile, aceramic Epipalaeolithic traditions persisted for some millennia.

Settlement landscapes

Traces of hunter-gatherer populations have now been found across much of the Middle Nile, with a possible special focus to settlement in areas with permanent

water sources. These include the riverine areas along the Niles as well as around other major watercourses and lakes to the west and east. The apparent existence of stable, and at least semi-permanent settlements, as suggested for the Khartoum Hospital site, seems confirmed by finds at other sites.

We have, as yet, little in the way of a more detailed understanding of settlement landscapes during this period; any distribution maps we may construct are likely to be as much a reflection of archaeological activity during the twentieth century as of the actual patterning of prehistoric landscape occupation. While we might suspect that the Khartoum region, at the confluence of two great rivers, may indeed have been an area of some significance during the Early and Middle Holocene, any apparent concentration of sites in its vicinity is essentially a reflection of this area's accessibility to archaeologists working out of Khartoum. Elsewhere, survey work remains much more patchy. Until very recently, work along the Blue Nile has also remained limited to areas close to Khartoum, while, with a few notable exceptions (Adamson *et al*. 1974; Clark 1989) only limited surveys with test excavations have been carried out up the White Nile, as far south as Kosti (R. Haaland 1984). The possible extent and intensity of occupation away from major rivers and watercourses has remained largely unknown until the long-dry Nile tributary of the Wadi Howar in western Sudan began to be investigated in the 1980s (Kuper 1989, 1995). Only very limited work has been carried out within the Gezira in the 1970s (Clark 1973), although some more sustained research has taken place to the east of the Nile in the plains of the southern Atbai over the last 25 years. Virtually nothing is known of the open plains of Kordofan, Darfur or areas of southern Sudan.

In the areas where archaeology has been most concentrated, just below the confluence of the Niles, Mesolithic sites seem abundant (Figure 2.4). On the east bank, numerous sites have been located, at least 22 in one 20km survey area (Caneva 1983, 1988; Garcea 1993b). These were sited to the east of the earliest course of the Nile, which has since been shifting westwards towards its present course, reached before *c*.4000 BC. The west bank has been explored less fully, but several further sites have been found there, although the erosion of the old land surfaces by the shifting and braiding river may have destroyed many more. The material recovered from these sites, of which Saqqai has been the most intensively studied (Caneva 1983) as well as the presence of burials within them does seem consistent with Arkell's identification of relatively stable, and perhaps largely sedentary communities. Ethnographic analogies certainly tend to suggest that the more formal disposal of the dead, as seen in many Middle Nile sites is likely to be associated with sedentary, rather than mobile groups (Brandt 1988; R. Haaland 1995).

Recent survey work along the east bank of the Blue Nile has begun to broaden our perspective of settlement landscapes in this region. Sites have been found on terraces 4–8km from the river, but the largest have been found along wadi-systems running out into the Butana. At least 15 have been located along the Wadi Soba, extending up to 30km from the modern Nile. The wadi sites are

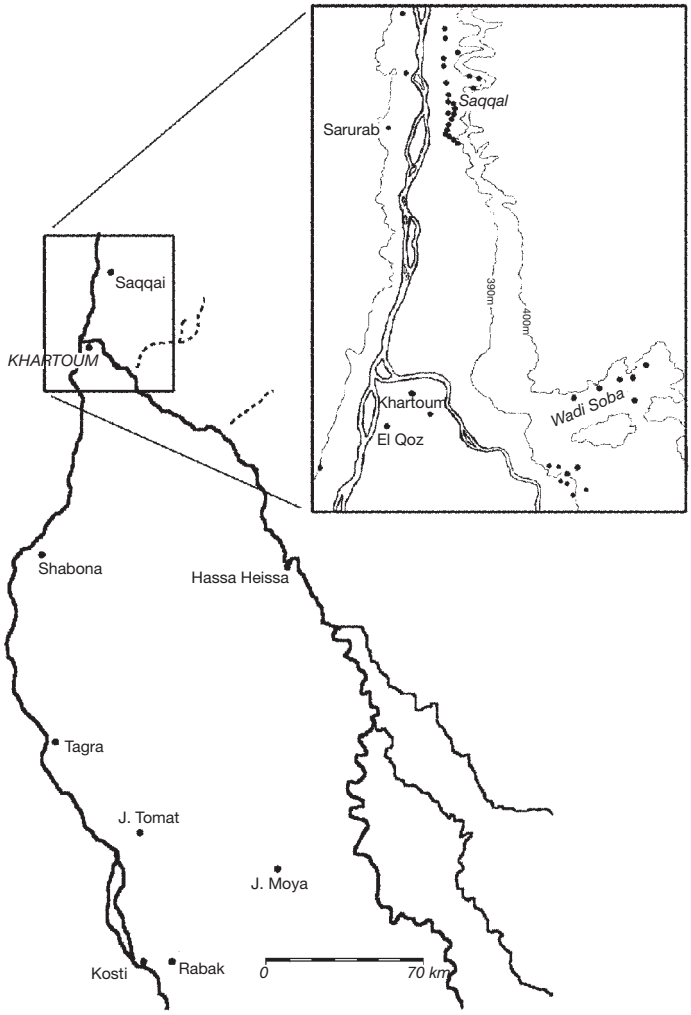

Figure 2.4 Mesolithic/Epipalaeolithic sites in the Khartoum region

generally smaller and more widely spread than those closer to the river and some potentially significant differences in assemblages have been identified. The riverine sites tend to have much more abundant pottery and grindstones, while the wadi sites tend to have more varied and abundant lithic assemblages. The absence of molluscs at some sites may also reflect seasonality in their use. These differences would seem consistent with more permanent settlements on the river and more hunting-oriented sites in the interior (Fernandez *et al*. 1997) although environmental changes are also likely to have been a significant factor

in changing the character of sites over some millennia (Lario *et al*. 1997). While the material from the Blue Nile compares well, in many respects, with that from north of Khartoum, some potentially significant differences have also been noted, for example in the composition of lithic assemblages. The great variability in assemblages of this period has been noted on a number of occasions (e.g. Marks and Mohammed-Ali 1991; Caneva *et al*. 1993) although its significance still remains unclear.

The first limited surveys and excavations along the White Nile in the 1970s identified several 'Early Khartoum' sites, notably at Shabona and Tagra. Located on fixed dunes, these have been interpreted as probably seasonal settlements of hunters and fishers (Adamson *et al*. 1974). The dunes themselves lie at the end of ancient palaeochannels which once ran from the Blue Nile across the northern Gezira. Probably dating to the seventh millennium BC, these sites were occupied during a period of quite high flood levels. Systematic survey is still lacking, although recent work (Eisa 1999; Usai and Salvatori 2002) has begun to identify further sites of this date on both banks of the White Nile. Some of these are quite large, and are generally found on the extreme edge of the often very wide flood-plain. The breadth of the flood plain along the White Nile is often considerable and in many areas will have created very large areas of swamps and lakes after the river flood. Potentially at least, the resources of these would have been far greater than those of the areas downstream of Khartoum, where the flood plain very quickly narrows as it approaches the Sixth Cataract. With the broad and fertile clay plains of the Gezira to the east, and a number of large watercourses flowing down to the White Nile from the west, giving access to the interior, the White Nile may have been a particularly attractive area for settlement.

How attractive areas to the west of the Nile may have been for settlement remains unknown until more work is done in the area. Sites have recently been identified some distance from the river, in areas where there may well have been permanent standing water during this period. The generally wetter conditions will have supported many small perennial lakes in the interior, for example in the Wadi Mansurab basin, some 20km northwest of Jebel Aulia (Williams *et al*. 1973). Similar small lakes will also probably have been quite abundant in inter-dune depressions in many parts of Kordofan. These areas, and the margins of major watercourses such as the Khor Abu Habl, which drains east towards the Kosti area, may have provided other important foci for settlement during this period.

Towards the Blue Nile, sites have also been identified on low sand ridges which run northwest of Hassa Heisa, following the course of palaeochannels which once ran to the White Nile. The results of some limited tests at one of these, Qoz Kabbaro, some 50 years ago, indicates long occupation on these *qoz* sites, continuing into the Neolithic (Balfour Paul 1952) and it seems likely that other palaeochannels across the northern Gezira were also important foci of occupation, within areas exploited more extensively for hunting and gathering. One site found *c*.20km west of the river in 1972 may have been an

elephant-butchery site (Clark 1984b). Traces of occupation have also been found in the interior of the southern Gezira at Jebel Moya. While no *in situ* material was found during the excavations of the early twentieth century (Addison 1949), Dotted Wavy Line pottery – Addison's (1949) 'impressed ware' – was found in small quantities dispersed through later levels (Caneva 1991a; Gerharz 1994).

While a number of sites are known from the area of the confluence of the River Atbara and the Nile (Haaland and Magid 1995), their wider distribution up the Atbara, or to the east of the Nile still remains unclear. Some sherd material possibly of this period has been reported from the Kassala area (Seligman 1916) while sites are also known on the Atbara near Khasm al Ghirba (Marks *et al*. 1987; Marks 1991). This 'Pre-Saroba' population seems to have been confined to the Atbara valley and its margins, and no sites were found outside the valley on the 'steppe' lands. Pottery decoration appears rather different from that seen in contemporary Nile Valley sites. Sherd and lithic scatters which may be of this period have been found quite far north in the Nubian Desert/Red Sea Hills, notably around Nasb Atiliya, and at some smaller sites along the Wadi el Ku and the upper Wadi Allaqi (Sadr *et al*. 1995). Many of the sites are scattered around natural depressions, which were probably seasonal lakes during the Early to Mid Holocene.

Occupation in non-riverine environments to the west of the Nile has recently been found along the Wadi Muqaddam in the Baiyuda desert, again showing exploitation of aquatic resources along what was probably a seasonally flowing watercourse (Fuller 1998; Mallinson 1998). As further south, large wadis such as this are likely to have been particularly attractive for settlement. Outcropping hills around which permanent water sources are often found will also have attracted populations.

To the north of the Baiyuda, in the Dongola Reach, sites are now being found in some numbers on early Nile terraces to the east of the present river, although none have yet been investigated in any detail. At the upstream part of the region several sites have recently been found in the Fourth Cataract region (Paner 1998) and in the Letti Basin. None were found during survey in the open plain of the Wadi al-Khowi in the northern Dongola Reach, an area which would have been within the river flood plain during this period, although some sherd material has been found a little to the north around Kadruka (Welsby 2001a: 569), as well as on the margins of the alluvial plain east of Kerma. An interesting feature of the latter sites is the presence of what appear to be discrete small cemeteries with graves marked by clusters of stones (Honneger 2001).

Occasional sherd scatters have also been noted in the Third Cataract region, but very little Mesolithic occupation has been found further north (Vila 1979). In Lower Nubia, local cultural manifestations of this period, probably of generally late date, may be found among sites identified as the 'Khartoum Variant', identified mainly around the Second Cataract and through the Batn al-Hajar (Shiner 1968b; Nordström 1972). Most sites appear to have been quite small campsites. Relatively little material was found on them and an apparent

absence of fishing spears/harpoons is interesting, in an area where other resources may have been relatively limited. One unusual feature of sites in this region is the presence of exotic Egyptian flint, indicating some more extensive north–south contacts along the river. The presence of a distinctive blade lithic technology in the Wadi Halfa region suggests the possibility that existing populations of hunter-gatherers may have been beginning to use pottery acquired from further south (Usai 1998).

Moving away from the Nile into western Sudan, very little research has been undertaken although some pioneering explorations during the 1920s and 1930s identified a number of prehistoric sites in the region. More recent research has focused on the Wadi Howar, Frobenius's 'Yellow Nile', an ancient tributary running from Darfur to the Nile, and clearly of great importance both as a focus of occupation and as a route across the plains of Kordofan and Darfur linking the Nile Valley to areas far to the west.

Building on earlier observations, in the mid-1970s Abbas Mohammed Ali identified a number of sites with 'Wavy Line' pottery in the Middle Wadi Howar (Mohammed Ali 1982), as well as later 'Neolithic' material (now known as the 'Leiterband-horizon'), very different from any found closer to the Nile Valley. No pre-ceramic Epipalaeolithic sites seem to have been found along the Wadi Howar, and these pottery makers were the earliest Holocene occupants of the region appearing in the middle of the wadi no later than the sixth millennium BC. More recent work in the Middle and Lower Wadi Howar has identified many more sites and in many ways has transformed our appreciation of this period in opening up research away from its traditional focus in riverine central Sudan. Some 69 sites with 'Early Khartoum'-type pottery have been located along the wadi, while a number of other finds have been made around Jebel Tageru, some 70km to the south, as well as in the Wadi Shaw, some 300km to the north (Jesse 2000). Survey and test-excavations have been carried out at several sites in the Wadi Shaw in sediments associated with palaeolakes dating to wetter phases of the earlier Holocene. 'Dotted Wavy Line' pottery was associated with the earliest Holocene settlement in the region, with an early cairn burial dated to the seventh millennium BC (Schuck 1989). Along the Wadi Howar, the sites commonly relate to settlement on stabilized dunes along the wadi banks or around small lakes (Richter 1989). As elsewhere in the region, exploitation of aquatic resources seems to have been important, while grinding equipment is also very abundant. By late in the period at least one new regional style of pottery has been recognized in this area, in 'Laqiya pottery'. This appears to be partly contemporaneous with, as well as continuing later than, the 'Early Khartoum' types. To date, it is only known in more westerly areas extending from around Laqiya, through the Wadi Howar to around Jebel Tageru, to the south. Its western distribution still remains unknown.

Khartoum Mesolithic and Wavy Line pottery

The material culture associated with the Khartoum Hospital site included a range of decorated pottery ('Wavy Line' and 'Dotted Wavy Line'), bone harpoons, microliths (commonly quartz) and grindstones (Figure 2.5). Burials, often in small groups are also found within settlement areas. The early presence of pottery is a distinctive feature, but not an isolated phenomenon, and from the start, must be seen within the context of the appearance of a much more widespread potting tradition spread over some 3000km of the Sahelian belt and as far north as the Gilf Kebir (R. Kuper 1989; Close 1995). Early pottery found across this wide area (Figure 2.3) shows many similarities with generally extensive decoration using a limited range of decorative techniques.

Within the Middle Nile, Arkell rather vaguely defined two major decorative styles, the 'Wavy Line' and 'Dotted Wavy Line', broadly distinguished by parallel incised and parallel dot-impressed designs. His suggestions that they may represent two sequential pottery styles seem to be borne out by more recent

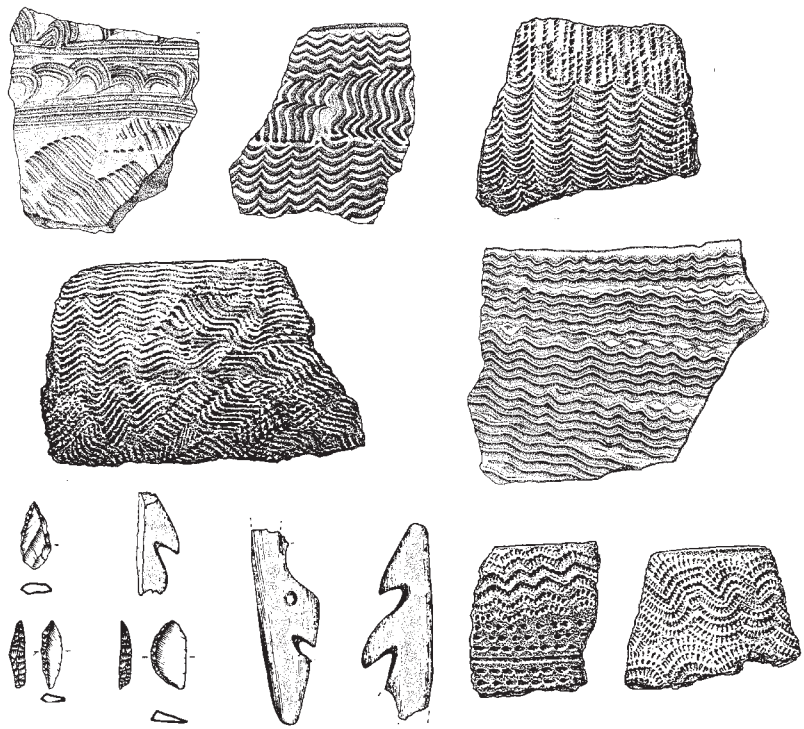

Figure 2.5 Incised Wavy Line and impressed Wavy Line (Dotted Wavy Line) pottery, harpoon fragments and lithics from the Khartoum area

Source: based on Arkell 1940 and Caneva 1991.

studies. Dates from excavated sites in the Khartoum region would tend to place 'Wavy Line' sites there by around 7000 BC (eighth and early seventh millennia BP) and 'Dotted Wavy Line' sites after 6000 BC (in the later seventh millennium BP). There are also indications of further regional variability in more southerly areas. At Shabona, in addition to the quartz-tempered Dotted Wavy Line pottery (Clarks' 'Shabona Ware') there was second grass-tempered ware ('Naima Ware'), also reported at Khartoum, but not apparently in collections further north (Clark 1989). Whatever the generalized similarities in pottery styles encountered over large areas, this must be set against the evidence, albeit still limited in scope, that most of such early pottery was made close to the sites where it was found, and rarely transported any distance (Francaviglia and Palmieri 1988).

However, even with the loose definitions in use, the 'Dotted Wavy Line' pottery has a wide trans-Saharan distribution while the (Incised) 'Wavy Line' appears to be a regional development of the Nile Valley. On current evidence it seems that the two represent two distinct macro-regional styles within a larger tradition (Jesse 1998). The 'Dotted Wavy Line' pottery appearing in central Saharan regions in the tenth millennium BP, (e.g. Bailloud 1969), is only found in the Nile valley much later (*c.*6200–5800 BP). This may have taken place during a relatively brief phase of contacts between the central Saharan massifs and central Sudan, contacts which may perhaps be linked to the spread of domesticated animals into the region (Caneva and Marks 1990; Caneva 1991a). This would be consistent with some late dates for 'Dotted Wavy Line' sites not long before first 'Neolithic' dates (Caneva 1988).

Subsistence

Such similarities, along with other shared attributes have prompted the identification of a major cultural zone, variously termed the African 'Aqualithic' (Sutton 1974, 1977), the 'Neolithic of Sudanese Tradition' (Camps 1969) or the 'Saharo-Sudanese Neolithic' (Camps 1974). The over-simplification inherent in such identifications is increasingly recognized (e.g. R. Haaland 1987; Hays 1975), and major differences may be identified between the still small numbers of early pottery-bearing sites which have been investigated across this vast region, in many different environmental zones. The differences between small-scale campsites around seasonal lakes in the relatively arid Eastern Sahara (e.g. Nabta and Bir Kiseiba), and more substantial sites of the Tadrart Acacus in southwest Libya or in the rich riverine environments of the Middle Nile are as impressive as any shared cultural traits. Within this wider context, the riverine Middle Nile represents only one of many regional environments. Focused on the large and perennial river and the wooded savannah of its hinterland, the opportunities for a 'hunter-fisher-gatherer' subsistence base seem likely to have been considerable.

In such an environment, the exploitation of the resources of the Nile was central and has been given much prominence in the literature. While evidence

for a specialized exploitation of riverine resources in earlier periods is lacking in the absence of late Palaeolithic sites in this region, such specialized modes are known from late Palaeolithic sites lower down the Nile in Egypt, such as Wadi Kubbaniya where as much as 98 per cent of the bones came from fish (Wendorf and Schild 1989). One potentially interesting feature of the Khartoum and Atbara regions, however, was an ability to take deep-water fish; stone and ceramic net-sinkers, and the barbed bone points perhaps being used with boats or rafts (Peters 1991). While no direct evidence for boats has yet been found in the Middle Nile, a dug-out canoe of this date has recently been found in the Lake Chad region (Breunig 1996), another region where aquatic resources will have been extremely abundant and important. Freshwater shellfish, river and land snails may also have been important resources. They are common finds on riverine sites and what appear to be storage pits full of *Pila wernia* (formerly *Ampullaria wernei*) shells were found at Shabona (Clark 1989). There are reports of deep middens of *Ampullaria* shells along Nile palaeochannels in the northeast Gezira (Balfour Paul 1952)

However, this riverine focus must be complemented by the good evidence for the hunting of both small and large mammals which these regions also supported (Gauthier 1983). As was found at Khartoum, a range of antelope species seem to have been exploited, including several swamp-loving species, now only found much further south, as well as an extinct species of Reed Rat (Arkell 1949). Other riverine resources such as monitor lizards are quite common, while various savannah bovids, along with some larger fauna have been found at some of the more southerly sites; in the Lower Atbara region there was apparently little evidence of hunting in the savannah hinterlands (R. Haaland 1995).

The contribution of plant food to the diet remains more problematic in the absence of much archaeobotanical remains. Finds of *Setaria*, *Zizyphus* and *Celtis* have been made at sites in the Atbara area (R. Haaland 1987, 1992) and the presence of wild cereals has also be suggested on the basis of grain imprints on pottery, identified as *Sorghum verticilliflorum*, *Setaria* and *Pannicum* (Haaland and Magid 1995). There have been suggestions that a range of other plants might have been exploited, mainly on the basis of ethnographic analogies. No direct evidence for their use has been found, although it was thought that a grass (possibly a *Digitaria* species?), used as a temper in one of the pottery types at Shabona, could also have been a food source (Clark 1989).

In the absence of much direct evidence, a number of inferences have also been drawn from the presence of pottery and grindstones on sites of this period. Following long-standing traditions (Hoopes and Barnett 1995), the prime significance of pottery is still often assumed to lie in its use for food preparation, and perhaps for food storage. This role has been stressed both at Saqqai, where it was suggested that pottery might be related to food storage, especially for fats (Caneva 1988: 368), and on the White Nile, where Clark suggested it may have been used for processing molluscs and fish, the latter perhaps for oils

(1989). As yet, we have no way of knowing. The extent to which communities may have been developing strategies of food storage remain uncertain. Pits full of snail shells on the White Nile may relate to storage, while it has also been suggested that during this same general period, groups on the Saharan fringes, for example at Nabta Playa and Bir Kiseiba, were storing edible plants to deal with seasonal scarcity in their much more restricted environment (Wendorf and Schild 2001).

Pottery may also have played other important roles, and may well have contributed to improved health and, ultimately, population increase. One important area where this may be the case is in relation to the preparation of weaning foods for infants. The use of boiled foods for weaning babies is likely to have greatly improved survival rates during this critical phase of life (Handwerker 1983). Other processes which may have involved the boiling and purification of water are also likely to have had significant benefits. Over the longer term, the use of grains to prepare fermented and cooked foodstuffs such as porridge and beers, which were to become the staples of much of sub-Saharan Africa (Edwards 1996b), seem likely to have had significant health benefits. They have also been linked with natural antibiotics (Bassett *et al*. 1980). That such culinary traditions may be traced back as early as this period remains possible.

Grindstones are also often encountered in large quantities on sites of this period. It is commonly assumed that they too were mainly used for food preparation, with an often implicit assumption that they will have been used mainly for processing wild grains (R. Haaland 1995). How they were used, however, remains far from clear and if they were used for the preparation of plant foods it remains unknown which types of plants. Many plant foods requiring preparation may have been used. Of these wild grasses are likely to have represented only a small element (Harlan 1989). In recent times these tend to be exploited only as 'famine' foods (Tubiana and Tubiana 1977), but their considerable potential, and variety, needs to be considered in relation to ancient diets.

That we should not overemphasize the importance of grains is perhaps most forcefully suggested by the remarkable range of plant foods found in Late Palaeolithic contexts at Wadi Kubbaniya in southern Egypt (Wendorf *et al*. 1988; Hillman *et al*. 1989). There, arid and sandy conditions preserved substantial collections of botanical remains, including more than 20 different types of plant foods. Uniquely, these included charred remains of soft vegetable foods, remains of a type rarely surviving in archaeological contexts. The most common, amongst a range of plants mainly from wet places, were tubers of nut-grass (*Cyperus rotundus*) and club-rush (*Scirpus maritimus*). These finds are a remarkable demonstration of the range of starch-rich vegetable foods which may well have been significant elements in pre-agrarian diets in many parts of the Middle Nile. The special processing requirements which some of these require, to remove toxins and improve palatability, may also suggest an

alternative use for the grindstones present on such early sites (Hillman *et al*. 1989). While grindstones might be used for the processing of many types of plant foods, the occurrence of ochre residues on grinders at a number of sites (Arkell 1947; Fernandez *et al*. 1997) suggests other quite different uses for them. That they may have been used for other than subsistence activities and put to other socio-cultural uses is certainly of interest. The use of ochre for body decoration, for example, is probably a practice of very considerable antiquity in the region.

The full extent of the contacts and possible exchange networks of these early populations still remains unknown. At Saqqai, occasional marine shells from the Red Sea were found in contexts dating to the late seventh millennium BC (Caneva 1983). What route they may have taken from the coast can only be guessed at. Within the Gezira, where the alluvium and clay plains generally lack stone sources, raw materials may have had to come from further afield. Finds of rhyolite and occasional pieces of basalt at Shabona may have come from sources 200km away; the rhyolite probably coming from the Sixth Cataract (Clark 1989).

Interpretative issues

Long-term environmental developments provide a backdrop for the development of complex and perhaps relatively sedentary hunter-gatherer-fisher communities across much of the Middle Nile by the end of this period. Increasingly dry conditions in more northerly areas will also certainly have begun to encourage movements towards better watered environments, to the Nile or other major watercourses, or towards the better-watered savannahs further south. The impact of increasing aridity will have been especially important in the extreme north, including Lower Nubia. With a limited flood-plain it was perhaps already a relatively unattractive settlement environment by the mid-Holocene, and was to remain relatively sparsely settled until the Late Neolithic.

The increasing importance of watercourses will have also increasingly focused populations on relatively small areas in their environs. Away from these areas, occupation may have gradually become more seasonal, and populations sparser. It also seems likely that other foci of settlement outside the Nile and Wadi Howar will have existed. The Wadi al-Milk, the Khor Abu Habl and perhaps the Bahr al-Arab may all have been important. The margins of the River Atbara may yet provide more evidence for its occupation. How widespread occupation was elsewhere remains to be seen. Some locales may have supported relatively sedentary populations, but the degree of stability is also likely to have varied considerably through time and space.

What we are also beginning to be able to appreciate is something of the inter- and intra-regional variability which existed in material culture, as well as how it changed and developed over time. It may become possible to distinguish

'early' and 'late' Mesolithic assemblages, not only ceramically, but also in the use of different raw materials for lithic tools, as well as different frequencies of tools-types (Garcea 1994). Some of these changes may be seen to presage developments that continue in the Neolithic period. As such, they may also prove significant in considering the likely relationship between hunter-fisher-gatherer populations and the early pastoralists.

Much remains to be understood about the circumstances in which Mesolithic populations settled the region during the Early Holocene, for instance the extent of occupation, and how variable in character it was. While riverine communities may have been quite stable, and perhaps relatively sedentary, it is quite possible that in other regions there may have been more mobile groups. The implications of pottery use also require further study. Did it influence how societies were organized, perhaps on gender lines (R. Haaland 1992, 1997)? There may also have been more specialized adaptations in some areas, yet to be recognized. Were there groups with a strong marine focus along the Red Sea littoral? Were others able to exploit the probably abundant game of the wetter southern savannahs? How attractive were the mountains of Western Sudan? Were there forest dwellers in the South? Were there areas that still remained largely uninhabited? Our slowly broadening perspectives may soon allow us to begin to answer such questions.

3

THE NEOLITHIC

Developing complexity and expanding worlds (*c.*5000–3000 BC)

Neolithic beginnings

Somewhere not long after 5000 BC the first domestic livestock appeared in the Middle Nile beginning the shift from a 'hunter-gathering' to a 'food-producing' world, the beginnings of the Neolithic. As is also found in many other parts of sub-Saharan Africa, the Neolithic takes its own distinctive course (Sinclair *et al*. 1993), different from many other parts of the world. As in many parts of Sudanic/Sahelian Africa, pottery had long existed and was being already widely used by populations, who were often already relatively sedentary. New stone-working technologies do appear, producing polished stone axes and other artefacts of types widely encountered among Neolithic societies worldwide. Cereal-based agriculture based on domesticates does not seem to have been part of this Neolithic package, arriving only rather late in the period and only in limited areas, despite a very long history of the exploitation of wild plant resources. The central feature of this transition was the development of livestock herding, part of a much more widespread process underway across much of Sudanic/Sahelian Africa, where animal husbandry began in several regions over the next 1000 years or so (Holl 1998a, 1998b; MacDonald 1999, 2000; Marshall and Hildebrand 2002).

Through this period we can also see much change and development and it is probably helpful to distinguish two main phases to the Neolithic of the region, although doubtless much more complexity waits to be revealed. Perhaps a thousand years or so after the first domesticated animals appeared in the Eastern Sahara, the 'Early Neolithic' of the Middle Nile broadly spans the fifth millennium BC, while the 'Late Neolithic', runs through the fourth into the early third millennium BC. The late Neolithic clearly continues much later in some parts of the Middle Nile, even if we still know relatively little about the later prehistory of many regions.

We begin with thinly populated landscapes in which bands of hunters-fishers and gatherers congregated on the margins of the riverine floodplains and the shallow rivers which fed the Nile from east and west. Rich riverine resources were probably supplemented by hunting in the broad plains beyond, which in turn opened onto other rivers and lake-edges scattered across the open

landscapes to east and west of the Nile. Favoured locations may have been occupied on a regular, if not permanent basis for centuries, the accumulated debris of this occupation being one of the few permanent marks on the landscape left by these early populations.

Around 5000 BC, conditions were still considerably wetter than today (Figure 3.1). Trees and scrub-covered savannah stretched over large parts of the region while grasslands still extended far to the North into the semi-desert which still covered most of the modern Sahara. Around the confluence of the Niles, there was probably still significant tree cover. In this period we also begin to find

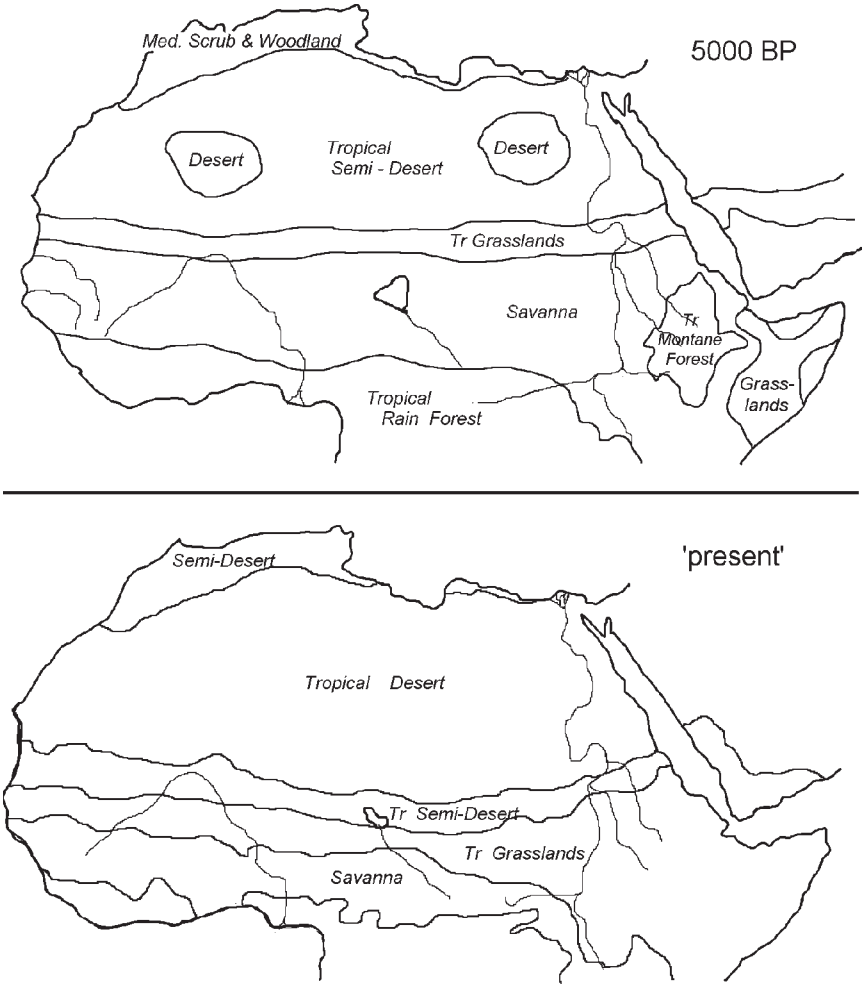

Figure 3.1 Vegetation zones across northern Africa in *c.*5000 BP and 'modern' times
Source: based on Adams and Faure 1997

indications of the appearance of a human-influenced ecosystem, in which activities such as controlled burning and tree cutting, as well as controlled grazing, will have begun to make significant changes to the landscape (Barakat 1995).

The transitions underway in this period were not only about changing means of subsistence and changing technology. There is good evidence, as in other parts of the world (e.g. Cauvin 1994) that important transformations were also taking place in other cultural spheres, including ideological changes which brought people new ways of comprehending the world and their place in it. We also see the development of new and distinctive forms of material culture, new forms of symbolic representation with new and distinctive visual aesthetics. The inhabitants of the region were increasingly materially rich, working stone, bone and ivory not only for functional items but for personal adornment and display, new types of 'socially valued goods' (Spielmann 2002). Along with highly elaborated pottery, such artefacts became widely used for rituals of social life, and death. New forms of relationships were also being established with the animal world, where domestic livestock, especially cattle, acquired considerable social significance, manifested in new symbolic and ritual systems. New belief systems may also be reflected in the appearance of anthropomorphic and zoomorphic figurines and statuettes.

How people lived and moved within the world was also changing. Increasingly dry conditions, felt most keenly in the north, were creating barriers between regions. The open plains were probably becoming less welcoming and more difficult to traverse, encouraging populations to focus increasingly on the Nile and other favoured locales. Long-standing contacts with western Sudan may have been becoming increasingly tenuous. Within the Nile valley, where many shared cultural features are apparent during the fifth millennium BC extending from Middle Egypt to far south of Khartoum, later Neolithic Egyptian developments increasingly diverge. When new contacts were developing with Egypt across the Sahara during the fourth millennium BC, we see the meeting of two very different worlds.

Very different styles of life were also to emerge in the centuries after the first arrival of domestic animals. Within the northern Middle Nile, we may be seeing the first appearance of more or less settled farmers. In some areas they were probably growing wheat and barley, new crops which had been carried up the Nile from Egypt, as well as herding cattle, sheep and goats along the river margins in the often rich basin lands. The hunting and gathering of wild resources will also have continued, with more distant areas of the interior being used for grazing lands following the rains. These farmers moved through a landscape studded with the burial mounds of their ancestors, covering often richly furnished graves. Further south, in the more open landscapes of the central Sudan, greater mobility was possible, with pastoralists able to range widely, following seasonal grazing, while continuing to exploit rich wild plant resources. New forms of agriculture did not spread so far south. This was not a landscape

of villages, although large cemeteries again provided fixed points in the broad grasslands. Within these landscapes, new forms of territoriality and senses of place will have been emerging, environments in which mountain peaks, perennial pools and centuries-old baobabs will have provided points of reference, as well as acquiring new meanings as 'special places', focal points in 'sacred landscapes' people were creating around them.

Changing perspectives

The first Neolithic site in the Middle Nile was found in 1949, at Shaheinab (Figure 3.2) on the west bank of the Nile some 50km downstream of Khartoum (Arkell 1953). Evidence for domestic animals, sheep and goats and probably

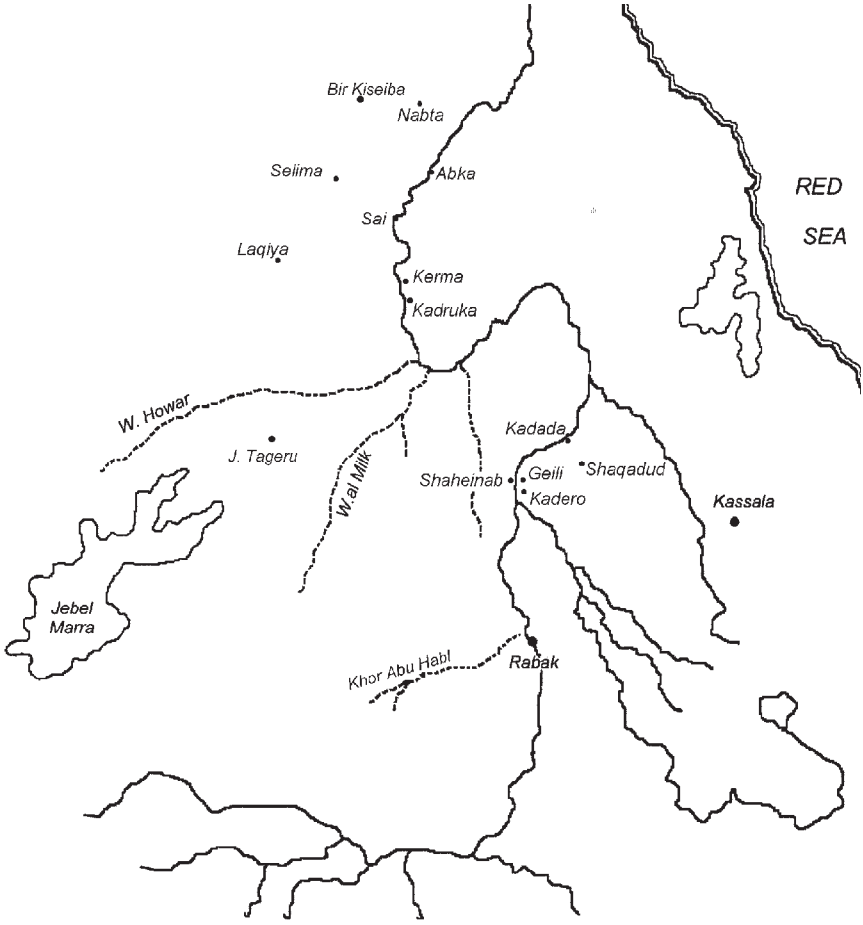

Figure 3.2 The Neolithic in the Middle Nile

some domestic cattle, distinctive ceramics and new forms of lithic tools distinguished this site from what had previously been found at Khartoum Hospital. This and a number of similar sites in the region, Arkell confidently placed later than his 'Khartoum Mesolithic', as was later confirmed when radiocarbon dates became available. Until very recently, these few sites in the Khartoum region have dominated our knowledge of the Early Neolithic period for most of the Middle Nile. No sites were known which could be compared with the often impressive Neolithic sites discovered in the Egyptian Lower Nile during the early twentieth century (Hassan 1988). After Arkell, little else was learnt in this region until the 1970s due to the concentration of research in Lower Nubia. There, continuing pioneering studies of the early twentieth century, a considerable body of material was collected relating to the Late Neolithic/early Bronze Age 'A-Group' of the region, dating to the fourth millennium BC, as well as a series of rather less well understood Neolithic 'cultures' known mainly from the Second Cataract region (Nordström 1972). Virtually nothing was known in the intervening regions as far south as Khartoum.

More recent work in both northern and central Sudan has begun to fill in some of the gaps in our knowledge, while also revealing the remarkable potential of Neolithic archaeology in these regions. We are also beginning to be able to trace the development of possibly several distinct regional cultural traditions, ultimately following very different paths. Where 50 years ago Egypt or Egyptian Lower Nubia provided cultural benchmarks around which the prehistory of the Middle Nile was framed, the traditional emphasis placed on these northern developments is no longer necessary. Lower Nubian cultures such as the A-Group can now be seen in a new light. We are now discovering other contemporary societies further south, societies which continued to develop through to the third millennium BC, ultimately to emerge as significant polities, which over the centuries were even to become powerful rivals to Egypt.

Issues of domestication

The development of animal herding is perhaps one of the most central developments of the Neolithic of the region. The origins of domesticated livestock must be sought further north. Potentially very early dates for cattle have been claimed for sites in the Eastern Sahara in Egypt at Bir Kiseiba and Nabta Playa, although their identification as domestic remains problematic, and much debated (Wendorf and Schild 1994; MacDonald 2000), largely relying on ecological arguments that cattle could only have survived in such an arid region with the assistance of humans (Close and Wendorf 1992). Ongoing debates surrounding these early cattle, and whether there may have been independent domestication in North East Africa are, however, only of importance indirectly for the Middle Nile. If questions of 'origins' remains unresolved, domesticated cattle are almost certainly present in the Eastern Sahara by the seventh millennium BC (*c.*8000 BP) while domesticated sheep/goat were being

exploited in the same area around 6000 BC (Close and Wendorf 1992) and possibly somewhat earlier. Whatever the exact date of the first appearance of domestic livestock in the Eastern Sahara, they arrived in the Middle Nile several centuries later; their presence in the Khartoum region is indicated by the mid-fifth millennium BC (*c.*5600–5000 BP) and perhaps a little earlier (Caneva 1991b; Tigani al-Mahi 1988). Continuing this process of dispersal, livestock appears in Eastern Sudan slightly later, with first domesticates appearing in the Kassala region in the fourth millennium BC and, spreading south, they may have reached the Lake Turkana region in what is now northern Kenya by 3000 BC (Marshall *et al*. 1984; Barthelme 1985).

Until recently, there has been little basis for suggesting the route(s) by which these earliest domesticated animals were introduced into the central Sudan, or the mechanism(s) through which they spread. According to Close and Wendorf's model, the early Holocene populations in the Eastern Sahara originated in the Lower Nile Valley and were thus distinct from the colonizers of the Sahel/southern Sahara coming from the south. How livestock may then have spread to the west and south from the Eastern Sahara remains far from clear, but it may have reached the Middle Nile by a circuitous route, probably entering the region from the west or the northwest. As we have seen, there are suggestions that the appearance of Dotted Wavy Line pottery in the central Sudan may reflect a renewed phase of cultural links to the west, during which the first livestock was introduced into the region (Caneva 1991a).

As for the mechanisms through which livestock entered the region, we can as yet only speculate upon them. Were they acquired through existing exchange networks which already linked hunter-fisher-gatherer populations widely spread across the central Sudan? Were there significant movements of people associated with the spread of livestock? As yet there are too many gaps in our knowledge, although current perspectives on the spread of farming tend to suggest that ideas and products were moving, rather than people (Gebauer and Price 1992; Price and Gebauer 1995). However, ideas of population movements still have considerable attraction in this region, particularly for those also interested in the development and spread of major language groups in Africa, notably the Nilo-Saharan languages which were to become established over much of the Middle Nile (e.g. Ehret 1993).

THE EARLY NEOLITHIC

Early Neolithic settlement

With changing environmental conditions and the addition of livestock herding, new patterns of settlement seem to emerge during this period. Where surveys have been undertaken, for example north of Khartoum (Figure 3.3), it is possible to compare the distribution of Mesolithic and Neolithic sites. While Mesolithic

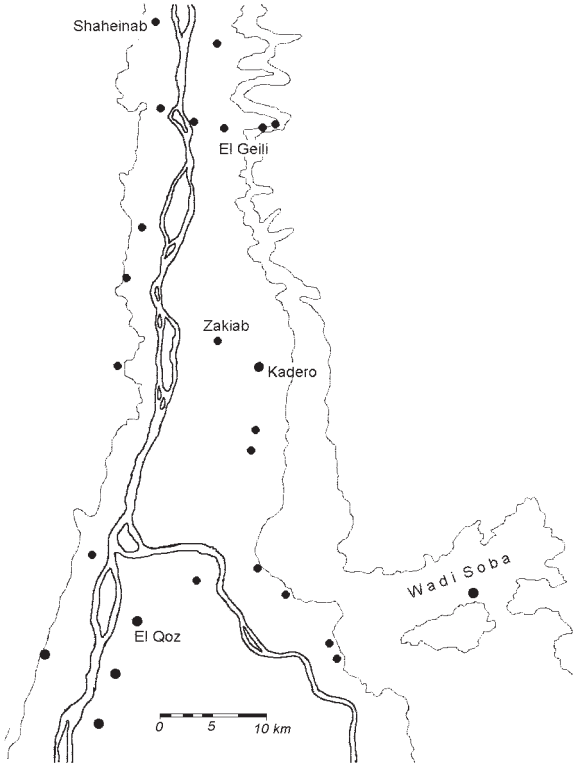

Figure 3.3 Neolithic sites in the Khartoum region

sites had been abundant along the river terraces on the edge of the old floodplain, Neolithic sites seem to be sparser and more widely distributed, while also spreading into the floodplain as the river shifted towards its modern course (Caneva 1988). The character of sites also appears more variable, some 'settlements' having formal cemeteries associated with them, while many others did not. Sites may also be differentiated in terms of their use on a seasonal basis, foci of different seasonal activities (R. Haaland 1981, 1987). Larger settlement sites seem to be on the edge of the alluvial plain, still seasonally flooded, often 6–7km east of the current river channel. Sites closer to the river will have been occupied only in the dry season after the Nile flood receded. Smaller sites away from the river may relate more to hunting activities, or perhaps seasonal grazing. It is possible that this pattern reflects increasing mobility, perhaps necessitated by the demands of managing domestic herds. However, it cannot be assumed that pastoralism necessarily entailed greater mobility while some Mesolithic populations may well also have been seasonally mobile.

Two of the larger sites downstream of Khartoum were those at Kadero (Krzyzaniak 1991) and El Geili (Caneva 1988). At Kadero, settlement areas on a large natural mound were in close proximity to, but distinct from, several clusters of graves forming one or more cemeteries. Radiocarbon dates indicate an extended period of use *c.*4850–4250 BC. While the site was heavily deflated, removing any intact occupation levels or structural remains, ceramic and other refuse material seems to have been abundant, although no quantified finds data has been published from the site. Geili appears quite similar, and was occupied perhaps as early as the mid-fifth millennium BC. One smaller dry-season site has been explored at Zakiab, closer to the river (R. Haaland 1981). Most known sites on the west bank seem to have been relatively small although others may have been lost as the Nile shifted its course westwards.

Broadly similar patterns are now becoming apparent on the east bank of the lower Blue Nile which may well have been even more attractive for settlement, due to the presence of a number of large wadis running into the interior. As the Nile floodplain was contracting, Neolithic sites were appearing in lower areas along its edge, close to the 390m contour, still some distance from the present Nile (Fernandez *et al*. 1997). In addition however, there are still large sites located far away from the river. One very large site (Sheikh el Amin) has been found in the Wadi Soba, some 18km from the river. A substantial mound, *c.*1ha in area, lies at its heart, with deposits of up to 1.3m deep. This has the appearance of a permanent settlement and it certainly would have been well-placed for exploiting stands of wild grains and grazing along the wadi. That similar large sites might be found along other wadis further up the Blue Nile has seemed likely; several possibly Early Neolithic sites (his 'Butana Culture') were reported by Balfour Paul (1952) at locations *c.*60km or more east of the Blue Nile.

Little is known of Early Neolithic developments along the White Nile although preliminary work in the Kosti area has identified sites with pottery very similar to that found in the Khartoum region dating back to at least the mid-fifth millennium BC (R. Haaland 1984). Reconnaissance surveys have identified further sites on both banks, on the edge of the often broad floodplain. Some, such as a large mound eroding into the river just south of Jebel Aulia, again have deep deposits (1–1.5m) of occupation debris, with both Mesolithic and Neolithic material, suggesting a long use. If the area still remains little known, the scale and diversity of natural resources along the White Nile will certainly have equalled, and probably have been much greater than in the areas downstream of the confluence of the Niles; with a much wider river in flood, and the similarly broad productive floodplain during the dry season.

How developments underway in the central Sudan during the fifth millennium BC relate to other areas still remains uncertain. It may be presumed that domestic livestock appeared in some other areas even earlier, although whether this was to the north or west remains unknown. Neolithic sites have been reported along the Nile downstream of Atbara in most areas where archaeologists have ventured, including the inhospitable Fourth Cataract region (e.g. Kleppe

1982a; Paner 1998). The northern margins of the Baiyuda also seem likely to have been attractive areas for settlement. However, it is only within the northern Dongola Reach that systematic survey and excavation work is now beginning to provide us with detailed information on this period, revealing a remarkable density of Neolithic sites in some areas of the Kerma Basin and Wadi al-Khowi to the south (Figure 3.4). The first radiocarbon dates for these suggest they may be as early as any Neolithic sites found in central Sudan.

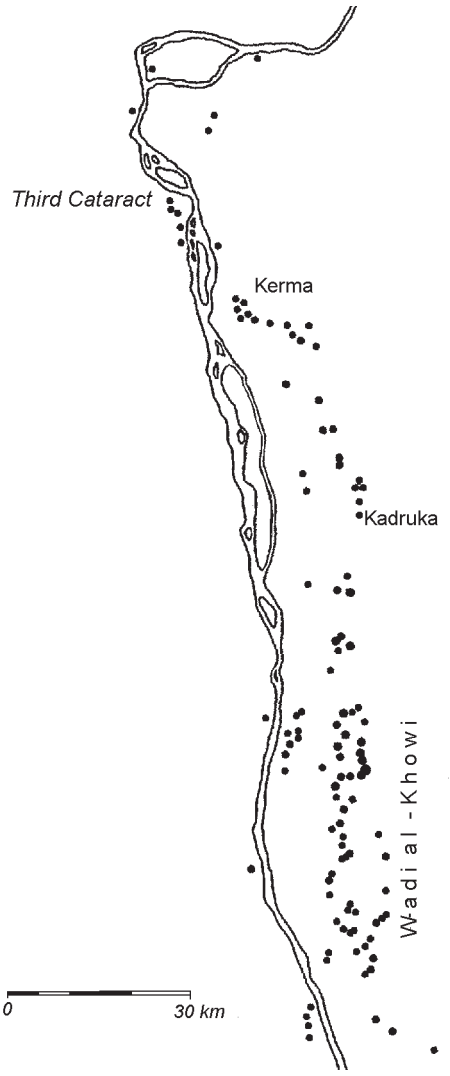

Figure 3.4 Neolithic settlement in the northern Dongola Reach

Settlements tend to be very heavily eroded and rather ephemeral but the distribution of sites suggests that settlement was shifting into the wide flood plain of the Kerma Basin and Wadi al-Khowi through which a number of Nile palaeochannels ran (Honegger 2001; Reinold 2000; Welsby 2000). The number of sites in this region suggests quite intensive occupation throughout the area with some very large, if poorly defined spreads of occupation material, perhaps better seen as 'zones of settlement' rather than discrete sites, possibly occupied over an extended period (Welsby 2000: 135).

Heavy erosion and deflation, which may have removed anything from 30cm to 2m of ground surface since Neolithic times, has also contributed to often very heavy concentrations of material on the surface. Exceptionally, parts of at least one relatively well-preserved Early Neolithic settlement have recently been discovered near Kerma, dated to around 4500 BC (Honegger 2001). Arrangements of postholes and hearths show the presence of post-built sub-circular houses, commonly *c.*4m in diameter, as well as some rectangular structures, associated with fences and palisades. This is the first example of a Neolithic settlement with significant structural remains yet found anywhere in the region. The many cemeteries, usually located on prominent natural mounds, form better-defined sites.

Sites of this period are also being found in current survey work in the Third Cataract region and further north, but most seem to be relatively small and scattered, reflecting the less hospitable landscapes of Middle and Lower Nubia. Towards the north Early Neolithic remains become increasingly sparse and populations of this period are mainly represented by scattered 'Abkan' sites, first identified near the Second Cataract in 1947–48 by O. H. Myers (Myers 1958, 1960; Nordström 1972). Another cultural group the 'Post-Shamarkian' is probably no more than 'a local counterpart to the Khartoum Variant and the Abkan' (Nordström 1972: 8). A few Neolithic sites were found in the Batn al-Hajar in the 1960s but remain unpublished. One interesting contrast with areas further south is the absence of cemeteries in the region. While scattered individual burials may have existed in the region, we can be reasonably confident that no substantial cemeteries on the scale of those found in central Sudan were missed by the intensive surveys in the region. There are very few known sites north of the Second Cataract, although some limited occupation has been identified, for example in a cave site at Adindan (Williams 1989).

The few radiocarbon dates available for the 'Abkan' suggests it first appears in the later fifth millennium BC. Sites are generally small, but new forms of pottery and the appearance of polished stone axes suggest that this region was affected by cultural developments further south. However, settlements continue to show a reliance on both hunting and fishing, and the use of fish traps in the cataract zone has been suggested, in the absence of harpoons, or other fishing equipment such as hooks or net-sinkers (Shiner 1968a). Evidence for the presence of domestic animals remains equivocal (Nordström 1972: 16). Finds of material identified as 'Abkan' have recently been made at Sai island (Geus

2000). However, whether it is significantly different from material of this date now being found in the Dongola Reach remains to be seen.

If Neolithic occupation has been found in nearly all riverine areas where archaeologists have ventured, there are as yet few indications that the plains to the east of the Nile in central Sudan carried significant populations during this period or that riverine populations exploited areas far away from the Nile. At the remarkable site of Shaqadud in the Western Butana, the appearance of the 'Khartoum Neolithic' was placed at *c.*4600 BC with the appearance of burnished pottery and new forms of pot decoration. The pottery however, appears rather different from that found in the nearby river valley, albeit linked at least in a general way with decorative motifs and techniques of broader 'Saharan' traditions (Caneva and Marks 1990). Gouges and polished stone tools were also absent and the lithics generally drew on local sources of material, suggesting that the inhabitants of the area were not integrated into exchange networks along the Nile exploiting sources of rhyolite, for example, at the Sixth Cataract. The lack of evidence for domestic animals also suggests a continuation of hunting and gathering lifestyles, and that riverine herders were not penetrating this far into the interior during this period. However, this long-lived site with vast artefact-rich middens remains unusual in many ways and cannot in isolation easily be related to wider regional developments during this period.

Further east, surveys beyond the River Atbara have identified many sites on the steppes between the Atbara and the Gash, known as the 'Saroba Phase', for which dates in the fifth millennium BC have been suggested (Fattovich *et al.* 1984). Parts of this area seem likely to have still been swampy, at least on a seasonal basis. The local populations seem to have remained essentially hunter-gatherers, with evidence for the hunting of mainly smaller mammal (e.g. small bovids, warthog, monitor lizards) as well as the collection of *Pila* shells. The exploitation of plant foods, of some form, may again be indicated by the common occurrence of grindstones on sites in this region.

Looking to the west, the Wadi Howar remains our major source of information. Relatively sparse late Mesolithic occupation in the lower wadi is reflected in a number of sites with Dotted Wavy Line pottery, perhaps continuing well into the fifth millennium BC. Sometime during this period, we also see the appearance of a new ceramic style ('Laqiya' pottery) in the region, also found in areas north of the Wadi Howar, but not in the Nile valley. Its appearance seems to mark a new and significant development, linking populations moving north and south through this region, and perhaps further west. There is as yet no clear evidence for the presence of domesticated animals in the region during the fifth millennium BC and no obvious links with the sort of Neolithic material which begins to appear in the Dongola Reach during this period. 'Leiterband' pottery, which does resemble some Early Neolithic pottery from the central Sudan, and is associated with domesticates, seems to be appearing rather later in these areas west of the Nile (Keding 2000), although we still have few radiocarbon dates from sites in the Wadi Howar.

Changing material worlds

While the first appearance of livestock has been a major focus of interest since early work at Shaheinab, significant changes in a number of areas of material culture can also be observed taking place at this time, although areas of continuity can also be identified. Analysis of lithics at Geili suggested the continued use of the complete range of Mesolithic quartz tools, but with the addition of a new selection of larger tools, notably rhyolite gouges, endscrapers and polished axes ('celts') (Caneva 1988). Bone tools, including harpoons continue to be found, both in Early Neolithic burials (Krzyzaniak 1991) and settlement sites (Caneva 1988).

It seems likely that new forms of social power were developing not only through the control of livestock but also in the procurement and exchange of polished stone tools. As in many parts of the world, objects such as polished stone axes and mace-heads clearly became valued and prestigious artefacts. Made from many forms of hardstone, numerous sources of raw materials may have been exploited, mainly within the Cataract zones in riverine areas, but doubtless from other sources too. The Sixth Cataract was probably a major source in central Sudan, notably for rhyolite. Some of the outcropping hills in the Gezira also seem likely to have been production centres as suggested many years ago by the Seligmans (1932: 7). However no systematic studies have yet been made of the sources of the many granitic and other rocks used for stone tools, or how they were distributed.

The partial polishing of tools may have improved their performance. One characteristic tool of the Early Neolithic is the 'gouge', probably a wood-working tool (Arkell 1953: 31). Shaheinab was originally identified with a 'Gouge Culture', although these tools represent just one element of Neolithic toolkits and were by no means ubiquitous; they are rare at Geili, apparently rarely encountered in the Shendi Reach and absent from some sites on the White Nile (R. Haaland 1984), although the lack of local raw materials is likely to have been an important factor in determining the availability of larger tools in areas like the Gezira. While inter-site comparisons are often not easy, some variability in lithic raw materials and their use is evident. North of Khartoum and along the lower Blue Nile, lithics are dominated by the use of pebble quartz derived from the Nubian sandstone, more rarely agate and chert pebbles, basalt, rhyolite and occasionally quartzite and fossil wood. Rhyolite was almost certainly derived from outcrops in the Sixth Cataract region, although no axe production sites have yet been identified. Quartz generally dominates lithic collections (accounting for some 92 per cent of the debitage at Geili and ≤86 per cent at Kadero). In terms of tools however, it is much less dominant and very much less so than on Mesolithic sites in the region (Caneva 1988). The percentage of tools by raw material tends to be much more variable, with rhyolite for example, commonly accounting for up to 50 per cent of them, being used especially for gouges and celts. Geili was unusual with only 22 per cent of tools being of

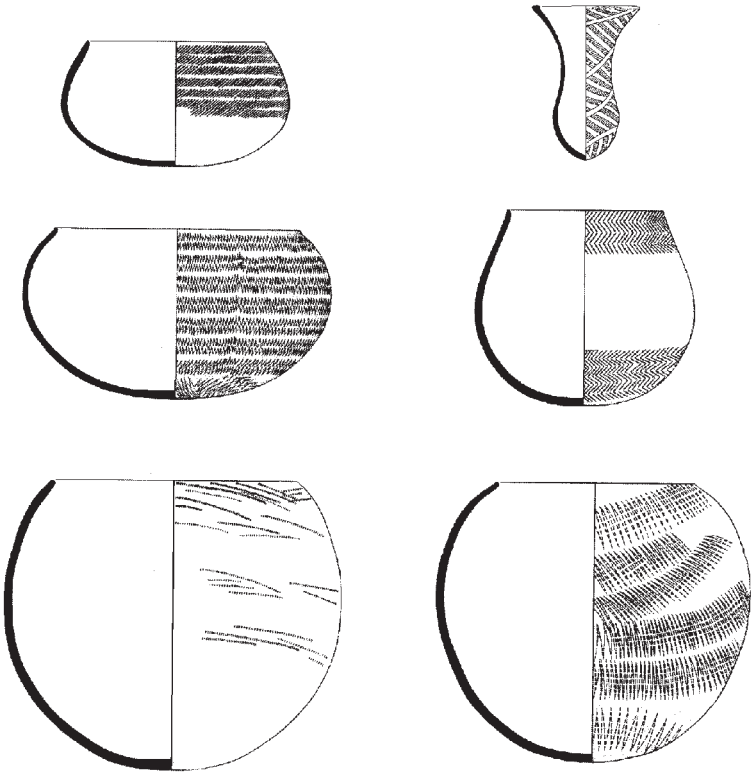

Figure 3.5 Neolithic pottery from the Dongola Reach
Source: after Salvatori and Usai 2001b, 2002

rhyolite. Some geometric microliths were perhaps hunting-related while the numerous scrapers probably relate to the working of animal skins.

If there are significant changes in lithic materials in the Early Neolithic, ceramic culture was also changing markedly. While there is a continued use of globular vessels decorated with dotted (impressed) zig-zags there was also a widespread use of straight-sided bowls with impressed decoration as well as the appearance of burnished finer wares. An increasing variety of vessel forms would seem to include more smaller vessels, and closed vessels, perhaps relating to the serving of liquid foods and drinks (Caneva 1994), beginning a long-term trend in which small drinking vessels become increasingly prominent in ceramic assemblages. While maintaining a relatively limited range of simple vessel forms (Figure 3.5), decorative styles become more elaborate and varied. As yet however there is no indication that pottery production was becoming specialized (Francaviglia and Palmieri 1988).

In addition to changes in lithic and ceramic repertoires, the Neolithic saw a marked growth in the range and elaboration of other forms of material culture, especially materials relating to personal adornment and display. While little is known of settlement sites, such material changes are very apparent in burials. Polished stone was used for making fine palettes and grinders, which in turn were used for preparing pigments for personal adornment. Materials such as ochre and malachite are common finds associated with them. Bone and ivory was extensively used. Bone was used for a wide range of tools and implements such as awls, spatulae (used with ochre), perforators and polishers. Bone and ivory was also made into items such as combs, hair pins, armlets, containers, and jewellery. Anthropomorphic figurines also suggest that bodies may have been tattooed or scarified (Figure 3.6). The extent to which so much of this new range of artefacts relates to bodily decoration and ornamentation is very suggestive of the importance of the body in presenting and communicating status and identity (Wengrow 2001).

Finds of beads are very rare prior to the Neolithic. However, as is found in regions such as Western Asia (Wright and Garrard 2003), beadwork, especially in ground stone, becomes much more common, with new ranges of bead colours and forms. A workshop for carnelian beads has recently been identified at Sai island (Geus 2000), and partially completed agate and quartz beads have been found deposited in graves (Salvatori and Usai 2002). Adornments such as stone lip-plugs also appear. It is interesting that these appear to be much more common in more southerly areas, rarely being found in the Dongola Reach. Red Sea shells including cowries and *Nerita polita* are being used for beadwork, and more exotic materials such as amazonite/malachite are also in use.

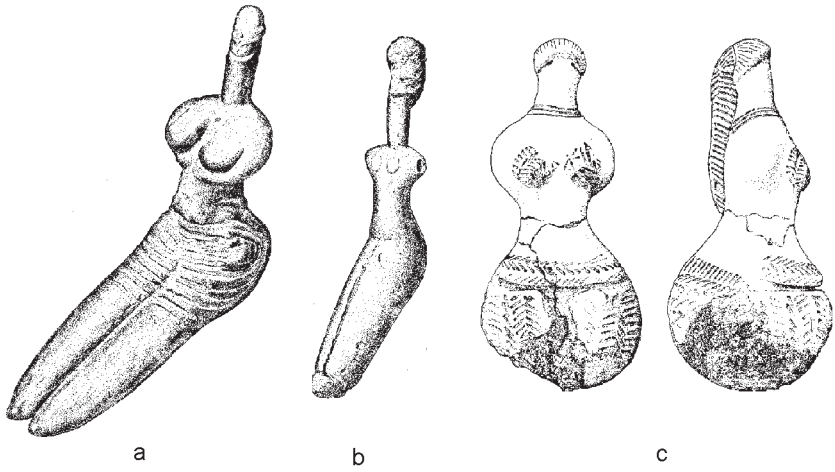

Figure 3.6 A-Group (a, b) and Neolithic (c) figurines
Source: after Nordström 1972 and Reinold 1987

One other indication of new ways people were living in the landscapes of the Middle Nile is the possible appearance of new forms of rock drawings during this period, including both wild animals and domesticated livestock (Figure 3.7). Identifying Neolithic rock art in the Middle Nile remains problematic. Recent work in Upper Egypt has suggested that some petroglyphs may date back to the epi-palaeolithic (Huyge *et al*. 2001) and some stylistically similar material may be found in Lower Nubia, for example at Abka (Myers 1958). From major published collections from Lower Nubia (e.g. Hellstrom 1970;

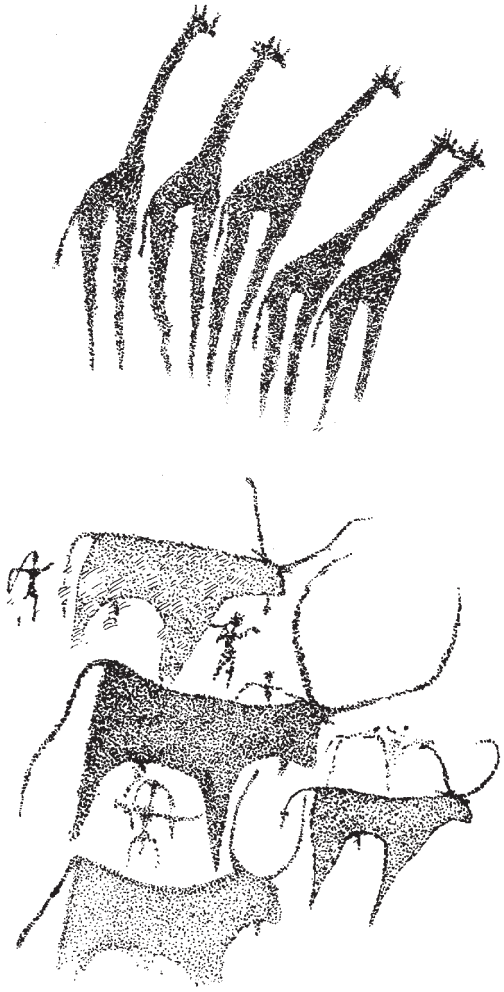

Figure 3.7 Rock drawings, from the southern Batn al-Hajar
Source: after Otto & Buschendorf-Otto 1993

Otto and Buschendorf-Otto 1993), the numerous depictions of large fauna such as giraffe and elephant certainly suggest that many of the drawings date back to the more favourable conditions of the Middle Holocene but just how early they may be remains unclear. Dating the very abundant drawings of cattle, however, remains very difficult. Some may well be of Neolithic date, but most seem likely to be later. Unfortunately, those areas where Neolithic settlement was densest are also generally areas lacking rocky features with suitable locations for rock art.

Placing the dead: Neolithic cemeteries

On the evidence of the first excavations at Shaheinab, Arkell suggested that Early Neolithic populations were not burying their dead. Only since the late 1970s have significant numbers of burials been excavated and any picture of the mortuary archaeology of this period remains very fragmentary and incomplete. As we are only now becoming able to trace chronological developments and phasing within the Neolithic period, we are still limited to rather generalized interpretations. However, while broad cultural similarities can be identified between Neolithic groups spread over substantial areas, there are also indications of regional variability.

From quite early in the fifth millennium BC, we see the appearance of new forms of mortuary practices, which seem to take a broadly similar form over large parts of the Nile Valley, extending from central Sudan as far north as Middle Egypt. This suggests that a common body of beliefs and practices was becoming established over very wide areas in a relatively brief period. While small groups of burials are known from earlier periods, an important development during the Neolithic seems to be the appearance of large formal cemeteries, which over time will have become significant markers in the landscape. Burials are usually in subcircular pits, the bodies being laid in a contracted position, some so tightly contracted to suggest that they were in some way bound. Variability amongst burials also gives us our first indications of the existence of societies in which variations in rank and status were becoming increasingly marked. Bodies begin to be buried with an extensive range of artefacts, including the new types of personal adornments, while polished stone axes and maces appear as valued and probably prestigious objects. Animals are also incorporated into mortuary environments. While complete and separate cattle burials are known from the Egyptian Lower Nile (Brunton and Caton-Thompson 1928) and the Western Desert (Wendorf and Schild 1998), in the Middle Nile they seem to be represented by their horns and bucrania (cattle skulls), placed in human graves (Lecointe 1987; Reinold 1991).

At present, we are restricted to evidence from riverine central Sudan and the Dongola Reach for this period as no substantial cemeteries have yet been identified in other areas. The only significant cemetery so far found in the Khartoum region is the one at Kadero, while north of the Sixth Cataract, a

rather larger site has been partially excavated at al-Ghaba close to Shendi. Both sites date back to early in the fifth millennium BC, if not before, and remained in use over many centuries. At Kadero, several clusters of graves adjoined a settlement area on this large natural mound. Sampled areas suggest that spatial patterning within the site may to some extent reflect the chronological development of the cemetery, although there are also indications that some areas may have been reserved for 'elite' groups, for a possibly extended period, perhaps continuing into the Late Neolithic. In the largest group of excavated burials, adult males and females as well as adolescents were found with varied, and often abundant burial equipment, although only *c.*30 per cent of the burials included surviving artefacts.

Amongst the furnished graves, both fine and coarse pottery was quite common. Jewellery, such as carnelian and bone beads, zeolite lip-plugs and/or nose-studs, was quite frequent while shell beads and cowries were also used, possibly as decoration on clothing and head-gear (Krzyzaniak 1991: 525, Fig. 7). As within settlement sites, lumps of raw pigments such as ochre and malachite were common, along with stone palettes and grinders. Bracelets and armlets were made of both elephant and hippopotamus ivory. Furnished child burials suggest ascribed social status. Tools and weaponry were not common. Polished stone axes still seem to have been rare at Kadero during the Early Neolithic and conical/pear-shaped 'mace-heads' are only occasionally found. The novel character of these sorts of objects may be contrasted with the continued presence of bone spear/harpoon heads, a collection of which was found in one of the 'elite' graves, along with 'knapping kits' of raw quartz and prepared cores.

The other major site of this period is at al-Ghaba where a segment of a large cemetery was excavated during 1977–86, recording over 250 graves (Geus 1986; Lecointe 1987) dated to the period *c.*4450–3780 BC. Broadly contemporary with Kadero, its later phases establish a sequence which continues into the Late Neolithic, as seen at the nearby site of Kadada. In general, the burials are quite similar to those at Kadero, mainly contracted with variable orientation, limited to a single inhumation in each grave. The pottery also has much in common, both grey and red-brown wares, some elaborately decorated, while including a few forms, such as a caliciform beaker, which were to become much more common during the Late Neolithic. Personal adornments included white lip-plugs, agate, ostrich eggshell and bone beads, and again ivory bracelets. Many of the skeletons showed a greenish colouring from malachite, often around the face and teeth, while lumps of the material were also placed in graves, perhaps in small bags. Red ochre was also used. Polished stone palettes, pebbles and sandstone grindstones were also present as well as river shells (e.g. *Aspatharia rubens*), probably also used for preparing pigments. At al-Ghaba, some new features were also found such as large discoidal mace-heads. One new and potentially significant development at al-Ghaba was the discovery of several cattle bucrania within graves, presaging the growing prominence of cattle in Neolithic and latterly Bronze Age mortuary practice.

Further north, it is only very recently that Early Neolithic cemeteries have been identified and excavated, notably a series of large sites to the south of Kerma (Reinold 2000; Salvatori and Usai 2001a and b, 2002). Dates for these suggest they span most of the fifth millennium BC. Extensive excavations of several cemeteries, notably around Kadruka, have produced an exceptional range of material, including some of the richest Neolithic burials so far found in the Middle Nile. The often excellent conditions of preservation in the much more arid north have also ensured that a much wider range of materials have survived, including fragmentary leather garments, smaller bone tools, hippopotamus tusk containers and even grain. The largest cemeteries, with 1,000 or more burials seem to have been used for many centuries, but most others seem to have been in use for shorter periods, perhaps no more than a century or so. One of these (site KDK18) had 124 burials with dates spanning *c.*4500–4350 BC. There, as at a number of the Kadruka sites it was possible to trace something of the spatial development of the cemetery, which in that case seemed to have been established around the burial of a woman within a circle of half a dozen other graves. A slightly later site (KDK1), dated around 4000 BC, seems to have developed around an exceptionally rich burial of a man (Figure 3.8). His burial included nine mace-heads, ivory bracelets, a diorite palette, much pottery including a caliciform vessel, a sandstone anthropomorphic statuette as well as

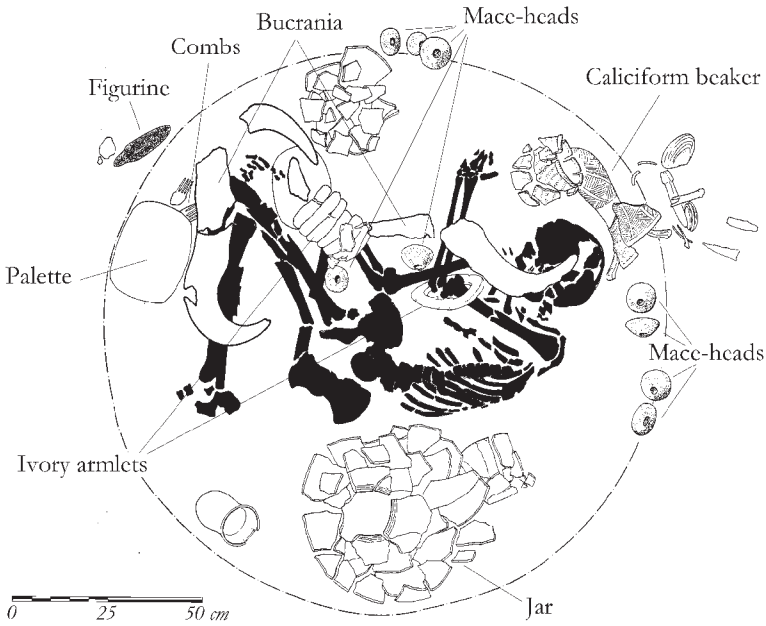

Figure 3.8 Neolithic burial at Kadruka
Source: based on Reinold 2000

two bucrania. The distribution of the other 96 burials suggests that male burials clustered on the upper mound while females were buried below. Child and adolescent burials were scattered amongst them. The burials were also quite regular, laid in a contracted and flexed position, most if not all buried on their left side with their heads towards the east. Several types of artefact, including palettes, marine shells, mace-heads, caliciform vases and anthropomorphic figurines seem to have been restricted to male burials on the upper mound (Reinold 1987, 2000). Similarly burials have been excavated at site R12 a little further south (Salvatori and Usai 2001a, 2002).

As was seen in Central Sudan, burials of bucrania were not uncommon within graves. Other domestic livestock was also appearing in burials, including a sheep decorated with amazonite beads; the decoration of sacrificial animals was a practice which was continued during the Bronze Age Kerma period. Distinctions between the sexes have also been noted, but do not appear to be consistent, in one cemetery diorite palettes appear to be associated only with male burials, while in another they are found with females. Pottery was not abundant, and mainly comprised open bowl forms and caliciform vases. One other novel feature encountered in the area was the erection of grave stele beside burials, unworked slabs of stone, apparently marking the graves.

Livestock and herding: Changing worlds?

Despite the emphasis traditionally placed on the appearance of domestic livestock in the region, we remain far from fully understanding the scale or nature of social transformations underway in the Early Neolithic. How did hunter-fisher-gatherers become agropastoralists? In more recent times hunter-gatherer populations in contact with pastoralists rarely seem to acquire cattle (A. Smith 1998). How widespread were these changes? To what extent and for how long may hunter-gatherer populations have survived in some regions, perhaps on the margins of more hierarchical pastoral societies? If we look beyond such 'economic' changes, how did this transition change peoples' relations with each other, with animals and with the natural world?

During the Early Neolithic, it may be useful to see the first manifestations of animal domestication in the Middle Nile as the addition of a herding dimension to long-established 'Hunter-fishing-gathering' modes of existence, following a pattern widely encountered elsewhere in the Sahel and Sahara (Arioti and Oxby 1997). Over the longer term, however, the adoption of herding will have had more significant effects on settlement, its mobility and distribution, and more generally in restructuring social relations. Similar changes were also underway elsewhere in Sudanic Africa where a number of different livestock herding systems seem to have begun to develop in the increasingly varied environments of the mid-Holocene (Holl 1998a).

The changes underway at the beginning of the Neolithic should not be seen only in terms of economy and subsistence. Over the long term, domestic live-

stock may have brought radical changes to the way of life of the hunter-fisher-gatherers, ultimately bringing about a substantial shift in diet towards animal products, probably milk and blood (R. Haaland 1991), while maintaining some reliance on fishing, hunting and gathering plant foods. Tracing changes in subsistence is however very difficult, there being exceptional problems in investigating pastoralism in the archaeological record (Chang and Koster 1986). To date, our primary evidence for the exploitation of domestic livestock is the faunal remains from sites, the residues of livestock consumed for meat. However, it was secondary products, notably cattle milk and/or blood, which seem likely to have become the major contribution of herds to subsistence, as we find among most modern pastoral groups in East Africa. A shift to the full exploitation of their potential may have taken some time. In particular, the extensive use of milk is likely to have taken a significant period to develop due to the problems of lactose intolerance (Simoons 1978, 1982).

To what do the animal bones actually relate? According to most models of pastoralism, animal bones would normally be expected to be quite scarce in the archaeological record. When present they would actually poorly reflect the role of livestock in day-to-day subsistence. Instead, they are more likely to relate to forms of consumption in 'non-subsistence' activities, for example in ritual spheres (Arioti and Oxby 1997). Such a role for livestock is now becoming well-recognized, to the extent that arguments can be made that many animals were actually domesticated primarily for improving meat resources for ceremonial uses, for feasting. Their significance in what is commonly labelled quotidian 'subsistence' may have been limited – as it is still today for large parts of the world's population.

These 'non-economic' aspects of developing herding regimes need further investigation. Livestock represented new and accumulatable forms of wealth. The control of domestic animals also introduced a new dimension to forms of social encounters and relations structured around food, especially 'competitive feasting' (Bender 1978; Dietler and Hayden 2001). It is very possible, as has been suggested in some European contexts, that domestic livestock may have enjoyed a special status amongst 'ranked foods', qualitatively different from wild animals (Richmond 1999). For developing political stratification, cattle also provided a scarce, durable and reproducible form of wealth which could typically be used to gain political clients, or wives (Kuper 1982), as new forms of gender relations developed. New social forms may also have been structured around these cattle, although what form such earlier pastoral societies took remains far from certain. We should certainly be wary of assuming that stereotypical forms of patriarchal pastoralism, in which men owned cattle and dominated virtually every domain of life, immediately came into existence (Hodgson 2001). Changing relations with the animal world were also manifested in other new ways, for example in the developing association between domestic livestock and human burials, a tradition which was to endure for several millennia in the Middle Nile. The extent to which such links may be characterized simply as 'cattle-cults', as has

been suggested by many prehistorians since the nineteenth century, may be questioned (Wengrow 2001), but they provide very tangible indicators of ways in which human identities were linked with their livestock.

While we still have few faunal studies from Neolithic sites, it has been apparent for some time that there is considerable variability in the composition of assemblages, both in the quantities and proportions of domesticated animal bones. At Shaheinab, for example, only 2 per cent of the bones were of domesticated mammals, as against 88 per cent of those at Kadero and 25 per cent at Geili (Caneva 1988). Interpretation of such variability has tended to be in terms of differing subsistence strategies, and perhaps distinctions between permanent and seasonally used sites. If we look beyond subsistence, however, other social factors may have been rather more important in determining meat consumption. If meat may be largely excluded from the staple diet of many pastoralists, it may still be consumed in special circumstances, in ceremonial contexts or as displays of hospitality. The sites of such activities would become foci for the consumption of unusual quantities of meat – and would have a high archaeological visibility.

In such terms, the apparently unusual abundance of evidence for meat consumption at sites such as Kadero warrants closer inspection. The very abundance of material may be one indicator that the site enjoyed a special status, perhaps as a focus for collective activities (including feasting), perhaps within cycles of seasonal movements (R. Haaland 1987). It may well be that 'normal' occupation sites were much smaller, with sparser material remains. The existence of such sites of special significance may not have been unique and may be a more widespread phenomenon amongst early herders. The well-known Saharan site at Uan Muhaggiag in the Tadrat Acacus which also has a very high percentage of domestic animal bones, is similarly marked off from contemporary sites (Arioti and Oxby 1997). There is reason to suspect that it and other sites which show evidence for the consumption of large quantities of livestock may actually represent exceptional places.

The development of some sites as foci of special activities is also consistent with changing settlement patterns which seem to be appearing in this period, especially in terms of increased and perhaps seasonal mobility (R. Haaland 1981; Arioti and Caneva 1991). Dry season sites such as Zakiab have particularly abundant aquatic faunal remains as well as artefacts such as fish-hooks and bone harpoons (R. Haaland 1981). Abundant evidence was found for lungfish on the site, hunted from their dry-season burrows (Tigani al-Mahi 1981). Such sites would have been occupied when the water and grazing were scarcest away from the river, while settlement would become more dispersed after the rains and the Nile flood, moving to higher ground further inland, to exploit the rich grazing which appeared after the rains. The degree of mobility of Neolithic populations is likely to have varied considerably, depending on local environmental conditions as well as the particular balance between herding and other activities amongst different populations. In parts of the northern Dongola Reach, for

example, settlement may have remained relatively sedentary. The Early Neolithic settlement recently found at Kerma may well have been quite a stable and long-lived community.

While the growing importance of pastoralism in the Middle Nile is increasingly evident, in most areas it was not accompanied by the appearance of domestic cereal crops or an apparent shift to sedentary agriculture. As we have seen, people had been exploiting a potentially wide range of plant foods, including grains, for several millennia, without the development of 'domesticated' crops. Direct evidence for the exploitation of wild grains is not abundant, but grain impressions have been recovered from the fabric of pottery at several sites, notably impressions from sorghum and setaria (Stemler 1990). Domesticated forms of Sudanic crops such as sorghum (*sorghum bicolor*) only seem to appear rather later. The earliest dated samples are from the late first millennium BC (Clark and Stemler 1975; Stemler and Falk 1981), although earlier dates may be expected. Similar patterns are seen in western Sudanic Africa on the basis of finds from Jenne-Jeno (Mali) (McIntosh 1995) although there is evidence for earlier domesticates in the West African Sahel perhaps in the early second millennium BC (MacDonald 2000).

The late appearance of domesticated cereals south of the Sahara has led to fertile debates concerning the early use of wild cereals, often found on early pastoral sites in the Sahara (Barich 1998). One question concerns the extent to which genetically wild species were actually being 'cultivated' rather than collected, although how far such distinctions may be relevant in practice remains uncertain. R. Haaland (1995, 1999) has suggested that activities which can be characterized as 'cultivation' may have begun in this region as much as 6,000 years ago. The mechanisms through which 'domestication' was avoided have also been explored by Magid (1989a, 1989b). Such models seem very credible and indeed the regular collection of wild grains, sometimes on a substantial scale, has survived in several parts of the Sahel into modern times (Harlan 1989). Analyses of bone chemistry of populations in the Geili region has traced a progressive drop in bone strontium levels from Mesolithic to the Late Neolithic period (Coppa and Palmieri 1988). This has been taken as an indicator of a shift away from aquatic resources to other animal resources, without a shift towards agricultural activities.

THE LATE NEOLITHIC

By 4000 BC, new and varied settlement landscapes had begun to appear across the Middle Nile. In central Sudan it seems likely that populations were relatively mobile, although some large sites may have had focal roles, probably also part of the development of new forms of territoriality. Long-lived cemeteries provided prominent markers of human presence in the landscape. Variability seen in burials also suggests the growth of hierarchies of power and status,

symbolized in various forms of material culture, as well as through livestock. New social and cultural forms continue to appear while there is also evidence for the emergence of new forms of power outside the domestic context. Most tangibly we may find evidence for power based on exchange although, as found in other parts of the world, the development of ritual power is likely to have been important. Such developments may have taken rather different forms in different regions however, and it certainly cannot be assumed that we have unilinear and progressive social developments throughout the Middle Nile. Some may have been relatively localized and in many areas the conditions for such developments, 'economic' or otherwise, may not have existed.

In the north, the rich local resources of the Kerma Basin and the Wadi al-Khowi seem to have become a very important focus for permanent settlement as the plains to west and east became increasingly dry. By the end of this period these areas seem to have been densely occupied, and on the evidence of the mortuary archaeology, supported complex, diverse and hierarchical societies. By contrast, within the central riverine regions, while we can trace cultural developments during the early fourth millennium BC which have many similarities to what was going on in the Dongola Reach, the local populations seem to have taken a very different path. By the end of this period there is very little trace of a significant population in the Khartoum region and perhaps a significant settlement hiatus there until the early first millennium BC.

Central Sudan

Even 30 years ago, very little was known of the Late Neolithic in central Sudan. The first possible sites were tentatively identified in 1941 when a few disturbed graves were found close to Omdurman Bridge, Arkell's 'Omdurman Bridge Culture'. There, the presence of ripple-burnished pottery, similar to types then only known from far to the north in Lower Nubian (A-Group) contexts, suggested a possible 'Proto-Dynastic' date for this material (Arkell 1947). In the 1970s substantial Late Neolithic sites began to be found in the Shendi Reach, downstream of the Sixth Cataract, notably in cemeteries at al-Kadada as well as in the later parts of the al-Ghaba cemetery. Dates from al-Kadada were substantially later than any previously found, spanning *c.*3650–3350 BC. Some similar material has also come from a small cemetery at Geili, partly overlying the Early Neolithic settlement (Caneva 1988).

Culturally, we see an ongoing development of existing traditions. Existing pottery traditions were becoming increasingly elaborate, both in form and decoration; a number of new forms becoming increasingly characteristic of this period in all regions (Caneva 1994). In general terms this can be seen in the much greater abundance of closed vessel forms including drinking vessels (Reinold 2002), often similar in form to ostrich egg shells and gourd bottles. Most distinctive are a range of vessels with widely flaring mouths ('caliciform beakers'). While possibly occurring in the earlier Neolithic, with some examples

in late graves at Kadero (Krzyzaniak 1991), these become more abundant in later periods, apparently as specialized vessels (for libations?) used in mortuary contexts. This distinctive form is one which occurs widely in later Neolithic contexts in the Nile Valley, even occurring in Egypt in Badarian sites (Brunton and Caton-Thompson 1928).

New decorative styles are also emerging. A particularly distinctive feature of pottery during the fourth millennium BC is 'rippled' surfaces. At al-Kadada, 'Ripple ware' pottery comprised up to 70 per cent of the decorated wares and it was equally a distinctive feature of A-Group Lower Nubia during this period. Its apparent absence in the Kadruka cemeteries in the Dongola Reach (Reinold 2000) seems likely to be a factor of chronology as such rippled wares are found in the Third Cataract region and are now being found in Late Neolithic contexts around Kerma.

Changes in other areas of material culture are also seen. Polished stone tools of various types are also becoming more abundant during the Late Neolithic period, notably in the form of axes, palettes and mace-heads. The importance of bodily decoration continues to be very apparent, with such materials still being abundant in mortuary contexts. Other notable artifacts are clay and sometimes stone figurines, most of which represent female bodies (Figure 3.6). Chemical and mineralogical studies on pottery from al-Kadada were able to distinguish between what is likely to be locally manufactured pottery, using local riverine silts and a second discrete group, perhaps manufactured in the area around the Sixth Cataract or a little upstream. Interestingly, the potentially exotic pottery fabric may be linked with large storage jars, signaling some inter-regional exchange in commodities (De Paepe 1986).

At al-Kadada, the large size of the cemeteries and the abundant material within them has made it possible to make some first tentative suggestions on aspects of social structure within the communities represented in the cemeteries. Occasional multiple burials in richly furnished graves seem to show that human sacrifice was occasionally practiced (Reinold 2000: 70–1). One dated example (*c.*3610–3390 BC) place it near the end of the cemetery's usage. Evidence of differential treatment of small children under the age of about six years also provides some indication of how individuals' status may have changed within society over time. There, infant and child burials also seem to have been located outside the main cemetery, possibly within a settlement area. These were generally associated with little material: a limited range of pottery and occasional beads, grindstones and shells. Polished stone tools, other lithics and bone tools were not found in the child graves.

A Late Neolithic hiatus?

While al-Kadada provides us with a glimpse of what is happening in this region during the fourth millennium BC, no later Neolithic sites have yet been found and there are suggestions that there may be a hiatus in the late prehistoric

occupation of riverine central Sudan. The reality of this hiatus still remains rather uncertain. At al-Kadada itself a very small amount of material was found which compares well with Late Neolithic finds further north, including in Late A-Group contexts around 3000 BC. This includes some distinctive decorated bowls very similar to examples found in the A-Group 'Royal cemetery' at Qustul (Geus 1984a: Plate 12; Williams 1986: Figure 34). Potentially even later material has also been found in a single burial on the edge of Jebel Makbor, *c.*5km away from the river (Lenoble 1987b). There, a contracted burial beneath a stone cairn was associated with pottery which has similarities with material of the late third and second millennia BC from the Dongola Reach. These few finds suggest that it may be premature to overemphasize this supposed settlement hiatus. The location of the burial amongst the abundant cairns scattered along the desert edges also raises the possibility that cemeteries had moved away from their traditional riverine locations in this period.

Further away from the river it is clear that some populations continued to live in the region. At Shaqadud in the Western Butana occupation continues through to *c.*2000 BC. Pottery from the site also bears comparison with northern traditions of the third millennium BC, with black and red burnished wares and rare impressed decoration. These are replaced by thin unburnished wares with heavily incised decoration (parallel lines, hatched, zoned patterns – see Robertson and Marks 1989) and are associated with a population still hunting arid fauna, while also having domestic sheep/goat and donkeys (Peters 1986)

Various explanations have been proferred for the apparent disappearance of Late Neolithic populations around 3000 BC. The deteriorating climate has often been suggested as one factor which might have encouraged groups to move further south into areas with higher rainfall. It may also be possible that populations with an already strong emphasis on pastoralism were becoming increasingly mobile and effectively disappearing from the archaeological record.

Our approach to this supposed hiatus also depends very much on the way we choose to interpret the Neolithic sites in the region. It is possible that, by the Late Neolithic, 'settlement' could have been quite mobile, moving between riverine areas and their hinterlands, exploiting a wide range of resources. Following this model, given the often ephemeral nature of most occupation sites, the most significant change occurring in this period is the apparent disappearance of large and materially 'rich' sites such as Kadero and al-Kadada.

As we have seen, large 'settlement' sites should perhaps be seen more as foci of communal activities rather than permanent settlements, and therefore their disappearance cannot simply be seen as a shift away from permanent settlement or a 'nomadization' of the population. Their disappearance could equally reflect changes in the organization of communal activities. More puzzling perhaps, and almost certainly inter-related, is the apparent disappearance of large formal cemeteries in riverine areas. That burials became more dispersed, as is perhaps suggested by the Jebel Makbor example, is one possibility. If, however,

populations simply moved south, it is equally possible that similar large formal cemeteries, with a rich mortuary tradition, still await discovery there. The evidence from areas south of Khartoum is still very sparse and no coherent picture has yet emerged in this region. However, there is now enough evidence to suggest that there may well have been widespread Late Neolithic occupation along both the Niles and in the hinterlands away from them. Along the White Nile, test excavations on a Neolithic settlement site at Rabak, near Kosti have found occupation levels datable to the later fourth millennium BC. Links with the interior of the Gezira are indicated by the presence of very similar pottery at Jebel Moya as well as in other parts of the Gezira, including Jebel Tomat and other sites close to the White Nile (R. Haaland 1984). Such occupation seems to continue into the third millennium BC, significantly later than any Late Neolithic sites in the Khartoum-Shendi region.

Amongst the many periods of occupation represented at Jebel Moya – the isolated block of hills in the centre of the Gezira – there appears to be a considerable amount of late prehistoric material, although interpreting it remains difficult due to the confused nature of the excavations (Addison 1949). A recent reassessment (Gerharz 1994) suggests that a new phase of use of the site began around 3000 BC which includes pottery similar to that from Rabak as well as the appearance of what appears to be a very different type of 'incised and rocked' pottery. Unlike further north, extended burials seem to have been common, while very 'rich' elite burials also seem to be lacking. However, with the much poorer preservation of organic materials and the more limited range of pottery found here, the apparent differences may be exaggerated. Practices such as the extraction of teeth and the use of lip-plugs, especially among women, are common, and polished stone tools are abundant, while many bodies seem to have been wrapped in cow hides.

Further interpretation of the site remains difficult, but its long-term use both as a cemetery and a settlement, could perhaps be seen in terms of its importance as a focal point, perhaps on a seasonal/annual basis, of quite diverse and mobile populations. In such terms, it could continue communal traditions previously seen in large Neolithic 'settlements' downstream of Khartoum. Permanent settlement on the hilltop by any large populations seems rather less likely, while the possibility that the mountain itself may have had some significance as a 'sacred' place for the inhabitants of the Gezira plains should perhaps also be considered.

Recent work elsewhere in the Gezira has revealed other possibly related sites. Near Soba, Late Neolithic material apparently very similar to that found far to the south in the Rabak area has recently been found (Menendez *et al*. 1994; Fernandez *et al*. 1997). Further south along the Blue Nile, surface collections from a number of sites on the sandy *qoz* ridges west of the river made by Balfour Paul (1952) also seem likely to relate to a 'late' phase of Neolithic occupation and this now seems confirmed for at least some of these sites, at Qoz Kabbaro and Qoz Bakheit (Fernandez 2003). At the qoz sites, as well as

elsewhere along the river (e.g. Umm Sunt), small polished stone axes are a common feature, while mace-heads are also found. Within the Western Butana, other large sites have recently been located in the Wadi Raboub and the Wadi Hasib. The first of these, comprising a huge 'sheet midden' of relatively thin deposits spread over *c.*42 hectares may represent a locality occupied seasonally over a long period. Some of the pottery from sites on both sides of the Blue Nile may relate to the types found at Jebel Moya and across the southern Gezira.

While this scattered material still remains poorly dated, there is good reason to suspect that there are many sites in the Gezira, including Jebel Moya, which were occupied through the third and perhaps second millennia BC. Rock drawings of possibly late prehistoric date are also known from Jebel Fau, a group of granite outcrops to the east of the River Rahad, between Wad Medani and Gedaref. Livestock is prominent in the drawings, while anthropomorphic figures are represented in an unusual style, not easy to parallel in riverine areas further north. Virtually no traces of prehistoric occupation have been found in the surrounding plains, however, where cracking clays tend to mask archaeological sites (Vila 1979).

Beyond the Butana in the Eastern Sudan the region increasingly appears as culturally distinct from the riverine areas by the fifth millennium. Domestic livestock seems to have reached the region rather later than areas further west, probably in the later fourth millennium BC, and is associated with the 'Butana Group', sites lying along the Atbara and palaeochannels of the river Gash which at that time flowed west to join the Atbara. During this period the channel of the Gash seems to have progressively moved east, reaching its present course in perhaps the second millennium BC. Hunting and the exploitation of aquatic resources were still important among what may have been relatively settled groups (Figure 3.9). The pastoral element seems to have became more prominent during the third and early second millennia BC, identified as the 'Gash Group', occupying and exploiting the Gash Delta, with settlements of varied size scattered across the alluvial plain. Some have deep in situ deposits suggesting that they were stable, long-occupied settlements, while others were quite ephemeral. Culturally similar groups may also have existed further north and north-east towards the Red Sea coast (Arkell 1954).

While far removed from developments in the northern riverine areas of Sudan, there are indications that these eastern populations were also engaged in long-distance exchange networks from an early date. Objects made from porphyry (lip plugs and mace heads), for example, the closest source of which lies some 300km to the north-east in the Red Sea Hills were already reaching the southern Atbai during the late fourth millennium BC. There are also suggestions that more hierarchical societies were also developing there, with Mahal Teglinos being a site of particular importance. Groups of what may be clay seals and tokens have been found at the site, interpreted as relating to an early administrative system (Fattovich 1991b).

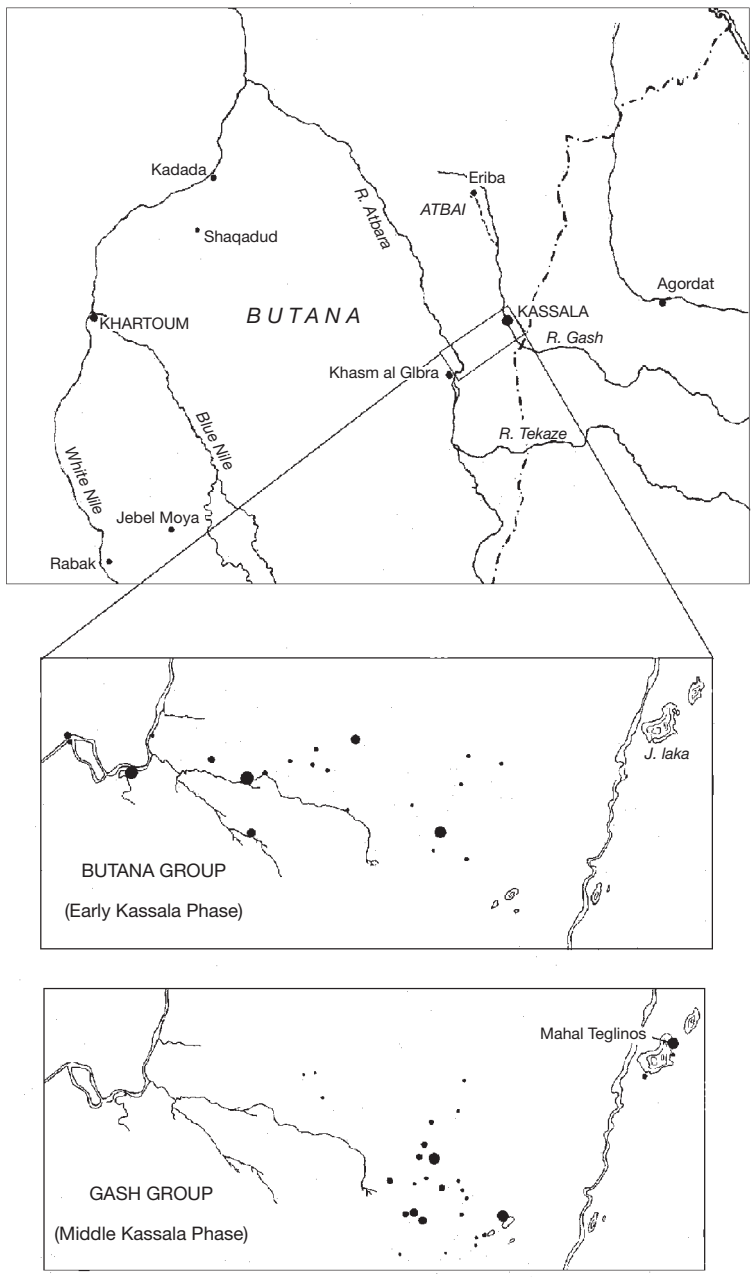

Figure 3.9 Late prehistoric settlement in the southern Atbai
Source: based on Marks 1991

The western plains

For areas west of the Nile, our knowledge is still largely confined to the Wadi Howar. In the fifth and fourth millennia BC, settlement seems to have been concentrated in the Lower Wadi Howar, continuing occupation of the stabilized dunes along its margins. Pottery with a 'herringbone' style, broadly dated to the fourth millennium, and possibly later, seems to relate to contemporary riverine traditions (Keding 1997, 2000). Some finds from the area appear similar to Late Neolithic/pre-Kerma material from the northern Dongola Reach. However, such links seem to have been fading by the third millennium BC.

Further west however, in the Middle Wadi Howar, probably still receiving some seasonal flow, the same period seems to see a marked rise in the number of sites. Cultural material associated with this occupation is the 'Leiterband Complex', distinguished by often very elaborately decorated pottery, distinct from contemporary ceramic traditions along the Nile. The broad date range for the 'Leiterband' probably covers the fourth to second millennia BC in the Middle Wadi Howar (Keding 1998). Such pottery seems to have much in common with traditions known from further west, and may be compared with material from Chad, in the Ennedi region (Bailloud 1969) and the eastern Borkou Plateau (Courtin 1969). The ongoing divergence between the material culture of the Wadi Howar and Nile Valley may be related to drying-up of the lower part of the wadi-system and its subsequent abandonment, severing links to the riverine areas.

Other distinctive regional features also appear in the lithic assemblages. The presence of transverse arrowheads, toolkits with borers and scrapers and a distinctive 'Darfur' type of axe (Keding 1997) are amongst distinctive features. As in earlier periods, settlements are often very large, some extending over as much as 80 hectares, and are marked by massive spreads of sherds and bones, mostly eroded out of pits. Such pits, steep-walled and deep, commonly *c.*1m in diameter have been found on half of all sites of this type. Infilled with what appears to be ash, mixed with sherds and bone fragments, the larger sites have many hundreds of such pits, representing occupation over a long period.

Late Neolithic/pre-Kerma in the north

Late Neolithic developments in the Dongola Reach are also still rather less well-known than earlier periods and most of the cemetery sites so far excavated in the region seem to date no later than *c.*4000 BC. However, some recent fieldwork, especially in the immediate environs of Kerma itself, has begun to identify sites datable to the fourth millennium BC, and later. Definitions still remain uncertain with the later sites in the Kerma area tending to be classified as 'pre-Kerma' rather than Late Neolithic. However, in that there is likely to be continuous development through the fourth and third millennia, such distinctions are relatively arbitrary at this time. Similar problems of definition

may also be encountered in defining regional cultures further north such as the Abkan and ultimately the A-Group. While the A-Group has been recognized as a cultural unit for nearly a century, it is perhaps only now that we may be acquiring the appropriate perspective with which to view it. Having long been central to our perceptions of Late Neolithic/Early Bronze Age Nubia, it may be more appropriate to understand it as a phenomenon of a Lower Nubian frontier zone, relatively peripheral to much more populous and productive regions further south.

By the fourth millennium BC a Late Neolithic 'pre-Kerma' culture is appearing in the northern Dongola Reach. A settlement and burials have been found close to an earlier Neolithic settlement at Kerma, the first excavated burials seem to date to around 3000 BC. One of the graves was a flexed burial of an adult woman lying on her right side, head to the east, already showing a burial layout which was to be typical throughout the Bronze Age Kerma period. Some burials continue to be quite elaborate, with quartz palettes, grinders and polishers, malachite and ivory, and seem to have much in common with the much better-known contemporary (Late A-Group) burials found further north. For the first time, copper objects, such as awls and pins, are also appearing in the region. Much of the pottery also seems very similar to A-Group wares from Lower Nubia.

The pre-Kerma settlement, while poorly preserved, contained a mass of postholes and pits (Honegger 1997). The most common buildings were subcircular post-built structures, mainly 4–5m in diameter, and smaller structures which may have been granaries. Amongst these there were wooden palisades/enclosures, probably for livestock, as well as a few larger buildings 6–7m in diameter. In addition there were also a small number of rectangular buildings, some rebuilt in the same position a number of times. While little of the settlement survives apart from the posthole plan, it suggests the existence of a substantial nucleated settlement. Two late pre-Kerma settlements have been found some 4km further east of the Kerma, one of which may date to around 2600 BC.

While we as yet have little published survey data from around Kerma, there are clearly many sites of this period in the area, while others can be identified, mainly on the basis of surface scatters, from the Third Cataract area (Edwards and Osman 2000) and Sai island (Geus 2000) to the north. From Sai, dates of *c*.2700 BC have been obtained for a complex of storage pits, often with large pots placed in them, very similar to examples found at Arduan on the Third Cataract. A few sherds of Egyptian pottery have also been found at Sai, and this is the furthest south that such imports have yet been found in this period. Amongst the desiccated archaeobotanical remains recovered from the pits, finds of emmer wheat (*Triticum dicoccon*) and barley (*Hordeum vulgare*) are of interest representing rare early finds of these northern crops. Some vegetable temper was also being incorporated in pre-Kerma pottery as well (De Paepe *et al*. 1992).

The Abkan and A-Group

Such sites in the northern Dongola Reach now raise a number of issues concerning the later Neolithic cultures which have long been known from further north, notably the Abkan, and Reisner's 'A-Group'. During the first half of the fourth millennium BC the 'Terminal Abkan' is broadly contemporary with Early A-Group to the north and the Late Neolithic/early pre-Kerma material of the Third Cataract and Dongola Reach to the south. It seems increasingly likely that this regional 'culture' may more usefully be understood as a local manifestation of the later Neolithic/pre-Kerma culture found further south. Other 'Late Neolithic' sites in the Batn al-Hajar (e.g. Carlson 1966) should also perhaps have been related to this more widespread tradition. Surveys south of the Batn al-Hajar have also identified settlement sites, although again no cemeteries with material that compares closely with the 'Abkan' (Vila 1977a).

If the Late Neolithic cultural developments over most of northern Sudan still remain relatively poorly understood, rather more is known about Lower Nubia and its A-Group population, first identified in the early 1900s. The series of survey and excavation projects in Lower Nubia through the twentieth century identified more than 100 A-Group cemeteries, as well as a number of settlements (Figure 3.10). Few of the latter seem to have been of any size, although some used rough stone for building, for example at Afya (Lal 1967). The relatively large number of sites appears quite impressive although the scale of population that it represents may have been quite modest. Not many more than 3,000 A-Group burials have been identified and few cemeteries contained more than 50 graves. By comparison there are single Neolithic cemeteries in the Dongola Reach with more than 1,000 burials. Estimating populations is always difficult but the density of the remains left by potentially 800 years of occupation suggests a total population in the thousands rather than the tens of thousands, although higher estimates have been made (e.g. O'Connor 1993a).

When first identified at the beginning of the twentieth century, the A-Group represented a new and highly distinctive culture. Its distinctive qualities are rather less apparent a century later when, despite the often abundant Egyptian material found in A-Group contexts, A-Group material culture can be seen to have much in common with that found further south. Ceramic culture shares the same black-topped red polished wares, abundant rippled decoration as well as impressed designs, encountered as far south as Khartoum. Possibly more distinctive are red-painted 'eggshell' wares, abundant in Late A-Group contexts, especially at Qustul. Such pottery is found elsewhere in Lower Nubia in only limited quantities and may have been made in the Qustul area for elite consumption (Williams 1986). However, rather similar pottery is now being found in the Kerma area, raising the possibility that it may have a more widespread distribution further south. Stone palettes, abundant beadwork and jewellery in shell, stone and ivory, ivory bracelets and clay figurines all maintain and develop existing Neolithic cultural forms, to which may be added rare gold and copper beads. Animal burials are also found in cemeteries.

Figure 3.10 A-Group settlement in Lower Nubia

With the first appearance of copper alloy objects in the region, we are also entering the early Bronze Age. The chronology of the A-Group is still dominated by correlations with Egyptian material which is often abundant in many A-Group contexts, although suites of radiocarbon dates are now becoming available for sites west of the Nile where apparently 'A-Group' sites have recently been found (Lange 2000). The A-Group period is conventionally divided into three

main phases, 'Early', 'Classic'/'Middle' and 'Terminal' following Nordström's system (1972, 1998). The appearance of the Early A-Group is generally placed as contemporary with Naqada Ic of Egypt, with the earliest likely dates around 3800 BC, continuing through Naqada II (a–d), to *c.*3400 BC (Gatto 2000). Most of the earliest material is found relatively close to the First Cataract, extending from Kubbaniya, some 10km north of Aswan, as far south as the Dakka–Sayala region. The finds from north of Aswan reflect an early ethno-cultural frontier in the Jebel Silsila area, which only moved south to the First Cataract in the mid-fourth millennium BC with the establishment of a Naqada II settlement on Elephantine (Seidelmayer 1996).

Datable imports suggest that Naqadan pottery was reaching the Sayala region somewhat later than areas closer to Aswan. South of Sayala, very little Early A-Group material has been identified and it has commonly been represented as a northern Nubian phenomenon. However, there are suggestions that graves of this period do exist further south, for example at Amada and Masmas, but have remained unrecognized (H. Smith 1991), and detailed re-analysis of existing records may well change our perceptions of this period. However, where small quantities of Naqada I and II pottery have been found in the Second Cataract region the finds seem to be associated with contexts identified as Abkan, while the relationship between the Early A-Group of the Sayala–Dakka–Aswan region and the south still remains uncertain.

During the Classic/Middle A-Group we see an expansion of its distribution from the First Cataract to some distance south of the Second Cataract, in the Batn al-Hajar around Saras, if not further south. While sharing many common cultural features across this larger area, some regional variability is still apparent and needs further investigation (Gatto 1997). Correlations with Egyptian material place this phase as contemporary with Naqada III and the few available radiocarbon dates fall into the period *c.*3600–3300 BC or a bit later (Nordström 1972). The latest 'Terminal' A-Group occupies the following few centuries to the beginning of the third millennium BC; the latest datable graves seem unlikely to postdate the early to mid Dynasty I. The small number of radiocarbon dates available also place the samples in the last centuries of the fourth millennium BC. By this time there appear to be two main foci of settlement, one in the Sayala–Gerf Hussein region and a second far to the south between Qustul and Gemai, with only limited occupation in between.

Many problems remain in understanding the origins and development of the A-Group as well as its wider context. In the Early A-Group period, the abundance of Naqadan material, especially common in more northerly areas is such that the archaeological patterns we see could very easily be interpreted as reflecting northern populations moving into Nubia. Recognizing 'indigenous' populations which may have been coming in to contact with Naqadans has been rather more difficult, not least due to the practical problems encountered in identifying graves which lacked datable Egyptian imports. Recent reassessment of a number of northern cemeteries suggests that it is possible to identify

early populations in the area before Naqadan influences appeared (H. Smith 1991). Other problems have been posed by our almost total ignorance, until very recently, of contemporary developments further south. What are the connections between the Early A-Group of the far north of Lower Nubia, with its very strong Egyptian presence, and the later A-Group with its obviously close affinities with the south, part of a much more widespread 'Nubian' tradition also visible in the pre-Kerma of the Dongola Reach?

A-Group kingship?

By the Terminal A-Group phase, the material wealth apparent in some burials (Figure 3.11) has raised many questions about political developments in the region during the last centuries of the fourth millennium. The best documented

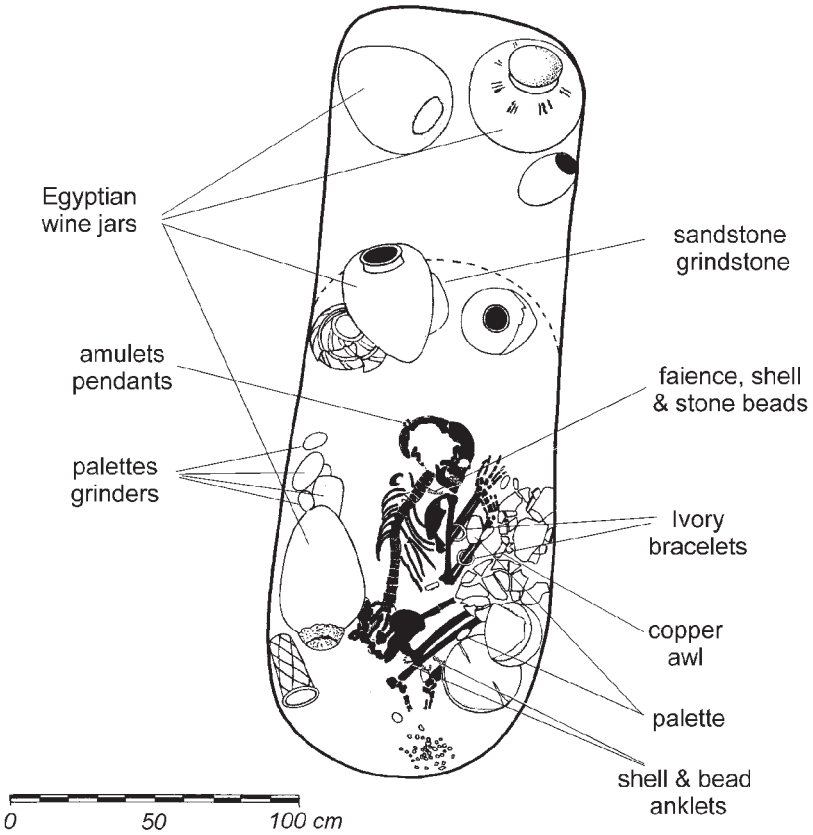

Figure 3.11 A-Group burial from Ashkeit, near the Second Cataract
Source: based on Nordström 1972: pl. 88

of the richest burials were found at Qustul close to the modern Sudanese–Egyptian border (Seele 1974; Williams 1986), where there was a discrete 'elite' cemetery with some remarkably rich burials, which included large quantities of imported Egyptian materials, some with 'royal' associations. The size and material wealth of the largest of the tombs at Qustul bears comparison with near contemporary Egyptian royal burials of very late predynastic date, notably those at Abydos Cemetery U (Dreyer 1993). A number of other unusually rich graves in the area of the Second Cataract, at Faras, Serra and Debeira may indicate other local elite centres in this region.

The Second Cataract region was not the only Late A-Group centre and there were other unusually rich graves at Sayala (Cemetery 137), perhaps another emerging centre of power, largely contemporary with Qustul. The richest of the graves there is notable for the presence of imported gold mace-handles and mace-heads and contained 'the most remarkable display of Naqada IIc–IIIb objects of any grave in Nubia, rivalling any contemporary non-royal grave in Egypt' (Smith 1991: 107). What this wealth signified remains rather less clear but may best be interpreted in terms of small elites, perhaps 'chiefs' (Earle 1997), controlling territories extending over 100km or so.

A Group-Naqada trade

Perhaps the most prominent features of the A-Group among the regional cultures of the Middle Nile during the Late Neolithic to early Bronze Age, is their increasing engagement in long-distance trade and exchange with predynastic Egypt to the north. These contacts ensured that Egyptian artefacts are often a significant component of A-Group assemblages and especially of the elite culture of the region. More generally, this trade may well have provided a significant power base for the developing elites, of both the Second Cataract and the Sayala region, as well as the source of the more exotic material wealth displayed in their tombs (Takamiya 1994).

During the Early A-Group, the range of Egyptian contacts into Lower Nubia seems to have been restricted to the Dakka–Sayala region, with little material reaching further south. Such trade seems likely to have focused on materials coming out of the Eastern Desert, accessed through the Wadi Allaqi, principally gold and semi-precious stones. Egyptian artefacts being exchanged with the A-Group are mainly represented by ceramics, which are generally assumed to relate to a range of foodstuffs and drinks such as wine.

Chronologically, direct exchanges with the Second Cataract area seem to have begun by the beginning of Naqada III period, peaking prior to Dynasty I. What exactly the population of that area might have been exchanging with the Egyptians remains a matter of speculation. Compared with the northern Dongola Reach, it was also probably relatively thinly populated. The Second Cataract area is not well-supplied with materials such as gold and it is tempting to suggest that the developing elites of the area were acting as 'gate-keepers',

intermediaries with areas further south where desirable materials, such as ivory (elephant and hippopotamus), skins and ostrich feathers would have been more abundant. This seems more probable now that it is clear that the A-Group was not an isolated phenomenon but that other elites existed in more productive and well-populated areas further south during this period. If direct evidence for links between the Dongola Reach and the A-Group areas is still scarce, some copper artefacts, for example, are known to have been traded further south and have been found in pre-Kerma burials, as well as sites in the Batn al-Hajar (Mills and Nordström 1966) and the Laqiya oasis to the west (Lange 2000), while occasional sherds of Egyptian pottery, as well as Egyptian crops, have been found in pre-Kerma contexts at Sai island.

How such trade functioned still remains unclear, although there are some intriguing sites which may relate to trading activities. One excavated in 1961–62 at Khor Daoud on the east bank of the Nile, not far from the mouth of the Wadi Allaqi (Piotrovski 1967) may well have been some form of trading post or trans-shipment centre. Its core was a dense concentration of 578 storage pits in an area otherwise lacking other traces of settlement. Large quantities of Egyptian pottery were recovered from some of the pits. Its location opposite the north end of the relatively fertile Dakka plain, later to be the site of the Middle Kingdom fortress of Ikkur, suggest that it may have been a forerunner of such a strategically sited outpost (Nordström 1972: 26). How different materials were being traded also remains unclear, although some recent work suggests the possibility that a number of different mechanisms may have existed, if largely controlled by Egyptians rather than Nubians in areas north of the Second Cataract (Takamiya 1994).

Sometime around 3000 BC, the A-Group disappears from Lower Nubia. There is little reason to doubt that this was associated with hostile Egyptian military activity during the late Predynastic period, probably during the period of 'Dynasty 0'. This is marked most obviously in the end of the use of Qustul cemetery L, shortly before the beginning of Dynasty I (Williams 1986). If the end of the cemetery marks the disappearance of the A-Group ruling elite, more widespread changes are seen in the disappearance of imported artefacts in Nubia near the beginning of Dynasty I, marking the end of political conditions which had maintained such trade.

Such campaigns are marked in a number of crude rock-cut inscriptions in Nubia, while those of Dynasty I–II are commemorated in rare finds from Egypt (Wilkinson 1999: 177–82). The best-known of the Nubian inscriptions is one at Jebel Sheikh Suleiman, close to the Second Cataract. Once thought to relate to a campaign of the First Dynasty king Djer, this inscription is more likely rather earlier, relating to a campaign by a Predynastic king into Nubia. A second crude inscription could relate to another campaign by king 'Scorpion' of 'Dynasty 0'.

The nature of settlement in the region in the following centuries has remained uncertain. Reisner's seminal periodization of Nubian prehistory originally

proposed the existence of a 'B-Group' contemporary with the Egyptian Old Kingdom. Subsequent re-analysis of his work has convincingly demonstrated that the 'B-Group' is largely illusory, and that most graves so-identified should actually be dated to the Early A-Group period. While a total depopulation of the region is perhaps unlikely it does seem likely that an Egyptian military presence in the region effectively destroyed the small-scale polities which had been developing there (H. Smith 1966a, 1991). In addition, the increasing aridity of the region and its hinterlands may have decreased its attractiveness for settlement. From this period, the Dongola Reach was to become the major centre of population and emerging political power in northern riverine areas.

4

KERMA AND BRONZE AGE KUSH

Introduction

By the second half of the third millennium BC, the Northern Dongola Reach was the focus of an increasingly distinctive and materially rich culture, whose centre was a large settlement and religious site close to modern Kerma (Figure 4.1). This has given its name to the remarkable Bronze Age civilization which persisted and developed over the next thousand years. Extensive areas sharing very similar material culture increasingly seem to have been united as political units. Kerma, as the largest of these came to dominate some 700km of the Nile valley, and at times was to make war in Egypt, far to the north. Various names for these Bronze Age peoples of this and adjoining regions have come down to us in Egyptian texts; they are most widely known as the people of Kush. By the second millennium BC, there is little reason to doubt that Kerma was the centre of a substantial kingdom, almost certainly the earliest in sub-Saharan Africa, and one which came to be a major rival to Egypt. While later conquered and subdued by the Egyptian New Kingdom pharaohs around 1500 BC (W. Adams 1984a), its culture and traditions of power were to survive, later to be revived by another Kushite state in the first millennium BC.

Kerma as a cultural and political centre developed in relatively densely settled landscapes in riverine areas, and is a very distinctive regional development within the Bronze Age Middle Nile. In other regions rather different and more mobile cultural traditions seem to have continued patterns established in the Late Neolithic. The use of metal may also have begun rather later in most other parts of the Middle Nile. While as yet little is known of areas of central Sudan during the third and second millennia BC, there is good reason to suspect that areas such as the Gezira and its margins were widely exploited by probably quite mobile agropastoralists. We know very little of what was happening in areas west of the river, although evidence from the Wadi Howar suggests that rather different cultural traditions were emerging there, by this period increasingly isolated from the river valley.

The Bronze Age cultures of Nubia were first discovered not in their heartland in the Kerma region, but far to the north in Lower Nubia, where the First Archaeological Survey of Nubia (1907–11), first encountered the 'C-Group', at

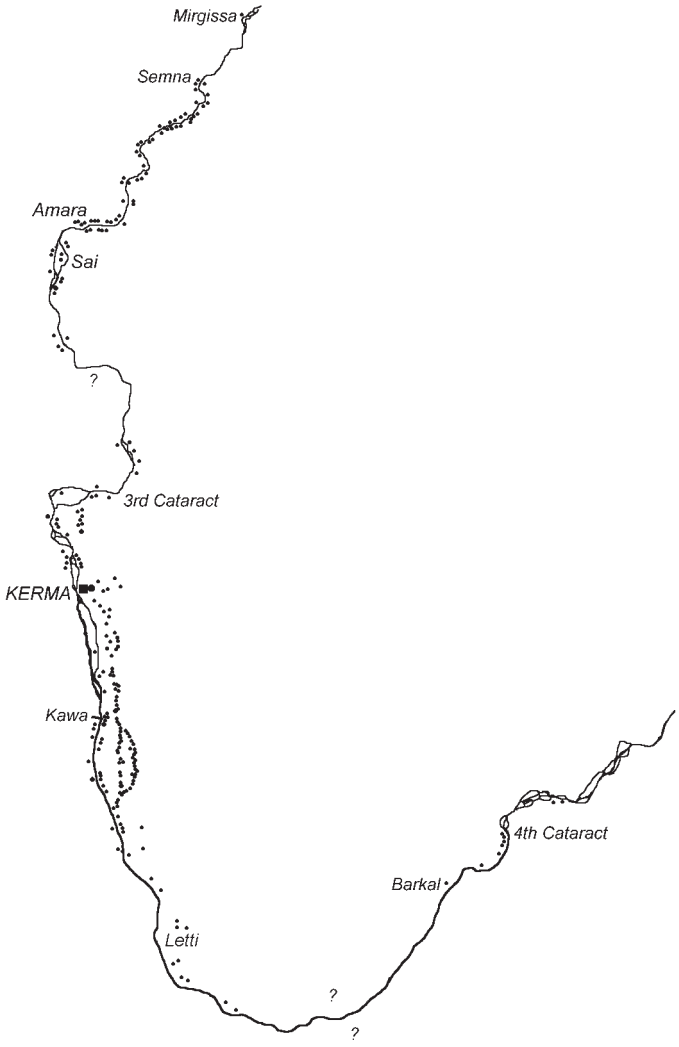

Figure 4.1 Distribution of Kerma settlement

the extreme northern end of its distribution close to Aswan. As research continued to develop largely within Lower Nubia, an emphasis on this northern periphery has been maintained until relatively recently. While Reisner did undertake excavations at Kerma during 1913–16, the wider significance of the discoveries he made there were not fully appreciated, and a strongly Egypto-centric perspective coloured his interpretations of what he found (Reisner 1923a). Massive mudbrick architecture and abundant Egyptian artefacts

were seen as evidence for an Egyptian trading post at the site. Massive tumuli and the often extraordinarily rich burials they contained, perhaps the most spectacular finds, were assigned to Egyptian governors.

Many of Reisner's early assumptions were soon challenged by work in Lower Nubia and later studies have increasingly stressed the importance of Kerma as an independent and highly developed kingdom in its own right (Säve-Söderbergh 1941; Arkell 1961). However, it was only very recently, with the results of fieldwork over the last 20 years, that a more balanced appreciation of Bronze Age Nubia has begun to be possible, in particular with renewed excavations at the townsite of Old Kerma and in the surrounding region. Even 30 years ago, the results of Reisner's work, which had concentrated mainly on burials, comprised most of what we knew about Kerma. The archaeology of the C-Group was much better known. Recent work in the Dongola Reach has quite transformed our knowledge of this period, revealing a densely settled landscape, spreading far along the river. The number of Kerma sites now being discovered and mapped also makes it clear that settlement in the Dongola Reach was on a much greater scale than anything seen in Lower Nubia during that period, maintaining the region's importance as a centre of population already established during the Neolithic period.

Our growing awareness of the true scale and nature of the Kerma phenomenon is also changing our perceptions of the C-Group further north. Rather than being a discrete bounded regional culture which can be understood as a purely Lower Nubian phenomenon, the C-Group can now begin to be appreciated as part of a much more extensive cultural tradition, whose heartland lay in the rich and fertile Dongola Reach. As has been suspected (Gratien 1978; Bietak 1979), the origins of the C-Group must also be sought in the south. By the mid-third millennium BC, a relatively homogeneous Early Kerma (or 'Kerma Ancien' amongst Francophone archaeologists) material culture can be identified over an extensive area to north and south of Kerma itself, extending into Middle Nubia and further north. By 2300 BC significant populations, there identified as the Early C-Group, were appearing in Lower Nubia, a region where there had been very little settlement since the disappearance of the A-Group several centuries earlier (Gratien 1995). These people were not only confined to the river valley but were also exploiting seasonal grazing which was still to be found far to the west of the Nile, in areas such as the Wadi Shaw (Lange 1998). By this time, the Egyptian presence in Lower Nubia, seen mainly at Buhen and quarries in the desert west of Toshka, had been withdrawn; the last of the Old Kingdom Pharaohs represented at those sites was Neuserre', dated to *c.*2400 BC. There are no indications of a permanent Egyptian presence in the region by the VIth Dynasty. The extent to which there may have been a direct relationship between this resettlement process and the Egyptian withdrawal from Lower Nubia is unknown.

In this early period, the very close similarities between the material culture of Lower Nubia (C-Group) and the Dongola Reach (Kerma) now leave little

reason to doubt that the new inhabitants of Lower Nubia were coming from the south. Distinguishing two distinct 'cultures' at this time appears increasingly problematic. While by the second millennium BC Kerma was culturally very different from the C-Group, such differences were not evident in earlier centuries, nor is there any a priori reason to assume that they existed. Several types of Early Kerma pottery, found at Kerma, are virtually identical to Early C-Group pottery, and on occasions have been identified as such. Regional cultural variability certainly exists but this is evident as much within these two regions as between them. Later distinctions which emerge between the C-Group and Kerma were the creation of different histories, rather than pre-existing realities.

Kush and Egypt

Egyptian written sources provide us with glimpses of some of the social and political entities which developed in Nubia during this period. By the beginning of the second millennium BC, there seem to have been several Kushite polities, associated with Kerma and the C-Group, which were increasingly threatened by the expansive Egyptian state. In the early second millennium BC the Egyptians again moved south and established a military frontier on the Second Cataract, some 400km upriver of Aswan, effectively dividing the 'C-Group' areas of the north from 'Kerma' areas further south. This control of Lower Nubia was later lost and during the XVIIth Dynasty, Kushite troops seem to have penetrated into Egypt itself. By the mid-second millennium, during the XVIIIth Dynasty, a strong and unified Egyptian state again asserted control of Lower Nubia and then, in a series of military campaigns struck further south, beyond the Third Cataract, destroying Kerma itself. Pushing far upriver, the Egyptians penetrated beyond the Fourth Cataract, establishing claims on a southern frontier at Kurgus, south of Abu Hamed, some 1300km upriver from Aswan.

Egyptian sources gives some indications of the political organization of northern riverine Sudan during this period. One important early source was found in the tomb of Harkhuf, an Egyptian official of the VIth Dynasty buried at Aswan. During his career, he had led trading and military expeditions up the Nile, coming in to contact with a number of local rulers. The main focus of his journeys was the land of Yam, but he also traversed areas known as Wawat, Irtjet and Setju. The last three areas are generally thought to lie in Lower Nubia, while Yam lay further to the south, and almost certainly represents an emerging polity in the Dongola Reach area. Some researchers (e.g. O'Connor 1986, 1991) have tried to locate these regions further south, with Yam being in central Sudan. However, the very clear presence of a major polity in the Kerma region, and the apparent absence of anything comparable in central Sudan during this period, would seem to argue against this. Texts of the reigns of Merenre' and Pepi II (*c.*2250-2150 BC) indicate that the form of the northern polities was also quite fluid. At various times, they seem to indicate the unification of the three

northern areas under a single ruler (*heqa*) with a later separation into two polities. By the early second millennium BC, the period of the Egyptian Middle Kingdom, Kush appears as the pre–eminent power, with what may have been vassal polities of Sha'at (around Sai?) and Wawat in the north.

These early polities are commonly conceived of as 'chiefdoms' although the terminology used to describe them is often ambiguous and even contradictory, ranging from 'tribal confederacies', to 'kingdoms' (e.g. O'Connor 1991, 1993a). As yet, most discussions of their political organization tend to rely mainly on Egyptian sources and Egyptian perceptions of these peoples and their rulers. How accurate these sources are, however, remains uncertain. As is suggested by many histories of more recent colonial encounters, Egyptian understanding of the peoples they encountered may have been limited. Who were the 'rulers' that the Egyptians encountered? Were they warrior leaders or controllers of religious power? Was there a qualitative difference in the power wielded by the late rulers of Kerma (kings?) and earlier regional rulers? What resources and what populations could they actually control, and what were the foundations of social and political power? Unfortunately, the external sources can actually tell us relatively little about the social and political organization of Kush and its neighbours.

The potential of archaeology to throw light on such issues seems rather greater, although little attempt has yet been made to investigate how the rise and fall of such social and political entities may be reflected in the material culture of the region. Cemetery hierarchies of the C-Group have been used as broad indicators of settlement, as well as reflecting political hierarchies (O'Connor 1991). However, it remains to be seen how the establishment of what may be termed 'royal power' at Kerma was reflected materially. We might expect to see this, for example, in the development of an elite culture, perhaps also in the development of specific royal religious roles. This in turn might also be expressed in terms of a ritual hegemony, extending outwards from the Kerma metropolis to more outlying regions. To what extent were the shared norms of Kerma culture a reflection of such a ritual hegemony focused on Kerma itself? The most obvious expression of royal power is seen in the large numbers of human sacrifices consigned to the massive elite/royal burials of the Classic Kerma period in the later first half of the second millennium BC. That these do seem to reflect the appearance of new levels of power seems reasonably clear, even if otherwise they maintain and develop earlier forms of practice which may have been expressing many aspects of status, wealth or prestige, in different ways. Other questions may also be raised. What was the relationship between such displays and the very obvious manifestations of religion in the central temple complex, the 'Western Deffufa', at Kerma? How did the 'royal' power reflected in the great burials relate to the apparently central role of organized religion at Kerma? Did new forms of political power develop with new forms of royal cults?

Chronologies

Our understanding of the chronology of the Bronze Age in this region remains entangled with the chronologies used in the study of Pharaonic Egypt. Imported Egyptian artefacts have been, and remain, of fundamental importance in dating Kerma and C-Group assemblages, although in recent years many radiocarbon dates have become available. The reliance placed on datable Egyptian artefacts has not always been unproblematic. The most abundant and potentially useful import, as far as dating goes, was pottery, but its real potential has only recently begun to be exploited (e.g. Bourriau 1998). Traditionally, more emphasis has been placed on much rarer classes of artefacts, such as statuary and Egyptian inscriptions, which found their way into Kushite contexts by various routes. However, problems have been encountered in dating them and interpreting their significance. Many of these Egyptian artefacts, probably robbed from ancient burials in Egypt, were being traded into Nubia many centuries after they had been made (Lacovara 1991). Others may have been looted from Egypt by Kushites, as seems to be the case with objects of XVIIth Dynasty date found in some late (Classic) Kerma tumuli. Inscribed Egyptian scarabs, which can often be at least approximately dated, may often have remained in circulation and curated over considerable periods. More useful and reliable aids are perhaps numerous mud-sealings found both in the town and cemetery at Kerma (Gratien 1991, 1993), many datable to the Second Intermediate Period.

There have been considerable problems in dating sites, or indeed whole periods, where datable imports were not found, but significant progress has been made since the 1970s in establishing ceramic chronologies (Gratien 1978), and defining four main phases for the Kerma period. During the 1990s more refined ceramic chronologies were established at Kerma (Privati 1999), which will form a basis for future work in this and other areas. The main phases are the Early Kerma phase ('Kerma Ancien'), the Middle Kerma ('Kerma Moyen'), Classic Kerma ('Kerma Classique') and a fourth Late Kerma ('Kerma Recent') phase, contemporary with the XVIIIth Dynasty conquest and New Kingdom occupation. Reflecting the strong Egyptological background to all studies of the Kerma period, these phases broadly reflect the conventional Egyptian periodizations of the Old Kingdom/First Intermediate period, Middle Kingdom (Dynasties XII–XIII), the Second Intermediate Period and New Kingdom.

The more refined understanding we now have of Kerma chronology can also be more clearly related to chronologies of the C-Group of Lower Nubia (Bietak 1968). While the broad correlations between different phases of the Kerma and C-Group cultures are reasonably secure (Table 4.1) much work still needs to be done. Greater clarity is needed in the way regional cultural developments are linked to historical narratives, essentially those determined by Egyptian sources. That Kushite culture had its own dynamic independent of what was happening in Egypt is an area which has really yet to be explored. Rather than assuming a primordial division between Kerma and C-Group culture, the cultural

Table 4.1 General phasing of Kerma and C-Group periods

KERMA		*C-GROUP*
Early Kerma	(*c.*2500–2050 BC)	Phase Ia–Ib
Middle Kerma	(*c.*2050–1750 BC)	Phase Ib–IIa
Classic Kerma	(*c.*1750–1500 BC)	Phase IIb–III
Late Kerma – 'New Kingdom'	(*c.*1500–1100? BC)	'New Kingdom'

Sources: Based on Gratien (1978) and Bietak (1968)

distinctions which do emerge both between and within regions also need to be explored in terms of their different histories, in the different political or perhaps religious developments which occur in different regions. For Kerma, its contacts with Egypt will have been only one of many influences on its development. By contrast, cultural developments in Lower Nubia, a much more constrained and marginal environment, were often dominated by the ebb and flow of an Egyptian military and political presence, often isolating it from its southern neighbour.

Settlement outlines and changing material culture

The origins of the town site of Kerma can be traced back to the Early Kerma period when a number of mudbrick and mud structures occupied the site later occupied by the Western Deffufa and the surrounding area (Bonnet 1986a, 1990). At its heart was a religious complex which ultimately developed as a massive block of monumental mudbrick (Figure 4.2), the eroded remains of which still stand *c.*18m high. Four thousand years later it remains one of the most impressive as well as the oldest ancient monument of sub-Saharan Africa. Occupied for something in the order of 1,000 years the town (Figure 4.3) came to cover an area of *c.*20ha with satellite settlements close by, including a probable port area. Much of these outlying areas are now covered by the modern town and the intensively cultivated fields along its east side.

While we will refer to it as a 'town', much still remains to be learnt about its character. This religious core was to dominate the site throughout its long history. Later fortified and including a range of different types of structures, including more shrines, workshops and palaces, circular wooden buildings as well as rectilinear mudbrick houses, it certainly appears to represent an 'urban' community. If such was the case, which is generally taken for granted, this also raises many questions about the history of urbanism in this region. What provided the focus for the development of this new form of communal living? Did it develop around a religious centre, or as a centre of political power? To what extent was Kerma a unique urban phenomenon? If so, why?

Located *c.*4km to the east of the town is a vast cemetery, covering some 90 hectares, Current estimates suggest that there are least 20,000 tombs and

Figure 4.2 The mudbrick Deffufa and foundations of round 'Public Building' at Kerma

probably considerably more, spanning a period of some 1,000 years (Bonnet 2000). Established in an area occupied during the Late Neolithic and pre-Kerma periods, the cemetery shows a general linear pattern of expansion from its original location towards the south-southeast, with a westward extension in the later Classic Kerma period. Its vast scale is very impressive and it represents the greatest ancient necropolis of the Middle Nile.

As we have seen, the first permanent settlements of the Middle Nile seem to have been established in this part of the Dongola Reach during the Neolithic. The relatively settled life of this region continued into the Bronze Age and is reflected around Kerma in many 'farmstead' settlements. These were built both in mudbrick and wood, although rough stone blocks also seem to have been commonly used in building foundations and for supporting posts (Welsby 2001a). Several such settlements are now being excavated in the Kerma region (Gratien 1997, 1998) and further south. Ribbons of settlement run south of Kerma, concentrated along ancient river channels to the east of the modern Nile (Figure 4.1). Scattered sites are also found along the west bank of the northern Dongola Reach, although survey coverage of this side of the river is much less complete. Further south, the lack of systematic survey makes it as yet unclear how dense settlement was in areas such as the Letti Basin and further upstream, but several Kerma sites have recently been found in the Fourth

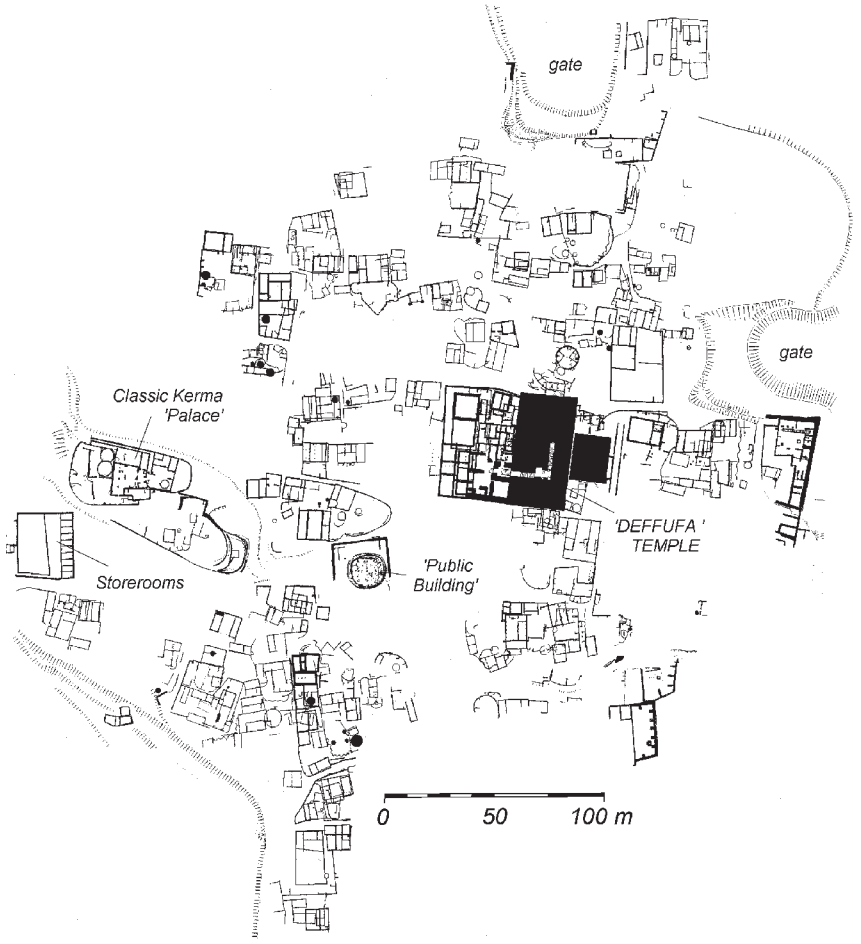

Figure 4.3 Plan of Kerma town
Source: after Bonnet 1999a

Cataract region, and it seems likely that settlement spread throughout the Dongola Reach and perhaps for some distance upstream. Moving north, sites have been found all along the river as far north as the Batn al-Hajar, while there may have been some larger centres of population in more productive areas, such as on Sai island and at Amara West, perhaps the area known as Sha'at.

Exactly how permanent such settlements were remains unclear although some seem to have remained occupied for many centuries. That their inhabitants were often heavily engaged in agriculture now seems relatively certain. Very little archaeobotanical evidence is yet available, although both barley and wheat have been found within burials in the Wadi al-Khowi (Cartwright 2001), at

Kerma and Sai (Chaix 1984). Hulled barley, emmer wheat, broomcorn millet and melon seeds were also identified in burials at Ukma in the southern Batn al-Hajar (Vila 1987). Small circular mud and stone structures within settlements seem very likely to have been grain stores, while small post-built structures and storage pits may also have been used for grain.

The importance of pastoral resources was also clearly very considerable. Our most abundant, if indirect evidence for this is found in mortuary contexts where cattle and other livestock are clearly a focus for symbolic and ritual concerns. Animals were sacrificed in large numbers and their bodies, or parts of their bodies were used in burial rites (Chaix 1986). From the occasional bucrania which had been incorporated into Neolithic burials, dozens, and ultimately hundreds of animals became part of funerary practices. Sheep were also plentiful and used for their fleece as well as for meat (Chaix and Grant 1987; Ryder 1984, 1987). A strong involvement in livestock management also made its mark on the bodies of the Kerma population. Anthropological studies indicate that the population was incurring numerous small, and not so small injuries of the type commonly associated with livestock management (Judd 2001, 2002). The emphasis on domestic livestock remains very strong throughout the Kerma period. However, in some areas, such as the Batn al-Hajar, wild animals such as gazelle are commonly found in Kerma burials. Whether this simply reflects a local scarcity of domestic livestock in this barren area or has other significance as yet remains unclear. Remains of wild animals found at Kerma suggest that large fauna was still to be found in the region (Chaix 1984, 1988). Bones of animals such as giraffe, hippopotamus, (wild?) donkey, lions, monkeys, gazelle and antelope have been found, while elephant ivory was abundantly available.

The vast necropolis at Kerma currently provides the most coherent picture of how mortuary practice developed over time, at least in this core region. From relatively modest beginnings, not very different from what was seen in the Late Neolithic/pre-Kerma period, burials show an increasing elaboration and increasing inequalities in their 'wealth', both in artefacts deposited in graves and other markers signifying wealth or prestige. By the early second millennium BC 'Middle Kerma' graves, for example, have been found with several thousand cattle skulls (bucrania) arranged around their superstructures. Such conspicuous displays of wealth and control of resources find their ultimate expression at the end of the 'Classic Kerma' period when the great 'royal' tumuli also held the bodies of up to 400 sacrificed individuals.

The significance of this great cemetery still remains unclear. It is presumed to relate primarily to the population of the main town site and its environs. Whether there were other small cemeteries in the immediate area remains unknown; relatively few have been found within *c.*10–15km of Kerma. Elsewhere in the region, nucleated cemeteries may have been used by populations drawn from quite large areas. The surveys in the Wadi al-Khowi located only 12 cemeteries as opposed to 120 Kerma settlement sites of one form or another (Welsby 2001a). This pattern is similar to that seen in the Neolithic.

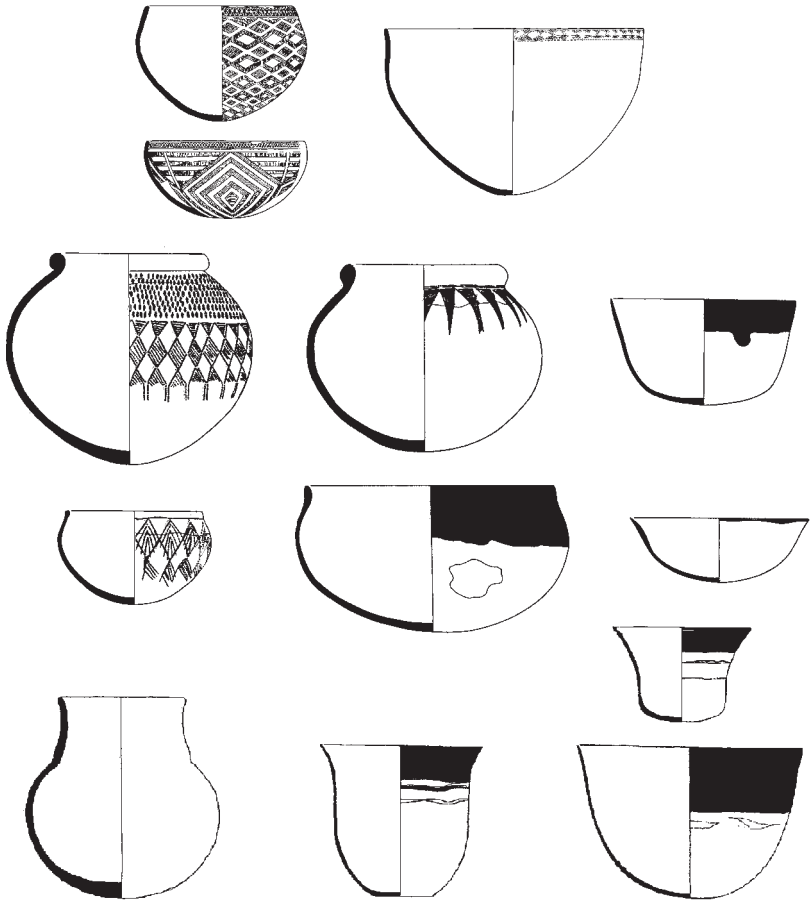

Figure 4.4 Kerma pottery
Note: Early Kerma (top), Classic Kerma (bottom)

Perhaps the most distinctive type of Kerman material culture was a wide range of both fine and coarse pottery, clearly growing out of ceramic traditions already in existence in the Late Neolithic (Figure 4.4). This included a wide range of wares and decorative styles, ranging from elaborately incised black wares, coarse functional siltwares, to extraordinarily fine, polished black-topped red wares. Some decorative styles may well have been inspired by other media, perhaps by incised decoration on gourds, or may have sought to replicate the qualities of other materials, such as polished metalware. Some wares copied the forms of contemporary Egyptian pottery. This wide range of pottery may well have been made in many different contexts, perhaps by different people. Pottery tools are common finds on Kerma settlement sites, suggesting some

types of pottery were widely made. On the other hand, some of the finer wares may well have been much more specialized products.

Worked bone continued to be widely used for making small tools and other artefacts, including personal ornaments. Ground stone tools remain common, although the impressive mace-heads and large axes of the Late Neolithic period largely disappear; most axe heads of Kerma date are relatively small as are those found in late prehistoric contexts further south. The decline in the importance of stone tools is likely to be explicable largely in terms of the growing availability of copper and bronze artefacts in the region, appearing there in the early third millennium BC and perhaps earlier. During the Early Kerma period, some metalwork may have been being imported from Egypt but bronze working was certainly taking place at Kerma at quite an early date. Elements of a well-preserved bronze-working workshop have been found in the religious complex at the centre of the town, which may date back to the later third millennium BC (Bonnet 1986b). Where copper ores were coming from remains less clear, although there may be some limited sources in the Third Cataract region. The status and early use of gold amongst the Kushites remains less certain. While it is generally assumed that they were as interested in gold as their Egyptian neighbours, this is by no means self-evident.

Early Kerma (Kerma Ancien)

The Early Kerma (Kerma Ancien) period may be broadly dated to the second half of the third millennium BC, beginning around 2500 BC. At Old Kerma, relatively little is known of the early settlement as most remains masked by later levels. Some irregular rectilinear mud and mudbrick structures of this date have been excavated in the centre of the site. Quite lightly built, these were not dissimilar to contemporary structures in Egypt. Some areas seem to have been occupied only by circular wooden post-built structures, *c.*4–5m in diameter, and for much of its history the settlement probably included both wooden and mud-built buildings. From an early date, buildings within the town included storage facilities; raised circular platforms marking the bases of storage silos. How extensive this early settlement was remains to be seen, but at its centre probably lay its earliest cult building (Bonnet 1987), suggesting a religious focus to the site from earliest times. By the late third millennium the first enclosure walls were constructed, soon to be levelled to allow it to expand. Larger multi-roomed buildings were also appearing and the beginnings of monumental construction began in the Deffufa building. Relatively little is known of other settlements during this period, although excavations at a site *c.*25km south of Kerma (Gism al-Arba) have revealed a settlement of several large buildings (Gratien 1998).

In the great necropolis at Kerma, the early burials lie at its north end. Several areas have now been sampled revealing densely clustered graves, possibly extending over several hectares. At this early period, considerable variability is found in the richness of grave goods and surface deposits (Bonnet 1982: 40–51),

developing hierarchical distinctions apparent in Late Neolithic cemeteries. Burials were generally in small oval shafts, rarely larger than 1.5 × 1m at the beginning of the period. The bodies were tightly contracted, commonly lowered into the grave on a cattle hide. The head was laid to the east, facing north. This body orientation was typical of Kerma burial for the next millennium (Gratien 1985). Often wrapped in sheepskins, the bodies might be dressed in leather kilts or loin-cloths, wearing personal jewellery, including eggshell, faience and stone beads, earrings and necklaces, with their sandals laid beside them. Male burials have been found accompanied by their bows and arrows and adorned with ostrich feather plumes (Figure 4.5).

Pottery bowls were sometimes placed in the graves but most were left as surface deposits, probably relating to funerary rituals and/or feasting. Cattle skulls (bucrania) are also found. Later in the period, larger and more elaborate graves start to appear, including examples with bronze mirrors and daggers and sacrificed animals, including dogs. Occasional graves with secondary burials raise the possibility of human sacrifice during this period, continuing a practice already encountered in the Neolithic. The extent to which burials at Kerma were unusually rich in this period has still to be determined. Beads and jewellery are the main finds at Sai, for example (Gratien 1978, 1985) which was to be an important centre further north, as well as in graves in the Wadi al-Khowi south

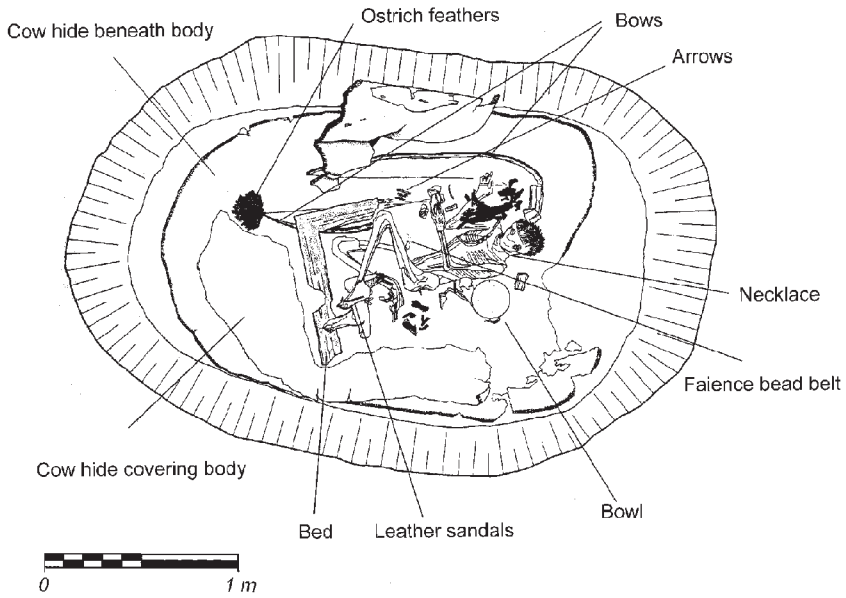

Figure 4.5 An 'Early Kerma' burial
Source: after Bonnet 1982, fig.16

of Kerma (Welsby 2000), although items such as bronze mirrors, and occasional pieces of imported Egyptian pottery have been found at Sai and in contemporary burials in the Second Cataract region. Future studies of the distribution of imported and other potentially prestigious artefacts may provide some clues as to how they were being distributed.

The early graves generally had quite small superstructures of which there seem to be two main types. Some of the small tumuli were edged with rings of small stones and covered with white pebbles, others were encircled with small stone slabs or stelae. What significance may be attributed to the different types of superstructures remains uncertain. Similar stelae and small tumuli are found in the Wadi al-Khowi south of Kerma (Welsby 2001a), as well as to the north, for example at Sai, and also in contemporary (C-Group) sites in Lower Nubia (Gratien 1978). What may be small 'chapels' also appear during this period, simple four-post structures (*c.*2.65 × 2.4m), perhaps used for libations or funerary meals/sacrifices. Lines of posts across the north side of tombs may have supported windbreaks protecting funerary ceremonies (Bonnet 2000).

Lower Nubia and the Early C-Group

Contemporary developments in Lower Nubia have conventionally been identified with the early phases of the C-Group, Bietak's (1968) Phases Ia and perhaps early Ib. Following a period of several centuries when it is very difficult to identify any significant settlement in Lower Nubia, new populations began appearing through the region north of the Second Cataract as far north as Gerf Hussein (Figure 4.6). It seems likely that the resettlement and re-colonization of the region may have been quite a lengthy process. During this phase, settlements were established in the most fertile locales of the north, notably around Dakka, Aniba and Faras, the regions known to the Egyptians as Wawat, Irtjet and Setju. When compared with settlement in the Dongola Reach, the new population will have been quite thinly spread in relatively small communities. How settled these populations were remains difficult to determine; the few buildings of this period which have been identified are relatively small. At Sayala, a group of stone rings may represent the bases of buildings, and an animal enclosure (Bietak 1966), while some circular post-built structures were found at Aniba. From the (limited) settlement evidence sheep herding appears to have been of particular importance, although some cattle were kept and hunting also continued. The same symbolic importance of cattle, as seen at Kerma, is certainly very evident in Lower Nubia, even if it remains difficult to determine how abundant they were.

Early C-Group burial has much in common with contemporary practice further south. Burials were similarly oriented, head to the east, facing north, with a similar range of materials in the graves, mainly beaded jewellery, armlets and bracelets and hair rings. Other objects, mainly pottery, were deposited outside the superstructure, usually on the east or northeast side although

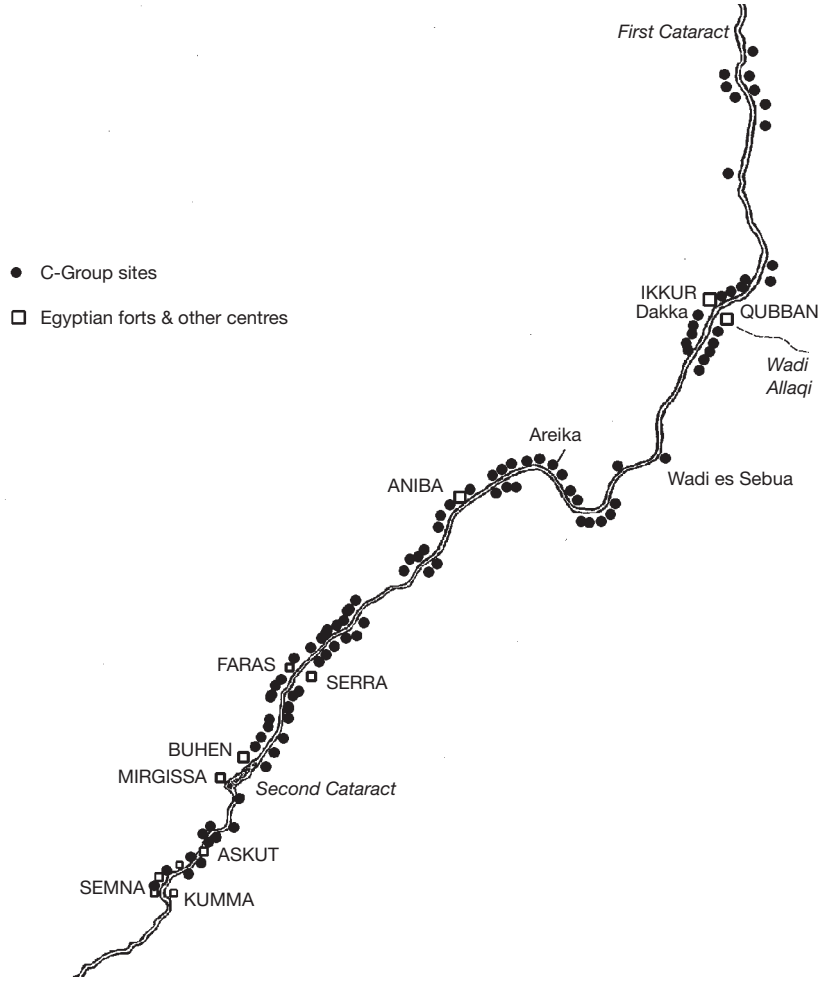

Figure 4.6 C-Group settlement in Lower Nubia

deposits of bucrania seem to appear only in later periods. The bodies were commonly clothed in leather garments, sometimes decorated with beads, and with sandals. Tomb superstructures tend to be rather different than further south, with a much greater use of stone, although this could well relate to differences in landscapes and available materials. The tombs were generally stone rings, up to 1m high, either infilled with sand and gravel, or with stone. As in the Kerma region, stone stelae are also found in Early C-Group contexts sometimes with incised designs, especially of cattle (e.g. Steindorff 1935; Williams 1983).

Middle Kerma (Kerma Moyen)

The Middle Kerma (Kerma Moyen), representing a period of some 300 years (*c.*2050–1750 BC), broadly corresponds with the period of the Egyptian late XIth, XIIth and XIIIth Dynasties. This period saw the Egyptian conquest of Lower Nubia as far as the Second Cataract region, and the establishment of a military frontier zone in the northern Batn al-Hajar. This extension of Egypt's political and military power into Lower Nubia must have brought significant changes to its relations with Kerma, although its real impact on the history of Kerma has yet to be determined. The inhabitants of Lower Nubia were, however, forced into a new and very different relationship with their Egyptian neighbours. These new circumstances are likely to have been the major factor in the development of a much more distinctive regional culture in Lower Nubia, diverging from its southern origins.

This period saw the town site of Kerma change and develop with more substantial fortifications and domestic architecture (Bonnet 1990, 1992). The great Western Deffufa formed a focal point for what appears to have been a substantial 'religious quarter'. As well as workshops and other buildings, chapels or shrines began to be constructed in the same area. Larger mudbrick buildings appeared, often with large open courtyards. In contrast to these structures, what was clearly a very major and important building was built to the southwest of the Deffufa during this period (Figure 4.3). Its rounded external walls were built in mud with an internal frame of massive wooden posts supporting the roof. Enclosed on three sides by a large mudbrick wall, its southern side seems to have been bounded by wooden palisades. This massive building is unique at the site and represents an unusually large covered area, nearly 18m across on the interior. Built around the beginning of the Middle Kerma period it seems to have survived for several centuries, being destroyed and rebuilt at least six times on the same site. This period also saw the establishment of an extra-mural religious centre to the southwest of the main town, which contained a cluster of chapels similar to examples within the town as well as in the main cemetery.

Middle Kerma mortuary practice also saw the development of increasingly impressive burial monuments as well as more elaborated practices. At Kerma itself, tombs were now being covered with larger tumuli, 30–40m in diameter. On occasions major burials also seem to have secondary burials associated with them, clustered around large central tombs. Child burials are also found within the same area as adults. The wealth of some of these, which sometimes included rich collections of jewellery and weapons is a good indication that status was inherited and maintained within elite families.

The power of heredity and the heritage of ancestors may also be seen in growing evidence for what seem likely to be ancestor cults. Associated with some richer burials were ancillary structures, apparently chapels, similar to examples also appearing within the town. Built in mudbrick, they probably

developed from wooden structures occasionally found in earlier centuries. Other chapels may have had timber posts set on marble blocks and internal dividing walls, some with whitewashed plaster. Up to 5.5m square and possibly 4m+ high, these chapels would have formed substantial and prominent structures within the cemetery. Following their construction, they may have survived for some decades at least, being respected by later tombs. So far these chapels are known mainly from Kerma, although one has been found on Sai island (Gratien 1978).

As well as these chapels, surface offerings are also increasingly prominent features during this period. Sometimes large numbers of bucrania were placed in an arc around the south side of the tumulus, facing the tomb; some have more than 500 bucrania arranged around them. In other cases, extensive deposits of pottery were placed on the surface, in one case a group of 46 down-turned bowls. Burials pits were also larger, still holding east–west aligned bed burials and animal sacrifices (Figure 4.7). Finds of several sheep and goat in similar tombs are not uncommon. The animals were sometimes quite elaborately decorated, with woven beads attached to their pierced horns and plumes of ostrich feathers placed on the heads between their horns. Cuts of meat were also included, laid out on mats. Personal jewellery was still abundantly displayed, while male burials were accompanied by their bows and leather quivers. The often very large numbers of bucrania which were arranged around graves, potentially represent the massive slaughter of animals for mortuary rites as part of an increasing formalization of rituals with the increasingly large and elaborate chapels, used for other offerings. The displays of wealth and power, manifested in these different ways, seem to be of a quite different order from anything found in Lower Nubia during this period.

Lower Nubia

During this period the Egyptian state was to increasingly define the nature of Kushite settlement as well as influence cultural development in Lower Nubia. At the beginning of the second millennium BC the first pharaohs of Dynasty XII again moved into Lower Nubia, campaigning against Wawat and other local groups. Senwosret I was particularly active, also establishing a series of Egyptian forts with permanent garrisons in the major centres of local populations. As a graffiti from near Korosko recorded: 'I sailed victoriously upstream, slaughtering the Nubians on the river-bank. It was burning their houses that I sailed downstream, plucking corn and cutting down their remaining trees' (Wegner 1995: 154). These included forts at Ikkur and Qubban in the north (Figure 4.6), at Aniba and probably again on the Second Cataract, at Buhen and Kor. Expeditions were also sent further south against Kush/Kerma.

The Egyptian fort at Qubban seems to have been the focal point for gold mining operations in the Eastern Desert/Red Sea Hills along the Wadi Allaqi and the Wadi Gabgaba (Sadr *et al*. 1995). To take control of other sources of gold

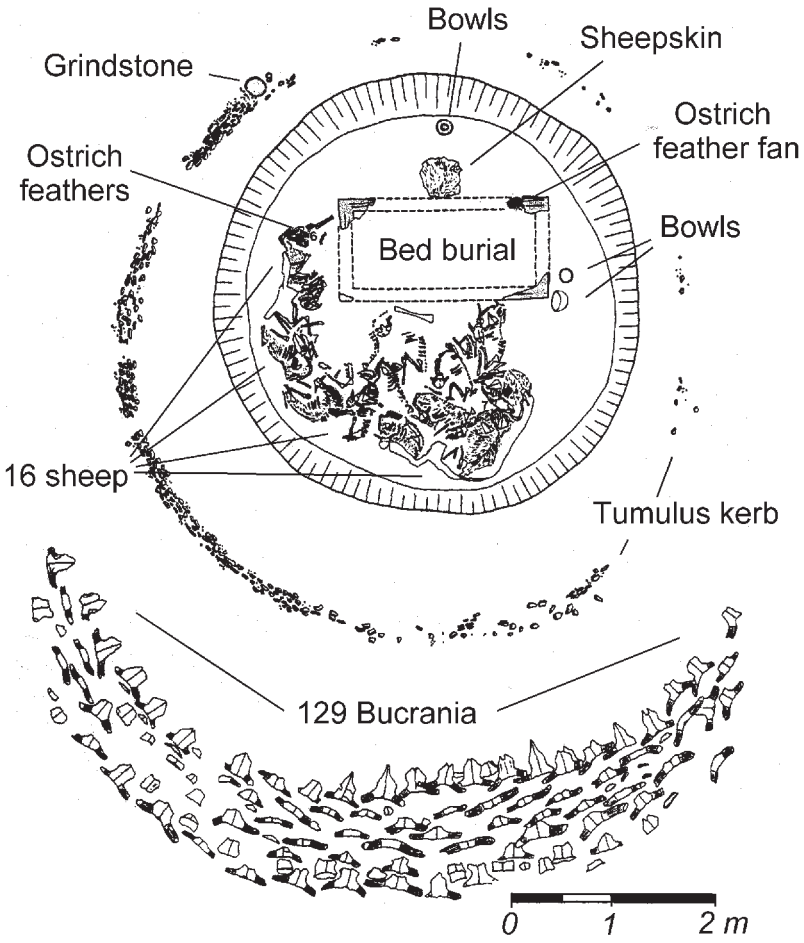

Figure 4.7 Middle Kerma burial
Source: after Bonnet 1986c, Fig.17

may also have been a major impetus for further campaigns to the south, notably under Senwosret III. These penetrated the Batn al-Hajar as far as Dal, if not beyond, securing an area which while very rocky and barren has significant gold resources, notably in the Saras area (Mills 1973). During Senwosret's reign a series of large forts were constructed in the Batn al-Hajar between Semna and the Second Cataract (Figure 4.8). While most enclosed an area of no more than 2–3 hectares, their massive construction with huge mudbrick walls and bastions is very striking. Such elaborate construction will have made them easily defensible by relatively small garrisons in this otherwise potentially extremely hostile and exposed position *c.*400km upstream of Aswan. There was also

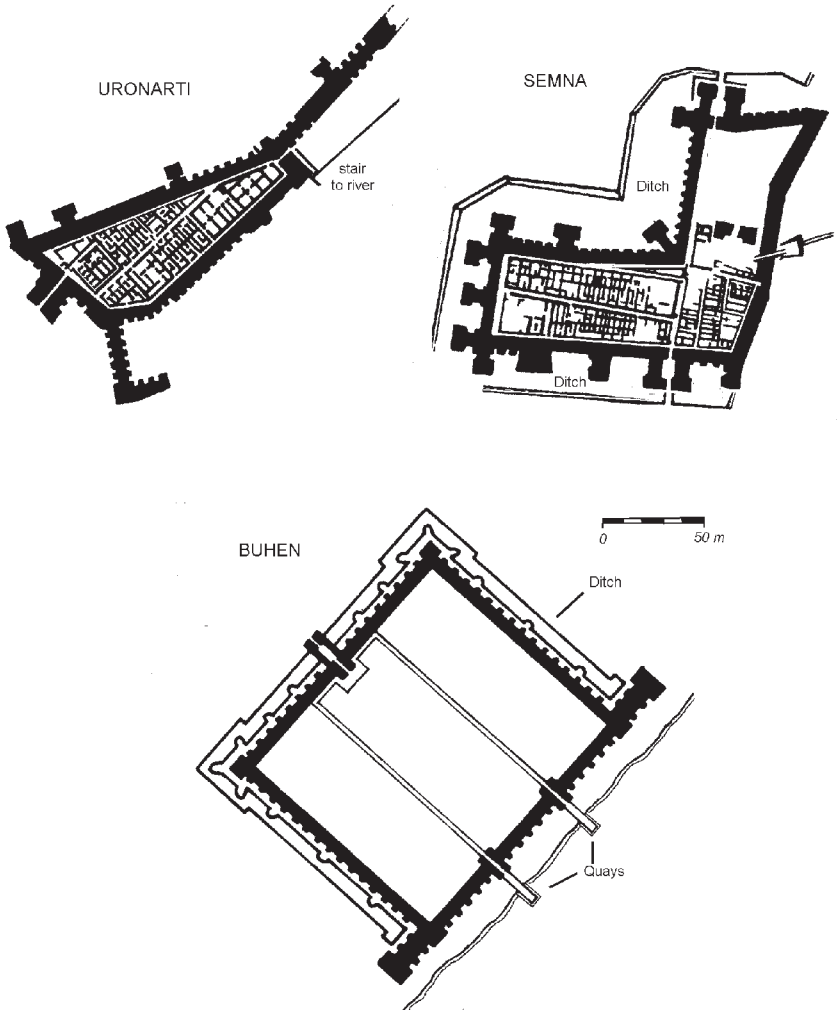

Figure 4.8 Middle Kingdom forts in Nubia
Source: based on Emery 1965

continued exploitation of the Jebel el-Asr gneiss quarries to west of Toshka during the XIIth Dynasty (Shaw and Bloxom 1999).

During the XIIth Dynasty the Egyptian troops in the frontier forts seem to have been regularly rotated, and there was probably relatively little interaction with local populations. During the XIIIth Dynasty the garrisons seem to have become permanent and garrison commands sometimes became hereditary. More local ties may also have been established, although the immediate surroundings

of the frontier forts are likely to have been sparsely populated. Extensive excavations were carried out on most of the forts (although not all results have been published) providing interesting insights into the Egyptian military on the frontier, and many aspects of their supply and equipment. At Mirgissa, for example, military workshops were excavated revealing equipment for stretching and shaping leather shields, and lithic material, imported from Egypt, used for making arrowheads and spear points (Vila 1970b). North of the Second Cataract a further fort, with a protected dock, stood at Serra East (Knudstad 1966), with another outpost on the west bank opposite, at Faras (Griffith 1921).

The local C-Group populations of Lower Nubia of this period are represented by Bietak's Stage Ib with the main period of Egyptian control corresponding with C-Group Phase IIa. During this period, material from C-Group sites suggests that a strong differentiation seems to have been maintained between local populations and the Egyptian outposts, with little Egyptian material finding its way into 'C-Group' hands. This may reflect deliberate policy but may also bear on the mechanisms of exchange which existed during this period, in that there was no basis or necessity for local populations to be part of exchange systems. Whether there were formal tributary obligations to the Egyptians remains unknown; while often assumed, no evidence for this has survived.

There is little settlement evidence from this period, most effort having been spent on excavating the Egyptian fortresses. The best studied site, but probably least typical is one at Areika near Amada, which may well have been established during the XIIth Dynasty (Randall-MacIver and Woolley 1909; Wegner 1995). With an unusual mixture of local and imported artefacts at the site and the construction of rectilinear mudbrick buildings, Egyptian influence is quite marked. Facilities for baking and brewing also betray an Egyptian presence in what seems likely to have originally been an Egyptian military post. Amongst the few C-Group settlements which have been excavated, mudbrick architecture was often used, very similar to the types of building being built in the Kerma region. The Egyptian presence also seems to be reflected in the limited changes in mortuary rite during this period with much less evidence for the type of hierarchical structures increasingly apparent at Kerma. Other cultural changes have much in common with those seen further south. Clay figurines, both of animals and people are not uncommon finds during this period, as at Kerma. Figures of steatopygous women are very common, while male figures are not, and may relate to similar figures encountered in Late Neolithic contexts. In depicting bodies, scarification and/or tattooing appears a regular feature. Such figures may well relate to religious practices.

Classic Kerma (Kerma Classique)

The Classic Kerma period, which continues to the middle of the second millennium (*c.*1750–1500 BC), saw the greatest development of Kerma and Kush. This period corresponds with the later XIIIth Dynasty and Second

Intermediate period in Egypt. The weakening of royal power in Egypt also weakened Egyptian control over their southern frontier. This was to open the way for Kush to assert its power in Lower Nubia, leading to a period of open conflict and confrontation with Egypt. An inscription recently identified in the tomb of Sobeknakht, a Governor of El Kab during the latter part of the XVIIth Dynasty (*c.*1575–1550 BC) seems to record a Kushite attack into Egypt (Davies 2003). While the attack was apparently ultimately repulsed, objects presumably taken as booty, including an alabaster vessel bearing this name, were found in some of the great 'royal' tumuli at Kerma.

This period sees the town of Kerma reach its greatest extent, and the wealth and power of the Kushites also reaches its maximum. Finds of mud seals bearing the names and titles of Egyptian kings and officials demonstrate that direct contacts were maintained with various parts of the divided Egypt (Gratien 1991). The town site continued to expand, necessitating the infilling of earlier ditches and the rebuilding of some of the defences further west. Its full extent has yet to be determined. One new construction in this area was a large palatial structure, which may well have performed similar functions to the large circular building found further east (Bonnet 1999c). At its heart was a large open 'throne-room' with massive pillars (Figure 4.9). Sometime during this period the religious centre to the southwest of the main town was abandoned and the area used as a cemetery, which it remained until the beginning of the New Kingdom.

The growing political power of the rulers of Kerma is perhaps most obviously demonstrated in a series of massive 'princely' or 'royal' tombs of which there are

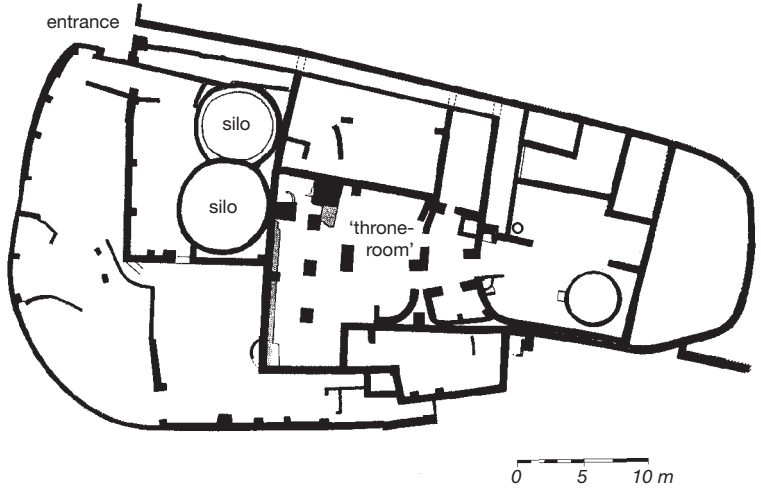

Figure 4.9 Classic Kerma 'palace' at Kerma
Source: after Bonnet 1999c

four at the south end of the town's great necropolis. The first of these, Tomb KXVI was some 70m in diameter and lay on the main axis of the cemetery. Excavated by Reisner the tumulus covered large burial pits, two of which held grave furnishings and what appear to be additional burials, presumed to be human sacrifices. Some 30 secondary burials were sited around the core. Generally richly furnished, these have been interpreted as the burials of senior elite individuals arranged around a royal burial, developing a tradition of supplementary burials already apparent in the Middle Kerma period. Three later tombs, K X, KIV and KIII are even more elaborate. Both KX and KIII had massive mudbrick funerary chapels/temples associated with them, the second chapel being the 'Eastern Deffufa'. Elite manifestations of the mudbrick chapels already being built during the Middle Kerma period, their massive architecture, elaborately decorated with wall-paintings, marks a new level of magnificence.

The most extraordinary feature of these burials was a combination of large numbers of human sacrifices accompanying the main burial and the addition of numerous secondary burials cut into the tumuli many of which seem to be of high status. Three unusually large tumuli (KXIII, KVIII and KV), two of which were marked by the same massive white quartzite cones may also be 'royal'. The distinctions between those buried within the royal tumuli and those buried separately in the 'satellite cemeteries' remains uncertain. It has been suggested that the former were drawn from the royal 'court' while the others were drawn from other elites (O'Connor 1993a). Royal households are certainly likely to have been very central to providing the personal power bases for the rulers, and the personal character of such relations may indeed provide a good explanation for such secondary burials in the royal tumuli. The identity of the others buried around the tumuli remains less clear. Detailed analysis of such burials may provide some clues. Comparative studies with a wider range of data from outside the metropolitan centre, representing much wider social groups, including regional elites, may provide further information on social and political organization during this key period.

These centuries also saw the development of some of the most distinctive features of the material culture of Kerma. Its very productive pottery industries were producing large quantities of high-quality pottery, including very distinctive 'tulipiform' beakers (Figure 4.4, bottom), perhaps the most archetypal forms of Kerma pottery. These and other pottery forms may well have been inspired by metal prototypes, and certainly show an appreciation not only for colour but also metallic qualities of highly polished surfaces. An association with copper seems likely; redness is an attribute of copper which is commonly emphasized in many parts of sub-Saharan Africa while the luminosity of polished surfaces may be desirable, and indeed 'powerful' (Herbert 1984). While not only found in burial contexts, these may well have been made specifically for funerals. Pottery kilns on the southwest side of the main cemetery at Kerma seem to have fulfilled this purpose (Bonnet 2000), while freshly fired vessels

were placed in burials (Maystre 1980). Although these have come to be the archetypal 'Kerma' pots in modern minds, their ubiquity and standardization may also reflect some special significance as markers of identity in the second millennium BC.

Lower Nubia and the Late 'C-Group'

The Classic Kerma period broadly corresponds to Bietak's C-Group Phase IIb and perhaps Phase III which may well be a largely contemporary and parallel development to IIb rather than subsequent to it. This is a period in which the collapse of effective centralised government in Egypt changed the character of the Egyptian presence in Lower Nubia, ultimately allowing the Kushite kingdom to extend its political reach north of the Batn al-Hajar into Lower Nubia proper. The Second Cataract military frontier was opened. Inscriptions from Buhen suggest that the Egyptian garrisons, now permanent, continued in place although now recognizing the authority of the 'Ruler of Kush' (Säve-Söderbergh 1949); Sepedher, the fortress commander at Buhen, built 'the temple of Horus, Lord of Buhen in the days of the King of Kush'. A Classic Kerma presence is seen in the region in some occupation within the fortress and a Kerma cemetery at Mirgissa (Vercoutter 1970, 1976). Smaller sites such as Askut continued to be occupied although much more 'Nubian' material culture was being used within the fort (Smith 1995).

However, many uncertainties remain concerning the history of the region over the next 200 years, and many further issues remain concerning the relationship between historical narratives and archaeological evidence. A continued Egyptian presence in many of the old garrisons, albeit recognizing Kushite domination, may have coexisted with some form of physical Kerma occupation. However, a more complex history is possible with the garrisons surviving for several generations before being replaced by a Kerma occupation, a transition once associated with a widespread episode of burning within Buhen fortress (Smith 1976). Other interpretations however are possible, and that episode could actually relate to a later Egyptian campaign against the Kushites (S. Smith 2003). The cemetery at Mirgissa may be significantly later, as suggested by the presence of a XVIIth Dynasty scarab, and as Bourriau (1991) suggested, continued in use through to Kamose's reign, perhaps a century later. An Egyptian cemetery at Aniba also remained in use through this period (Steindorff 1937).

Many uncertainties remain. The period of a significant Kerma presence north of the Second Cataract may have been somewhat shorter than previously supposed, and this would not be inconsistent with the relatively limited direct evidence for a 'Kerma' presence in Lower Nubia. Such a presence is quite widely attested, with Kerma finds at Argin West, Debeira East, Faras East, Aniba, Tomas, Mediq, Wadi al-Allaqi, and Dakka. The material remains are often limited however, often no more than scattered 'Kerma' graves amongst 'C-Group'

burials. As yet, interpreting their significance largely depends on which historical narratives are being favoured.

During Phase IIb, rich burials of local elites do become much more visible in Lower Nubia. Clusters of unusually large and rich graves at Aniba show various novel forms, some with vaulted mudbrick chambers, as well as mudbrick chapels on the north sides of graves. Such changes may well reflect growing contacts with the south. They may also provide tangible evidence for the incorporation of Lower Nubian elites into socio-political networks looking to Kerma, which also gave access to long-distance trade networks, including one linked to the Hyksos rulers of Egypt. It perhaps also needs to be considered whether changes in mortuary practices of this kind could perhaps also be related to the extension of the religious hegemony of Kerma, likely to have been one key element in the establishment of its political domination. Variability in mortuary practices at the local level within Lower Nubia also seems very evident (Anderson 1996). This may in turn be linked with political competition within the region. New links may have been established with Kerma by some political elites although most of the population may well have been relatively unaffected by such political changes.

Lower Nubian culture late in this period (C-Group III) has been characterized as 'thoroughly mixed with the Pan Grave and Kerma Culture' (Bietak 1987: 122), especially in more northerly areas. Egyptian influences are also evident in many cemeteries. The 'Pan Grave' Culture, which will be further discussed below, represents a novel cultural tradition which was appearing in Lower Nubia and Upper Egypt by *c.*1650 BC, and originates in the Eastern Desert and Red Sea Hills. New forms of pottery decoration also appear, including some rare use of polychrome decoration. This heterogeneity may be a good indicator of the complexity of social and political networks within the region, operating at many different scales, with links both to Kerma in the south, Egypt in the north and an eastern tradition represented by the 'Pan Grave'. Large elite graves also seem to be absent at Phase III sites, while Egyptian materials become more widespread. This may reflect an increasing Egyptianization of the local elites (O'Connor 1991), but other possibilities may exist. Political domination by Kerma, for example, equally would have affected the status of the local elites.

Settlement evidence is still sparse outside the old Egyptian centres. At Aniba, rectangular mudbrick structures replaced some of the round buildings (Steindorff 1935) as was also seen with late buildings at Debeira (Säve-Söderbergh 1989). A fortified settlement dated to around the end of the Egyptian XIIIth Dynasty (*c.*1700–1650 BC) was excavated at Wadi es-Sebua (Sauneron 1965). Located on the river edge, its heavy stone walls surrounded densely clustered rooms (Figure 4.10). As seems to have been quite common amongst the C-Group, the foundations of the walls were constructed from upright stone slabs. While sometimes referred to as a 'fortified village' (Trigger 1976), the location of this site in an area away from the main centres of C-Group settlement suggests it may have a more specialized function, perhaps controlling the mouth of the

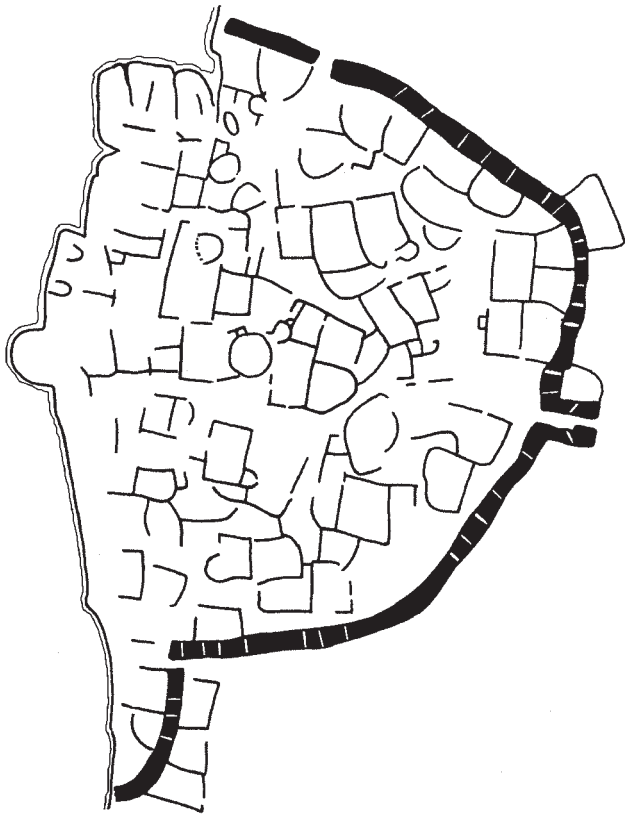

Figure 4.10 Late C-Group enclosed settlement at Wadi es-Sebua
Source: based on Sauneron 1965
Note: no scale given

wadi running out into the Eastern Desert, or providing a secure outpost in the otherwise rather empty area.

The Pan Grave Culture and the East

From the beginning of the second millennium BC, a new and culturally distinct population was appearing in Upper Egypt and, at least in small numbers, through much of Lower Nubia north of the Second Cataract. These people were named the Pan Grave people, due to their distinctive burials. These burials have come to be associated with peoples known as the Medjay (Bietak 1981) from the Eastern Desert who first appear in historical records at the beginning of the second millennium BC, and who had a significant presence in the region

during the first half of the second millennium BC. First identified in distinctive burials in Upper Egypt, a limited Pan Grave presence can be detected as early as the (early) XIIIth Dynasty in stratified occupation levels at Memphis (Bourriau 1991) while they seem to have continued to be employed as troops as late as the XVIIth Dynasty (*c.*1650–1550 BC). Conflation of the Medjay and 'Pan Grave' material culture is of course not unproblematic, not least due to the varying usage of the term Medjay in Egyptian texts. However, within Lower Nubia it seems clear that these represent a distinct population originating in areas east of the Nile.

Pan Grave pottery is quite distinctive (Bietak 1966, 1968; Giuliani 2001) while bearing generalized similarities to contemporary riverine ceramic traditions; such differences are again encountered in the first millennium AD when a very distinctive 'eastern' ceramic tradition again appears in Lower Nubia (see Chapter 7). Pottery assemblages tend to be dominated by black-topped wares, often with thickened rims, and common bowl forms tend to have flattened bases. Incised decoration is particularly prominent, while in some areas pottery fabrics seem to lack the vegetable/dung temper commonly found in riverine wares. Physical anthropological studies on cemetery populations have also detected physical characteristics very distinct from contemporary (C-Group) populations and interesting indications of considerable variability within populations, not least between males and females (Strouhal and Jungwirth 1984).

The distinctive pottery has been found in many Upper Egyptian settlements as well as in Nubian fortresses such as Mirgissa, Serra East and Qubban and the Pan Grave presence in Nubia is often explained in terms of a military role for these people, associated with the Egyptians, perhaps being used against the indigenous populations (Trigger 1976). However, with the very uncertain degree of Egyptian control of the region during the Second Intermediate Period, a period which also saw the growing strength and cultural influence of the Kerma kingdom, this picture may be oversimplistic. In interpreting the significance of the Pan Grave presence, much depends on the exact relationship between 'Pan Grave' and 'C-Group' or Kerma sites, and especially whether they can be shown to be contemporary, and co-existing, or not. With the growing possibilities for much closer dating of pottery sequence, a thorough reassessment of Pan Grave sites may prove valuable.

Whatever its status, the 'Pan Grave' as a culturally distinct group seems to disappear from Upper Egypt around 1500 BC (Bietak 1966), with the resurgence of New Kingdom power and especially the Thutmosid expeditions into Nubia. Its disappearance from the Nile Valley however, was not the end of the story. Indeed Egyptian/Nubian manifestations of Pan Grave populations may only represent a small part of much more complex cultural patterns to the east of the Nile during the second millennium BC. Recent work in Eastern Sudan now suggests that we need to look to the Sudanese Red Sea Hills to more fully understand the 'Pan Grave' as a cultural phenomenon.

From the mid-third millennium BC much of the region around Kassala and the Gash Delta and towards the Red Sea coast was occupied by mixed farmers, with a strong pastoral element, the Gash Group (Fattovich 1995). Its ceramic culture is quite distinctive, mainly comprising open vessel forms (Capuano *et al*. 1994). The largest site of this period to be excavated is at Mahal Teglinos, near the north end of the massive peak of Jebel Taka, close to modern Kassala. This was the site of a settlement as well as one or more cemeteries, perhaps originating in the later fourth millennium BC. By the mid to late third millennium (Middle Gash Group) a formal cemetery area seems to have been established; earlier burials being more dispersed, apparently within settlement areas. A distinctive development by *c*.2000 BC was the appearance of small stone stelae up to 1m high in the cemetery (Fattovich 1989b), although grave goods are very rare within graves. Numerous hearths, abundant faunal remains and pottery around the stele may reflect quite elaborate rites associated with the burials. Apart from the provision of the small stele, there is little to compare with the great material wealth often encountered in the Nile Valley at this time, and the character of societies in this region still remains rather unclear. Whether there were other large sites similar to Mahal Teglinos is also unclear. Its location, at the base of the extraordinary natural feature of Jebel Taka, may not be unimportant. That the mountain occupied a special place in the sacred landscapes of the region seems very likely.

This Gash Group was in contact with neighbouring regions and engaged in long-distance exchange. Rare sherds of both imported Egyptian pottery as well as material from the Nile valley is found in the area (Manzo 1997). By around 1400 BC, a new cultural group, the Mokram Group, appears in east central Sudan (Fattovich *et al*. 1984; Sadr 1987, 1990). The strong similarities between the Mokram Group and Pan Grave pottery of the north leaves little doubt that they were closely linked. As such, the Mokram Group may be seen as a manifestation of a southward expansion of Medjay peoples, which also extended to the east, into areas of what are now Eritrea. It has been suggested that finds from the Agordat area (Arkell 1954), may also be comparable to material from the southern Atbai, although this needs confirmation. Ongoing work in the Fourth Cataract–Abu Hamed region is also finding 'Pan Grave' sites, although whether these are contemporary with those of Lower Nubia remains unknown (Paner 1998; El-Tayeb 1998b).

Late Kerma and the Egyptian occupation of Kush

By the beginning of the XVIIIth Dynasty, the Egyptians had embarked on a series of campaigns into Nubia which re-established their control over Lower Nubia, and they gradually penetrated further south. Thutmosis I campaigned south of the Third Cataract, and claimed to have made local rulers his vassals. However, the Kushites continued to fight the Egyptians during the reigns of Thutmosis II and Hatshepsut. The power of Kerma was probably finally broken

by Thutmosis III although there were later outbreaks of fighting ('rebellions'), under Seti I, for example. The New Kingdom conquest of Lower and Upper Nubia marks the end the Classic Kerma period beginning a 'Late' phase in which indigenous cultures continued alongside the Egyptian presence. Within the Kerma heartlands of the Dongola Reach, this period still remains very poorly understood, although it seems likely that the relationship between the Kushites and the Egyptians was generally very different than that in areas north of the Third Cataract.

At Kerma itself, the Egyptian conquest brought to an end the sequence of great royal tumuli (probably soon after the royal burial in tomb K.III) and the apparent abandonment of the great necropolis. This marked a massive break with a deep ancestral past, as well as with the traditions of royal power manifested in the tombs. In turn, the town site with its great central temple also seems to have been abandoned. On the basis of still rather fragmentary evidence, the focus of settlement seems to have shifted away from the old town to the south-west towards the 'port' area where parts of a cemetery and a settlement datable to this period have been found. Subsequently, an Egyptian-style temple was constructed to the north of the old town.

In the new focus of settlement at least one major and potentially royal tomb has been found. Its location away from the great cemetery and its unique form mark this tomb out as a departure from the traditions of the late Classic Kerma royal burials. A great burial pit was lined with rough blocks of granite from Tombos. Although the superstructure was destroyed, reconstructions suggest it had a tall cylindrical form with an entrance chamber on the north side; quite different from earlier tomb forms at Kerma, if with similarities to Late C-Group elite tombs in Lower Nubia. Finds from the tomb included local as well as Egyptian types of pottery, faience and alabaster objects, beads, bone inlaid furnishings and fragments of (Middle Kingdom) Egyptian statuary. The apparent richness of the tomb's contents appears to have been matched by the violence of its robbing and slighting. Closely dating the tomb remains difficult, so direct associations with the historical events of this period are difficult. However radiocarbon dates (Beta2713: 3330±90 BP and Beta2712: 3210±80 BP) are quite compatible with the traditional date of *c.*1450 BC for the destruction of Kerma.

It is noteworthy that a date very similar to the last of these was obtained from one of the early 'tumuli' at el-Kurru, traditionally dated to the early first millennium BC. When excavated in 1913, Reisner identified these as the first 'primitive' graves in a sequence of burials which developed through to the first pyramids of the kings of Napata. However, strong similarities with elite tombs of the mid-second millennium BC suggest the possibility that the early tombs at el-Kurru relate to another Late Kerma cemetery.

New Kingdom domination

The extent of the Egyptian presence south of the Third Cataract after the Thutmosid campaigns remains far from clear. Recent work at Kerma has identified New Kingdom temples just to the north of the old town. The presence of several temples seems possible, while fragments of a substantial bastioned enclosure wall recall other New Kingdom settlements further north. Finds of 'Amarna'-style architectural fragments now indicate the presence of a temple founded by Akhenaten while there may be a Thutmosid Amon temple on the site as well (Bonnet 1999a, 2001). Whether there existed a distinct Egyptian settlement at the site comparable with sites such as Sesibi or Amara further north is as yet unclear.

A little to the north of Kerma, an Egyptian cemetery has recently been found at Tombos, close to the granite quarries. This is also the site of a series of small XVIII Dynasty inscriptions, some royal, some of the royal viceroys carved on granite boulders (Figure 4.11). At least some of the burials clearly relate to important Egyptian officials, and contain material associated with elite circles at Thebes (Edwards and Osman 2001; Smith 2003). Why they are buried there remains unclear. No major settlement is known in the area although a New Kingdom site may lie beneath the modern village. Further south, Kerma settlements continued to be occupied during the early New Kingdom and beyond (Gratien 1999; Welsby 2001a), although closely dating later occupation remains difficult. As the Nile continued to move towards the west, settlements seem to have followed, towards the modern river banks and onto Argo island. There seems to have been a New Kingdom temple at Tabo (Jacquet-Gordon 1999) at a site already occupied during the Middle Kerma period. Another temple, apparently built by Tutankhamun was also built at Kawa, a little to the south (Macadam 1949, 1955), although the name of the settlement there – 'Gematon' – suggests an earlier foundation linked with Akhenaten. There are indications of an Egyptian presence there, of some form, as late as the mid-XXth Dynasty (*c.*1150 BC).

At the upstream end of the Dongola Reach, an Egyptian presence was also established at Jebel Barkal, in the area known as Napata. This seems likely to have been a sacred site of great antiquity and the sacred mountain became the home of several Egyptian shrines including a large Amun temple, probably built by Tutankhamun or Horemheb, later enlarged by Seti I and Ramesses II (Kendall 1990, 1994), with at least two other temples closeby. Some building work was undertaken by Thutmosis IV, while there may have been even earlier temples there founded by Thutmosis III or even Thutmosis II (Dunham 1970). Masked by numerous phases of Kushite buildings of the first millennium BC, the extent of the Egyptian temple complex is still unknown, although its presence does not necessarily imply the existence of a major settlement there. Some New Kingdom tombs have also recently been found close to Jebel Barkal (Vincentelli 1997, 1999). Their exact date has not yet been established,

Figure 4.11 Inscription of Thutmosis III, Gezira Tombos on the Third Cataract

although the presence of local styles of pottery, continuing Kerma traditions, and painted decoration on the tomb walls also recalling styles known from Kerma, suggest that they may belong to members of indigenous elites rather than to native Egyptians. Current fieldwork in the Fourth Cataract region is also finding burials which may be of late Kerma/New Kingdom date.

On current evidence, largely that of rare Egyptian historical sources, the Dongola Reach seems to have remained under the control of local rulers (Morkot 1991b), who maintained an uncertain relationship with Egypt. A 'revolt' in the region of Irem prompted a major campaign by Seti I, and both Ramesses II and Ramesses III also reportedly campaigned there. While there have been suggestions that Irem was located further south, in central Sudan (O'Connor 1987), it seems more probable that it lay in the Kerma region (Priese 1984; Morkot 1991b). How such historical references may be interpreted will doubtless continue to be debated. However, what will perhaps be more interesting is to see what light archaeological work may throw on conditions in the Dongola Reach during this period and how indigenous culture developed in the shadow of Egyptian military power.

The southernmost penetration of the Egyptians up the Nile is at present marked by a series of inscriptions from Kurgus, south of Abu Hamed. These are cut into a massive quartzite outcrop, the 'Hajar al-Merwa', which has clearly long been a significant landscape feature. On this are cut boundary inscriptions made by both Thutmosis I and Thutmosis III (Arkell 1950; Vercoutter 1956). Recent work at the site has revised some existing readings (Davies 1998, 2001). In addition, there also appear to be inscriptions of Ramesses II of the XIXth Dynasty, suggesting some interest in this area some 150 years later. Several non-royal inscriptions made by various officials and priests give interesting insights into the composition of Egyptian royal expeditions which penetrated this far south, possibly on several occasions.

These inscriptions have some significance as symbolic markers on the southern end of the Egyptian Empire. However, the purpose and aspirations of the expeditions which penetrated so far south as yet remain unclear. Perhaps not coincidentally, it is from the Hajar al-Merwa area that the access routes to gold-mining areas in the desert to the east and northeast depart. In view of the importance of gold in determining the character of New Kingdom presence in Lower Nubia, these expeditions to the south may well have been inspired by an interest in accessing further sources of gold. These regions may well have already been linked with Kerma. As yet we do not know how far upstream Kerma exerted its political influence, although ongoing work between the Fourth Cataract and Abu Hamed suggests that there was a significant 'Kerma' population in this area during this period (e.g. Paner 1998). Despite its limited agricultural potential along the river banks, recession agriculture on alluvium between the many islands may have supported farmers (Welsby 2003). That the population was also exploiting the grazing, and perhaps seasonal cultivation along the wadis of the interior, into the Baiyuda, also seems likely.

Lower Nubia in the New Kingdom

The New Kingdom Egyptian presence in Lower and Middle Nubia, effectively areas north of the Third Cataract, seems to have had a very different character to that further south. The area was divided into two regions, Wawat in the north, and Kush in the south, each with its own deputy governor. Both were controlled by the Viceroy of Nubia, 'King's Son of Kush'. Wawat was centred on Aniba, while Kush was governed from Soleb during the late XVIIIth Dynasty, and Amara West (Spencer 1998, 2002) by the XIXth Dynasty. Both seem likely to have already been centres of population during the Kerma period. Egyptian texts record the existence of numerous officials who formed part of the Egyptian administration of these regions. While the viceroy's authority was claimed to extend to Napata and Egyptian temples and perhaps settlements were established in the Dongola Reach, there are no indications that the viceregal administration extended south of the Third Cataract. No officials serving in the Dongola Reach or Napata appear in any known texts (Morkot 1991b).

The southern region had a series of Egyptian settlements established at various times during the New Kingdom. The earliest of these was probably at Sai island (Vercoutter 1958), already an important Kushite centre during the Kerma period. Further temples were constructed at both Sedeinga and Soleb by Amenhotep III, the temple at Soleb (Figure 1.3) contained within a large enclosure (Schiff-Giorgini 1966, 1973). The southernmost temple was at Sesibi (Blackman 1937; Fairman 1938), just north of the Third Cataract, probably founded during Akhenaten's reign. None of the sites were very large, with areas of *c.*4–6 hectares, much of which was occupied by their temples. While these sites had quite large cemeteries associated with them (Minault 1976; Minault and Thill 1975; Schiff-Giorgini 1971; Spencer 2002) the scale of settlement outside these centres remains unclear, and may have been quite limited. There are no indications that rural settlement flourished during the New Kingdom. Much of the region, including the Batn al-Hajar, is very rocky and barren; during the Kerma period it had been much more lightly populated than areas further south (Edwards and Osman 2001). Gold is also found in the region, mainly in surface deposits and may well have been a resource of greater interest for the Egyptians. There is a large area of ancient diggings close to Sesibi which may well relate to gold workings and similar areas of surface-workings exist in the Soleb–Wawa region.

In the northern region of Wawat, the XVIIIth Dynasty kings created a series of new settlements and military posts. Settlement patterns were not static however, and they were to change and develop over time. Sites which had been important during the reconquest of Nubia, often the old Middle Kingdom forts (e.g. Serra East), were often abandoned once control of Lower Nubia was consolidated. Mirgissa, for example, seems to have been occupied for a relatively brief period up to the reign of Thutmosis III (Venot 1974). While most of the Batn al-Hajar forts were now redundant, gold mining and processing in the

area emerged as of great importance, notably in the Duweishat area, south of Semna (Mills 1965). Aniba and Buhen were both major centres, while Qubban continued to flourish as a centre for gold-mining activities in the Eastern Desert. With the varied and often uncertain histories of the many New Kingdom settlements in the region, it remains difficult to trace the changing patterns of settlement over the centuries. Estimating the population of the region is also difficult. While there are suggestions that Lower Nubia (Wawat) may have had a population as high as 15–20,000 people during this period (Trigger 1976: 131), such figures are probably rather too high.

How the many small temples erected throughout Lower Nubia related to wider patterns of settlement is also not always clear. Whether, for example, the Egyptians were particularly concerned to establish Egyptian cults amongst the indigenous population (Trigger 1976: 123) should perhaps not be assumed. Some, as at Soleb and Ramesses II's temple at Abu Simbel, were especially impressive, but many were less so. The great Kushite temple at Kerma was larger, and has survived better, than many. Equally important as serving local religious needs may have been their role in integrating the Nubian territories into the religious world of the Egyptians and making them ritually 'safe', likely to have been an important factor in attitudes towards distant foreign lands (Helms 1988).

Colonial transitions

One of the most interesting archaeological problems of this period concerns the fate of the indigenous populations under Egyptian rule. In Wawat, elements of indigenous cultural traditions, especially in mortuary practice, seem to survive into the mid to late XVIIIth Dynasty. By the end of the XVIIIth Dynasty, some 200 years after the conquest of Lower Nubia, such indigenous traditions seem to have largely disappeared while Egyptian material culture now dominates the region. The disappearance of C-Group culture in Lower Nubia is commonly interpreted as a process of 'Egyptianization'. There are however, indications that rather more complex approaches to this issue may be necessary, reflecting the same types of problems encountered when dealing with culture change in other colonial and imperial contexts (e.g. Alcock *et al*. 2001; Webster and Cooper 1996).

Most cemeteries show an almost total shift to Egyptian burial forms and the use of Egyptian material culture (Williams 1992). Where detailed analyses have been undertaken, it is apparent that Egyptian cultural practices were being adopted in varied ways (Säve-Söderbergh 1991; Sinclair and Troy 1991; Smith 2003). However, some of the more generalized comparisons with what are considered 'Egyptian' norms may be problematic, in failing to account for how Egyptian mortuary practices changed during the New Kingdom, as well as the very obvious biases towards the study of high status burials in Egypt. One well-studied cemetery is that of Fadrus, south of Serra East; Egyptian pottery became

almost totally dominant, east–west extended burials were adopted, often with coffins. Other elements of Egyptian practice, which might be expected to be found in higher status and elite burials, such as canopic jars, shawabtis, offering tables and inscribed material, were absent. In smaller cemeteries in the area, most of early to mid XVIIIth Dynasty date, C-Group pottery (Phase III) was scarce, although there are indications that some of the population, represented by the 'Pan Grave' burials, may have been more resistant to, or had less access to, Egyptian material. Similar patterns are apparent in other 'rural' areas, although more obviously high status burials are found in some of the main centres. Forms of burial during the New Kingdom were clearly very variable, while it remains difficult to determine whether a distinct Egypto-Nubian provincial culture was being created.

Many of the elite were clearly drawn towards their Egyptian masters, adopting Egyptian names and administrative roles. Presumably the Egyptian conquest will also have provided opportunities for others to become parts of new elites. Some good examples of how some local elites became incorporated in the Egyptian administration comes from the Serra–Debeira region just north of the Second Cataract, an area that seems to represent the district of 'Tehkhet' in Egyptian texts of the period. The tombs of two brothers, 'Princes of Tehkhet' are known from the period of the co-reigns of Hatshepsut and Thutmosis III (*c.*1470 BC), forming part of a family associated with the Egyptians for a considerable period. The first of the tombs was that of Djehutyhotep (who apparently also had a Nubian name Paitsy). He was succeeded by his brother Amenemhet. The two brothers were the sons of Prince Ruju and his wife Runa, whose uncle Senmose was buried at Aswan. Their grandfather Teti, known from two stelae bought in Aswan, may also have been buried there. Further large circular tombs found near the fortress of Serra East (Williams 1993) may belong to some of their predecessors, earlier in the XVIIIth Dynasty.

Similar situations may have existed further north in the region of Mi'am, centred on Aniba. There, the 'Prince' Hekanefer, well-known from depictions in the tomb of Huy (Davies and Gardiner 1926), Tutankhamun's Viceroy of Kush, occupied a similar position. Bearing several Egyptian titles: 'Prince of Mi'am, Overseer of Sandal makers', his duties extended to the Eastern Deserts, where graffiti bearing his name have recently been found along tracks deep in the Eastern Desert, perhaps linked to gold mining activities (Damiano-Appia 1999). His tomb was identified in the 1960s at Toshka East (Simpson 1963; Trigger 1996).

Despite the likelihood that many of the indigenous population did adopt many elements of Egyptian culture, a number of other issues remain concerning the population of Nubia during this period. There are, for example, few indications that the Egypto-Nubian populations prospered and expanded during this period. On the contrary, it has long been recognized that later New Kingdom burials are much fewer than XVIIIth Dynasty burials (W. Adams 1964b). Since then, while it has been possible to identify a few more late

New Kingdom graves (Williams 1992), the numbers still remain small, and the indications remain that the population declined quite significantly during this period. A similar decline is also apparent amongst the elite populations of the main urban centres, and by the end of the XXth Dynasty, we can find few traces of any significant settled population in the region.

Various explanations, such as declining river floods, have been suggested for this apparent decline in population (Trigger 1976). However, it seems likely that the more general environmental decline brought on by increasing aridity, approaching modern conditions by the end of the millennium, will have played a more significant role. By the later second millennium Lower Nubia will have been an increasingly inhospitable and marginal region. Its agricultural resources were relatively limited, and its limited attractions are reflected by its virtual abandonment by riverine farmers for the next 1,000 years. The opportunities for farmers and herders were much greater in more southerly regions where the rains still came. While the Kushites were to re-establish a presence in Lower Nubia during the first millennium BC, a widespread and settled agricultural population was only to return during the mid-first millennium AD, largely made possible by the introduction of water-wheel irrigation.

The Wadi Howar and the West

Our knowledge of late prehistoric developments to the west of the Nile still remains very limited. However, work along the Wadi Howar suggests that western Sudan was by now largely isolated from developments in riverine northern Sudan. In the final phases of the 'Leiterband', around 2000 BC, the wadi itself was becoming too dry for cattle. It seems likely that transhumance patterns shifted towards the west and there may indeed have been major westward shifts in the population as a whole, towards the Ennedi (Keding 1998). However, during the second millennium BC, what seem likely to be new populations, with little evidence for cultural links to the 'Leiterband', were appearing in the wadi. In areas of the Middle Wadi Howar which have been surveyed, this late phase of settlement, spanning the second and first millennia BC, represented 40 per cent of sites. Located in the now dry wadi floor, these numerous small sites relate to populations exploiting whatever water sources were available, including some seasonal pools. With the increasing aridity, there was a shift towards smaller livestock, while there was also hunting for gazelle and scimitar-horn oryx.

While we still know very little about these late populations, preliminary studies suggest that there are two distinct ceramic traditions present in the wadi during this period, with 'fine geometric' and 'coarse geometric' pottery, differing in vessel forms, decoration and fabrics. From the little which has been published, it seems clear that such pottery has no particular relationship with contemporary ceramics in the Nile Valley. Some parallels for the 'coarse geometric' pottery may be found in the area of Jebel Tageru to the south of the

wadi, but in the absence of fieldwork elsewhere in the west the distribution of these ceramic cultures as yet remains unknown. These populations are likely to have been quite mobile and may well have ranged further south in Kordofan and Darfur.

Interpretative issues

Our perceptions and understanding of the Bronze Age of northern Sudan have been transformed in recent years by work at Kerma and within the Dongola Reach. We are now beginning to be able to appreciate how Kerma lay at the heart of a densely settled, populous and wealthy region. The density of settlement we can now see within the Wadi al-Khowi/Kerma region far exceeds anything encountered in Lower Nubia during this period. The discovery of Kerma sites as far upstream as the Fourth Cataract region also suggest that it may have dominated extensive areas further up the Nile. How far has yet to be determined. It cannot be doubted that there were contacts between the Dongola Reach and the Shendi-Atbara Reach during this period, even if the archaeology of this period in central Sudan remains largely unknown.

Future work will also need to begin to address the possibilities of establishing how cultural changes relate to the development of Kerma as a political power. What forces underlay the development of a relatively homogeneous culture? Is it possible to trace the development of a centralized elite and royal culture? To what extent was the cultural homogeneity founded on shared religious identities? Ritual and religious powers are likely to have been important power bases for some, but how does Kerma as a religious focus relate to the appearance of the 'kings' buried in the great Classic Kerma tumuli? The growth of what appears to be an 'urban' centre at Kerma is also apparently a unique development in the Middle Nile during this period. Many uncertainties remain concerning the site and its history. The presence of a great temple at its heart and the numerous chapels found within and around the town are impressive reminders of its importance as a religious centre as much as a political centre.

Further questions must be raised about the distinctions we continue to draw between the Kerma and C-Group cultures as distinct bounded entities. The first C-Group settlers in Lower Nubia entered the region from the south and were part of a much more extensive cultural tradition, extending far along the river valley. While there clearly was some degree of cultural variability along the Nile during this period, to assume that we may distinguish two distinct 'cultures' appears quite arbitrary. While the Egyptians were to impose barriers between Lower Nubia and the south from the Middle Kingdom, and create the circumstances for the C-Group of the north to develop a distinctive regional character, such a division cannot be imposed on earlier periods. Indeed, the fact that what traditionally would be called Early C-Group material is now being found at Kerma and within the Wadi al-Khowi, casts further doubt on the utility of these cultural labels, at least as conventionally understood. Much

more complex approaches are likely to be required to really understand Kushite cultural variability through time and space. Broader perspectives are certainly required, and comparative studies looking at both the Kerma and C-Group, when they fall within separate political worlds, are likely to prove very informative.

During the New Kingdom, much still remains to be learnt about the character and history of 'Egyptian' settlement, and indeed the nature of Egyptian imperialism (Kemp 1978; S. Smith 1995, 2003). In Lower Nubia, one of the key issues, still to be fully explored in the archaeological data, is the relationship between the Egyptians and the indigenous populations. Following the initial military campaigns, how was Egyptian rule maintained? What were the mechanisms of control? Beyond the more obvious manifestations of the Egyptian presence and narratives of 'acculturation' it seems that much more complex social histories have yet to be revealed. Changes and development in the settlement of the region need to be traced and while the possible social implications of the adoption of Egyptian material culture need to be explored. That the period of Egyptian rule apparently saw a marked decline in population, a contraction of settlement and ultimately the almost total abandonment of the region, also raises many other questions.

The extent and character of the Egyptian presence south of the Third Cataract in the old Kerma heartlands also still remains unclear. Despite evidence for an Egyptian presence at certain times in parts of the Dongola Reach, the status of the region and how it interacted with areas further north remains a matter of speculation. That more-or-less independent rulers continued to exist in Upper Nubia seems clear and the limited (Egyptian) historical sources also make it clear that relations between them and the Egyptians were not always peaceful (Morkot 1991b). In this respect, the apparently very different nature of Egyptian settlement north and south of the Third Cataract seems likely to be very significant. It is also perhaps not coincidental that the areas controlled by the Egyptian 'colonial' administration are those in which gold deposits are found, extending as far south as the Third Cataract. These areas were also much less densely populated than the rich fertile plains of the northern Dongola Reach. It may well be that maintaining control of these more thinly populated northern areas marked the limit of Egypt's capacity for direct colonial domination. The Kushite revival will be explored in the next chapter.

5

THE KUSHITE REVIVAL

The XXVth Dynasty and the kingdom of Napata

Introduction

By the eighth century BC, the Dongola Reach was the focus of a political revival that established a new Kushite kingdom in the region. Apparently based in the Napata region of the upper Dongola Reach, this kingdom was also on a much larger scale than any previous polity in the region, extending its influence not only to the north, but also far to the south into central Sudan (Figure 5.1). From obscure origins, its rulers were soon to conquer and establish their rule over most of Egypt (as the XXVth Dynasty) during the mid-eighth century BC, maintaining a presence for around a century until they were expelled by the Assyrians in 650s. Their brief presence in Egypt has assured their wider recognition in the history of the ancient world, while their adoption of many cultural features of the Egyptian ruling elites, transferred to their Sudanese homelands, contributed to the creation of a distinctive new Kushite culture.

The history of this Kushite kingdom has traditionally been divided into two main periods, the 'Napatan' and 'Meroitic'. The shift in the royal cemeteries from the Napata region to Meroe around 300 BC, has traditionally been seen as marking the division between the two periods. Based on distinctions originally drawn by Reisner in the early twentieth century, this periodization remains problematic in many ways (Welsby 1996). How significant really was this shift in royal burials? Such shifts had occurred before during the Napatan period. As it may well reflect dynastic or political changes, essentially inaccessible to archaeological investigation, what emphasis should be placed on it? It is quite possible that Meroe was already a major political centre long before the site of the royal cemeteries was moved and it is possible that it was the main residence of the Kushite kings as early as the sixth century BC. Despite such uncertainties, there can be no doubt that the Kushite state and its material manifestations changed very considerably through its long history. The differences between Napatan and Meroitic culture are often much more marked than the similarities. Understanding these changes, and their dynamics, remains central to any research in this period and continuing to use this fundamental division seems unavoidable, and indeed essential.

Figure 5.1 The Middle Nile in the first half of the first millennium BC

Despite the existence of some textual records, especially from the period of the XXVth Dynasty in Egypt, our knowledge of Kushite history remains very slight. Archaeological contributions were for many years limited to the results of the excavations of Napatan royal cemeteries by George Reisner (at el-Kurru and Nuri) and a few monumental sites from which further 'historical' data were collected. Reisner's studies of the development of royal tombs provide us with a semblance of a historical framework, essentially lists of kings names to be added to those known from written sources. However, the wider use of such a framework remains extremely limited, very little apart from their names being known of most kings: 'our knowledge of all but a handful of them begins and ends with their tombs' (W. Adams 1977: 306). While there is abundant scope for debating the chronologies and genealogies of Kushite royalty (e.g. Morkot 2000), such debates have so far proved of limited consequence for other areas of research concerned with cultural histories.

Despite the appearance of historical order that the royal genealogies provide (Table 5.1), very fundamental questions concerning the development of the kingdom still remain unanswered and the necessary archaeological evidence with which we might begin to address them is still very sparse. Relatively little new information has come from fieldwork on Napatan sites in the Middle Nile since pioneering excavations of Reisner and Griffith in the Napata region, with their narrow focus on the major temple and funerary monuments of the period. While a few Napatan sites were found and investigated in Lower Nubia, only over the last decade have new surveys begun to throw much light on the core regions of the kingdom beyond the major monumental centres. Egyptological research has also begun to make some useful contributions, especially in relations to the 'Egyptian' phase of the XXVth Dynasty, notably through some very important studies of Third Intermediate Period and Late Period pottery (e.g. Aston 1996, 1999).

Textual sources for this period are also limited, reappearing again when the first Napatan kings began leaving inscriptions in the Egyptian language. Much of the mystery which surrounds the Napatan kingdom and its origins is a reflection of the way so much research has been so text-reliant. In a number of texts, one Alara is named as the founder of the dynasty of the first Kushite kings, a role which was still recognized several centuries later. Attempts to track the historical development of the Kushite state have made much of his apparent portrayal in texts (notably in those of his great-nephew Taharqo), as a 'chieftain' as opposed to a 'king'. However, these debates now appear to be based largely on a series of philological misunderstandings (Vinogradov 1999) and this distinction is illusory. While there are some indications that traditions survived of Kushite rulers perhaps two generations before Alara, no meaningful historical records survive. As such the origins of the kingdom must be sought in archaeological data.

The texts also allow us to trace at least the outlines of the Kushite expansion into Egypt and the period of their rule there. A stele fragment of Kashta, found

Table 5.1 List of Napatan kings with approximate dates and location of tombs at El Kurru, Nuri and Jebel Barkal

King	*Tomb*	*Approximate date*
Alara		
Kashta	Ku.8	*c*.760–747 BC
Piankhy (Piye)	Ku.17	*c*.747–716 BC
Shabaqo	Ku.15	*c*.716–702 BC
Shabataqo	Ku.18	*c*.702–690 BC
Taharqo	Nu.1	690–664 BC
Tanwetamani	Nu.16	
Atlanersa	Nu.20	
Senkamanisken	Nu.3	
Anlamani	Nu.6	*c*.600 BC
Aspelta	Nu.8	
Aramatelqo	Nu.9	
Malonaqen	Nu.5	
Anlamoye (Analma'aye)	Nu.18	
Amani-nataki-lebte	Nu.10	
Karkamani (or Amanikarqo?)	Nu.7	
Amanistabarqo	Nu.2	*c*.500 BC
Siospiqo (Si'aspiqo)	Nu.4	
Nasakhma (?)	Nu.19	
Malowiebamani	Nu.11	
Talakhamani	Nu.16	
Amannote-erike (Irike-Amannote)	Nu.12	
Baskakeren	Nu.17	
Harsiyotef	Nu.13	*c*.400 BC
Akhratan (or Akh-Aritene)	Nu.14	
Amanibakhi (???)	?	
Nastasen	Nu.15	
Aktisanes	Bar.11	
Aryamani	Bar.14	
Kash[. . .]	Bar. 15	
Piankhy-erike-qo (Irike-Piye-qo)	?	
Sabrakamani	?	*c*.300 BC

Note: Possible alternative readings of their names are given. (The advice of Claude Rilly is gratefully acknowledged).

at Elephantine (Leclant 1963), indicates a Kushite presence on the Egyptian frontier around the mid-eighth century. The exact progress of their conquest of Egypt is, however, far from clear. That the Kushites were able to take control of Thebes around that time seems likely, although direct evidence for Kashta's installation as king at Thebes is still lacking (Morkot 2000: 158). The Kushite domination of Egypt was only really secured under Piankhy perhaps some 20 years later, in a series of campaigns recorded in his 'Victory Stela' (*FHN* I: 62–112), discovered in the Amun temple at Jebel Barkal in 1862, and now in Cairo. Important correlations with the Egyptian texts may also be found in contemporary Assyrian texts (Morkot 2000; Dallibor 2001).

Napatan origins

If the origins of the Napatan kingdom left no historical records, archaeology has, as yet, also been unable to throw much light on this subject. As we have seen, very little is known about the Dongola Reach after the conquest of Kerma during the New Kingdom. As yet we have virtually no archaeological material from the later second millennium BC or early centuries of the first millennium BC, and indeed our ability to identify confidently material of these periods remains very uncertain. As such, there is no reason to suspect that the mysteries surrounding the origins of the Napatan state are anything other than a reflection of inadequate fieldwork. How limited our knowledge still is, is well-illustrated by recent discoveries of a significant New Kingdom presence at Kerma, probably the most intensively explored locale in the whole region. Sites with pottery continuing 'Late' Kerma traditions are increasingly being found in the Dongola Reach, and it is likely that while some will date to the period of the New Kingdom, others may well be even later, dating to the post-New Kingdom/ 'proto-Kushite' centuries (e.g. Żurawski 2000).

Historical speculations on the origins of the Napatan kingdom have advanced little from early speculations in the nineteenth century, which had a tendency to assume an external inspiration, looking to Egypt. Egypt has been seen as the source of a kingship ideology, and a model of kingship. Much emphasis has been placed on the possible role of the Amun priesthood of Thebes and Jebel Barkal in transmitting such ideas (Morkot 1999). Originating in early Egyptological histories of the nineteenth century, such theories are often eloquent expressions of contemporary diffusionist attitudes, and prejudices, but are rather less useful historically (Morkot 2003).

Such traditional narratives have of course largely ignored the fact that traditions of kingship had been long-established in the region. Hereditary kingship, almost certainly with a strong religious basis, may well have existed amongst the Kushites a 1,000 years or more before this date. How the possible adoption of Egyptian myths of state are likely to have been important in the *creation* of a new kingdom is also far from clear. That the rhetoric of kingship may actually provide many insights into the political realities of the development of the Napatan kingdom is far from clear.

By the eighth century BC, Alara, the first Napatan king whose name we know, is known to have been committed to the cult of Amun, dedicating his sister to the cult at Kawa. This link with the Amun cult has traditionally been seen as a significant marker in the establishment of the dynasty who would become rulers of Egypt, not least in the adoption of a religious ideology which legitimized hereditary royal authority (see Török 1995 for a recent discussion). What is not known, of course, is the extent to which the Amun cult, and other 'Egyptian' cults may have been established parts of religious practice in the region during the New Kingdom and later periods, or indeed how they might relate to 'indigenous' beliefs. After 500 years or more, to what extent could they still be considered 'Egyptian'?

Whether any of the New Kingdom temples could have survived as functioning institutions is unknown. Very little is known of their histories during the New Kingdom itself and that circumstances permitted their survival over several centuries afterwards remains no more than speculation. The apparent dereliction and decay of the buildings by the eighth century BC has been seen as evidence that the religious institutions had not survived in any meaningful sense. On the other hand, the widespread reoccupation of New Kingdom religious sites cannot be ignored. The rebuilding of the temples at Barkal, Kawa and Kerma on the site of the New Kingdom foundations would seem to confirm their continued appreciation as religious sites, even if the temples themselves were much decayed.

In the absence of any significant archeological remains of the New Kingdom or post-New Kingdom period, rare Egyptian historical texts provide our only guides to what may have been happening in the region. There is very little evidence of any Egyptian activity in the Dongola Reach after *c.*1200 BC (the end of the XIXth Dynasty), following punitive campaigns by Sethos I and construction work at temples by Ramesses II. After that there is no evidence of any Egyptian activity in the Kushite heartlands of the Dongola Reach. If we are right in thinking that the region was ruled during the New Kingdom through local rulers rather than through the viceregal administration, there is no reason to suggest that these local rulers then disappeared. Rather than there being a 'power vacuum' (Adams 1977: 292) in the area, its ruler, or rulers, were again free to follow their own interests.

The Egyptians do seem to have maintained control of the directly governed areas further north rather longer, probably as late as the reign of Ramesses XI, a century later. The title 'Viceroy of Kush' had lapsed under Paiankh, but was revived by the Theban High Priest Pinudjem II during the early tenth century BC, when one of his wives was entitled 'Superintendent of Southern Foreign Lands and Viceroy of Kush' (Török 1997: 108, n.190, 127). The significance of this role remains unclear, although Kendall suggests her responsibilities were largely religious rather than political or military (1999: 62–63). Another rare indication of an Egyptian presence in Nubia during these centuries is an enigmatic inscription from Semna of a Queen Karimala/Katimala (*FHN* I: 35–39). Despite some speculation that this queen might actually be an early Kushite queen, perhaps dating from the unknown pre-Kurru period (Kendall 2002), it seems more likely that Karimala was a wife of the Egyptian XXIst Dynasty king Siamun (*c.*978–959 BC) and the text relates to some form of Egyptian expedition into Lower Nubia during his reign (C. Bennet 1999).

It was once thought that the 'Libyan' pharaoh Sheshonq I of the XXIInd Dynasty had campaigned in Nubia but the evidence for this is no longer accepted (Vernus 1975). Recent work at Elephantine, however, does suggest some interests south of Aswan during this period; a number of inscriptions have been found referring to officials with the titles of 'King's Son of Kush' and 'Overseer of Southern Foreign Lands' under kings of the ninth century BC

(Morkot 2000: 163). The titles themselves give no indication of the extent of these interests.

El-Kurru: an ancestral cemetery?

The traditional point of departure for studies of Napatan origins has been the royal cemetery at el-Kurru, some 12km downstream of Jebel Barkal. There the earliest Kushite kings, with the exception of Taharqo, were buried. These were assumed to include Alara, and other unnamed royal ancestors. In addition to these tombs, there are a number of obviously earlier graves close to the Napatan pyramids, most marked by various circular superstructures, loosely termed 'tumuli' (Figure 5.2). Since Reisner's time these have been attributed to local 'chiefs', the ancestors of the Napatan kings, and the occupants of these tombs have been incorporated into speculative dynastic histories as a series of earlier 'generations'. These have been used to project the origins of the Napatan kings back into the ninth or even eleventh century BC (for recent, and very different chronologies see Kendall 1999; Török 1999a).

With the benefit of hindsight, Reisner's presumption that this one cemetery could be used to reconstruct the early dynastic history of the Kushite kings seems rather optimistic. The material recovered from the pre-XXVth Dynasty burials is far too fragmentary to form the basis for any meaningful historical reconstructions. That the 'tumuli' were necessarily the direct antecedents of the royal tombs even remains uncertain. Such tombs are in a tradition which can be traced back to the mid-second millennium BC and have many similarities to a late 'royal' tomb at Kerma as well as tombs of the Late C-Group in northern Nubia; tomb forms which were of course unknown to Reisner in 1919. Fragments of 'cattle skulls' found around the Kurru graves by Reisner may also represent deposits of bucrania of the type now very well-known from Kerma.

Material recovered from the graves remains of little help in dating them. Most had seen possibly several episodes of robbing which, in several cases, has left it very difficult to determine what, if any of the artifacts found in particular tombs originally came from them. Closely dating imported Egyptian artifacts of the late New Kingdom and Third Intermediate Periods still remains extremely hazardous and while recent valuable work has been done on the pottery from the site (Heidorn 1994) it can throw little further light on the chronology of the early graves. The first radiocarbon dates (Kendall 1999) have also failed to clarify the issue. One sample of textile from the original burial in Tumulus 1 (3215±80 BP) provides a calibrated date in the range of 1690–1310 BC (2 sigma). However, two charred dom palm nuts from the same grave have provided dates in the first half of the first millennium BC. The early date would certainly be consistent with the various Egyptian objects of New Kingdom date recovered from Tumulus 1 and other early graves, as well as the grave form itself. The possibility must be entertained that the tumuli actually represent an earlier phase of use and have no direct link with the Napatan tombs.

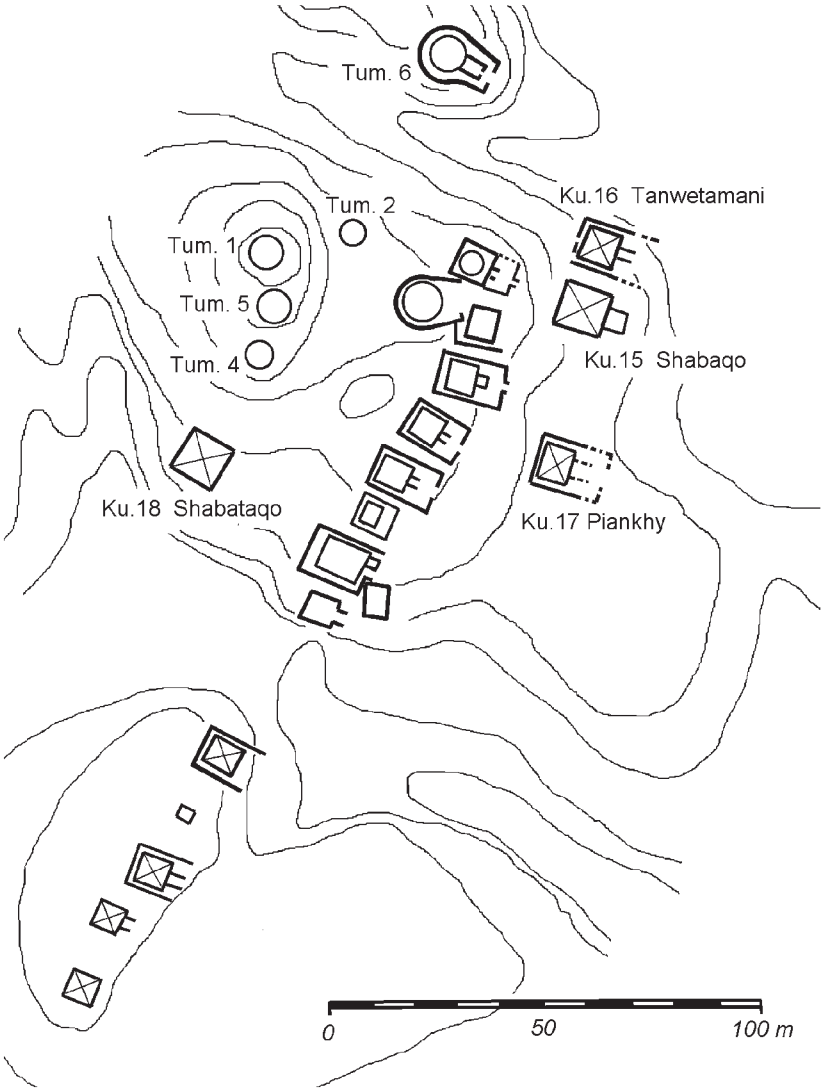

Figure 5.2 Napatan cemetery at el-Kurru
Source: based on Dunham 1950: map II

That several of Piankhy's ancestors were buried at el-Kurru seems probable. However, the identities and the dating of the early burials must remain a matter of speculation. Whether or not there were several generations of earlier 'kings' or 'chiefs' buried there is a question which is unlikely ever to be answered. From an archaeological perspective, it is also perhaps a question of only limited

importance when we know virtually nothing at all about the archaeology of this formative period. Whatever speculative narratives may be constructed around this site, they remain largely meaningless until some material traces are found of this period. That other early elite burials await discovery elsewhere also seems very likely.

The Egyptian adventure

Despite their obscure origins, the Kushite kings of Napata were briefly to emerge as important figures in the ancient Near East with their conquest and rule of Egypt, as the kings of the XXVth Dynasty. In the eighth century BC, Egypt was fragmented into a number of states under regional kings known as the XXIInd, XXIIIrd and XXIVth Dynasties. The dates and relationships of these various dynasties still remain poorly understood and where and how the Kushite kings entered the Egyptian political arena remains unknown. All we can say is that sometime by the mid-eighth century BC, the Napatans had gained sufficient power to establish a presence in Lower Nubia and then in Upper Egypt and established alliances with some of the regional kings. While very little is known about him, Kashta, the first of the Napatan kings who we know styled himself as an Egyptian pharaoh, probably made this move into Upper Egypt, as suggested by his stele found at Elephantine (Leclant 1963). That the Kushites may have been able to take control of Thebes is possible, although direct evidence for Kashta's installation as king at Thebes is still lacking (Morkot 2000).

Whatever progress Kashta may have made in establishing control over southern Egypt, the Kushite domination of Egypt was only really secured under Piankhy (Piye) perhaps some 20 years later, in the campaigns recorded in his 'Victory Stela'. This records his campaigns in an Egypt fragmented into at least four kingdoms, with King Peftjauawybast in Heracleopolis, King Nimlot in Hermopolis, Iupet II in Leontopolis and Osorkon IV at Bubastis. When exactly these campaigns took place is still uncertain, but various estimates place his accession between 747 and 735, and the campaigns somewhere in the period 728–716 BC (Morkot 2000).

His successor Shabaqo was also to lead an army into Egypt probably in the period 711–709. He fought against the Saite kings of northern Egypt, finally being able to install himself as king at the ancient capital of Memphis. Fully established in Egypt, the new dynasty of Kushite kings developed diplomatic and trading contacts with the powerful Assyrian Empire to the east (Morkot 2000). Shabaqo was in contact with Sargon II and seals with his name on have been found in Assyria. His reign saw some Kushite building works at Memphis and Thebes, while a number of inscriptions and pieces of statuary date from this period. Little in the way of building works of his reign has yet been found in Sudan.

Shabaqo died around 700 BC and was buried at el-Kurru with his predecessors. His successor Shabataqo (Shebitqo) was perhaps his son, but possibly his brother.

Very little is known about him and it is possible that he was co-ruler with Shabaqo for a few years. He appears in an Assyrian inscription of Sargon II as Sa-pa-ta-ku-u. His reign left few monuments in Egypt, except some small shrines and shrine extensions at Thebes (Morkot 2000). No traces of his reign have been found in Sudan, except for his tomb.

Taharqo, apparently a son of Piankhy, succeeded him in 690, aged about 25. Living at Memphis, little is known of his early reign, but his authority seems to have been recognized in the Delta. He was responsible for major building campaigns in his southern domains and there is considerable, if fragmentary evidence that he was an active builder within Egypt, notably at Thebes, as well as in the Kushite heartlands. Fragments of his statues, probably from Memphis, have been excavated in Assyria (Morkot 2000: 230, n. 6). In 674 BC war broke out with the Assyrians, resulting in a Kushite victory. Three years later however, Taharqo's rule in Egypt was broken by renewed fighting with Esarhaddon, King of Assyria. During the summer of 671 BC, the Assyrian army took Memphis. Taharqo withdrew south, probably to Thebes, but many members of his family were captured and taken to Assyria, including his heir.

The regional dynasts of Egypt became clients of the Assyrians but Taharqo managed to re-establish his control over Memphis. A new Assyrian campaign to remove him in 669 BC was abandoned with the death of Esarhaddon in Palestine en route for Egypt. This only provided Taharqo with a brief respite and Assurbanipal, the new Assyrian king, launched a new campaign, again seizing Memphis. After bloody fighting, Taharqo was finally driven out and died, to be buried in a new cemetery at Nuri. In the aftermath of his death, Tanwetamani, a son of Shabaqo became king, returning briefly to Napata to establish his authority in Kush. Returning north he again recaptured Memphis and secured the allegiance of the Delta princes. Again Assurbanipal sent a new army against him in 663, taking Memphis and then Thebes, and destroying it. A new vassal pharaoh was established at Sais. Despite a continued Kushite presence in Upper Egypt, the end of Tanwetamani's aspirations in Egypt remains uncertain, nor is it known how long he may have survived as king in Kush. A Kushite High Priest of Amun still served at Thebes in 651 BC and it may not have been until open hostilities broke out between the Saite kings of Egypt and Kush in the 590s that links were really severed between the Kushite kings and Upper Egypt.

The material traces of the Kushite presence in Egypt remain relatively slight, although rare inscriptions provide occasional insights into how the Kushite elites established their own place within Egyptian institutions. Various members of the royal family were, for example, installed in religious positions in Egypt, especially at Thebes (Morkot 2000). It also seems that some who died there were not brought back to the royal cemetery at el Kurru. A number of the 'God's Wives of Amun' were buried at Thebes, while at least four Kushite royal women as well as a female courtier seem to have been buried in the ancient cemetery at Abydos (Leahy 1994).

Later Napatan history

One of the few recorded events of the later Napatan period is a war between Kush and Egypt in 593 BC, in which Psammatik II invaded Kush, the course of which is recorded in fragmentary stele at Tanis and Karnak (Sauneron and Yoyotte 1952) and another at Shellal. An army of both Egyptian troops and Greek mercenaries was dispatched south, defeating the Kushites and taking prisoners. Various interpretations of the course of the campaign have been suggested based on the slightly different texts. Possible links with archaeological data have also been suggested, in particular associating a number of destruction episodes in the Napata region, probably during the reign of Aspelta, with this campaign, although doubts have been expressed that the Egyptian army actually reached that area (Török 1997a; *FHN* II: 279ff), and in consequence the dating of Aspelta on this basis remains insecure. However, indications of similar episodes of destruction have been found recently at Kerma where a cache of broken statues (of Taharqo, Tenwatamani, Senkamanisken, Anlamani, and Aspelta) have been found (Mayell 2003). A good case can also be made that the text of the Tanis stele (Manuelian 1984) does refer to Barkal and it may be premature to abandon the link between Aspelta and Psammatik II and the significance of the Egyptian campaign against Kush (Kendall 1997a, 2002).

During the sixth and fifth centuries BC, the frontier (if that it is a meaningful term) remained on the Second Cataract. Very little is known about Kushite links with the outside world during this period although trade relations, probably mainly in the form of diplomatic gift-exchanges (Morkot 1991a), seem to have been maintained with the Persian court. Kushite troops reputedly served with the army of Xerxes fighting the Greeks in 480–479 BC (Herodotus VII: 69).

Napatan settlement

If the background to the emergent Napatan state still remains almost totally obscure, there is little reason to doubt that the Dongola Reach was its heartland (Figure 5.3). The southern Dongola Reach was the site of the three major royal cemeteries of the early Kushite/Napatan period, located at el-Kurru, Nuri and Barkal. The location of the first royal cemetery at el-Kurru itself remains difficult to explain. There is little evidence to suggest that the area was a major population centre and it may be presumed that it was indeed as the ancestral home of the kings that the site was chosen. Whether there was a major settlement there remains unknown, although unpublished material from Reisner's archive shows that there may have been a settlement closeby (Kendall 1999).

Prior to the first Napatan activity on the site, Jebel Barkal may well have been abandoned and derelict for three centuries from sometime in the eleventh century BC (Kendall 2002). The revival of the Amun cult at the site may be linked with Alara who may also have been responsible for the first modest

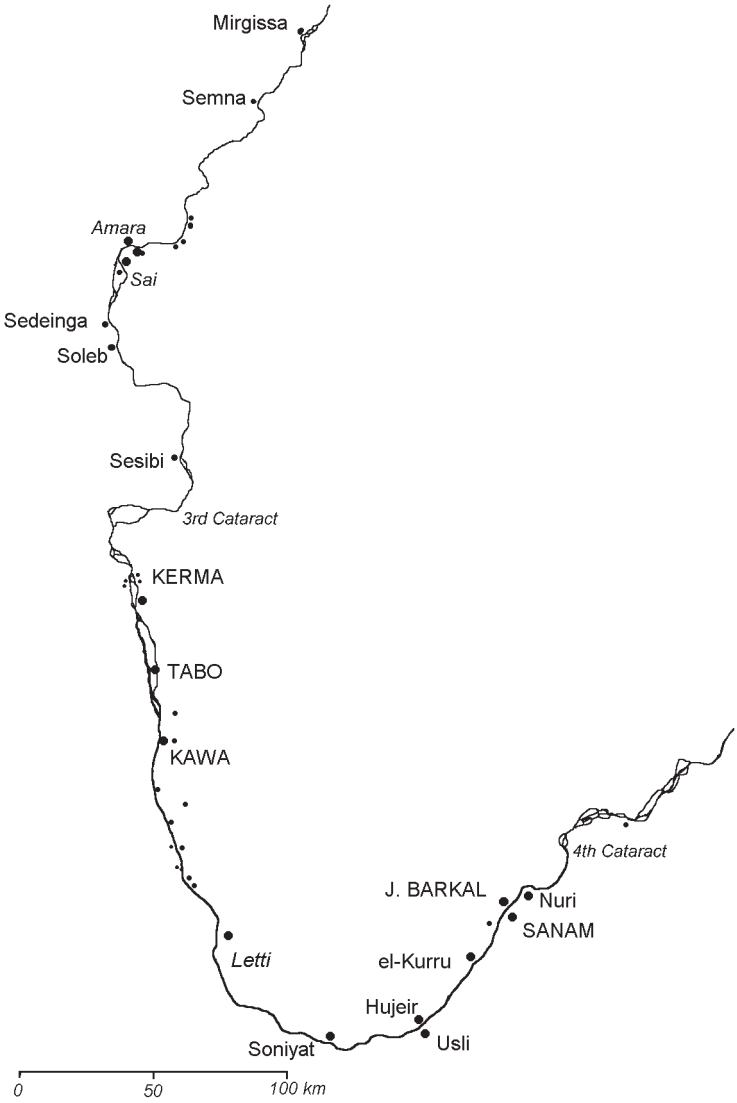

Figure 5.3 Napatan settlement

Napatan temples, built in mudbrick in the early eighth century BC. By the end of the century following further building work by Kashta and Piankhy, the great temple of Amun of Napata (B500) had been restored and extended (Figure 5.4). Taharqo was responsible for several building episodes during the first half of the seventh century BC. As well as temples, a series of palaces were built at

the site, the earliest probably by Kashta (Kendall 1991, 1997a). This may have been the site of an earlier Ramesside building. Rebuilding episodes may have taken place under Anlamani and Aspelta around 600 BC. A major destruction phase, seen elsewhere at Barkal, as well as at Sanam and now Kerma, has traditionally been linked with the military campaign of Psammatik II in 593 BC (Kendall 1990: 13). At least two later rebuildings have been identified, the last associated with Harsiyotef some two centuries later, although the palace may have remained in use at least into the third century BC. Still later, in the early Meroitic period, a new palace (B100) was constructed a little to the south.

At Sanam, across the river from Jebel Barkal, only the Amun Temple and a massive magazine (the 'Treasury') are known. The presence of a Napatan townsite as well as a palace seems likely, associated with a large cemetery. As at Barkal, some significant destruction episodes were identified, again potentially linkable with the Psammatik campaign. Sometime after the completion of the Aspelta chapel, the Taharqo temple was burnt and left unrestored. The 'Treasury' was also destroyed by fire; the latest name found in its ashes was that of King Anlamani, Aspelta's brother and predecessor (Griffith 1923: 82–9).

Very little is known of Napatan settlement in the immediate vicinity of these major centres. A little upstream, Nuri was to become the main royal cemetery after the XXVth Dynasty period. Some settlement has recently been found even further upstream in the Fourth Cataract region. Burials of the early Kushite period appear to be not uncommon in the limited areas which have been surveyed and at least one quite substantial burial with a pyramid superstructure has been found there at al-Tereif (Welsby 2003).

Recent surveys near the ed-Debba bend have added significantly to our knowledge of other Napatan sites in the region, with the location of previously unknown monumental sites such as a temple at Soniyat-Abkur (Żurawski 1998), on the right bank of the river, one at Hujeir and another on the left bank at Usli (Żurawski 2002a). All are likely to have been the foci of other significant settled communities. Such surveys are also beginning to locate Napatan cemetery sites in the region, of which very few have previously been located. One possibly large cemetery at Argi, a little to the west of Abkur, first identified by Arkell (1950) has also recently been relocated, while others have been found closer to Barkal, around Hillat al-Arab. Sandstone quarries in this area (Khor Marazaween) also appear to have been in use during the Napatan period (Vincentelli 1997). It seems likely that the Letti Basin was also an important centre of Napatan occupation, but no major sites have yet been located there. A small number of chance finds from the region, such as a monumental block bearing the name of Piankhy found at Kadakol (*FHN* I: 54–5), suggests that there may have been temples and settlements in the area.

A second focus of settlement seems to have been the large area around the Kerma Basin in the northern Dongola Reach and the Wadi al-Khowi running south from it marking the line of the ancient palaeochannels. In the environs of modern Kerma itself there is growing evidence for an important centre. There

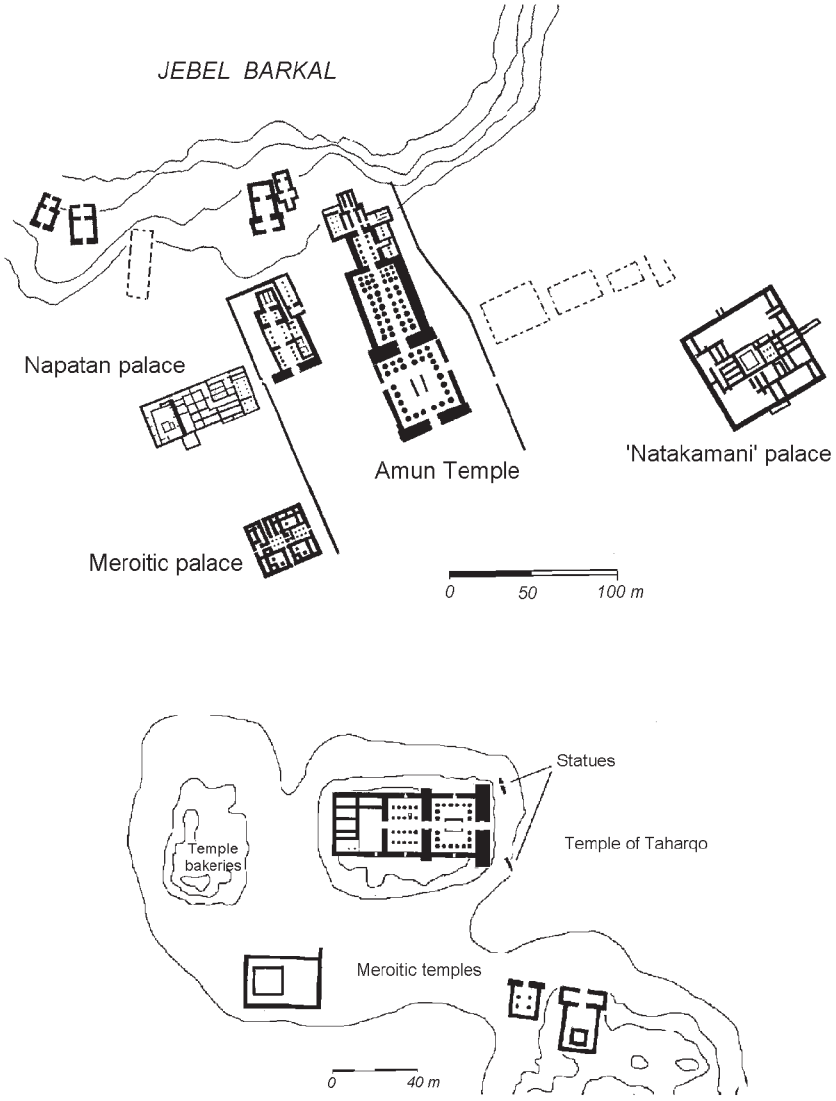

Figure 5.4 Plan of Jebel Barkal temple/palace complex (top) and of Tabo with Napatan and Meroitic temples (bottom)

was a major Napatan temple to the north of the site of the old metropolis of Kerma, overlying the site of the New Kingdom temples. Further settlement and cemeteries seem to have been located close to the river, in areas now largely covered by modern settlements. Limited excavations there have revealed substantial mudbrick buildings, as well as pottery workshops (Ahmed 1992,

1999). Napatan burials have been found scattered over an extensive area, but several clusters have been found in the area of the 'secondary settlement', on the southwest of the second millennium townsite (Bonnet 1999b).

Another major centre was established at Tabo on Argo island, some 40km south of Kerma, also the site of a New Kingdom temple and associated cemeteries (Figure 5.4). (The most prominent monument was the temple of Taharqo (Jacquet-Gordon 1999; Maystre 1973). Two granite colossi found in front of the temple (Dunham 1947), now in the Sudan National Museum in Khartoum, were later Meroitic additions. The possible site of Napatan settlement was tentatively identified to the south of the temple but has not been investigated, while the whole area, located as it is on a low alluvial seasonal island, seems to have suffered periodically from major floods. A cemetery was located to the west of the main temple, probably continuing the use of an area used for burial during the New Kingdom (Bonnet 1999b).

Some 40 km upstream, at the south end of the Kerma Basin, Kawa was the site of probably the largest settlement in the region. Excavations there in the 1930s explored parts of a major temple complex, mainly of Napatan date (Macadam 1949, 1955). The earliest part of this may have been a mudbrick temple built by Alara. A new survey of the site together with excavations have begun to clarify the extent of a major townsite with very extensive cemeteries (Welsby 2002b). While the often deep cover of blown sand which affects this area masks many surface features, the Napatan townsite may have extended over an area of up to 40 hectares, with its major buildings spread along nearly a kilometre of the river bank. There is no reason to believe that this large area represents the extent of the town at any one period. In view of the problems caused by blowing sand in this region, apparently already being experienced during the Napatan period, it may well be that buildings often had to be abandoned and new ones built in adjoining areas.

Survey upstream of Kawa and along the Wadi al-Khowi has identified only a small number of other Napatan sites in the immediate vicinity. There are suggestions of at least some limited occupation along the line of the palaeo-channels, east of the modern river channel, but by the first millennium BC these were now apparently largely dry and in places dune-covered and no longer supporting the level of settlement seen in the second millennium BC (Welsby 2001).

How far south the rule of the Napatan kings extended remains far from clear. A settlement seems to have existed at Meroe early in the XXVth Dynasty, if not before. The earliest datable burials in the West Cemetery seem likely to date back to the mid-eighth century BC. However, the nature and significance of this settlement remains obscure. Architectural elements from what may have been an early Amun temple, dating back to at least the seventh century, were found during Garstang's excavations in areas later occupied by the Meroitic 'Royal City' (M750) (Török 1997a; Sievertsen 2002). What other early settlement there may have been in this area remains unknown. Further east, trenches

excavated by Shinnie during the 1960–70s (Shinnie and Bradley 1980) exposed parts of mudbrick and wooden buildings of Napatan date, but when the settlement was founded and how large it was remains unknown. That there were Napatan palaces at Meroe seems clear. The fifth century King Talakhamani died there and his successor Arikamaninote (Irike-Amanote) was also living there at the time (*FHN* II: 398ff).

What may be seen as 'rural' settlements are mainly known only from scattered Napatan burials, sometimes encountered in cemeteries which continued to be used into the Meroitic period. Rare examples at Kadada were contracted burials usually accompanied only by a few beads and occasional amulets and scarabs with very little pottery (Geus 1983). A few sherds of Napatan pottery have been found at Khartoum (Arkell 1949) while a sphinx and a statue of Aspelta has been found closeby, at Defeia and Umm Dom (Vercoutter 1961; El Sadig 2002). However, the exact location of any Napatan settlements in the area has yet to be confirmed. What was to grow into a major cult and pilgrimage centre was established at Musawwarat es-Sufra sometime during the Napatan period. Due to extensive later rebuildings and modifications relatively little is known of its early phases. Whether this had been the site of a more ancient cult centre before the appearance of monumental stone buildings remains unknown.

South of Khartoum, while some Napatan material was clearly finding its way up the Blue and White Niles and into the Gezira, we have as yet little indication of a significant presence of the Napatan state in the region. The Napatan artefacts which have been found in the region seem likely to have arrived through trade and exchange, perhaps through quite indirect routes. Most Napatan finds are small items like faience and stone beads, and scarabs. Napatan scarabs are known from sites along the White Nile around al-Kawa and Kosti. Some gold artefacts found in that area could also be of Napatan date (Eisa 1994a, 1999, 2002) although in the absence of any contextual information, their significance remains unclear. Similar material was also finding its way into the southern Gezira; Napatan scarabs and amulets are not uncommon finds at Jebel Moya (Addison 1949; Gerharz 1994).

The extent to which such finds may relate to more or less direct political control of these regions is far from clear. Artefacts such as beads may well have circulated as trade goods on the southern peripheries of the Kushite state. Other items such as scarabs and amulets may perhaps relate to the extensive influence of Kushite religion and perhaps more specifically the sacred aura surrounding Kushite kings. In similar ways many centuries later, amulets from Sennar, the seat of the sacred Funj kings, were highly valued magical objects amongst populations far up the Blue Nile in the Ethiopian frontier lands (Jedrej 1995).

A number of sites which seem likely to date to the late second and first millennium BC have been found along the White Nile, although little has yet been published on the material culture of this area. A potentially distinctive pottery ware made from a clay with abundant sponge particles in it has been identified at riverine sites along the river from around Shabona as far south as

the Zeraf hills, upstream of the junction of the Sobat river (Adamson *et al*. 1987). The earliest dates for this pottery suggest it may appear during the later second millennium BC but continued to be made through the Meroitic period into the first millennium AD.

Napatan Lower and Middle Nubia

If the southern margins of the Napatan kingdom remain very poorly defined, very different conditions seem to have existed on its northern margins in Lower Nubia where there is very little evidence for significant settlement in the centuries after the New Kingdom. The apparent depopulation of the region after the withdrawal of the Egyptian presence has been the subject of much debate and speculation. However, bearing in mind the ongoing environmental deterioration which was effecting these latitudes, bringing increasingly extreme arid conditions probably not dissimilar to those of modern times by the early first millennium BC, it should not be surprising perhaps that the region was increasingly marginalized and unattractive for settlement.

In recent years, the number of broadly dated Napatan sites which have been identified in Lower and Middle Nubia has markedly increased (Vila 1980; Williams 1990). However, most are relatively small groups of graves or small cemeteries and such new evidence as has emerged reinforces the impression of how limited the Napatan presence was in northern Nubia (Török 1987a). Several small sites bear witness to a significant presence around the Second Cataract, with a cemetery at Mirgissa (Geus 1975), graves at Buhen, small cemeteries around Faras (Verwers 1961) and Qustul (Williams 1990) and scattered graves at several other sites. Another probable centre of activity was the Aniba-Ibrim area. The prominent hill-top at Qasr Ibrim was selected as the location for a small temple of Taharqo constructed in the first half of the seventh century BC. Recent work has shown that this XXVth Dynasty activity was by no means the first occupation on the site. Parts of an earlier fortification, apparently dating to the early first millennium BC, have been identified as well as several construction episodes predating the temple (Horton 1991; Rose and Edwards 1998; Rose 2000). The hilltop seems to have had a religious significance during the New Kingdom when some small shrines were cut into its west face (Caminos 1968)

Within the Batn al-Hajar very little in the way of Napatan settlement has been identified. Some New Kingdom tombs at Semna were re-used during this period indicating some limited occupation, also reflected in the XXVth Dynasty refurbishment of a temple there. It has been suggested that there may be some Napatan burials within supposedly 'New Kingdom' sites in the Saras area (Williams 1990: 36) but this awaits confirmation. If the Batn al-Hajar was largely unoccupied during this period, there were a number of potentially larger settlements between the Third and Dal Cataracts, notably at Sedeinga, Sai, and Abri (Vila 1980) and Amara. There also appears to have been some limited

re-occupation of parts of the New Kingdom townsite at Sesibi (Edwards and Osman 2001).

Such settlement as there was in the north seems likely to reflect political and perhaps economic imperatives, establishing a pattern which was to be maintained throughout the Kushite period. These were to ensure at least an intermittent presence of at least a thin scatter of settlements along the river north of the Third Cataract linking the Kushite heartlands with Egypt. The ebb and flow of Kushite activity in the region seems likely to reflect the changing scale and character of contacts with Egypt and the north.

While it remains difficult to date closely materials from these sites in order to establish more detailed occupation histories, it seems likely that their main *floruit* was during the XXVth Dynasty. The sparsity of material and the small size of the cemeteries makes it very unlikely that many of the sites were occupied for long periods and they do not provide evidence for a long-term Napatan presence. That some outposts may have been established in the region at an earlier date seems possible in view of evidence for northern links predating the XXVth Dynasty. However, the capacity of the embryo Napatan state to maintain many permanent settlements in the north is unlikely to have been great.

In the post-XXVth Dynasty period, there may have been little activity in the region, while the campaign of Psammatik II against the Kushites in 593 BC, which reputedly reached Napata itself, may well have removed any permanent Napatan presence in the north. A fortified site at Dorginarti on the Second Cataract seems likely to have been an Egyptian outpost during the 'Saite' and 'Persian' periods of the seventh to fifth centuries BC (Heidorn 1991). Texts from the reigns of Nastasen and Harsiyotef indicate some royal interest somewhere in the north during the fourth century BC, recording campaigns against local 'chieftains', although further details are lacking. A Napatan presence as far north as the Second Cataract has been suggested at this time (*FHN* II: 457ff) but the texts provide no unequivocal information with regard to possible settlement in the region.

Temples and towns

We also remain very poorly informed about the character of Napatan settlements. Early archaeologists tended of course to focus largely on monumental structures and tombs. The only large-scale settlement excavations started by Garstang in 1909 at Meroe, have as yet proved remarkably unproductive in throwing light on the development of Kushite 'urban' settlement. Virtually nothing is known of settlements which may have existed in the Napata region, the supposed centre of Kush during this period. Elements of an early palace, almost certainly built by Piankhy, may underlie several later structures within B1200 at Jebel Barkal. Kendall suggests this was built in imitation of contemporary Egyptian palaces (1991). When excavating at Sanam, on the opposite bank of the river, Griffith excavated some elements of what may have been a large townsite,

including parts of a massive magazine area, which became known as the 'Treasury', and parts of what may have been a palace (Griffith 1922). The University of Cassino has recently begun a new series of excavations at the site.

The only settlement site about which we have any significant information is Kawa, where current work is exploring the Napatan town spread over up to 40 hectares, along *c.*800m of the river bank. The extent to which it had a nucleated 'urban' centre remains unclear, although there are certainly some areas of tightly clustered buildings and building complexes (Welsby 2001b, 2002b). While almost all of these were rectilinear mudbrick structures, at least one early building, with thin curved mudbrick walls, recalls building styles known from the Kerma period. Widely dispersed across this area were at least two small temples in addition to the main Amun temple built by Taharqo. Very little of the Napatan settlement at Kerma has been excavated, apart from two buildings in an area *c.*1km southwest of the temples. Similar in form to examples at Kawa, the most complete of these (Figure 5.5) had three major building phases (Bonnet and Ahmed 1984) with occupation probably continuing from the early eighth century to the fifth century BC (S. Ahmed 1999).

With the emergence of the new dynasty, there were new building works at the ancient cult centres, where the rather modest New Kingdom temples were

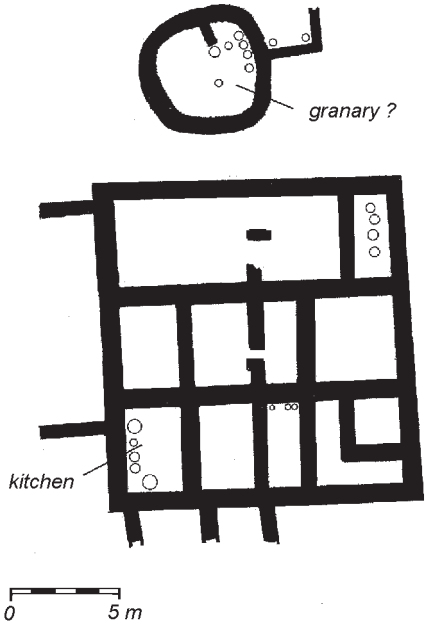

Figure 5.5 Napatan building at Kerma
Source: based on Bonnet and Ahmed 1984: Fig. 3

probably much decayed, if not derelict. The small Amun Temple at Jebel Barkal would seem to have lost at least parts of its roof, while the adjacent temple of Mut was also in decay. Kashta, or possibly Alara, built a new mudbrick temple at Jebel Barkal while Piankhy rebuilt the Amun temple which, with subsequent additions, was to be over 150m long. Our only knowledge of Kushite religious buildings comes from these structures although it must be presumed that prior to this period other temples or shrines must have existed, even if not built in this monumental tradition. The mudbrick temple complex which dominated the centre of Kerma during the second millennium BC certainly suggests that there existed indigenous traditions of religious structures which may well have survived into later periods. That at least some Kushite temples may overlie earlier, if rather less impressive, structures certainly needs investigation.

Of the XXVth Dynasty kings Taharqo seems to have undertaken the largest building programmes. In Egypt, a small six-columned kiosk was built within the forecourt of the Amun temple at Karnak. Within the Kushite heartlands however he had three new and very similar structures built in the Dongola Reach at Sanam (Griffith 1922), Kawa (Macadam 1955) and Tabo (Maystre 1973, 1986). Evidence for another XXVth Dynasty temple with later Napatan additions has also recently been found at Kerma at the Doukki Gel site (Bonnet 2001). Inscribed blocks include some that may be attributed to Shabaqo or his successor Shabataqo (Valbelle 1999, 2001). Further south, the existence of one or more Napatan temples at Meroe, including a Temple of Amun, seems likely.

Smaller temples were also built or refurbished further north on the route to Egypt along the Nile. These include one at the key location of Semna on the main rapids in the heart of the Batn al-Hajar and the refurbishment and extension of an old Egyptian temple at Buhen at the foot of the Second Cataract. A small mudbrick temple was constructed at Qasr Ibrim while another shrine may have been built on the Egyptian frontier at Philae (Morkot 2000).

Royal cemeteries

The burials of the Napatan kings and queens are to be found in two cemeteries at el-Kurru and Nuri. The kings and queens of the XXVth Dynasty were buried at el-Kurru (Dunham 1950), with the exception of Taharqo, who was responsible for beginning the second cemetery at Nuri (Dunham 1955). As we have seen, the cemetery at el-Kurru has been the subject of a number of recent studies attempting to clarify its history and extract information bearing on the origins of the Napatan state. What can be seen there is the development of impressive mortuary architecture and funerary practices which incorporated many elements of Egyptian origin in a new and distinctive form.

In the first of these, at el-Kurru, the tombs consisted of up to three chambers approached by long stairways (Figure 5.6, top). These were originally covered with painted decoration. The pyramids which covered them were built of relatively small stone blocks, and had small chapels on their eastern faces. Both

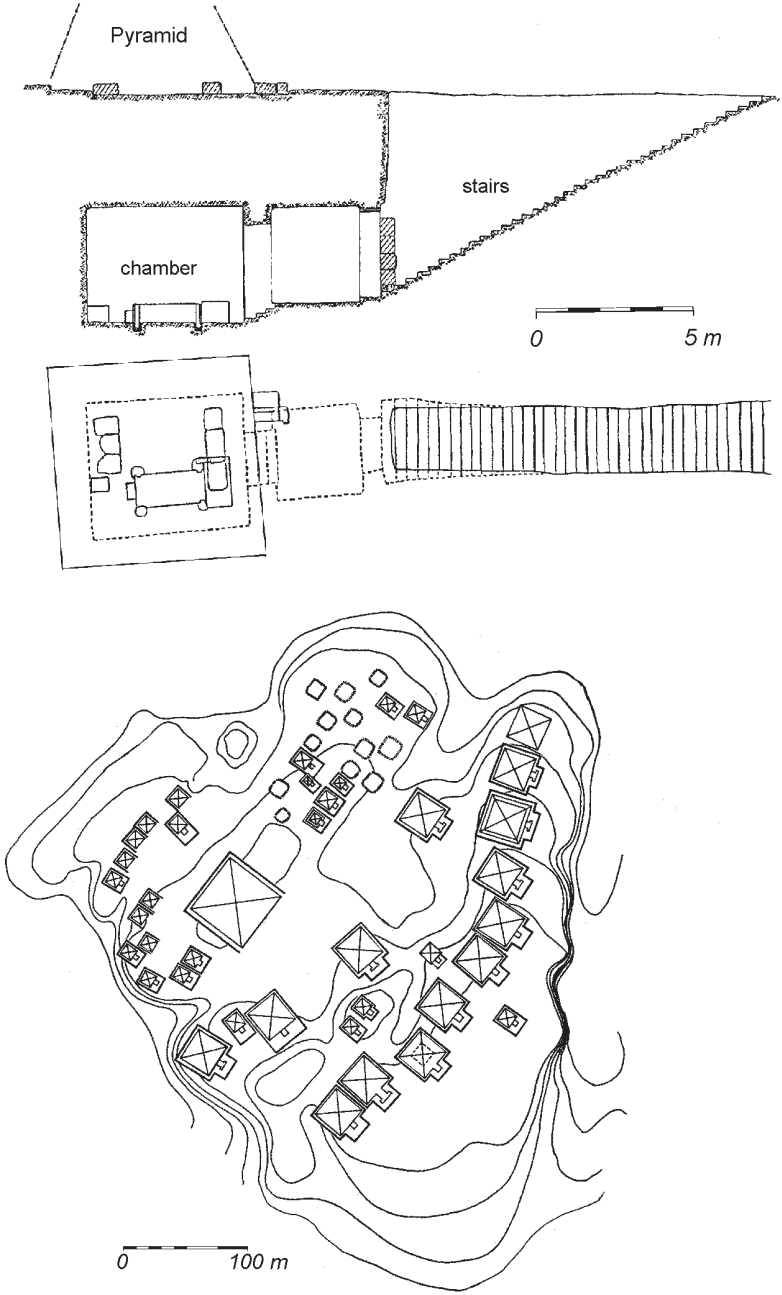

Figure 5.6 The Napatan Royal Cemetery at Nuri and queen's pyramid at el-Kurru
Source: after Dunham 1950: fig.11a

kings and queens were buried at the site, in separate portions of the cemetery. Along with them were buried groups of horses, probably royal chariot horses (Bökönyi 1993). Twenty-four horse burials were found in four rows. Some were found associated with scarabs of Shabaqo and Shabataqo and it may well be that the other two rows relate to the burials of Piankhy and Tanwetamani. The second royal cemetery, established by Taharqo was located at Nuri some 25km upstream, on the opposite bank, about 15km from Sanam. Some 19 kings and more than 50 queens were buried there (Figure 5.6). Of similar general form to the earlier burials, most of the kings' tombs had three chambers, while the pyramids were built with a 'stepped' outer surface.

Our knowledge of non-royal burial remains rather limited. Only one large cemetery of some 1,500 graves has been investigated in the Napatan heartlands, at Sanam (Griffith 1923) together with two smaller cemeteries at Meroe, excavated by Reisner (Dunham 1957, 1963), which seem to have been in use from early in the Napatan period. That at Sanam is presumed to relate to the nearby town and royal centre. Of those at Meroe one is located in the 'Western Necropolis', a cemetery of at least 130 graves, some 2km to the east of the royal city, which continued in use through the Meroitic period, and the other further east close to the hills, the 'Southern Necropolis' close to the hills, which contains about 24 pyramids as well as over 200 other burials. Many of these pyramids are generally quite similar in construction to those in the royal cemetery at Nuri and would seem to have belonged to the local elites of Meroe. The Southern Necropolis (Hinkel and Yellin 2003) was also the burial place of the first of the Meroitic kings several centuries later, before a new and exclusively Meroitic royal cemetery (the Northern Necropolis) was established. What distinguished the populations represented by the two different Meroe cemeteries remains unclear. Smaller groups of burials have been excavated from cemeteries at regional centres such as Kawa, Tabo and Kerma as well as at sites in Middle and Lower Nubia, notably at Sedeinga, Abri Missiminia and Mirgissa. Elsewhere in the north, most burials occur in scattered groups or small cemeteries, generally less than 10–15 graves, which are often not very easy to identify (Williams 1990).

While no comprehensive study has yet been made of Napatan mortuary culture, it has long been apparent that there was considerable variety in practice and that it is not possible to define a typical 'Napatan' form of burial. As imperfectly as they are understood, the Sanam and Meroe cemeteries show some of the complexity of mortuary practices encountered during the Napatan period, with the likelihood that there was significant change in practices over time. Any discussion of the impact of Egyptian practices is also made extremely difficult by the absence of any good evidence for 'indigenous' pre-Napatan burial forms.

As both Reisner and Griffith recognized from their excavations at Meroe and Sanam, some burials seem to follow Egyptian models while others apparently maintained and developed indigenous forms. What may be seen as 'Egyptian-izing' practices are most evident in extended east–west burials; some bodies

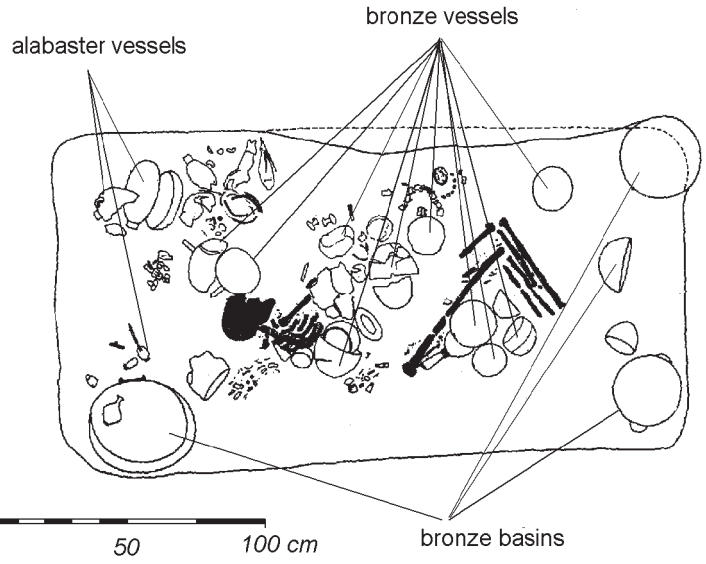

Figure 5.7 Early Napatan burial from the West Cemetery at Meroe, probably laid on a bed

Source: based on Dunham 1963, fig.20b

were mummified and placed in coffins or cartonnage, often covered with bead nets, and accompanied by personal jewellery, amulets and scarabs, and sometimes stone, metal and pottery vessels. These may be contrasted with forms of contracted burial sometimes laid on beds or biers, commonly but not always with the head to the west, but also often including abundant grave-goods, especially pottery (Figure 5.7).

No detailed studies comparing the Sanam and Meroe cemeteries have yet been undertaken, but some possibly interesting differences have been tentatively identified. At Meroe, for example, the bed-burials were perceived as being 'much more plentifully equipped with grave goods than the coffin burials' (Dunham 1963: 1) which does not seem to be the case at Sanam. Further interpreting the significance of different burial forms remains far from easy. At Meroe, following Reisner, Dunham identified the extended mummified coffin burials as those of Egyptians, perhaps priests, artisans and scribes, while the more elaborately furnished contracted bed-burials were seen as those of the local Kushite elites. In their burials they marked their wealth and status in very different ways. The attribution of the coffin graves to Egyptians was also seen as limited to a specific period, 'during the first few generations of their use' (Dunham 1963: 1). This is certainly one credible explanation and one which might suggest that they will have been most abundant during the XXVth

Dynasty when Egyptians are most likely to have had a significant presence at Napatan centres.

Griffith also thought that his more elaborate mummified burials were generally early in date, although he was reasonably sure that both extended and contracted burials were, at least in part, contemporaneous, reflecting what he saw as 'two classes of the population or two creeds rather than two periods' (1923: 88). Such social differentiation, however portrayed, is also perhaps indicated in the use of pottery in burials, ceramics being more prominent in the contracted burials than in the 'Egyptianized' burials and perhaps also being used in rather different ways. At Sanam, gender differences were also suggested by Griffith as another possible significant factor, assuming women to have been more conservative and maintaining indigenous practices, a suggestion reiterated more recently by W.Y. Adams (1977: 289–90). However, explanations which take a rather more complex view of social identities and their representation, and which also allow for practices to change and develop through time, will probably be needed as research develops in this area.

Studies of both the Sanam and Meroe cemeteries have been by no means comprehensive. The possibilities of differentiating burials of different date were very limited when the cemeteries were excavated, as neither Napatan pottery nor local 'Nubian' types were well-known at that time. Since then, no major new studies have been made of them. The possibility that there may have been significant changes in practice over time should not be ignored. The scale of the cemetery at Sanam, in particular, certainly indicates that it was indeed used for a considerable period and the dominance of contracted burials in its southern part, noted by Griffith, could potentially be one indicator of changes in practice as the cemetery expanded over time. Only a detailed re-analysis of the development of the sites and their internal chronology will throw further light on such questions. A greater attention to the full range of material found at the sites, and not just their most obviously Egyptianizing features is also likely to be necessary.

At other cemeteries which have been investigated similar variability in practice can be observed. At Tabo, graves covered with mudbrick pyramids are known, some with offering tables laid in the access ramps. The burials were laid in wooden sarcophagi oriented east–west, head to the west, generally without other artifacts (Bonnet 1999b). At Kerma, Napatan burials of various forms have been identified extending over a considerable area now covered by the modern town of Kerma. Some graves with entrance ramps were constructed for extended east–west burials, the bodies often placed in plastered wooden sarcophagi, usually with no other grave goods. Bead nets, made out of tubular faience beads, were sometimes placed over female burials. Amongst these were several bronze vessels from the burial of one Penamon, a priest of Amon of Pnubs (Bonnet and Valbelle 1980). What may have been the more common form of rite was burial in contracted position with the head of the body laid to the west, within small rectangular graves. Such burials were commonly

accompanied by pottery, while amulets and scarabs were common, as well as personal items such as razors and tweezers (Bonnet 1999b).

North of the Third Cataract, the extended forms of burial seem to predominate, although some contracted burials are found and orientations often vary. At the largest of the northern cemeteries, at Abri, all the graves held east–west extended burials (Vila 1980). Similar extended burials in coffins have been found at Sai, some laid on beds (Geus *et al*. 1995). A number of large tombs with pyramid superstructures have been excavated within the large Kushite cemeteries at Sedeinga (Labrousse 1994). Early suggestions that Taharqo may have been buried in one of these (Schiff-Giorgini 1965), based on finds of architectural fragments bearing his name, may be discounted, the blocks clearly being re-used from another structure, probably a small shrine.

Subsistence

We have as yet virtually no archeological data relating to forms of subsistence during this period. The use of breads, at least in elite circles and especially in religious rites, can be inferred from a number of bakeries associated with Napatan temples. Both barley and wheat may also be presumed to have continued to be grown, in the Dongola Reach at least. While our first archaeobotanical evidence for domesticated sorghum only appears in the Meroitic period of the later first millennium BC, it is far from certain that it didn't appear earlier. So little well-controlled excavation has been undertaken within Napatan settlements that we simply don't know. It does seem likely, however, that there was considerable regional variability in farming practices. From Kerma we have some rare evidence for the use of fish, as a number of large jars full of fish bones were found in the Napatan building excavated there. These may well be the remains of preserved fish, a distinctive and pungent foodstuff still enjoyed in the region today, known in Nubian as 'Tirkeen' (Ahmed 1997).

Changing material worlds

Traditional representations of the Napatan period have, of course, largely focused on its more Egyptianized cultural features, as these were of most interest to early generations of researchers. With virtually no information on Kushite material culture at the beginning of this period, the extent of changes under the XXVth Dynasty remains difficult to determine. How far the material world of the Kushites was changed also remains difficult to gauge as we have so little information from outside a few elite centres. According to an inscription of Taharqo at Kawa, we know that early construction projects were executed with the aid of workmen and craftsmen sent from Egypt (*FHN* I: 142). That many types of craft specialists were also brought in from Egypt seems very likely, along with Egyptian officials and priests.

One very prominent feature of the archaeological record early in the Napatan period is the reappearance of distinctive ceramic styles; the first substantial assemblages date to the XXVth Dynasty period. By then, on the basis of what is being deposited in tombs, it appears that much of the pottery in circulation was following contemporary (southern) Egyptian norms. While these are themselves still poorly defined, recent work (Aston 1996, 1999) is now establishing a basis of systematic studies in this area. On current evidence it seems that by the later eighth century new and distinct regional pottery styles were appearing in different parts of Egypt, reflecting the political fragmentation of the kingdom. These styles were in turn transferred to Kush. New potteries making such wares must have been established in the south, although no production sites of the early period are known.

The dominance of Egyptian norms was by no means absolute, however. While our knowledge is almost entirely limited to pottery groups from burials, it is evident even from these that other ceramic traditions co-existed with the Egyptian (Figure 5.8). Examples of what appear to be handmade black-topped red bowls are occasionally found in graves, suggesting a continuation of earlier Kushite traditions. There is also a distinctive style of tall wheelmade beakers/cups with a heavy burnished red slip, which may also be a distinctive local development. If these are local additions to the repertoire of Egyptian pottery forms, such vessels forms may well relate to distinct demands of Kushite ritual practices.

How Napatan pottery developed following the end of Kushite rule in Egypt and as links with production norms in Egypt were loosened, has yet to be studied. In such circumstances it might be expected that Kushite pottery would develop a distinctive local style, or styles. The only Napatan pottery workshop which has been identified is one at Kerma, thought to date to this period of the late sixth and fifth centuries BC (Ahmed 1992; Bonnet and Ahmed 1991). However, the fragmentary nature of the material from the site does not provide much of an idea of pottery development during this period.

Another very obvious area of change during this period is the widespread appearance of large quantities of glass and faience beadwork and objects such as scarabs and other amulets. Vast quantities of beads are found in royal and elite burials, for example, often used to make up elaborately designed bead 'nets'. More generally, beads and amulets seem to have been widely dispersed, although in small quantities, and finds of small amulets are often quite diagnostic for identifying Napatan burials which have little other material in them.

Relatively little is known of metalwork during this period. Copper alloy vessels are occasionally found in elite burials (e.g. Bonnet and Valbelle 1980); whether they were made locally or in Egypt remains unknown. Widely used for liturgical vessels, it is possible that copper and bronze may have had a different significance for the Kushites than it did for Egyptians. While we tend to assume that metals such as gold and silver will have been the most highly prized, it is known that value-systems are by no means universal. Within many parts of

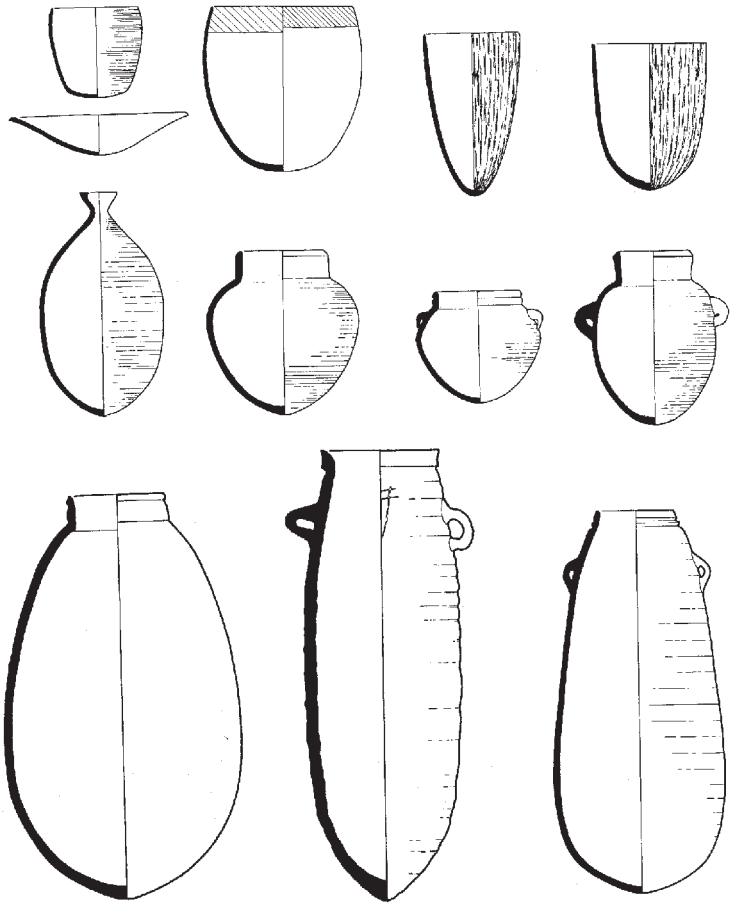

Figure 5.8 Common types of Napatan pottery
Source: based on Vila 1980

sub-Saharan Africa, for example, copper and its alloys have commonly been very highly prized and valued (Herbert 1984). It is interesting that Herodotus (III. 23) explicitly comments on the peculiar value placed by the 'Aethiopians' on bronze. Value systems are known also to change, especially through contact with others, and it is an interesting question whether this period was one in which Egyptian values, with their special interest in gold, may have inspired changes in Kushite value-systems.

When iron may have appeared in the region still remains unclear. Excavations at Meroe have suggested that iron production may have begun there around the mid-first millennium BC in the late Napatan period (Shinnie and Kense 1982; Tylecote 1982; Rehren 2001). There are, however, few indications that this still

rare and valued metal was widely available. This was still a period in which stone tools may still have been quite widely used. Finely worked stone arrowheads are occasionally found in Napatan contexts while a recent re-examination of material excavated in 1919 from the Napatan palace at Jebel Barkal found large quantities of simple lithic tools apparently linked to food preparation in the kitchens (Kendall 1997a: 334–5).

Trade

By the eighth century BC, the Kushites were already engaged in significant long-distance trade and exchange (Morkot 1993; Heidorn 1994). That such links may have existed in earlier centuries cannot be ruled out, if unremarked in Egyptian historical sources during the politically turbulent period at the end of the second millennium BC. In that local rulers of the Dongola Reach had been trading with Egypt for some 2,000 years by that time, there is no a priori reason to believe that all such contacts had ceased at the end of the New Kingdom.

While we have evidence for 'diplomatic' links with the Assyrians by *c.*712 BC, there may have been Kushite presence at the court of Tiglath-Pilaser a little earlier *c.*732 BC. These contacts have been linked to a Kushite involvement in horse trade, specifically for chariot horses (Dalley 1985). Occasional evidence is also found for Kushite participation in exchange systems which reached as far as the Greek world, for example in a metal mounted alabastra found in Aspelta's tomb (early sixth century BC?); the metal mounting seems to have been added in Kush (Gansicke 1994)

Over the longer term much remains to be learnt about the history of cultural interaction between the Kushites and the Egyptians. Potentially one of the most fascinating questions which has yet to be addressed is how Kushite culture was changed by the 'Egyptian adventure'. Our lack of knowledge of earlier Kushite material culture makes it all but impossible to isolate cultural changes taking place during the XXVth Dynasty period. Elements of royal and elite mortuary culture were clearly transformed during this period, while the new pharaohs secured access to a range of materials, craftspeople and their skills, which would not have been available before. Outside such milieux the character and extent of cultural changes are far less certain. At the same time, it is evident that the Kushite presence will have had an impact in Egypt. That Egyptian sculpture changed during this period has long been noted by art historians (Bothmer 1960).

Only when we have some idea of its point of departure can we begin to appreciate how Egyptian cultural resources were used and manipulated to create a new Napatan imperial culture. That its roots may actually have been established much earlier remains possible. Most of the debates concerning the origins of the Napatan kingdom have largely ignored the possibility that the indigenous rulers of the New Kingdom period, the rebellious rulers of Irem amongst them,

survived and developed during the late second millennium BC. The silence of Egyptian texts and the lack of archaeological evidence (how would we recognize a site of this period?) are hardly sufficient to assume that there was a political void following the disappearance of the Egyptians.

The possible persistence of Egyptian cults in the Dongola Reach has been much-discussed but remains difficult to demonstrate. Indeed the extent to which by the beginning of the first millennium BC these might be perceived as essentially alien cults remains far from clear. After all, the religious significance and associations of Jebel Barkal almost certainly long pre-date the Pharaonic incursions into the region during the New Kingdom. Egyptian architectural forms and cultural idioms may merely be giving new forms of expression to long-established religious traditions. In general terms, we may yet find that the post-New Kingdom 'Dark Age' is merely the product of an archaeological tradition which, until very recently, has been monument-focused, working within historical narratives derived from Egyptian texts. The inappropriateness of such an approach for exploring a period which lacks monumental sites or texts is very evident. Long-held assumptions that the pre-XXVth Dynasty period was adequately represented by the 'ancestral tombs' at el-Kurru have also tended to preclude constructive discussions of this period.

Looking forwards, while the conventional division between the Napatan and Meroitic eras is very unlikely to fully reflect the complexities of Kushite history, it will continue to be useful in distinguishing major phases of the cultural history of the Kushite kingdom(s). Even if we know very little at all about the later Napatan period, by the last centuries of the first millennium BC very different cultural traditions had appeared which were very different, in many ways, from anything seen during the Napatan period. The Meroitic kingdom was to be very different from the state created in the eighth century BC.

6

MEROITIC KUSH (*c.*300BC–AD 350)

Introduction

During the last centuries of the first millennium BC, the Kushite state emerges with a new centre of gravity, focused on Meroe in the fertile Shendi Reach between the Sixth and Fifth Cataracts. Over a period of more than 500 years the Meroitic kingdom established its control of very extensive areas of the riverine Middle Nile and its hinterlands. While it is impossible to define closely the boundaries of the kingdom – they were after all almost certainly very fluid and shifting – at its greatest extent it may have controlled some 1,500km of the river valley, extending from the Egyptian frontier to far south of modern Khartoum, probably also controlling substantial territories to the east and west (Figure 6.1). The construction of the Meroitic Empire and its imperial culture, drawing on many traditions, probably represents the most extensive political structure of the region before the nineteenth century and was almost certainly the greatest state hitherto seen in sub-Saharan Africa.

We catch rare glimpses of this new kingdom in historical and literary references of the Hellenistic and Roman periods and Meroe already figures large in Herodotus' account of the 'Aethiopians', written in the fifth century BC. Later authors who have left significant accounts include Strabo, Diodorus Siculus, and Pliny the Elder. While not first-hand accounts, they draw on bodies of knowledge that had been acquired during contacts between Meroe and Egypt and the Mediterranean world from the third century BC onwards.

New beginnings at Meroe

While we can identify many generalized continuities between the Napatan and Meroitic phases of the Kushite state, most notably in their use of monumental architecture, significant cultural changes are also very evident suggesting that the long-established division into these two periods is worth maintaining. A shift in the burial place of the Kushite kings from the Napata region to Meroe has been taken to symbolize a more fundamental shift in the location of power and the focus of the kingdom. While we can only speculate on the historical

Figure 6.1 Major centres of the Meroitic period

circumstances which surrounded this move, the possibility of major dynastic upheavals, bringing power to new elites, cannot be excluded. The geographical shift to Meroe would certainly suggest that these kings may have had a different regional powerbase. It is also tempting to suggest that some of the novel cultural elements which emerged during the Meroitic period were drawing on cultural traditions which are not very evident in the Napatan world. These may be seen in many cultural arenas, ranging from the greater prominence of indigenous cults in state religion, the development of Meroitic as an official written language, and the appearance of new and dynamic ceramic cultures.

Historical outline and chronologies

As in the earlier Napatan period, our understanding of the history of Meroe remains very limited, based on occasional (external) historical sources and the reconstructions of dynastic histories first developed by Reisner, nearly a century ago. The beginning of the Meroitic period is usually linked with the move of the royal cemetery from the Napata region to Meroe sometime after 300 BC, with the burial there of King Arkamani in the South Cemetery, a cemetery used for elite burials since early in the Napatan period. Current chronologies place his burial around 260–270 BC. During the previous century, some of the last Napatan kings were buried at Jebel Barkal while the tombs of others have not been located. A few decades later, a King Amanitikha established a new and separate royal cemetery (the Begrawiya North Cemetery) which was to be the main burial place of Meroitic royalty for the next 500 years.

Dating this shift to the south remains difficult, not least due to the great uncertainties which must surround the dynastic sequences and their chronology (Table 6.1). Traditionally, this Arkamani has been linked with a King 'Ergamenes', who appears in Hellenistic literature as a contemporary of Ptolemy II of Egypt (285–245 BC), and is generally assigned a date in the second quarter of the third century BC. According to a second century BC description of Ethiopia, preserved by Diodorus Siculus (*FHN* II: 638ff), this king was responsible for breaking the power the priesthood had exerted over the monarchy. The historical veracity of this account has been questioned, but it is possible that the story echoes a real dynastic upheaval during this period. Whatever the historical content of that story, the general date range assigned to the first royal tombs at Meroe continues to be accepted. In the absence of indigenous historical sources, occasional fragments of other information can be gleaned from external sources, mainly bearing on relations between Meroe and its northern neighbour Egypt during the Ptolemaic period.

At the beginning of the Meroitic period, the northern frontier probably lay on the Second Cataract, shifting to Hiera Sykaminos/Maharraqa by the late second century BC. Itineraries of Bion of Soloi, probably compiled in the early third century BC, indicate the main waypoints travellers might encounter in the region during this period. Two centuries later, following the conquest of Egypt

Table 6.1 Meroitic kings and ruling queens, their known or supposed burial place in the royal cemeteries

King or Queen	*Tomb*	*Approximate date*
Arkamani	Beg. S. 6	*c.*270–260 BC
Amanislo	Beg. S. 5	
Amanitikha	Beg. N. 4	
Arqamani	Beg. N. 7	
Tabirqo (Adikhalamani?)	Beg. N. 9	*c.*200 BC
? king ?	Beg. N. 10	
? king ?	Beg. N. 8	
Shanakdakhete	Beg. N. 11	
? king ?	Beg. N. 13	
Taneyidamani	Beg. N. 20	*c.*100 BC
? king ?	Bar. 2	
? queen ?	Bar. 4	
Nawidemak	Bar. 6	
Amanakhabale	Beg. N. 2	
Teriteqas	Beg. N. 14	
Amanirenas	Beg. N. 21	
Amanishakheto	Beg. N. 6	*c.*0 BC
Natakamani	Beg. N. 1	
Amanitore	Beg. N. 5	
Arakakhatani	Beg. N.56	
Pisakar	Beg. N. 15	
Amanitaraqide	Beg. N. 16	
Amanitenmomide	Beg. N. 17	
Amanakhatashan	Beg. N. 18	
Teritnide	Beg. N. 40	*c.*AD 100
Adeqetali	Beg. N. 41	
Takideamani	Beg. N. 29	
Tarekeniwal	Beg. N. 19	
Amanikhalika	Beg. N. 32	
Aritene-yesbokhe	Beg. N. 30	
Amanakhereqerem	Beg. N. 37	*c.*AD 200
Teritedakhatey	Beg. N. 38	
Aryesbokhe	Beg. N. 36	
? king ?	Beg. N. 51	
? king ?	Beg. N. 35	
Teqorideamani	Beg. N.28	
Tamelordeamani	Beg. N. 34	
Maloqorebara	Beg. N. 27	
Yesbokhe-Amani	Beg. N. 24	*c.*AD 300
? queen ?	Beg. N.26	
? queen ?	Beg. N. 25	
?	?	

Note: (Beg. S. = Meroe (Begrawiya) Southern Cemetery; Beg. N. = Meroe North cemetery; Bar. = Barkal) and suggested date-ranges.

by the Romans, we again find historical information on the nature of the Meroitic–Egyptian frontier in Lower Nubia and records of a brief outbreak of hostilities, apparently in 24–22 BC. The first contacts between the Romans and the Meroites are recorded in multilingual triumphal inscriptions (in Egyptian hieroglyphs, Greek and Latin) erected at Philae by the first Prefect of Egypt, Cornelius Gallus. As well as celebrating his suppression of a revolt in the Egyptian Thebaid, he claims (in the Latin text) to have taken the Meroitic king under Roman protection as well as having appointed a local governor over the Triacontaschoenos. The Greek version of the text implies a rather more balanced relationship, with Gallus becoming a 'public friend' of the Meroitic ruler (*FHN* II: 689ff).

Relatively little in the way of historical information survives on later contacts between the Roman world and Meroe. Our most abundant evidence comes from small inscriptions left by Kushites at Philae and other Lower Nubian shrines during religious and other visits (Burkhardt 1985). One of these, left at Philae by one Pasan in AD 253 provides us with our last date for a Meroitic king (*FHN* II: 1000). Pasan was an envoy of a King Teqorideamani, thought to be buried in Pyramid N.28 at Meroe. After this king, we can identify the names of perhaps three more kings (Tamelordeamani/Tamalaqoradeamani, Maloqorebara, Yesbokhe-Amani) whose burials can be tentatively identified, and well as some possible local rulers or nomarchs who were buried in the West Cemetery (Rilly 2002). After them, the ruling dynasty of Meroe fades away and the royal cemeteries are abandoned. Conventionally the last of the kings is dated to the mid-fourth century, although a date 50 years earlier is not impossible. There have been suggestions that pyramid burials may have continued in the West Cemetery until the later fourth century (Török 1974a). However, it seems reasonably clear that major cultural as well as political changes were underway well before then. The latest forms of Meroitic pottery that we can identify may have appeared by the end of the third century (Edwards 1999c); soon to be replaced by new 'post-Meroitic' types.

As in the Napatan period, the excavations of the royal cemeteries and studies of inscriptions have produced lists of Meroitic rulers for which tentative chronologies may be suggested (Reisner 1923b). These, however, remain insecure and subject to revision (e.g. Rilly 2001b, 2002). Most, however, left no monuments apart from their tombs. That a few rulers were again buried at Jebel Barkal during the first century BC also raises questions about possible political upheavals during that period.

MEROITIC SETTLEMENT

The Meroitic heartlands

The Meroitic period saw some major changes in the settlement archaeology of the Kushite kingdom. Many of the old centres of the Napatan period were

eclipsed. Many new and large settlements appear, especially in central Sudan where we have relatively little evidence for a major Napatan presence. The extent to which many of the settlements were indeed new foundations during the late first millennium BC is as yet unknown, as very few have been extensively excavated.

While the origins of Meroe remain very obscure, the beginning of the Meroitic period does seem to have witnessed major building episodes there. Perhaps the most prominent of these was the construction of a massive rectilinear enclosure,

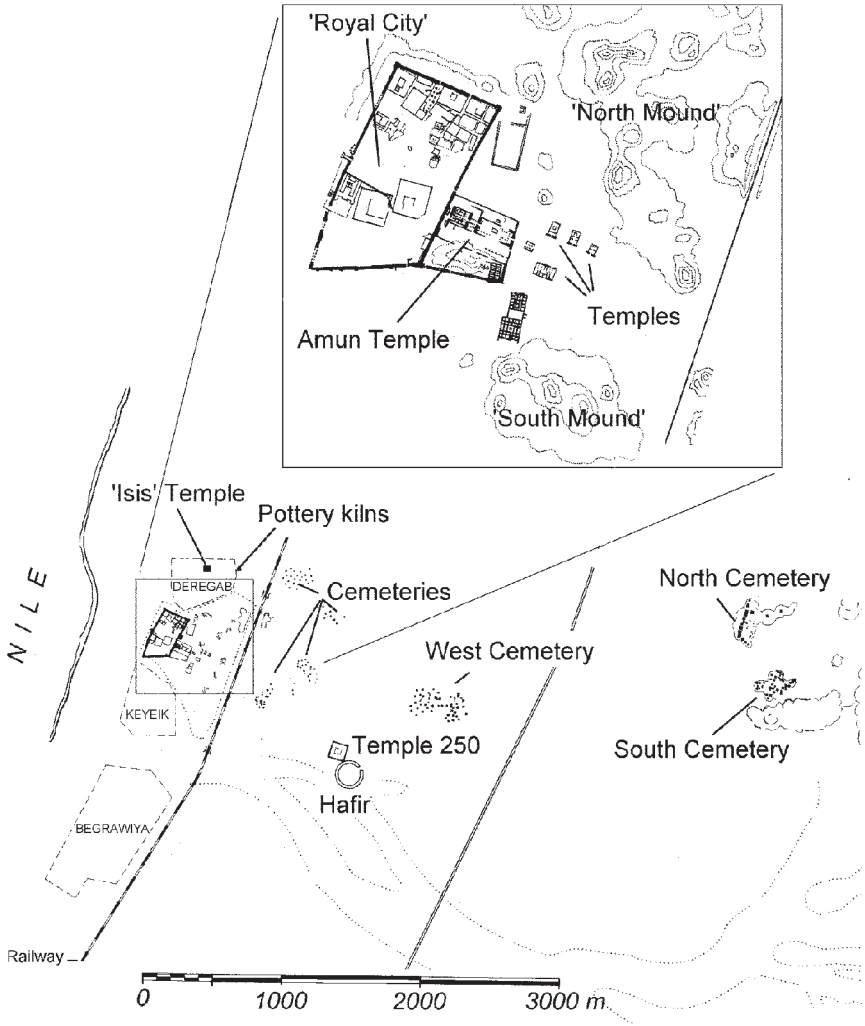

Figure 6.2 Plan of Meroe and the surrounding area

whose heavy masonry walls surrounded an area of *c*.8 hectares, (Figure 6.2). Its construction seems to mark a new development in defining a nucleated core to the settlement. Traditionally referred to as the 'Royal City', it certainly included several palatial buildings. Its construction may have taken place at about the same time as that of a new Amun temple against its east side, added to and extended over the next few centuries (Török 1997a). A series of smaller shrines were later built to the east of its entrance, replacing earlier domestic structures in that area (Shinnie 1984b). They faced onto what may have been a processional way, oriented like most temples on the winter solstice (Heitzmann 1976). While we know little of the detail, these new construction projects imposed a new order on the plan of the settlement.

The more general character of Meroe remains unclear. To the north east of the enclosure was a large settlement mound covering *c*.10 hectares, with another second large mound (3–4 hectares,) to the south. Outlying features include a temple complex ('Isis Temple') to the north as well as an area of pottery kilns, and a large temple complex with a *hafir* (known to earlier generations as the 'Sun Temple') to the southeast of the town. The latter was probably first built during the Napatan period but extensively rebuilt in the late first millennium BC. Only small areas of the northern settlement have been excavated, revealing deep stratified deposits, up to 10m thick, going back to the early first millennium BC. With excavations limited to narrow trenches we have as yet very little idea about the character of the area as only small parts of buildings were ever exposed; that the mounds represent the remains of a nucleated 'urban' settlement has yet to be demonstrated. Parts of the north mound were certainly used for industrial activities, as workshops were found there for smelting and forging iron (Shinnie and Kense 1982).

Many uncertainties still surround the nature of the 'urban' centre at Meroe. To what extent was it primarily a royal (and religious?) centre, its inhabitants essentially representing a political elite, and those who served their needs? Did it possess a more broad-based urban population with its own independent dynamic? How large was the settlement? Currently it remains quite impossible even to estimate the size of its population in the absence of hard evidence concerning the character and density of buildings within the site. It is worth bearing in mind that the total area of the site is rather less than that of the two modern villages which lie to the north and south of it and which contain only a few hundred households. To date, no large cemeteries of the kind that might be expected to be associated with a large and long-lived urban settlement have yet been identified, which remains puzzling. Some groups of burials were excavated in the plain to the east of the city by Garstang (Garstang *et al*. 1911) but much more extensive cemeteries must have existed for a large urban population.

If the urban character of Meroe has yet to be clearly demonstrated, recent work at Hamadab, some 3km to the south has, for the first time, begun to reveal some of the plan of what evidently is a large nucleated Meroitic settlement

Figure 6.3 Temple and urban housing at Hamadab, near Meroe
Source: after Wolf 2002

(Figure 6.3). Long-known as the site of a small temple, excavated by the Garstang expedition in 1914 (Phythian-Adams 1914–16), recent fieldwork on the site (Wolf 2002) has begun to reveal a substantial settlement forming two large mounds with a combined area of more than 15 hectares, not much smaller than the total area of the settlement mounds at Meroe. How old the site is as yet remains unclear, although the temple may date to the time of Queen Amanirenas and 'Prince' Akinidad, who erected two stele flanking the temple doors. The density of the mudbrick architecture leaves little doubt of the urban character of the site.

Several potentially similar large sites (Figure 6.4) , often with evidence for temples, are known to lie to the south and north of Meroe (D.N. Edwards 1989, 1999d). Some of these are again of considerable size, potentially covering *c.*15–20 hectares. Most are known mainly for finds of architectural elements and none has yet been investigated in any detail although survey and test-excavation

have begun at some sites, such as Awalib, near the mouth of the Wadi al-Hawad (Paner 1997). The only other major site on the river which has seen excavations is that at Wad ben Naqa, the site of a large royal palace, attributed to Queen Amanishakheto, as well as a number of temples and other structures, including an otherwise unique circular structure, perhaps a grain silo, as well as cemeteries (Vercoutter 1962a). Natakamani and Amanitore are also represented in inscriptions from the site.

The character and distribution of what may be termed 'rural' settlement in the region remains unknown. Whether these were dispersed farmsteads or took

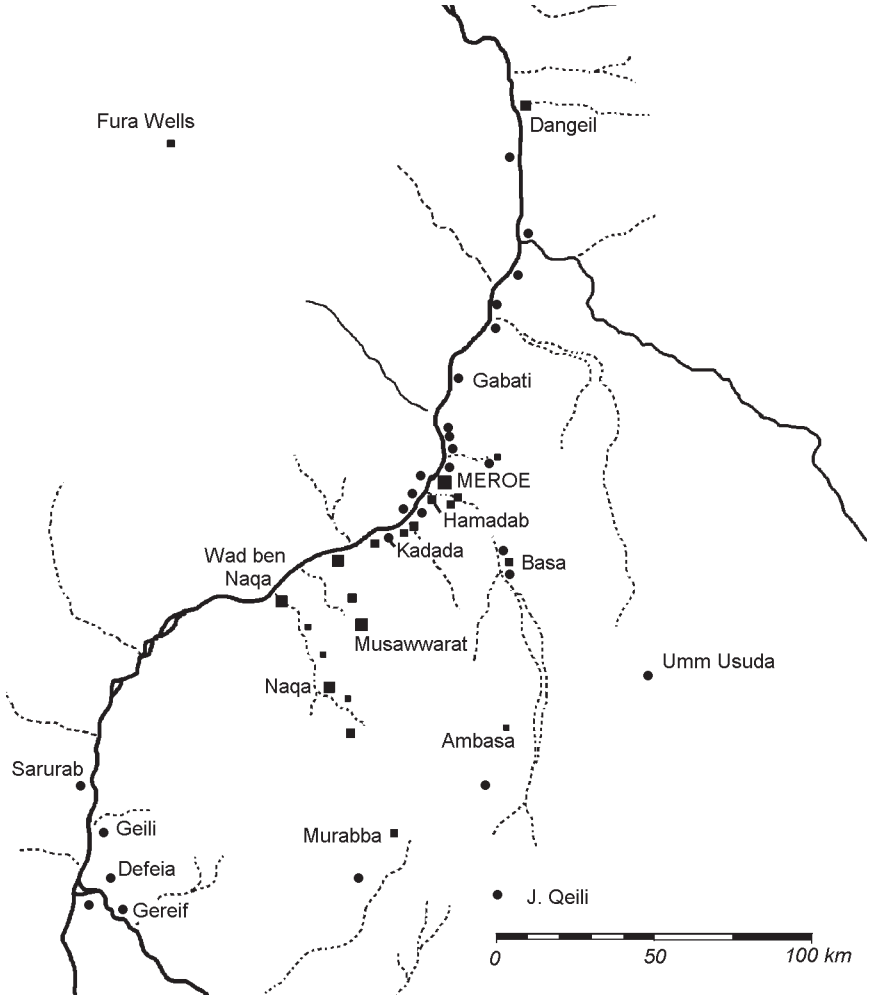

Figure 6.4 Settlement in the Meroitic heartlands

the form of nucleated 'villages' or 'hamlets' remains unknown. Along the river, agricultural settlement is likely to have been focused on the numerous small basins which are found along this stretch of the river, mainly on the east bank. Two large cemeteries which may relate to such riverine settlement have been excavated, at Kadada to the south of Meroe (Geus 1982b; Lenoble 1994a) and Gabati (D.N. Edwards 1998b) to the north, both of which were in use for several centuries. No associated settlements are known for either of them, however. To what extent these large nucleated cemeteries were the norm remains unknown.

Inland areas, especially to the east of the river seem to have been extensively exploited during this period. New sites were appearing in the Western Butana, mainly lying on the wadi-systems which drain into the Shendi Reach, although some of the more southerly sites (e.g. Rufaa, Muraaba) lie on the upper reaches of wadis draining in to the Blue Nile. Alluvial soils in the region are concentrated in these wadi-systems which also house permanent wells, which today are still replenished by the significant but variable annual rains of 100–200mm. Little evidence has yet been found of any Napatan presence in the region and most of these sites seem to have been Meroitic foundations.

The largest of these sites lies at Naqa, ancient *Tolkte*, some 50km from the river on the Wadi Awateib, inland of Wad ben Naqa. The site of several temples, recent work has made clear that these were part of a much more extensive settlement of mudbrick and redbrick buildings including potentially several 'palatial' structures, as well as a cemetery to the northeast (Figure 6.5). Recent excavations (Wildung 1999) have revealed that its Amun temple was of considerable size, although largely built in brick, its entrance approached along a avenue of ram statues. The earliest inscription form the site is one of Shanakdakhete, probably dating to the early second century BC. The structure which survives was probably erected by King Natakamani. An altar-base found within the sanctuary of the temple was also inscribed with the name of Natakamani and his queen, Amanitore, while a stele of Amanishakheto was also found there. An exceptionally well-preserved Lion Temple dedicated to Apedemak was also constructed by Natakamani and Amanitore.

Most others sites in the interior are much less impressive, often with small single-chambered temples/shrines, occasional traces of other mudbrick buildings, and linked with *hafirs* (excavated water-storage tanks) as well as some of the ancient deep wells which are also found in this region. The Western Butana as a whole has large numbers of potentially ancient *hafirs*, many of which may originally have been excavated during the Meroitic period (M. Hinkel 2003), up to 100km from the Nile. At some of the more impressive, Meroitic inscriptions have been found.

Musawwarat es-Sufra, known to the Meroites as *Aborepe*, is perhaps the most unusual site in the region, comprising a group of small temples and associated buildings spread over 5.5 hectares, set within a complex of courtyards and open plazas (Figure 6.6). Outside the 'Great Enclosure' to the east lay another substantial temple of Apedemak, the Lion temple (Hintze *et al*. 1971, 1993),

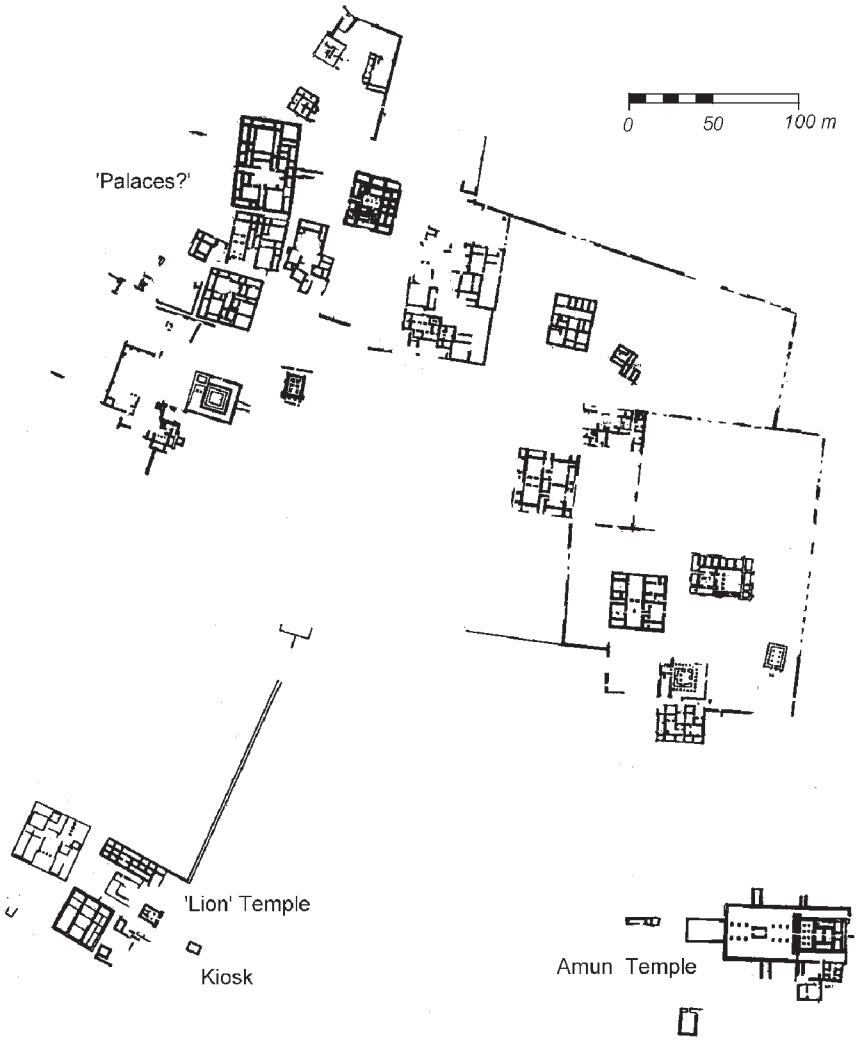

Figure 6.5 Plan of Naqa
Source: based on Wildung 1999

a series of smaller shrines and a massive *hafir*. The whole complex is set within a natural amphitheatre of low hills. Most of the complex was constructed during the Meroitic period, some at least by King Arnekhamani in the later third century BC. There are, however, a number of earlier construction phases, probably dating back into the Napatan period, although when exactly the site was first occupied and what its original form was remains unknown. Excavations at the site since the 1960s have now revealed something of how the complex

was added to and rebuilt on many occasions, with possibly eight main building phases and numerous sub-phases. These episodes seem to have involved the rebuilding of both the central structure ('Temple 100') as well as surrounding courtyards, on slightly different orientations, often with a shift of 4–5 degrees. This changing orientation seems likely to relate to the progressive change in the position of stars with which the building was aligned (Wenig 2001), although which stars these were remains unknown. The visible ground plan with the often irregular-shaped courtyards is thus a palimpsest of several different construction phases.

The central temple, built on a high podium, is linked to structures to the north and south by narrow high-walled corridors, limiting visual space and

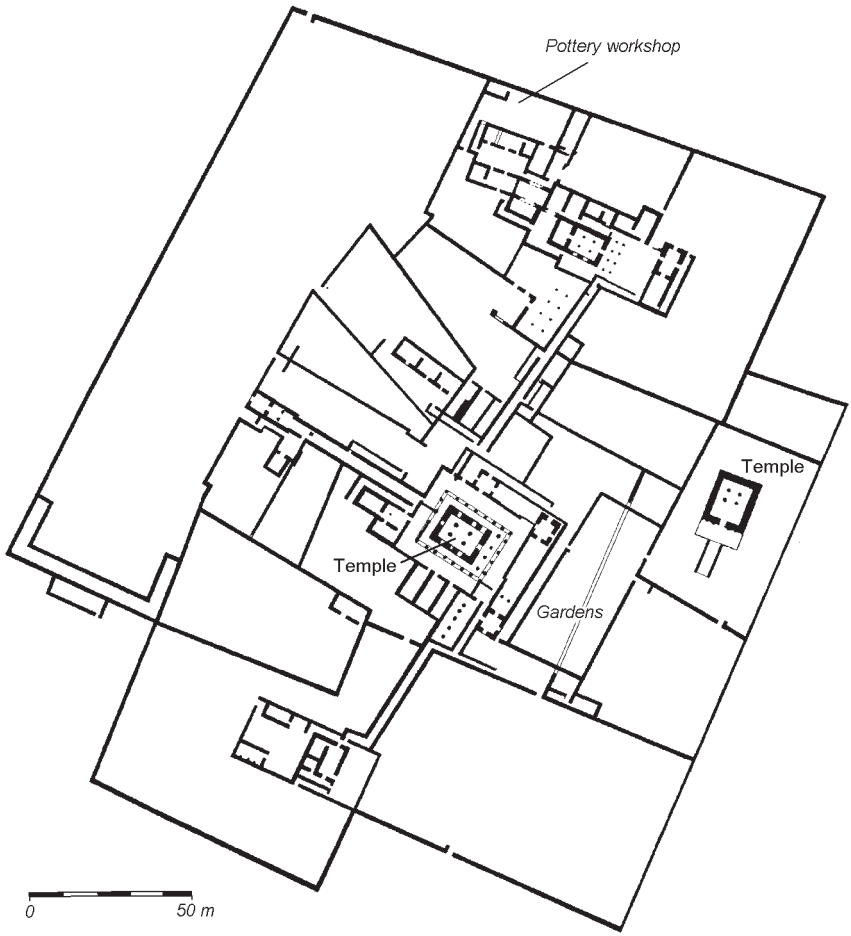

Figure 6.6 Musawwarat es-Sufra
Source: based on Wenig 1978

separating them from the surrounding yards. The architecture may well be expressing the 'hiddenness' of esoteric religious knowledge and ritual power (Helms 1988: 59–60). Recent work has shown that at least some of the courtyards were used as irrigated gardens, laid out with lines of trees, brought in from the Nile; the Nile silt in which they had been embedded and the pots in which they were transported were readily identifiable during excavation (Wolf 1999). There were also pottery workshops beside the north wall of the enclosure (D.N. Edwards 1999b). Large dumps of kiln wasters and ash show that high quality Meroitic finewares as well as coarsewares were being made there, although the sparsity of finewares found elsewhere on the site may indicate that attempts at making finewares were largely unsuccessful.

There has been much debate on the nature of the site, although a primary religious function as a pilgrimage centre still seems much the most credible interpretation (Hintze and Hintze 1970). The absence of significant domestic structures in or around the site is very striking, as is the apparent absence of cemeteries in the vicinity (Wenig 2001). The unique architectural character of many parts of the complex has greatly contributed to speculation about its function. There have been suggestions, for example, that the site might have been used for training elephants (Shinnie 1967) or, in a rather similar vein, that the complex may have been some form of 'animal garden' or hunting palace (Lenoble 1991). However there is hardly a gateway in the complex which would allow the passage of an elephant, while the presence of the gardens would seem to exclude such a possibility. Suggestions that Temple 100 was actually a throne room rather than a temple and that the complex as a whole was essentially a 'royal palace complex' (Török 1997b: 437) also remains unconvincing, not least in mistaking the windows of the structure for doors.

While the Meroitic monarchs were undoubtedly closely linked to the site, and may well have played a central role in whatever festivals or other events were enacted there, its very special status seems clear. Only one small group of buildings, the 'Small Enclosure', had a more domestic character, with cooking and storerooms, probably relating to the priests and other staff servicing the main cult centre (Fitzenreiter *et al*. 1999). The range of cults represented at the site still remains uncertain. Sebiumeker appears as the local god of the site, and was portrayed with Arensnuphis in statues at the front of Temple 300. Apedemak is represented in the Lion Temple to the east of the main complex, and, frequently referred to in graffiti on the walls of the main complex. Temple 100 may have been a sanctuary of Amun (Hintze 1968), but this remains disputed.

North of the junction of the River Atbara and the Nile, the character and extent of Meroitic settlement remains even less clear. The only major site known from this area is a large enclosed settlement at Dangeil (Ahmed and Anderson 2000). While as yet known only from surface survey and relatively limited excavations, the extensive use of redbrick in the construction of several major structures provides some indication of its character. Centred on a rectangular

enclosure constructed mainly in redbrick, measuring *c.*124 x 147m, this housed a temple and several associated structures, including temple-bakeries. On the west side was an extramural settlement probably including another temple, while a wide spread of settlement debris all around suggests that a substantially larger area may have been covered by more ephemeral buildings. No significant Meroitic presence has yet been found in areas downstream of Dangeil towards the river bend at modern Abu Hamed, although a fragment of a Meroitic inscription and some Meroitic sherd material has been reported from Mograt island (Kleppe 1982a).

A northern province?

The character and extent of Meroitic settlement in the ancient Kushite heartlands of the Dongola Reach changed significantly from that of the Napatan period. In the Napata region, Jebel Barkal clearly remained a major cult centre, evidenced by many episodes of building and refurbishment at the site during this period. Its continued importance at the heart of the royal cults is also seen in a series of royal palaces built there which may be linked with coronation, as well as other rituals, known largely from Napatan texts (Török 1990). The continued importance of Jebel Barkal as a royal centre is also seen in the presence of a number of royal burials there, including that of a reigning queen Nawidemak.

Beside the ancient temples, a Meroitic palace was built to the southeast of the old Napatan palace complex, with another larger one further east (Figure 5.4), probably part of a larger complex of buildings, still unexcavated (Kendall 1990). Very similar in plan to the palace at Wad ben Naqa, this second structure seems to date to the reign of Amanitore and Natakamani (Donadoni 1993; Roccati 1997). While heavily eroded, recent excavations have shown that the plastered brickwork of the building was tiled with faience plaques, and some of the lion statues guarded its entrances.

The status of several other of the old Napatan centres in the region remains less certain. There is little evidence, for example, for Meroitic activity in the Sanam area opposite Barkal during the Meroitic period. Recent survey work in the Fourth Cataract area and upstream towards Abu Hamed also seems to be finding little evidence for a Meroitic presence in this very inhospitable area. While the area downstream of the Sanam–Barkal area still remains little explored, there are indications that some at least of the old Napatan sites in that area may have declined, and even been abandoned by the late first millennium BC. The Napatan temple at Soniyat-Abkur, for example, may well have been in ruins during the Meroitic period, although still attracting visitors who left graffiti (Żurawski 1998). Another likely focus of Meroitic settlement is the Letti Basin, perhaps at Urukutti, but few other sites of this period have yet been found in the area (Grzymski 1987, 1989).

In the Northern Dongola Reach, the next major settlement seems to have been at Kawa. Recent work (Welsby 2001b, 2002b) suggests that by the later

first millennium BC, the once large and sprawling Napatan town had contracted to a much smaller site, perhaps restricted to the main temple area. Only a handful of other sites have been found along the river between Letti and Kawa (Welsby 2001a) and virtually no sites are known on the west bank. On the more fertile east bank, with the drying-up of the ancient palaeochannels of the Wadi al-Khowi by this period, the area will probably have lost its attractiveness for permanent settlement. Drifting sand may have become an increasing problem, as it has remained into recent times. With the decline of Kawa, the major focus of Meroitic settlement in the northern Dongola Reach seems to have been around Kerma where the old Napatan temple was rebuilt, on a slightly larger scale, mainly using mudbrick faced with redbrick (Bonnet 2001). Excavations are still underway at the site and the full extent of the surrounding complex is unknown although some fragmentary inscriptions may relate to Meroitic kings of the first or second centuries AD (Valbelle 2001). What appears to be a large palatial structure lies beside the temples (S. Ahmed 1999). Meroitic graves have been found in a number of locations within the area of the Bronze Age town (Reisner 1923a) as well as closer to the river beneath the modern town (Bonnet 1978).

Little in the way of smaller Meroitic settlements have been found in the surrounding area but they seem likely to have been located close to the river and on the alluvial islands. On Argo island, the great Amun temple at Tabo remained in use during the Meroitic period, seeing several additions and some remodelling. Two granite colossi, probably representing the Meroitic god Sebiumeker and another unknown deity (Wenig 1974), were erected in front of it. Two small new temples, one in stone and one in red brick were also constructed to the southeast of the main temple, perpendicular to the axis of the main shrine (Figure 5.4). Large temple bakeries were also established to the west of the main temple and a temenos wall also seems to have been constructed around the complex during this period.

In the absence of an easily navigable river route linking the Meroe region and the Dongola Reach the two regions will have been linked by routes across the Baiyuda Desert. This large area still remains little-explored, although a number of sites are known from the interior, mainly along the major wadi-systems whose wells have traditionally sustained the main routes across the desert. Most cannot be dated, but at least one site at al-Meragh on the Wadi al-Mugaddam, some 70km from Korti in the Dongola Reach, has a complex of buildings with stone and mudbrick architecture of Meroitic date (Kendall 2001). In the eastern Baiyuda, a bastioned stone enclosure which may well be of Meroitic date has also been recorded at Fura Wells (Crawford 1953b). The wells represent a long-established way-point on what would have been the most direct route, some 260km long, linking the Meroe area with Napata. It seems likely that other way-stations await discovery along these routes.

Lower and Middle Nubia

As in the Napatan period, Meroitic settlement in Lower Nubia seems to have had a rather different character than that in the southern heartlands. While, by the later first millennium, it will have had little attraction for agricultural settlement, its considerable importance as the major route for transport and communication between Meroe and Egypt ensured a significant Meroitic presence in the region.

The past concentration of research in the north allows us to reconstruct a relatively detailed picture of the scale and character of settlement in the region, and how it developed over time. While there are still many gaps in the evidence a reasonably complete picture is emerging, with nearly 200 Meroitic 'sites' of one form or another between the Third Cataract and the Maharraqa frontier. Recent re-analysis of this material has, however, thrown up some surprising conclusions which do not always fit very easily with interpretations developed during the 1960s during the course of the Nubian Salvage Campaign. For example, despite this superficially impressive total it is clear that over the 500–600 years of a Meroitic presence in the north, populations remained relatively small, concentrated in a small number of settlements, perhaps no more than 10–15 (Figure. 6.7), dispersed along the river (D.N. Edwards 1996a). Contrary to earlier perceptions of Meroitic Lower Nubia as a rich, densely settled agrarian province (W.Y. Adams 1977; Trigger 1965), it would seem that, as in the Napatan period, most settlements were primarily outposts or way-stations concerned with managing and controlling communications and trade along the Nile.

It has also become evident that the Meroitic presence in the north fluctuated, and we may be looking at a number of distinct phases of activity in the region. The early Meroitic presence in Lower Nubia seems to have been limited. South of the Batn al-Hajar a cemetery near Abri at Amir Abdallah (Fernandez 1983, 1984) may mark one significant settlement in this area during the last centuries BC. Whether occupation continued unbroken from the late Napatan period remains unclear. A few other settlements or cemeteries of this general period are also found north of the Second Cataract, for example at the ancient strategic post at Buhen, at Argin, Faras and Qustul. Faras appears to have been the seat of the Meroitic administration established in Lower Nubia. Further north, other posts were established at Toshka West and Arminna East (Junker 1925) and probably at one or more sites within the Aniba–Tomas area. On the east bank the Napatan cult centre at Qasr Ibrim was again active.

An anomalous site of this period was a small settlement at Gezira Dabarosa, just north of the Second Cataract (Hewes 1964; Lister 1967). A single radiocarbon date suggested a date in the third to second centuries BC and recent work on Ptolemaic Egyptian pottery (Aston 1999) would suggest that this date was broadly correct; good parallels can be found for some of the Dabarosa pottery at Elephantine in third-century BC contexts. What is rather less clear is whether

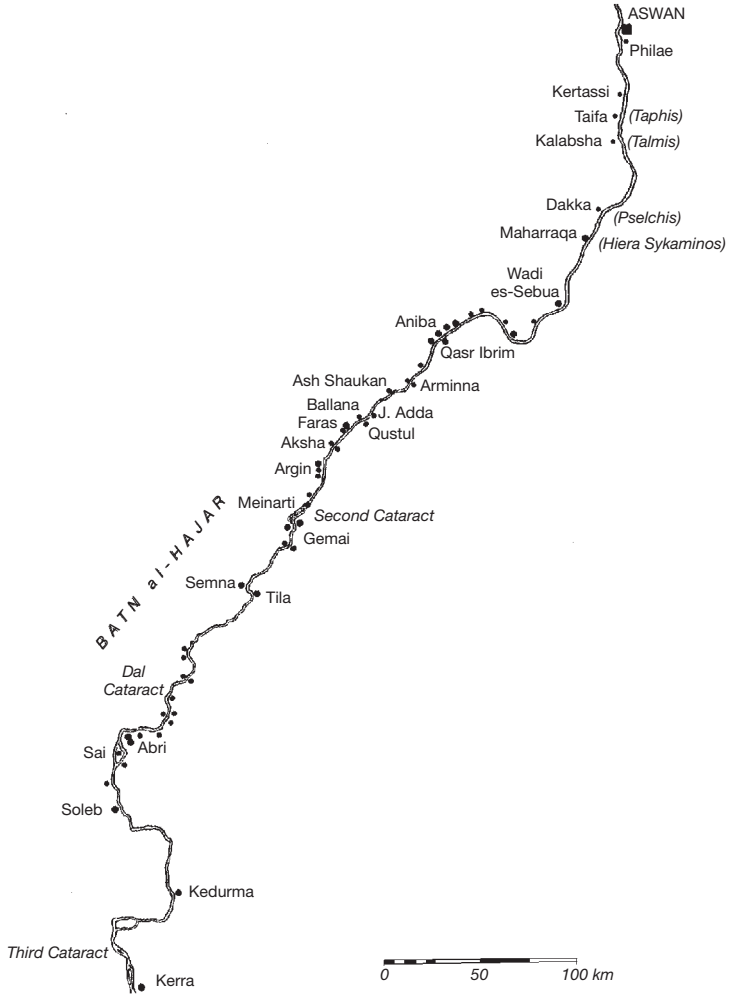

Figure 6.7 Main Meroitic centres of settlement north of the Third Cataract

this was another early Meroitic settlement or an Egyptian outpost of the early Ptolemaic period.

A potentially important historical episode which may have seriously affected settlement in the region at the end of the first century BC was the Roman campaign of Petronius against the Meroites. Identifying archaeological evidence for this event remains difficult. The only substantial evidence for a Roman presence in Lower Nubia during this period is at Qasr Ibrim, reportedly besieged, taken and then garrisoned by the Romans. The Roman military presence is very visible with some additions to the southern walls of the site but

more especially the construction of a large bastion overlooking the river at its northwest corner, where large deposits of Roman amphorae and ballista balls were found (Alexander 1988) as well as other military equipment (James and Taylor 1994). More Roman rubbish, much of a military character, as well as numerous fragments of Latin and Greek texts, were found dumped along the south walls. However, little in the way of structural remains which might be associated with a Roman military garrison have been found and the Roman occupation may have been quite brief. Additional evidence for the Roman presence has also been encountered outside the main settlement, with the discovery of what appears to be a temporary Roman camp on the desert plateau just to the northeast of Qasr Ibrim (Horton 1991).

Beginning with a relatively limited presence in the early Ptolemaic period, settlement was becoming more extensive and substantial from the second century BC, with most of the sites established in this period surviving into the first century AD. Moving on a century or so, another major phase of activity can be dated broadly to the third and perhaps fourth centuries. It appears however, that many of the later sites were new foundations, many of the 'early' sites having been abandoned by this time. If the exact dating of these phases remains uncertain, there are certainly indications of a decline in activity, if not a settlement hiatus, perhaps in the second century AD (D.N. Edwards 1996a). It is interesting that this is a period in which there is also a virtual absence of datable Meroitic texts in the Dodekaschoinos, the only second-century text dating to 191/192 AD (Burkhardt 1985). Even in the first century AD, Roman travellers in the time of Nero had reported many of 'these places (places named in earlier itineraries) were deserted' (*FHN* II: 554).

Tracing the dynamics of the ebb-and-flow of settlement in the region presents considerable challenges. Much more detailed study is still required of the published (and unpublished) data. In such studies it may also be helpful to consider the extent to which Meroitic settlements in the north, relatively isolated outposts in an inhospitable environment, were likely to have been quite vulnerable. Founding, or re-establishing, settlements in such a region presupposes considerable logistical support, not least in supplying settlements until they could support themselves. Military campaigns, even if of brief duration, could easily, and at a stroke, destroy settlements which were both small and isolated – many settlements may have been 20km or more from their nearest neighbours – sites in the Batn al-Hajar could be 50km or more from possible support. Lower Nubia has no hinterland into which populations could safely melt away in the face of foreign armies.

That natural disasters may also have contributed to the ebb and flow of settlement in the region cannot be ruled out. Disastrous floods and failed harvests were survivable, at least in the short term, although settlements in the region were likely to be in a particularly exposed position if problems persisted. Epidemic disease may also have been a problem. There are no Meroitic records of the Antonine Plague which raged after AD 165, but in view of its virulence

in Egypt (Duncan-Jones 1996; Scheidel 2002) it could well have had a major impact, especially in the constrained landscape of Lower Nubia. There are Roman reports of a further pestilence in the Dodekaschoinos around AD 200 (*FHN* III: 241) while another major outbreak of plague in *c.* AD 250–265 reputedly originated in 'Aithiopia' (*FHN* III: 996). The vulnerability of settlements in Lower Nubia may perhaps again be seen during the medieval period when episodes of abandonment and re-occupation seem not to have been uncommon.

Prior to the introduction of the *saqia* waterwheel, which now seems likely not to have appeared before the very late Meroitic period (Edwards 1996a), there can be little doubt that the economic potential of the region, especially in terms of its basic subsistence resources, will have been limited. The difficulties of maintaining settlements in the region may have been compounded by the number of potentially non-productive members of the population, suggested by the extensive network of officials which existed. It is possible that the population was in part dependent on imported food from more productive areas, for it seems likely that the subsistence base of the region was quite fragile. Such a hypothesis finds some support in the anthropological studies carried out in the Wadi Halfa area (Armelagos *et al*. 1981; Martin *et al*. 1984) which noted an unusually low life expectancy among the Meroitic population, prompting the conclusion that 'while the Meroitic kingdom may represent the most significant political development in prehistoric Sudan, the Wadi Halfa populations may not have benefited from this advancement' (Armelagos *et al*. 1981: 53).

The special character of Meroitic settlement in Lower Nubia is well-reflected in the wide range of evidence available from the region (Edwards 1996a: ch. 6). The architectural evidence from a number of sites suggests that many contained what may be termed 'official' buildings, some of which may have been trade-related. Storehouses or similar 'commercial' buildings can be identified at Faras, Meinarti and perhaps Karanog, as well as Kedurma and Sai island further south. The regularity and high quality of much of the Meroitic architecture in the region also suggests the existence of 'professional builders' (W.Y. Adams 1977: 357). Buildings at several sites show a considerable degree of standardization in their initial construction, if subsequently modified and added to.

One very different type of site may be found at Qasr Ibrim where a series of temples and ancillary buildings (Figure 6.8) seem to have functioned as a pilgrimage centre, attracting both Meroitic and Egyptian pilgrims. A variety of cults were represented there as well as an oracle of Amun (Zauzich 1999). While the temples were later largely destroyed during the medieval period, substantial traces of the site's role as a pilgrimage centre may be seen in the remains of extensive if often quite ephemeral occupation scattered across the desert plateau to the east of it. This arid rocky landscape is covered over several square kilometres with traces of rough stone buildings and shelters, and on routes leading in to the main site, with numerous footprints carved into the exposed bedrock (Rose 1996). Excavations within the main site, which is now

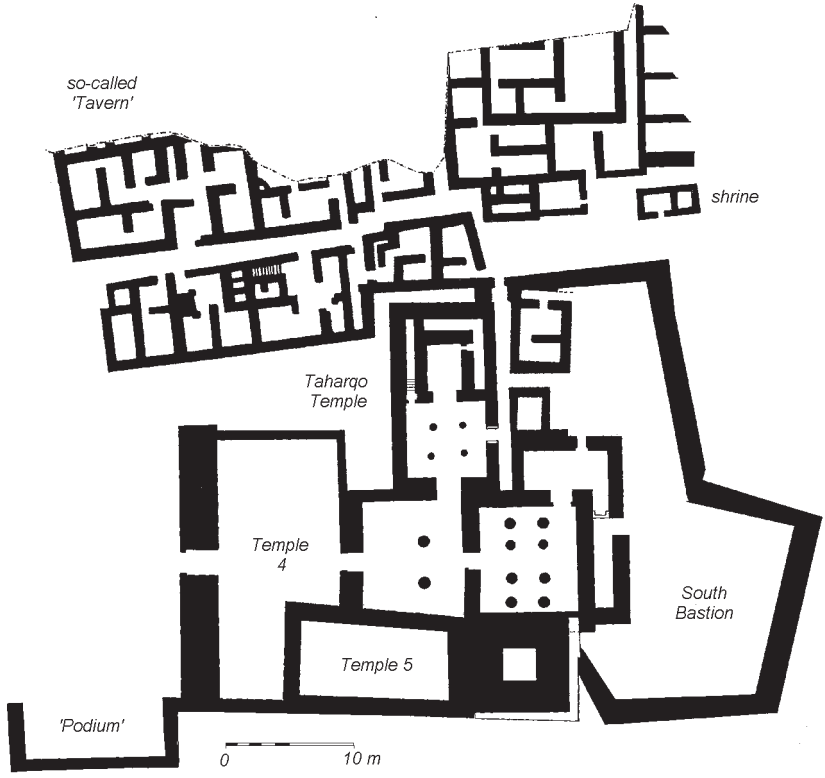

Figure 6.8 Part of the Meroitic (and post-Meroitic) temple complex at Qasr Ibrim
Source: based on Horton 1991 and Edwards 1994b

almost totally destroyed by the waters of Lake Nubia, never identified large areas of Meroitic occupation apart from the series of temples (Horton 1991). How the use of the site developed after the Roman occupation remains far from clear; detailed analyses of those Meroitic levels that were excavated have never been completed. That the site was again operating as a pilgrimage centre by the early second century AD is indicated by finds of coins deposited on the floor of one of the temple complexes, a series which continues until the early fifth century (Plumley 1975a). With large parts of the hilltop occupied by the temples and open 'streets' the amount of other permanent occupation may have been limited. A common tendency in the older literature to describe the site as a 'town' during this period has never been borne out by the archaeological evidence.

Many aspects of the artifactual record of Lower Nubian sites may also be related to their role as part of trading networks. Ostraca, many of which may relate to account and record-keeping, as well as sealings are common finds. The

wide distribution of Meroitic ostraca suggests the existence of a literate element among the population, and also the existence of extensive administrative networks linking them. It is perhaps not unsurprising that no obvious caches of trade goods have been found within any of the Lower Nubian settlements, although imported glass, faience and metalwork found at the 'Western Palace' at Faras (Griffith 1926a: 22) may originate from material stored there.

The textual evidence relating to the region, both Meroitic and Demotic (Millet 1968; Haycock 1974; Török 1979; Burkhardt 1985), also reveals a great deal about the administrative hierarchy within the Meroitic north, which included both 'civil' and 'religious' posts. Many difficulties remain in interpreting this material, not least because of the problems of language and the lack of adequate definitions for what various offices may actually have entailed. Diplomatic and trading roles are reflected in a quite common title of *Apote* ('envoy'), sometimes more specifically *Apote Aromelis* ('envoy to the Romans'). The title is found in funerary texts from at least eight Meroitic settlements north of the Second Cataract as well as on temple inscriptions in the Dodekaschoinos. This would seem to indicate regular contacts with Egypt by inhabitants of many of the settlements. Another title, that of *Pelmos Atolis*, commonly translated as 'General of the Water' may relate to officials involved in overseeing river communications. The *Pelmos Abdlis* or 'Generals of the Land', several of whom seem to have held the office at the same time, may have been local officials responsible for stretches of the river bank (Haycock 1974: 69).

In view of the small size of the population in the region, it certainly seems likely that the functions associated with such grandiose-sounding titles were more prosaic than has often been supposed. A secondary role of the Lower Nubian elite is suggested by their numerous religious titles and the close links with the cult centre of Philae. The association between the offices of the *Peseto* and the *Perite* ('Agent of Isis') seems well-attested and at least during the early centuries AD they appear to have maintained links between the Meroitic crown and the Philae temples. The organizational patterns of the administration of Lower Nubia are of considerable interest and networks of family ties and offices can be traced throughout Lower Nubia, extending probably as far south as the Third Cataract (Török 1979).

Direct royal interest in Lower Nubia is only reflected in a very small number of inscriptions, all of which are associated with temples. In view of the relatively limited scale of settlement in the region and its unusual character, this is perhaps not surprising. Most of the Meroitic kings' building activity actually took place outside Meroitic-controlled areas in the Dodekaschoinos. Such monuments should perhaps be regarded more as political statements, reinforcing relationships with Ptolemaic and Roman Egypt, rather than relating to the needs of any local population. Building ventures by both Meroitic kings and Egyptians at Dabod and Philae may be seen as statements of common interests rather than as evidence for competing territorial claims. A similarly political significance may be placed on the Ptolemaic and Roman temple-building within the

Dodekaschoinos, as the area also appears to have been sparsely populated during these periods (Rose 1993: 35–7).

A trade-based interpretation of the overall character and patterning of settlement in Lower and Middle Nubia would see them mainly as a chain of stations extending from the Ptolemaic/Roman frontier to the Third Cataract, linking Egypt and the long established Meroitic centres of the Dongola and Shendi Reaches. In view of the long time-span involved, the distribution maps are likely to represent a palimpsest of sites occupied at various times during a period of several centuries. In many cases the choice of locations may be explained readily by the demands of river-borne transport, with many sites located at strategic positions on the major cataracts and rapids. This is particularly evident in the barren and inhospitable Batn al-Hajar where major sites at Tila and Semna were located in areas of particularly difficult navigation.

A further group of sites lie at key points around the rapids and islands of the Second Cataract. River navigation through the cataracts was very difficult for much of the year, the same problem which had necessitated the construction of a slipway around the Kabuka rapids at Mirgissa 2,000 years earlier during the Middle Kingdom (Vila 1970a). The site at Gemai marks a convenient station at the south end of the cataract. Ancient sites such as Buhen were re-occupied while the island of Meinarti closeby was probably occupied due to its strategic position at the head of the cataract. North of the Second Cataract where navigation was largely unimpeded, most sites are located in the richest agricultural areas which have traditionally been centres of population. Sites such as Qasr Ibrim were exceptional, being primarily cult centres, sacred sites of great antiquity. Overall, the long-term foci of occupation were relatively few.

Immediately north of the Meroitic settlements of Lower Nubia, by the second century BC Egyptian control was limited to the region of the Dodekaschoinos, the region between Maharraqa (Hiera Sykaminos) and Aswan. The primary importance of this region to the Egyptians was probably in allowing access to major routes into the Eastern Desert and its mines, as it had been for millennia. The Ptolemaic (and later Roman) presence in this region remained relatively limited. Both the lists of settlements preserved in itineraries (*FHN* II:552ff) and the limited archaeological remains suggest that the scale and character of settlement was not dissimilar to that encountered further south, largely restricted to a series of stations along the two banks of the river (Török 1987a). What 'local' population there may have been remains unclear. In the mid-second century we have references to 'Aithiopians' within this region (*FHN* II: 631ff). Rather than referring to Meroites, these may refer to groups from the Eastern Desert such as the Blemmyes who will have been in contact with the Ptolemaic outposts. Mentions of the Blemmye god Mandulis already appear during this period.

During the Roman period military garrisons were established in the region (Figure 6.7), with the main centres probably at Taifa (ancient Taphis), Kalabsha (Talmis), Dakka (Pselchis) and Maharraqa (Hiera Sykaminos). During Augustus'

reign a substantial temple was built at Kalabsha, for the worship of Mandulis. It has been suggested (Trigger 1965) that the Roman period saw a significant repopulation of the region. Why this should have been in such an inhospitable region remains far from clear and there is very little indication of this in the archaeological record (Rose 1993). Temple graffiti from the region are almost entirely limited to Roman officials and soldiers, such as quarrymen visiting the stone quarries at Wadi Kertassi. The ebb and flow of dated inscriptions (Foertmeyer 1989) suggests that the Roman presence in the region may also have been quite variable over time. A decree of the governor Aurelius Besarion in AD 248/9, forbidding the presence of pigs in the Kalabsha temple, suggests that it had fallen out of use, albeit temporarily.

Meroitic margins

The archaeology of the other peripheries of the Meroitic state still remains little known. Sites contemporary with the Meroitic period have been found along the White Nile, notably at Jebel Tomat, where evidence for early domesticated sorghum has been found (Clark and Stemler 1975). Finds of Meroitic pottery have been made some distance south of Khartoum at least as far south as Geteina on the White Nile, but their context remains unclear. As yet there is limited evidence for a significant Meroitic presence in the region. Other cultural traditions are also to be found along the White Nile, represented, for example, by the distinctive sponge-tempered pottery tradition which apparently was still being made in the region (Adamson *et al*. 1987). No Meroitic material has been found east of the Butana. The area between the Atbara and the Gash rivers seems to have continued to be occupied by relatively mobile populations with a strong pastoral element, with some cultural links with the Ethiopian highlands (Fattovich 1991a).

Evidence for a Meroitic presence, or indeed significant contacts with more westerly regions of the Sudan has yet to be found. To the west of the White Nile, in Kordofan, settlement sites which might date back to this period were recognized in the early twentieth century (Seligman 1914–16), and some limited testing carried out on one at Farajab, near Bara. However, suggestions at the time of cultural links with Meroe (one of the few other archaeological sites then known in the Sudan) have little to recommend them and such sites may well be rather more recent. Further afield, one potentially important site is a large stone enclosure recently discovered along the Wadi Howar, *c*.110km west of the Nile (Kuper 1989). The site was in use during the medieval period. However it is possible that it is a Meroitic foundation and it certainly appears similar to the 'fort' at Fura Wells in the Baiyuda desert, also thought to be of Meroitic date.

THE SOURCES OF SOCIAL AND POLITICAL POWER

The possibility that the Meroitic state may have been constructed, and political power exercised, in very different ways than, for example, in Egypt has often tended to be overlooked. Despite some of the obvious cultural borrowings from Egypt, it seems likely that Meroe may be understood better as an early example of a Sudanic state, part of a long tradition of great kingdoms which were to dominate Sudanic Africa for many centuries (Edwards 1996a). Located in very different environments with very different opportunities for, and constraints on, the exercise of power, such kingdoms were very different from the Pharaonic state. A recognition of such differences is essential for beginning to understand the cultural history of Meroe, the variety of Meroitic material culture and how it was used.

Royal ritual and religious powers will undoubtedly have been of considerable importance, as has been widely recognized amongst many types of early state forms, such as those classed by Southall (1988) as 'segmentary states'. The control of 'subsistence' production and the power derived from it may well have been of a more limited importance. Populations are likely to have been too mobile and the means of direct coercion and control by the state too limited to closely regulate large territories. Control of exchange systems and prestige-goods on the other hand is likely to have been a major source of royal power. The redistribution of exotic materials may have been an important element in maintaining the influence and control by the centre over provincial elites. The procurement of other valued resources, especially those necessary for the maintenance of external trade, is also likely to have been crucial. Historically, warfare and raiding have been a primary means for the state to procure resources, especially on its peripheries.

Working within these parameters it is possible to identify some of the ways in which elements of Meroitic material culture may be related to its social and political structures. It may also be useful to explore Meroitic material culture in terms of an imperial culture, created at the centre, which also changed and developed over time. This in turn coexisted and interacted with other cultural traditions within what should be seen as a Meroitic Empire, incorporating possibly many peoples and cultural traditions.

Subsistence bases

As in most parts of Sudanic Africa, it is probable that the subsistence economy had a relatively low productive capacity, producing low surpluses. Direct royal engagement with production may have been limited to forms of taxation and tribute-gathering, sufficient to sustain the royal households and other non-productive groups. The limited degree of direct controls likely to have been exercised by central government suggests an important intermediary role for

subordinate authorities in the control of the production and procurement of resources.

From past reviews of Meroitic subsistence (W.Y. Adams 1981; Shinnie 1984a; Edwards 1989) there can be little doubt that Meroitic populations were supported by a variety of mixed farming regimes, varying from region to region according to local ecological conditions. Agriculture was probably dominant in more northern riverine areas. Further south, its riverine focus may have been less as rainland agriculture and will have become increasingly viable away from the Nile, for example in the Western Butana (K.A. Ahmed 1984) and on the southern margins of the state in the Gezira (Clark and Stemler 1975).

The extent and organization of riverine agriculture and associated herding remains poorly understood. Only limited archaeobotanical research has been carried out on Meroitic sites, but sorghum appears by this time to have been of central importance. While barley is known from Napatan contexts in the Dongola Reach, whether it was extensively cultivated further south remains uncertain, and it will certainly have been unsuitable for rainland cultivation. Wheat appears to have been introduced into central Sudan at a later date, although it had long been cultivated in Lower Nubia.

Riverine agriculture will have continued to have depended on a form of recession farming, exploiting the alluvium and seasonal islands exposed after the annual flood and within the low-lying basins. The largest of these are found around Kerma and Letti in the Dongola Reach, but there are many smaller basins both there and within the Shendi Reach. We have no evidence for more intensive irrigated agriculture. While irrigation, depending on the *saqia* waterwheel was thought to have been introduced into Lower Nubia during this period, the evidence for this is very slight and even then no earlier than the very late Meroitic period.

The herding of sheep, goats and cattle is likely to have been widespread, although with the scarcity of excavated settlement sites, we still have very little archaeozoological evidence. Studies carried out at Meroe (Carter and Foley 1980) show that substantial quantities of livestock, particularly cattle, were being consumed at the site. However, we as yet have little idea of the wider subsistence role of livestock, whether consumed as meat, milk or blood. Studies of the bone chemistry of 'early Meroitic' populations in the Khartoum region have suggested that at least some groups may have relied heavily on animal rather than agricultural products (Coppa and Palmieri 1988). While the potential for herding becomes greater in more southerly regions, its importance in the basin lands of the Dongola Reach should not be underestimated; these may still have provided significant areas of grazing in good years.

The nature of the Meroitic presence in the Western Butana remains one aspect of settlement in the core area of the Meroitic kingdom which is particularly intriguing. This is the only region of the kingdom where we have evidence for the occupation and exploitation of the savannah rainlands, and seems to be very much a development of the Meroitic period. What form this occupation took

still remains far from clear. Other questions may also be raised concerning the identity of its inhabitants, their relations to the populations of riverine districts and the State, and the possible contribution that the region may have made to the wider economy.

Various suggestions have been made for the presence of discrete, more or less nomadic pastoralist groups in the region, possibly also engaging in shifting agriculture (al-Hakim 1972; Haycock 1972), supported by the Meroitic state's construction of *hafirs* and wells in the interior. Bradley (1992) has suggested the existence of a system of seasonally patterned mobile pastoralism which, following the improvement of water resources during the Meroitic period, was extended even further into the clay plains of the Butana proper, far to the east. New permanent water sources within the Western Butana may have provided a means of shifting the zone of interaction between pastoral groups and settled populations, moving away from the riverine zone into the hinterland. In the absence of direct evidence beyond the limited settlement data, such models remain largely speculative. Whether meaningful distinctions may be drawn between agriculturalists and herders, and/or whether specialized nomadic pastoralists may have existed during this period also seems uncertain. Historically, specialized nomadism remains a highly specific and relatively unusual adaptation, and forms of 'semi-sedentary' or 'semi-nomadic' pastoralism are far more widespread (Khazanov 1984). While more specialized nomadic groups may have existed for several millennia in Eastern Sudan and the Eastern Desert of Egypt (Sadr 1991) there is as yet no evidence that such groups existed in areas closer to the Nile. Even today there remains much movement between the Western Butana and riverine areas.

The construction of *hafirs*, likely to have been important in maintaining herds in the region, involved considerable organization and mobilization of labour. The building of the larger examples, such as those at Musawwarat es-Sufra and Basa, involved the excavation of anything up to 200,000m^3 (Kleinschroth 1986; M. Hinkel 1994). As well as benefiting the local production, they are likely to have been of considerable value in enhancing and extending royal power. Improved water resources may attract new populations, either by opening up new areas to permanent occupation or by diverting mobile groups from existing seasonal cycles of movement. Politically, the concentration of population at such points will have created opportunities for state control and particularly for the collection of taxes or tribute; opportunities which were otherwise very restricted in areas of dispersed or mobile populations.

Other models have tended to downplay the role of pastoralism in the region and favour a more agricultural basis for Meroitic occupation (W.Y. Adams 1981; K.A. Ahmed 1984). Demonstrating such an agricultural use is likely to remain difficult. However, at least in the Naqa area, it is possible that some traces of Meroitic agricultural systems survive in the Wadi Awateib. Extensive networks of walls, largely buried beneath the alluvium, are visible in some parts of the shallow valley. While parts of the wadi are still farmed when the rains are

sufficient, the walls are locally reputed to be 'ancient' and almost certainly represent a water-harvesting system of the type encountered in many arid regions of the ancient world, as well as more recently (Gilbertson 1986). If such is the case, our perceptions of Meroitic agriculture may need to be substantially revised.

One manifestation of how royal and religious powers were interlinked may perhaps be seen in the close association of small temples with the *hafirs* of the Western Butana. We also find that the royal cult of Apedemak is closely associated with the region, with centres at Musawwarat es-Sufra and Naqa; other small temples in the region, commonly classed as 'Lion-Temples', may also have housed this cult. Apedemak's character as a war-god is well established, while there are some indications of a more provident role as a provider of food or even as a god of fertility (Zabkar 1975), commonly roles also linked with Sudanic kings. While the details of such associations remain unclear, the representation of combined religious and royal power in these temples may have been important in the assertion of both political and economic control in the region.

Long-distance trade and exchange

Long-distance trade and exchange, dominated by the crown, is likely to have continued to be of central importance to the maintenance of political power, as it had in earlier periods. As was apparent during the Napatan period, most 'trade' contacts probably took the form of 'Embassy Trade', a form of elite gift exchange widely encountered in the Mediterranean and Western Asia during that period (see Edwards 1996a for a recent discussion). Well-documented during the mid-first millennium BC, such diplomatic exchanges seem to have continued through the Meroitic period, linking the Meroitic kings with successive Ptolemaic and Roman rulers. Historical evidence is limited, although many of the Ptolemies had a strong interest in acquiring elephants and materials such as ivory, gold and ebony. There are also references by Diodorus Siculus to Meroitic 'ambassadors' in Egypt in the mid-first century BC (*FHN* II: 704ff). We have no historical indications that any significant private or commercial trade existed. The marked absence of references in Egyptian texts of this period to trade or other contacts with Meroe is itself perhaps noteworthy and merits further investigation.

The archaeological evidence for long-distance exchange is rather more abundant (see Török 1989 for a useful catalogue of imports). Most of the known material comes from burials. Imported items include metalware, mainly metal vessels and lamps, jewellery, in a range of materials, worked stone, glassware, wooden furniture, faience, and a wide range of ceramics, including 'tableware' and wine and oil containers (amphorae and bottles). Specialist studies of many classes of artefacts are still limited and in some cases problems still remain in differentiating imported from locally manufactured items. That foreign

craftsmen may also have brought their skills to the Meroitic royal centres cannot be excluded. Some recent work on fine glassware found in Meroitic contexts (e.g. Leclant 1973) certainly raises the possibility that some of it may have been locally made to local designs (Cool 1996), although much of the material can be paralleled elsewhere in the extensive Roman trading networks (e.g. Stern 1981, 1991). The distribution of imports suggests that most foreign artefacts entering the Meroitic world were being channelled through elite, and probably royal, networks (Edwards 1996a). That such exchanges were effectively a royal monopoly follows a pattern which was to survive in many parts of Sudanic Africa into the post-medieval period.

Economic administration and the exercise of power

The character of Meroitic settlement in the Western Butana suggests some ways in which control may have been exercised over relatively mobile and dispersed populations. Evidence for more general state control over subsistence resources is very limited and neither textual nor archaeological sources provide clear evidence for a centralised system for the storage and redistribution of foodstuffs (Adams 1981; Török 1979). The most likely foci for the administration and possible redistribution of commodities are the temples and/or the royal palaces. It has often been assumed that the major temples may have functioned as economic institutions in a similar fashion to their Egyptian counterparts (Janssen 1975). However, as yet, we have no real evidence that they possessed significant landed endowments which might bear comparison with the temple estates of Egypt, or that they played an active role in the organization of production. Local traditions of land-ownership are also unknown. Major magazines or storage facilities do not seem to be regularly associated with temple establishments.

Rather more evidence exists which suggests that the royal palaces acted not only as centres of accumulation and consumption, but may also have been involved in the distribution/redistribution of goods. Recent excavations at the 'Palace of Natakamani' at Jebel Barkal, found caches of sealings from jars, baskets, sacks, wooden chests and doors (Donadoni 1993), relating to the storage and processing of a range of materials. Most are likely to have been foodstuffs, probably for the maintenance of the palace, but more exotic goods such as Egyptian amphorae were also found. The range of sealing types and the way they seem to have been used appears similar to administrative systems commonly found within the eastern Mediterranean and Near East during the second millennium BC. These relied on the use of seals by officials for the processing, checking and secure storage of goods, without the use of more sophisticated written accounting systems (Vincentelli 1993), although written 'accounts' preserved as ostraca are also known, mainly from Lower Nubian sites.

In the magazines of the 'Palace of Amanishakheto' at Wad ben Naqa, several chambers were also found packed with storage jars, as well as quantities of ivory

and wooden blocks, possibly ebony, and stores of more exotic and valuable materials, possibly used in long-distance exchanges (Vercoutter 1962a). One apparently unique structure at Wad ben Naqa is the large circular building close to the palace, probably a granary (Sadik en Nur 1962). If such was the case, this is the only example of a storehouse not enclosed either within a palace or temple. Located at the mouth of the Wadi Awateib, leading into the heart of the Western Butana, Wad ben Naqa may well have had a role in the management of agricultural production from the interior.

The capacity of the state to enforce its will through military means also remains uncertain, although we have a number of references in royal inscriptions (mainly of Napatan date) to punitive campaigns against rebellious groups within and around the kingdom. While reference is often made to a Meroitic 'army', quite what is meant by this is still uncertain. The idea of an army as a distinct institution of the state is almost certainly quite anachronistic, at least in terms of a body of 'professional' soldiery. The first evidence we have for specialist military organization in the Middle Nile is in the post-medieval period with the development of slave regiments by the Funj sultans. It is much more likely that Kushite 'armies' were raised as required, based on the personal followings and households of the elites and more general levies. Nevertheless, that warfare was an important royal enterprise is reasonably clear and many monuments portray the military prowess of the king, destroying his enemies (Welsby 1996: 39ff).

Most warfare was likely to have been concerned with raiding of the peripheries of the state for valuable resources, amongst which will have been people. While we have no direct evidence for the existence of slavery in the Kushite state, the exploitation of captured peoples, either to be traded, or to be incorporated into royal and other households, seems likely to have occurred. The possible use of horses in such contexts, as suggested by some monumental reliefs, may also be significant. Elements of often elaborate horse harness were buried with a number of Meroitic kings. In later periods cavalry were to be essential tools for the military domination of many Sudanic states and their successful exploitation of their peripheries (Fisher 1972, 1973; Goody 1971). Horses and their trapping also commonly had considerable significance as status objects.

CREATING MEROITIC IMPERIAL CULTURE

Most of what we know of Meroitic material culture relates to an imperial culture, most fully manifested in an elite milieu. It is still difficult to determine the extent to which the wider population shared, or identified with this, but there are certainly indications that many of the 'classic' Meroitic cultural forms were restricted to relatively small parts of the population. Many crafts and manufactures also seem to have been closely associated with royal centres and royal power. Much, though not all, pottery manufacture may have become increasingly

linked with the state and its institutions. Iron-working, which seems to have first appeared in the Middle Nile during the mid-first millennium BC, may also have been a closely controlled technology. Textile manufacture, especially with cotton, is also likely to have been important (Schneider and Weiner 1989). From early times, cloth has enjoyed considerable importance in Sudanic contexts both as a medium of exchange and as a status marker. Faience and glass-working may also have been important crafts, at least in part associated with temples where amulets and similar objects were made. Faience and glass beads are very abundant during the Meroitic period and were probably the most widely distributed forms of 'Meroitic' material culture.

Meroitic pottery

Meroitic pottery has long attracted attention for its often elaborate decoration and the high technical quality of certain finewares, encountered in the first excavations at Meroe as well as in many sites in Lower Nubia during the twentieth century. Despite its relatively high-profile as 'a recognized art form' (Welsby 1996: 164), it still remains poorly studied. The elaborate decoration of some Meroitic pottery has tended to encourage art-historical interest in pottery at the expense of more systematic analyses of the very wide range of products that were being made during the Meroitic period (Figure 6.9). How appropriate it is to elevate Meroitic pottery to the status of an 'art-form' is itself far from clear. Such claims have been accompanied by the importation of attitudes and language from other fields of connoisseurship, for example in the identification of artistic 'Schools' and 'Masters' although how relevant such concepts may be to the Meroitic world may be questioned. As has been suggested with the study of Greek pottery (Vickers and Gill 1994) such perceptions may bear little relation to ancient perceptions of ceramics, or the circumstances in which they were produced.

What is clear during the Meroitic period is that Napatan pottery traditions, which had drawn heavily on the Egyptian, were replaced by new types of pottery, with a range of origins. Too little is known of late Napatan/early Meroitic pottery to really determine the extent to which the latter may have developed from the former. The little pottery found in early Meroitic graves at Meroe tends to be restricted to a small range of handmade jars and offering stands/braziers. Early Meroitic material found in Lower and Middle Nubia also tends to be dominated by handmade wares, occasionally supplemented by imported Egyptian pottery, especially north of the Second Cataract. Until recently, our limited knowledge of Ptolemaic pottery has meant that recognizing and distinguishing such imports from local Meroitic manufactures in the north has not always been easy. Wheelmade production during the last centuries BC also seems to have been limited to a relatively narrow range of jars and bowls. Very similar types, both in form and decoration, can be found at sites as far apart as the Meroe region and Qasr Ibrim in Lower Nubia. Relatively few distinctive

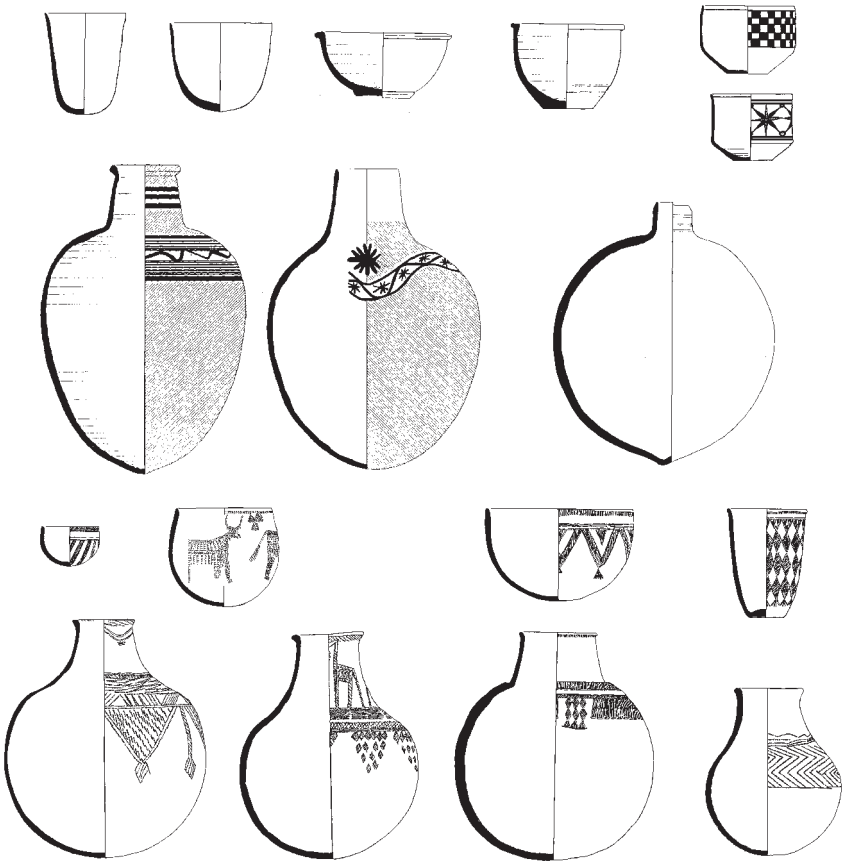

Figure 6.9 Meroitic pottery

wheelmade forms can yet be identified although at least some replicate well-known Hellenistic forms, encountered in Egypt and beyond (D.N. Edwards 1999c).

The appearance of new handmade pottery types clearly represents a new Sudanic contribution to ceramic repertoires. While still known from only a few well-published collections they are found throughout the Meroitic kingdom, for example at Gabati, Amir Abdallah (Fernandez 1983) and Qasr Ibrim (Rose 1996). They show considerable variety, ranging from simple coarse domestic wares to often elaborately decorated types. The technical quality of some often matches, or exceeds, that displayed in most wheelmade products. Some very distinctive fabrics also make it clear that the products of particular production centres were being widely distributed. Some forms of decoration are also very distinctive. Representations of wild animals (e.g. giraffe, ostrich), cattle, human

figures and sorghum plants all seem to relate to Sudanic symbolic repertoires, of a type not seen during the Napatan period, and which also differ in many respects from those later appearing on decorated Meroitic wheelmade pottery.

The early Meroitic period also saw the appearance of a range of black finewares, generally well-finished and often highly polished. These are mainly found as small jars and cups, in forms which are also found in metalware of this period. To date these have tended to be associated with other undifferentiated black handmade wares. However, their formal similarities with Hellenistic metalware tend to suggest that they represent a very different type of product, perhaps imitating Hellenistic silver which, unlike modern silver, was prized for its glossy black surfaces. The influence of Hellenistic silver-wares on (black) pottery manufacture in the Mediterranean during this period is now well-recognized (Vickers and Gill 1994) and it is certainly possible that this extended into the Middle Nile.

Further changes in pottery production may be identified around the first century BC, with an apparent expansion in the range of wheelmade pottery manufacture. Some of the earliest wheelmade jars continue to draw on local inspiration, replicating the forms of handmade jars based on bottle-gourds. Later forms, however, tend to move beyond that tradition, and often show the influence of contemporary styles in Egypt and the Mediterranean world. The new wheelmade products, possibly made in relatively few workshops, increasingly seem to displace the old handmade products. The forms and decorative styles found in the Kushite heartlands also appear relatively homogeneous and standardized across wide areas. Unlike handmade pottery, the decoration of most wheelmade pottery tends to draw on the symbolism of state religion.

By the later Meroitic period regional variations in ceramic culture are very evident. Decorated pottery is much more abundant in Lower Nubia and many of the more elaborate styles of decoration seem to be largely restricted to the north and are presumably made there. Assemblages in Lower Nubia also tend to include significant quantities of imported pottery, commonly about 20 per cent on sites north of the Second Cataract. This relative abundance of imported material gives northern assemblages a very distinctive character, although many older studies often failed to adequately distinguish between local and imported wares found on Meroitic sites.

Through time, there also appear to be significant changes in the way that pottery was being used. Very little pottery seems to have been deposited in elite burials at Meroe during the early Meroitic period, although it may have been more widely used elsewhere. By the late first century BC, however, pottery is being found in increasingly large quantities in burials, including those of the elite. New types of fineware were also being produced, usually made with white kaolinitic clays. Examples excavated at Meroe show a great range of forms and often elaborate painted and/or impressed decoration. Most of this draws on the symbolism of the state cults. As with the earlier black finewares, close parallels may also be found between the forms and decoration of fine pottery and

contemporary copper alloy vessels, which seem to have been widely used in cult practices throughout the Kushite period. This is particularly noticeable in some of the earlier products, decorated in a clear and precise 'Academic Style' (Wenig 1979) which strongly recalls engraved decoration on metalwork. While it was once thought that Lower Nubia was their main source, it is now clear that this was not the case. A fineware workshop has recently been identified at Musawwarat es-Sufra (Seiler 1998; Edwards 1999b) while the most elaborate finewares seem to have been made and used at Meroe itself (Török 1997a). Small quantities of finewares may have been imported into Lower Nubia at the beginning of the first millennium AD – rare early examples found in the north certainly look like southern products – but later examples are almost certainly locally made. Where exactly is not known. Studies of fineware fabrics (L. Smith 1997) have been unable to give any unequivocal guidance.

Meroitic iron-working

Since the first excavations at Meroe, it has been assigned a great importance as an early iron-producing centre, and possibly a pivotal role in the spread of iron technology across Africa. The presence of large mounds of iron slag and debris made it clear that Meroe was the site of a substantial iron-working industry, while subsequent work in the region suggests that there may be many other similar sites in the region. This has attracted considerable attention since Sayce's portrayal of Meroe as the 'Birmingham of Africa' in 1912, and subsequent speculations (e.g. Arkell 1961) that Meroe might be the source from which iron-working spread across sub-Saharan Africa. However, more systematic work was not undertaken until the 1970s when new studies suggested that iron-working could date back to the mid-first millennium BC, and perhaps earlier, as well as clarifying many questions relating to the form of furnaces (Shinnie and Kense 1982; Tylecote 1982).

More recent work during the 1990s has continued to explore these issues while also considering the scale of iron production at Meroe. Recent estimates of the quantities of iron slag in the immediate area of Meroe suggest it might represent some 5,000 tons of iron metal, or perhaps 2,500 tons of finished metal objects after smithing. This might represent an annual production, over a notional period of 500 years, of perhaps 5–20 tons of iron objects (Rehren 2001). If we need a more realistic estimation of Meroe's industry than that suggested by Sayce this still represents a potentially very significant output. Other production centres could have produced substantial further quantities. A number of possible sites may be identified in the Meroe region.

If much remains to be learnt about the origins and development of Meroitic iron production, remarkably little is still known about its consumption. Most artefacts are essentially utilitarian, such as knives, hoes, spears and arrow-heads. However, archaeological finds are very scarce and the impact of iron technology and the extent of the availability of iron tools remains difficult to assess. It is

likely that much material was recycled, while discarded objects would not survive well, at least in the rainlands of central Sudan. Few iron objects have made their way into mortuary contexts; it was only at the very end of the Meroitic period that weaponry, notably iron-tipped arrows and spears become common in burials over wide areas. Iron weaponry may have been an important product for the state, but examples are very rare and most evidence for swords and battle-axes comes from royal reliefs. The scarcity of worked-stone arrowheads by the Meroitic period may indicate, indirectly, that they had been supplanted by metal points. Potentially, iron tools may have an important impact in many areas of life, notably land-clearance and cultivation, however this remains to be demonstrated.

Mortuary practice

Meroitic mortuary practices were quite varied. Our perceptions of Meroitic mortuary practice have until recently been based on the evidence of the royal and elite cemeteries of Meroe-Begrawiya (Dunham 1957, 1963), and from sites in Lower and Middle Nubia, some of the largest being at Faras (Griffith 1924, 1925a), Karanog (Woolley and Randall-McIver 1910), Qustul, Ballana (Williams 1991a), and Abri (Vila 1982). Such sites demonstrated forms of practice which clearly developed out of Napatan traditions with east–west oriented extended burials laid in chambers accessed by sloping ramps or steps, or sometimes off the side of vertical shafts. Multiple burials were also common, apparently reflecting the re-use of tombs, perhaps for related individuals. The deceased are accompanied by various types of 'grave-goods', varying according to the wealth or status of the deceased, ranging from richly furnished royal burials to the simplest forms, perhaps accompanied by no more than a pottery jar and cup (Adams 1977: 374–5). Meroitic cemeteries are commonly much-disturbed, both by the deliberate re-use of graves and the removal of artefacts from burials, often apparently soon after burials took place. The extent to which this latter practice may be characterized simply as 'tomb-robbing' is unclear (Näser 1999) as it seems so widespread and presumably part of normal experience.

Royal and elite graves continued to be marked by substantial stone pyramids with attached chapels. Lesser graves also seem to have been marked by brick structures, mastaba or small pyramids, again often with 'chapels' or offering niches added to them. Such superstructures were accompanied by inscribed or painted stele, offering-tables and distinctive sculptures known as 'ba-statues'. Where examples have been found in situ, the offering-tables were set on brick plinths on the east side of the tomb superstructures and seem to have been used for libations and offerings, the stele beside them. The 'ba-statues' are more enigmatic, apparently first appearing at Meroe in the late second century BC. They have traditionally been interpreted in terms of Egyptian concepts of the persons '*ba*' and '*ka*', representations of the winged form of the deceased as well

as their life-force (Török 2002; O'Connor 1993a). This peculiarly Meroitic synthesis would seem to form a basis for commemorative cult, with the celebration of distinguished ancestors. How far the Egyptian parallels should be emphasised is, however, far from clear, as cults of this type may well have had a long history within the Middle Nile, if not so visibly expressed.

Such burial forms were however, by no means ubiquitous. On the contrary, recent work at 'non-elite' cemeteries in the Meroitic heartlands, notably at Kadada (Lenoble 1994a) and Gabati (Edwards 1998b), suggests that they were much less widespread than previously supposed and may indeed have been limited to a relatively restricted elite milieu. It is also apparent that there may have been significant regional diversity as well as considerable change in practice over time. In these large 'rural' cemeteries, grave superstructures were rare and there were no offering tables or inscriptions; they actually seem very rare in the Meroitic heartlands (Edwards 2000). At Gabati, the predominant burial layout was also one of contracted burials oriented north–south, laid in transverse chambers at the end of sloping ramps (Figure 6.10), types of burials virtually unknown in Lower Nubia. At Kadada this general form is also well represented, while their orientation appears to have been far more variable. Very similar burials have been found at Gereif East on the Blue Nile near Khartoum (Geus and Lenoble 1982) and such burial forms may well have been very widespread.

Mastaba or pyramid superstructures appear rare outside Lower and Middle Nubia, and Meroe itself. Some stone or mudbrick platforms ('mastaba') and/or pyramids may have existed within the large cemetery at Naqa while a few pyramids have tentatively been identified at Kerma together with what appear to be rather different forms of rectangular superstructures (Bonnet and el-Tayeb 1991: 32). Only a few modest examples were found at Gabati. While some graves may have been covered by tumuli, most seem not to have been marked in any particular way. The range of material accompanying burials was also highly variable. In Lower Nubia, a minimum burial equipment of a jar and a cup/bowl was common. At Gabati, while pottery was quite common, there was little other material, very few metal vessels and some personal jewellery, if limited to small groups of beads.

More elaborate practices and their possible links to formal commemorative cults for the dead may have been important in marking and maintaining specific social identities in elite circles (Török 2002). This is most apparent in Lower Nubia where the often excellent preservation of cemeteries provides us with a considerable amount of information on the preparation and later use of graves. Concerns for lineages and ancestors may be seen to be reflected in the elaborate genealogies recorded in Lower Nubian funerary inscriptions and more obviously marked in the often substantial tomb superstructures, with chapels, ba-statues, and the stele and offering tables themselves. In some cases they may become foci for longer-term veneration. It is perhaps noteworthy that the highly elaborate records of familial relationships recorded in funerary inscriptions seem to be largely a feature of Lower and Middle Nubian contexts. Why this should

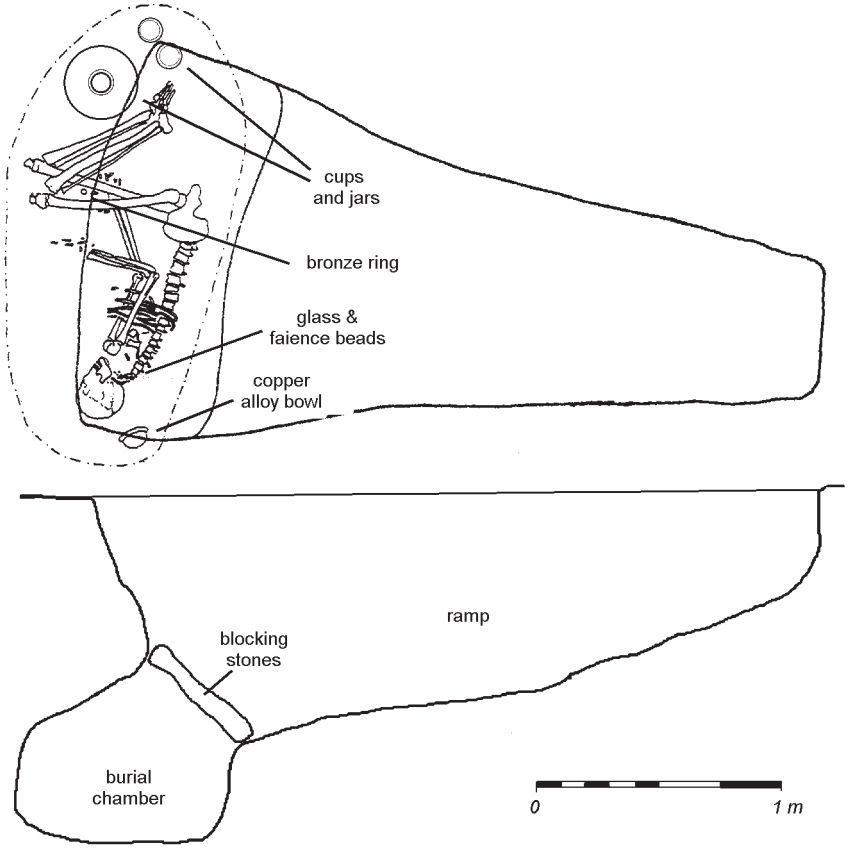

Figure 6.10 Reconstructed Meroitic burial from Gabati, central Sudan
Source: based on Edwards 1998b

be remains unclear, but may well be another reflection of the peculiar nature of Meroitic communities in the north. If mortuary texts and monuments were becoming increasingly important there as ways of displaying and perpetuating the social identities of the deceased (Török 2002), why was this not necessary in the Meroitic heartlands? This could imply rather different concerns, and perhaps different attitudes to the use of texts (rather than oral traditions?) in recording and perpetuating reputations.

Meroitic language

Perhaps one of the most significant cultural developments of the Meroitic period is the appearance of the Meroitic language as the official language of the state. The developed written forms of Meroitic mark it out as unique within sub-

Saharan Africa during this period. For its initial decipherment we owe a considerable debt to Griffith (e.g. 1911, 1912), whose pioneering work in the 1910s and 1920s established most of what we presently know about the language. The first datable inscription, of the late second century BC, is in a hieroglyphic form with the name of Queen Shanakdakhete in a temple at Naqa. A cursive form, apparently linked with the contemporary 'abnormal hieratic' script of Egypt (Priese 1973), seems likely to have appeared at around the same time. From an early date Meroitic cursive was being used both in royal mortuary contexts (on royal offering tables) and for large royal inscriptions.

The known corpus of texts still remains small, with little more than 1,360 registered texts in the *Répertoire d'Épigraphie Méroïtique*, the REM. These comprise several types of texts written in several different media (Figure 6.11). The most numerous, funerary inscriptions, are almost always written on stone offering tables and stele. Most of these come from cemeteries north of the Third Cataract, especially the major centres of Lower Nubia proper. A number of major 'royal' texts may also be identified, in the form of several large stele, mainly found in temples, perhaps comparable with the great Napatan stele of earlier centuries. To these may be added a significant number of graffiti, also mainly found on major monuments such as temples, as well as many ostraca, which seem to include a variety of different types of document. Potentially the most diverse

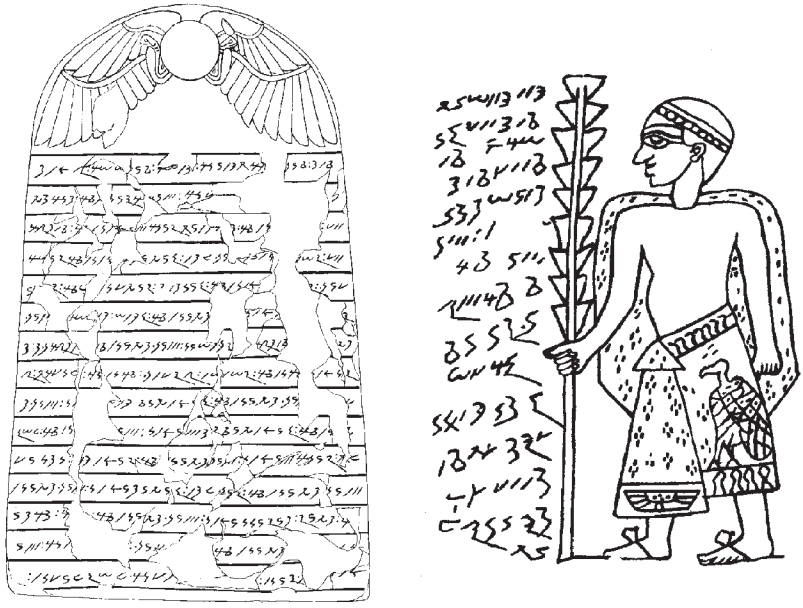

Figure 6.11 Meroitic inscription in the temple of Philae (right) and grave stele from Sedeinga (left)

Source: after Griffith 1912 and Schiff-Giorgini 1966

and interesting, but still poorly understood, types of texts are those written on papyri, wooden tablets and leather. The vast majority of those in existence were found at Qasr Ibrim, where the exceptional conditions of preservation have allowed the survival of all types of organic materials. While virtually none of these texts have yet been published, it seems likely that many relate directly to the religious functions of the site and the operation of the various cults housed there (Edwards and Fuller 2000). Some Egyptian demotic papyri also found at the site include letters to an oracle of Amun (Zauzich 1999), and it is very likely that similar consultations may be found amongst the Meroitic texts.

The information that can be gleaned from the known Meroitic texts is as yet relatively limited and their full potential will only be unlocked when some significant progress is made in the decipherment of the language. Its status remains unclear. It may well have been a language of the elite, or one dominant element of the population. There almost certainly will have been other languages spoken within the Kushite territories. Nubian languages may already have been present in some areas as early as the second millennium BC (Priese 1976). Very little information can yet be gleaned from the royal inscriptions and stele, which remain our largest Meroitic texts. By analogy with Napatan texts, they may well record major political events, and perhaps donations to the great temples where they were found.

The vast majority of known texts are derived from funerary inscriptions. Generally very formulaic in structure, beginning with invocations to Isis (*wosi*) and Osiris (*soreyi*), the main interest of these texts lies in the record they provide of family relationships and of a range of official posts held by individuals. Most of these have come from Lower Nubian sites, the earliest named individuals being the first *peseto* ('viceroys') of Nubia, installed at Faras in the late second or early first century BC; the range of titles and family relationships recorded on them become increasingly elaborate by the later Meroitic centuries. From the inscriptions it is possible to reconstruct genealogies of local families at several centres which show the local often hereditary titles they hold as well as ties to other office-holding families at other centres (Török 2002).

These provide interesting insights into perceptions of social status and identity among the Lower Nubian elites and how they may have changed over time. It may also be observed, for example, that Lower Nubian inscriptions seem to have become longer and more elaborate towards the end of the Meroitic period (Dorian Fuller personal communication), probably reflecting in some way the development of new regional kin-based identities during that period. This late fluorescence of Meroitic funerary inscriptions from the mid-third century AD may be seen as part of much more widespread cultural changes apparent in the region.

There have been attempts to use these Lower Nubian texts to reconstruct aspects of the wider administrative structure of the kingdom (e.g. Török 1977, 1979). However, the extent to which we can translate such titles into bureaucratic structures of the kind which existed in Egypt is by no means self-evident. There

are also good reasons to believe that the character of Meroitic settlement in Lower Nubia was in many ways very atypical, and that any administrative structures revealed in the texts are equally atypical. Central to its distinctiveness was of course the 'official' nature of most settlements, and the fact that they were established and maintained primarily to facilitate trade and communications between the Kushite heartlands and Egypt. As such, from the first appearance of the *pesetos* (viceroys) in Lower Nubia (at the end of the second century BC?) the texts do provide fascinating insights into the communities living in position of these relatively small and isolated settlements. Originally coming from more southerly parts of the kingdom, over time we can trace over the generations the development of new communities with probably limited contact with the centre (and perhaps much more with Egypt) and an increasingly distinct regional identity. As such we should not assume that similar networks of official and social relationships were necessarily the norm in other regions of the kingdom.

Meroitic religion

While the long-standing fascination of many archaeologists with monumental sites has left us relatively well informed about many of the more obvious formal characteristics of Meroitic religion, much else remains very mysterious. Reflecting the Egyptological background of so many who have worked in the region, most emphasis has always been placed on the most obviously Egyptian aspects of Kushite religion. The cult of Amun always enjoyed a special significance, but Isis, Osiris and Horus were also of great importance in the Kushite pantheon in various periods (for a recent general discussion see Welsby 1996).

The architecture and inscriptions associated with the great shrines to date have been the main focus of research, and the role of the cults in legitimating royal claims to power have received particular attention. Despite the insights such work has brought, there are however, dangers in confusing the rhetoric of dominant ideologies, especially as expressed in the royal monuments, with the realities of life as experienced and lived by Meroitic populations. The wider significance of the networks of cult centres and sacred places throughout the region, some used for millennia, and the roles they played as centres of religious, political and social focus, are rather less well understood. Were these elite cults, or indeed cults for the elite, or were they actually established parts of the shared religious experience of the Middle Nile?

One of the particularly distinctive features of the Meroitic period is the rise to prominence of a local Kushite god Apedemak, especially in the Meroitic heartlands of the central Sudan (Zabkar 1975). This lion god, with military attributes and perhaps association with fertility, is especially well represented in the Western Butana, with well-preserved temples at both Naqa (Figure 6.12) and Musawwarat es-Sufra (Figure 6.13). His origins remain obscure, even though his iconography may be related to Egyptian forms. Many intriguing questions surround the origins of such cult centres. Were these existing sacred

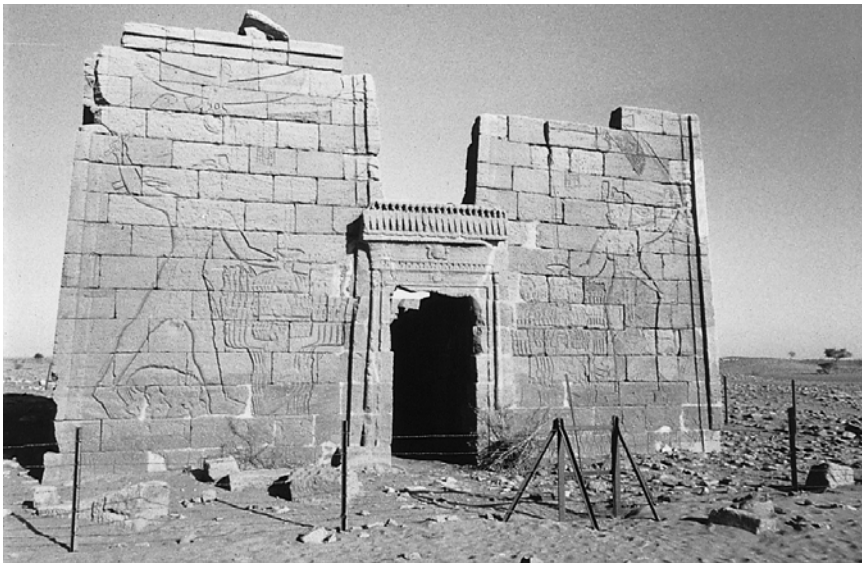

Figure 6.12 Temple of Apedemak at Naqa

Figure 6.13 Colonnade of central temple at Musawwarat es-Sufra

places being given a new monumental form when the temples that we know of were being constructed? Were the shrines built as a means of asserting and extending ritual control over new territories? The ancient and sacred dimensions of the mountain at Jebel Barkal, and especially its associations with the god Amun, are now well recognized. Similar origins perhaps may be sought for ancient religious sites such as Qasr Ibrim, another sacred 'high-place' which was also the site of an oracle of Amun (Caminos 1968; Zauzich 1999).

The extent to which many forms of religious practice may have been restricted to relatively small elements of the Meroitic population is suggested by Meroitic participation in much more widespread cults, notably that of Isis, focused on the shrines of Philae close to Aswan. Numerous graffiti and small inscriptions at the site (e.g. Burkhardt 1985) attest to visits by Meroitic visitors to the temples of Philae, a number of whom were participating in the Choiak festival, celebrating the mysteries of Isis and Osiris. Their dated graffiti joined those of many festival-goers, travelling officials and 'tourists' who also visited the site from all over Roman Egypt and beyond (Foertmeyer 1989)

The rise and fall of an Empire

The Meroitic kingdom, probably better described as an empire at the height of its power, was culturally much more varied than the Napatan state. If we know very little of the political or cultural changes which took place during the mid-first millennium BC, out of which the revived Meroitic kingdom emerged, it clearly had a very different character from what had gone before. A new core to the state was established in the Shendi Reach and its hinterland in the Western Butana. How far its power really extended still remains to be discovered. That it may well have controlled much of the Gezira, at least for a time, seems quite possible. Whether such control extended to fully establishing its imperial culture in such regions remains to be seen. We may yet find brick temples along the banks of the Blue Nile.

Variability in cultural practice is also much more evident in the Meroitic period than during the Napatan. Many 'typical' cultural forms and practices can be seen increasingly to be restricted to only some elements of the population, particularly amongst what may be seen as ruling elites. It is interesting that such groups seem to have formed the bulk of the population in Lower Nubia. Far from the Meroitic heartlands, and enjoying unusually close links with their Egyptian neighbours, they were to further develop an increasingly distinctive regional identity, also very evident in their material culture. The extent to which other regions may have enjoyed their own distinctive cultural features still remains unclear. Different forms of burial were clearly widespread within the Meroitic heartlands and may have maintained more ancient traditions. Whether they were also found in the old Napatan heartlands of the Dongola Reach remains unclear. Other hints of cultural variability may perhaps be seen in the variety of handmade 'Meroitic' pottery, which may actually represent several different ceramic traditions, perhaps originating in different regions.

7

POST-MEROITIC TRANSITIONS (*c.*AD 350–550)

Introduction

Sometime in the early fourth century, if not before, the political and cultural hegemony of Meroe and the Meroitic kings seems to have begun to disappear. At the heart of the kingdom, Meroe itself declined as a major centre of population, with the abandonment of its public buildings and perhaps, over a more extended period, its abandonment as a major settlement. Temples and palaces went out of use, some may have been deliberately destroyed. By the middle of the fourth century the building of royal pyramid tombs at Meroe also seems to have ceased. When exactly remains unknown. The last reasonably secure date we have for a Meroitic king is for a King Teqorideamani, in AD 253. The reconstructed royal genealogies suggest that there could have been as many as six later kings buried at Meroe; the latest is unlikely to date much after AD 350.

The next few centuries were a period of transition, both politically and culturally. Following the apparent disappearance of a central authority at Meroe, a unifying imperial culture also disappears, being replaced by a number of regional traditions. These in turn may be linked tentatively with the development of a series of smaller successor states. Nothing is recorded of their early history, but by the late fifth century we begin to glimpse the appearance of a new regional power in Lower Nubia, Nobadia or Noubadia, and in the early sixth century the two kingdoms of Makuria and Alodia further south. This new political order was also soon to be closely linked with the new religion of Christianity. During this period the Meroitic language also seems to have disappeared as the language of state. The last inscription we have comes from the Lower Nubian temple at Kalabsha, left by one Kharamadoye, presumed to be a local ruler of perhaps the late fourth century, or slightly later (*FHN* III: 1103ff). Greek was known to have been used as an official language, at least in the north, but varieties of Nile Nubian seem to have become the primary communal languages of central riverine Sudan during the same period. While their origins still remain obscure, the dominance of Nubian languages was a key element in the creation of new Nubian identities, social and political, part of the creation of medieval Nubia.

What exactly the 'end of Meroe' entailed remains far from clear, and it is a problem which may be approached in a number of ways (e.g. Lenoble 1999; Török 1999b). In the past, general narratives have been constructed in terms of 'the decline of a civilization' and the disappearance of 'Meroitic culture'. Exactly what was 'declining' and what cultural changes were happening is less clear, as is the question of how cultural changes may have been linked with, for example, political change, or the appearance of new languages. What did the abandonment of the royal cemeteries at Meroe really signify? What connection might there be with the end of Meroitic wheelmade pottery production? When and why did Meroe fall into decline? What brought about the more general disappearance of Meroitic experiments in urban living? What was the relationship between the centre and the different provinces during this process? How and when did Nubian become the dominant language of the riverine Middle Nile?

Over the last century, various narratives have been constructed around the 'end of Meroe'. In these, 'barbarian' migrations and foreign intervention tend to hold centre stage. That new, and implicitly 'barbarian', peoples played an important part in the 'end of Meroe' has long been assumed; the peoples who were to become the Nubians. A group of people called the 'Noba', equated with the earlier 'Nubai' recorded west of the Nile by the Hellenistic writer Eratosthenes, appear in mid-fourth-century Ethiopian Axumite texts (Hintze 1967; Burstein 1998; *FHN* III: 1094ff). In these texts the 'Noba' appear as a people of the southeast and perhaps central Sudan (Kirwan 1937). In a key Ge'ez text they appear as troublesome raiders of various peoples on the margins of the Axumite kingdom. These people include the 'Kasu', an ethnonym which has been presumed to relate to the Kushites, over whom the Axumite kings also claim overlordship.

As conventionally interpreted, these texts suggest that by this time the Kushites/Kasu may have been Axumite vassals (Burstein 1981, 1984; Kirwan 1960) and had also lost control of some of their towns to the Noba. The texts thus allow an 'end of Meroe' narrative to be constructed in which barbarian 'Nubian tribes' overran and destroyed this once great civilization. Apparently part of the same process, northern manifestations of these 'Nubians' are also found 1,000km away appearing in Roman and Egyptian sources of the fifth century as the 'Noubades' or 'Annoubades' who, with the Blemmyes, are recorded as the (new?) inhabitants of Lower Nubia.

While often elaborate and imaginative narratives have been constructed around these sources, many very fundamental problems with them remain. That Axumite kings were claiming sovereignty over Meroe is perhaps in itself surprising. Some links between Meroe and Axum do seem to have existed, although, as in later centuries, material evidence for contacts between the central Sudan and the Ethiopian Highlands remains remarkably slight. A few Axumite graffiti and coins have been identified at Meroitic sites (Munro-Hay 1991) while more tantalizingly, two fragments of Axumite texts (written in Greek) have

been found at Meroe, the first during the 1909–10 excavations and the second in 1975/6 (*FHN* III: 1066ff). While thought to be parts of triumphal inscriptions of the types known from Ethiopia, very little can be reconstructed of their content, but they appear to be part of triumphal monuments, in the form of thrones.

Interpretation of the Axumite texts from Ethiopia (*FHN* III: 1094ff) is itself by no means straightforward. Who the 'Noba' (Νωβα), 'Kasu' (Κασου) or 'Khasa' (Χασα) were is by no means certain. No names of peoples or places occur in the fragmentary texts found at Meroe itself. Indeed, a case can be made that the campaigns against the 'Noba' do not relate to Meroe at all, but actually record relatively local affairs on the borders of Axum, describing peoples far removed from the Meroitic heartlands (Behrens 1986). It is not even certain that the Kasu, who remained in the title of the Axumite kings into the sixth century (Kirwan 1972b), may be equated with the Kushites. Similar ethnic names are known in various periods along the Sudanese–Ethiopian frontier zones.

The content of such texts is of course related to specific historical episodes rather than the broader cultural history of the period. If Meroe had indeed become a vassal of the Axumite state (Burstein 1984), this in itself takes us little further in explaining the wider political and cultural changes which were taking place during the same period. Whether or not the Axumite kings ever intervened militarily or politically within the territories of Meroe, more than 600km away, that they may have contributed to the decline of the Meroitic state in other ways has sometimes been suggested. Axumite competition in trading with Roman Egypt has been proposed as possibly leading to Meroitic economic decline (Adams 1977: 385; Török 1987a: 179). However, while long-distance trade and exchange was undoubtedly of great importance to both the Meroitic and Axumite kingdoms, the modern perceptions of international trade and commercial competition which underlie such suggestions seem anachronistic. As it is, Romano-Egyptian artifacts were still reaching the Middle Nile (in Lower Nubia at least) in large quantities during the following centuries. Excavations on the Red Sea coast at Berenike (Sidebotham and Wendrich 1996, 2001) suggest a booming trade passing through there during the later fourth to seventh centuries, but one reaching out to India. The scale of such trade looks impressive.

The supposed role played by the Noba in the 'end of Meroe' is also problematic in perhaps even more fundamental ways. Were they a distinct ethnic group, bearers of a material culture distinct from that of the Kushites? Did they overthrow the Meroitic state, 'taking their towns' as the Aezanes inscription describes, or were there more subtle processes of culture change attributable to longer-term "immigration of Noba tribes . . . encouraged by the Meroitic government" (Török 1988: 45)? For earlier generations of researchers whose historical imagination drew on nineteenth-century understandings of ethnogenesis, such notions of migrating peoples were sufficient to explain language and culture change. However, as historians of Europe as well as Africa are now

well aware (Geary 2002), such 'peoples' are products of history, not its building blocks.

Whatever such ethnonyms may have meant to external observers, by the sixth century, visitors to ancient temples of Isis at Philae would identify themselves as Nubians: one graffito simply records 'a Nubian', another 'I, Theodosius, a Nubian'. New Nubian identities were being created in the medieval period, and we cannot assume that they existed previously, appearing with the arrival of a primordial 'Nubian' people. Had the 'Nubians' previously been 'Kushites'?

Attempts to relate archaeological evidence with the traditional narratives appear increasingly unconvincing. As we learn how diverse, multilayered and dynamic the culture (s) of Meroe were, it is also clear that what was happening during the fourth century was not simply the replacement of a 'Meroitic culture' by a new and alien culture. Many changes once associated with the 'end of Meroe' can now be seen to have been underway long before, while many 'Meroitic' traditions may have survived well after Meroe had ceased to be the centre of a great kingdom. Above all, it is clear that no simple equations may be drawn between changes in material culture and the more fundamental changes in socio-political organization which will have defined the 'end of Meroe' – as an essentially political phenomenon. In so far as Meroitic culture, as generally perceived, was very much the culture of the Meroitic state, an understanding of its disappearance must be sought in the political dissolution or devolution of that state. While migrations of Noba/Nubian tribes and Axumite wars may have provided satisfactorily simple explanations a century ago, rather more complex perspectives are likely to be required in the future. If the Meroitic kingdom was one of many peoples and many cultural traditions, albeit with its own dynamic imperial culture, the origins of the Nubians may well have lain within it.

THE POST-MEROITIC IN THE SOUTH

After Meroe

The archaeology of the post-Meroitic period was first recognized far away from Meroe itself, in the cemeteries of northern Lower Nubia. At the beginning of the First Archaeological Survey, just south of Aswan, burials of this period were identified by Reisner early in his work, and designated the 'X-Group'. By the 1940s a relatively well-defined cultural horizon could be seen throughout much of Lower Nubia, filling the gap between the Meroitic and Christian medieval periods. The first royal burials of the embryo post-Meroitic kingdoms were also discovered in the far north in 1934–35 in great tumulus cemeteries at Ballana and Qustul (Figure 7.1). These remarkably rich burials were promptly published (Emery 1938), although as it was many years before the excavations of the royal pyramids of Meroe saw publication, it was their 'barbaric splendour' which was

Figure 7.1 Post-Meroitic Upper Nubia

emphasized rather than their similarity with earlier elite burial forms. In the old heartlands of the Meroitic kingdom, where there had been very little fieldwork following the pioneering work of Garstang and Reisner, the identification of post-Meroitic archaeology proved rather more problematic than in the north. Even 25 years ago, very little was known of this period. However, some general features of this period of transition are now becoming apparent.

During the first excavations at Meroe, Garstang had suggested that there might have been some late occupation in parts of the site, perhaps extending into the Christian medieval period (Garstang *et al*. 1911). However, this later history of the site remained obscure. He also excavated a number of tumulus graves outside the town with an unfamiliar range of handmade pottery in them. Initially these were attributed to an early Meroitic phase *c*.1000–300 BC. It was only some years later that Crowfoot suggested that these might actually relate to a very late phase of occupation at the site. He went on to christen the distinctive pottery as 'Aloa' ware, assuming an association with the medieval kingdom of Alodia, or Alwa as it was known to the Arabs (Bentley and Crowfoot 1924). While similar pottery was soon found at a number of other sites, from as far south as Sennar to the Shendi Reach, further confirmation of its date remained a problem. Only in the late 1930s was good dating evidence found when an imported amphora was identified amongst the contents of these graves at Meroe, confirming that "the X-Group period at Meroe appears to be covered by the 'Aloa' cemeteries" (Kirwan 1939:42–5).

Until the 1970s, little else was learnt about the archaeology of this period in central Sudan. More recent excavations at Meroe tentatively identified what may have been post-Meroitic levels within the settlement, including 'squatter occupation' in some of the temples (Bradley 1984), but its scale and character was never really determined and no material from this phase has yet been published. Some episodes of deliberate destruction were also identified, particularly in a number of the temples (Robertson 1992; Shinnie 1984b), although the date of the last occupation and of the burning of some of the temples was not established and the material associated with these late levels has also yet to be published. Destruction deposits have been noted in a number of other Meroitic temples, including Dangeil during recent excavations, but dating of that episode has yet to be confirmed. No post-Meroitic occupation levels have yet been identified at other Meroitic settlements, although some burials are known from close to the sites of Musawwarat and Naqa in the Western Butana. Sites like Naqa and Musawwarat seem to have been largely abandoned, although a small Christian community may have been established at the latter during the early medieval period. It may be presumed that seasonal herding and cultivation may have continued, as it has into modern times.

If the fate of the old Meroitic centres remains unclear, some new settlements were being established during this period. Soba, which was to become the capital of medieval Alodia, was probably established during this period and distinctive post-Meroitic pottery has been found in early levels there (Welsby

1991, 1998). Further north, hilltop fortified sites are known, at Jebel Umm Marrahi, on the west bank south of the Sixth Cataract, and another at Jebel Nakharu, opposite the site of Meroitic settlement of Dangeil. Both may have been of late post-Meroitic date; there being a tumulus cemetery of that type at Jebel Umm Marrahi. Other rather smaller stone enclosures are known to the west of the Nile. One at Hosh al-Kafir is probably a military site; a single radiocarbon date (GIF-7199: 1600±50 BP) suggests a very late fourth or fifth century date. A rather similar site is known from Debayba Umm Toub, *c.*4km southwest of Jebel Umm Marrihi. Other rectilinear enclosures are known from the Wadi Abu Dom, in the Baiyuda Desert near Merowe (Chittick 1955a) but their date still remains uncertain.

Even if very little is known of settlement sites of this period, and few can be identified, cemeteries appear to be abundant, marked by large tumulus and cairn fields. By the 1950s it was being recognized that these were very widespread across much of central Sudan (Chittick 1957b), and as more systematic survey work has progressed in recent decades it is clear that there are potentially hundreds of thousands of tumuli along the desert edge between the confluence of the Niles and the Abu Hamed area (Edwards 1989; Lenoble 1992b). While these remain the most visible monuments of the post-Meroitic period, it may prove that not all of them can be dated to a narrowly defined post-Meroitic period. At least in some areas, tumulus burials continued well into the medieval period (Edwards 1998b) if not more recently. Downstream of the Fifth Cataract, these tumuli appear in an area where there is little evidence for a Meroitic presence.

Amongst these cemeteries are a few with unusually large tumuli, some over 40m in diameter. However, while there are tumulus cemeteries at Meroe, such large examples, likely to be the burial place of the post-Meroitic elites lie elsewhere. The best-known are at al-Hobaji, on the west bank in the southern Shendi Reach, first identified in the 1950s (Chittick 1957b), while there are others near Jebel Qisi (al-Hakim 1979), south of the Sixth Cataract. South of Khartoum, tumuli are rarely preserved but a number of sites with similar graves and pottery types have been found along the Blue Nile as far south as Sinnar, as well as within the Gezira (D.N. Edwards 1991, el-Tayeb 1999).

After the early excavations at Meroe, few of these tumuli were excavated until relatively recently. A single example was excavated at Ushara, on the White Nile a little south of Omdurman (Marshall and Adam 1953), while two larger examples were excavated in the southern Dongola Reach at Tanqasi (Shinnie 1954). While little was found there, this site latterly gained some prominence as the 'type-site' for the post-Meroitic in Upper Nubia. The 'Tanqasi Culture' (Trigger 1965) became a presumed southern equivalent to the 'X-Group' of Lower Nubia, but the term is largely redundant now. The most important work carried out on such sites was carried out by the University of Khartoum on the west bank of the Nile north of Omdurman. Several such cemeteries were tested including one large one at Sarurab which was extensively excavated (al-Hakim

1979; Babiker 1988). Most of these seem to be of post-Meroitic date and similar material has been found during excavations on the east bank in the same area (Caneva 1988, 1994). Only two other substantial cemeteries have been excavated, one at Kadada, near Shendi (Geus and Lenoble 1985; Lenoble 1994a), and one at Gabati some 40km north of Meroe (Edwards 1998b).

Continuities and discontinuities

The 'end of Meroe' in the ancient heartlands of the kingdom still remains largely defined in negative terms, as the disappearance of many of the more distinctive features of Meroitic culture. If the old Meroitic centres continued to be occupied, their post-Meroitic inhabitants of the fourth or fifth centuries left little trace. The major monuments seem to have gone out of use and were ultimately abandoned. Many of the more distinctive Meroitic arts and crafts also disappeared. Most obviously, Meroitic wheelmade pottery production ceased while other crafts such as faience manufacture seem to have disappeared. While faience and glass beads remained in circulation, they also seem to have become increasingly replaced by stone beads. On the other hand, metal-working seems to have survived. There are indications that iron manufacture continued at Meroe (Bradley 1984), while both iron and copper-alloy artifacts are not uncommon in post-Meroitic graves. Post-Meroitic burial forms also show a number of major differences from Meroitic practice, especially in the disappearance of many of the most distinctive aspects of elite burials. Pyramid and mastaba superstructures disappeared to be replaced by the widespread use of tumuli; new types of substructures also begin to appear. Burials on beds become much more common.

Due to its ubiquity, the disappearance of Meroitic wheelmade pottery has long been seen as a key marker of cultural change. While the Meroitic workshops were apparently reduced to only a limited range of quite coarse utilitarian wares by the late third century, even this production then ceased. When exactly this occurred still remains unclear, although recent work on ceramic chronology in the Meroe region suggests there was little development in Meroitic wheelmade pottery forms after the late third century (Edwards 1999c). It was once thought that the distinctive 'Aloa ware' pottery found at Meroe could provide a good marker for the presence of a new post-Meroitic culture (and the Noba), representing a very different ceramic tradition with no obvious Meroitic antecedents. Known only from burials, this pottery is known from a relatively limited range of forms, notably long-necked 'beer-jars', bowls and incense burners (Figure 7.2).

However, despite the obvious differences between the two types of pottery, what significance may be read into this change is far from clear. While Meroitic pottery was likely to be the product of specialized and possibly urban potteries, the new range of handmade wares almost certainly also represent the products of specialist potters. Relatively standardized vessels are widely distributed and

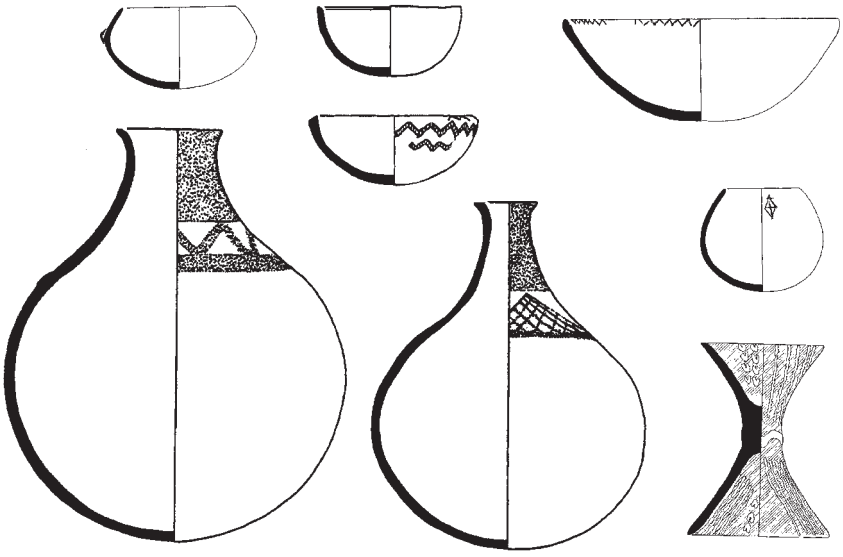

Figure 7.2 Post-Meroitic pottery in central Sudan

found in often large quantities. What is also now clear, is that the two types of pottery are not mutually exclusive. In the late Meroitic and early post-Meroitic cemetery at Kadada, vessels of both types were found side by side in the same grave (Geus and Lenoble 1985), and a gradual process of transition can be traced at the site as the Meroitic wares become less common and disappear. Functionally, the new handmade vessels also seem to have served the same purpose as their Meroitic predecessors.

Rather than distinct and exclusive cultures we appear to be seeing rather more subtle processes of culture change in which the replacement of one type of pottery may well be of limited significance. The Kadada excavations also demonstrated that as the character of pottery assemblages changed over time, mortuary practices were also changing and developing from the later Meroitic period, through a period of transition, well into the post-Meroitic period. Significant continuities were also apparent at Gabati, a cemetery where the later post-Meroitic period was particularly well-represented (Edwards 1998b). There, despite changing pottery types and the appearance of new grave forms marked by tumuli, the dominant burial layout in both the Meroitic and post-Meroitic periods remained the same, with contracted burials, oriented north–south, head to the south. This type of burial appears very widespread in central Sudan during this period, being also found in the Khartoum region (e.g. Babiker 1988) as well as along the Blue Nile (Edwards 1991). On the other hand, one marked change in practice was the disappearance of multiple burials in the same grave, a change which is also apparent throughout the Middle Nile during this period

(Vila 1982: 177). This would seem to mark a significant change in the way people related to their dead. There are also indications that burial practices were continuing to change even within the few centuries of the post-Meroitic period. At Gabati, for example, the large beer-jars which are so common in early post-Meroitic burials further south are very uncommon by the late post-Meroitic period, perhaps reflecting changing funerary rituals. In some 'late' burials, probably dating to the sixth century, pots are also being deposited outside the graves, beneath the tumuli.

Post-Meroitic elites

The survival of many aspects of Meroitic royal ritual and symbolism well after the abandonment of the royal cemeteries at Meroe, has become clear with the first excavations of post-Meroitic 'royal' burials in this region. The first of these to be excavated were in the cemetery at al-Hobaji (or Umm Makharoqa) where several of its tumuli, some over 40m in diameter, were set within large stone enclosure walls. The first of these was only excavated in 1987 (Lenoble 1989). While no radiocarbon dates exist for the tumuli, they are probably contemporary with the nearby settlement at Hosh al-Kafir, dated to the very late fourth or fifth centuries.

The remarkable range of material recovered from the first of these tumuli provided, for the first time, clear evidence for post-Meroitic elites who maintained many of the ritual observances and panoply of the old Meroitic kingdom on the death of their kings (Lenoble and Sharif 1992). While no longer buried at Meroe or beneath pyramids, these successor kings still practised very similar funerary rituals; the funerary equipment buried in the graves points to continued practice of rituals associated with Osiris and Isis, very similar to those depicted on the walls of late Meroitic pyramid chapels at Meroe itself. Such continuity represents an elite dimension of the more general continuities observed in the funerary record, especially at Kadada.

The continuity apparent between the Meroitic practices and those of their successors at al-Hobaji is also apparent in the abundant representation of military power in the graves (Figure 7.3). Buried around the funerary couch was a set of a dozen broad-bladed ceremonial spears, axes, swords, at least one bow and several quivers full of arrows. While weaponry is relatively rare within the royal burials at Meroe, military equipment, if only in the form of bows and arrows is increasingly common in later Meroitic male burials of lesser rank. By the post-Meroitic period, a military element in male identities seems to have become very widespread, reflected in the ubiquity of arrowheads and archer's looses in graves of this period. It is not unlikely that the power of these new rulers owed much to their military prowess.

A second tomb produced very similar and abundant material, over 50 large jars, an incense bottle, eight sets of ox-horns, elaborate horse harnesses and abundant military equipment in the form of numerous spears, an axe and 400+

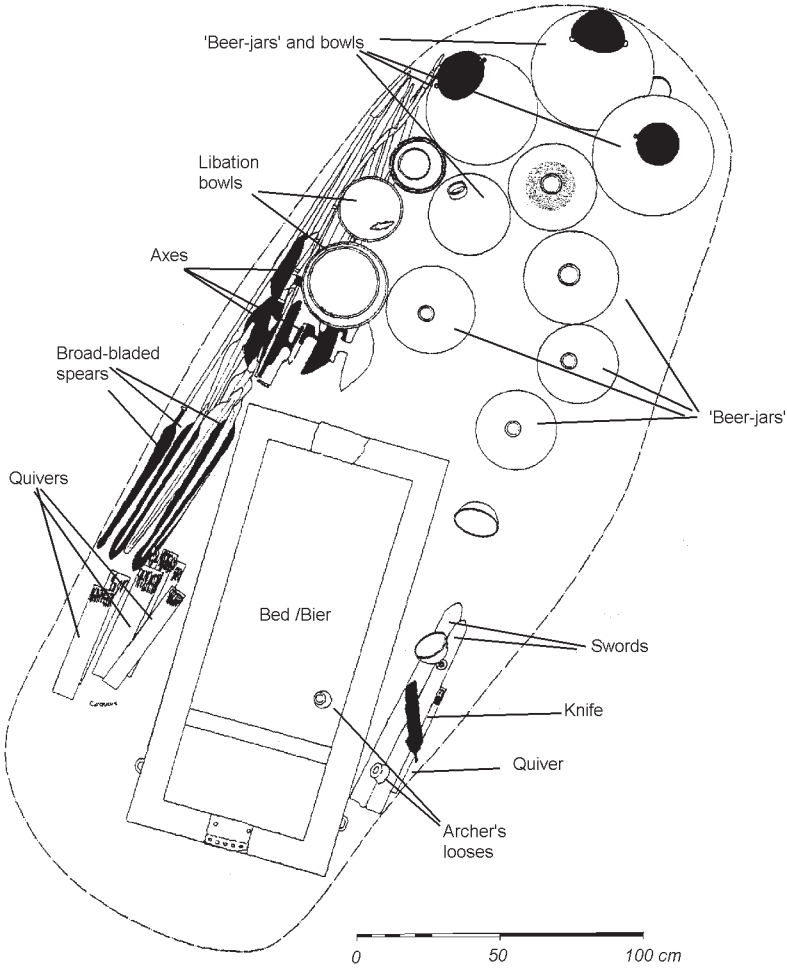

Figure 7.3 Funerary equipment in elite early Post-Meroitic burial at al-Hobaji
Source: after Lenoble *et al*. 1994

arrows. As an eloquent reminder of their Meroitic heritage, a large bronze libation bowl, found with 32 pottery cups, was engraved with a Meroitic hieroglyphic inscription around the rim (Lenoble *et al*. 1994).

Much has been made of the very obvious continuities between Meroitic 'imperial' royal rituals and those seen at al-Hobaji, and it may indeed be possible to represent them as a 'post-pyramidal' Meroitic monarchy (Lenoble and Sharif 1992). However, whatever claims of continuity and succession they might have made, certain realities cannot be ignored. These kings were buried far away from the ancestral cemetery of the Meroitic kings, used for some 600 years.

Whether anything significant survived of Meroe and its institutions, and whether these kings controlled them, is unknown. What seems reasonably certain is that they no longer will have commanded the power bases and institutions which had supported the kingdom in its hey-day. Kings of a now diminished kingdom, or fragment of a kingdom, they could 'carry on with the royal ritual in ways that an outsider might see as meaningless grasping at a vanished past' (Kopytoff 1987: 52).

While quite large quantities of imported goods of many types were reaching the Nobadian elites of Lower Nubia during the fourth to sixth centuries, there is as yet little evidence that such material was finding its way further south in any quantity during this period. Unlike their contemporaries in Lower Nubia, the post-Meroitic kings buried at al-Hobaji were not able to supply their funerary feasts with wine. Small quantities of Late Roman Mediterranean amphorae (Adams Ware U18) have been found in the latest occupation levels at Meroe, including some often found in post-Meroitic contexts in Lower Nubia (Bradley 1982: 159–60), while at least one Ware U3 amphora was deposited in a post-Meroitic grave there (Kirwan 1939: 45). None have yet been found in post-Meroitic graves elsewhere, although occasional sherds have been found in early levels at Soba (Welsby 1998). Despite the small number of such finds, they hint that the old Meroitic heartlands has not lapsed into total isolation during this period. One further indication of external exchange may be found in the slave trade, for which we find a rare textual record in a sixth-century Egyptian contract for the sale of a Nubian slave girl 'Atalous by name . . . an Aloan by race' (Burstein 1998: 118ff).

THE RISE OF MAKURIA

Until recently, even less has been known about the post-Meroitic of the Dongola Reach than that of areas further south. However, over the last 10 years or so, this situation has been transformed. As seen further south, few post-Meroitic settlements have been identified while there is little evidence that any Meroitic centres remained occupied. At Kawa, the early excavations found some evidence for a violent end, reporting that some late phases were destroyed by fire, with the burning of 'temple furniture in the second court of the temple of Tirhaka' (Kirwan 1936: 207). The roof of the temple at Tabo was also destroyed by fire, if after a period of abandonment (Maystre 1973: 198), although when this takes place remains uncertain; it has been attributed to Roman campaigns in the area (Jacquet-Gordon 1999). A church was later built on the site.

Cemetery evidence of this period is also scarce in the northern Dongola Reach. A few tumuli are known from Tabo (Jacquet-Gordon and Bonnet 1971–2), but none have yet been located in the area of Kerma where burials of many periods have been found in the area of the Bronze Age town (Bonnet 1999b: 8). Very few have been found in the rocky Third Cataract region which borders the

northern end of the Kerma area. While survey coverage of the northern Dongola Reach is still patchy, this scarcity of post-Meroitic settlement was also apparent in the Wadi al-Khowi where no traces of occupation of this date were found (Welsby 2001a).

Further upstream, sites of this date, almost entirely tumulus cemeteries, appear much more common. A significant post-Meroitic presence can be identified in the Letti Basin, especially in the area of Old Dongola, which was to emerge as the capital of medieval Makuria. However, while post-Meroitic cemeteries are known in that area, mainly around Jebel Ghaddar (Grzymski 1987; El Tayeb 1994), they are perhaps more abundant and larger in areas a little further upstream of Old Dongola. One of the largest cemeteries lies between Estabel and Argi on the right bank (Żurawski 1998: 75) while other cemeteries with exceptionally large tumuli are known from Hammur, some 9km south of Old Dongola (Żurawski 2000) and further upstream at Tanqasi (Shinnie 1954) and Ez-Zuma. Very little post-Meroitic material has ever been found in the old Kushite centres of the Jebel Barkal/Sanam area. However, recent survey work around the Fourth Cataract and further upstream is revealing numerous post-Meroitic (and later) cemeteries in the region, suggesting that this period saw an expansion of settlement into this rocky and inhospitable area, which had been probably largely empty of permanent settlement for much of the first millennium BC.

The abundance and scale of the post-Meroitic cemeteries upstream of Old Dongola, rather than in the Letti Basin, suggests that settlement during this period may have been focused on the basins of the southern Dongola Reach. Where exactly the main political centre or centres of the post-Meroitic period were, however, remains unclear. Following the early excavations at Tanqasi it has tended to be assumed that the tumulus cemetery there was a counterpart to the Nobadian cemeteries at Ballana and Qustul to the north, and those at al-Hobaji, to the south. However, it is likely that it is merely one of several cemeteries in the region with elite or even 'royal' burials. While little was found in the heavily robbed tumulus excavated at Tanqasi, recent test excavations at Hammur have produced finds such as bronze horse harness as well as wide-bladed iron spears very similar to types found both at al-Hobaji, and Ballana and Qustul in the north. The proximity of the Hammur cemetery to what may well be the Mausoleum Church of the medieval Christian kings of Makuria at Banganarti (Żurawski 2002a) certainly suggests the possibility that it may have been the burial place of their pagan predecessors. Settlements associated with these cemeteries still have not been identified. However, the foundation of a settlement at Old Dongola itself, with a mudbrick and stone enclosure wall, seems to have taken place during the pagan post-Meroitic period, possibly as early as the late fifth century (Godlewski 1998).

Both mortuary practice and the material culture of the region have much in common with that found further south during this period. However, both burials and the post-Meroitic pottery seem to display a distinct regional character. The

pottery in particular shows slightly different forms and decoration, and black-burnished pottery seems much less common than further south. Such regional differences become more pronounced in the later post-Meroitic period when wheelmade pottery reappears, apparently influenced by contemporary styles found further north in Lower Nubia. In the sixth century new workshops were to re-establish the dominance of wheelmade pottery in the region in a way which never occurred further south.

THE X-GROUP, BALLANA CULTURE AND THE RISE OF NOBADIA

If the post-Meroitic archaeology of central Sudan still remains poorly understood, we are much better informed about the history and archaeology of Lower Nubia (Figure 7.4) during this period. As in the Meroitic period, the far north saw the development of a distinctive regional post-Meroitic culture, but one in which Romano-Egyptian influences were very prominent. Similar political changes are underway, transforming a province of the Meroitic kingdom into an independent kingdom – Nobadia, or Noubadia – in which a new 'Nubian' identity came to the fore. In this case, however, we can see much more of the detail of the processes through which provincial Meroitic communities, and their elites, were transformed, or transformed themselves into Nobadians. Its history during this period was closely linked to Egypt in the north, as well as to the Blemmyes, inhabitants of the Eastern Deserts who, from perhaps the third century, had established themselves in the Nile Valley, particularly in parts of the old Dodekaschoinos.

Historical background

However difficult it may be to date the 'end of Meroe', processes of political change and cultural transformation in Meroitic Lower Nubia probably began to gain speed with the re-organization of the Egyptian frontier of the Roman Empire by the Emperor Diocletian. According to versions of events compiled in the sixth century by Procopius, Diocletian withdrew the Roman garrisons from the Dodekaschoinos in AD 298. This was occasioned by considerable unrest in the region, in which both the Blemmyes of the Eastern Desert, and Noubades, apparently coming from the 'Great Oasis', were implicated. The appearance of the Noubades at this date and their supposed origin west of the Nile, as recorded in this account, is rather puzzling, although to earlier generations of scholars, it seemed to be consistent with narratives framed around barbarian invasions. While the removal of the small Roman garrisons from the region may not have directly affected the Meroitic province, it opened the area to the Blemmyes who established a significant permanent presence along the river in the old Dodekaschoinos.

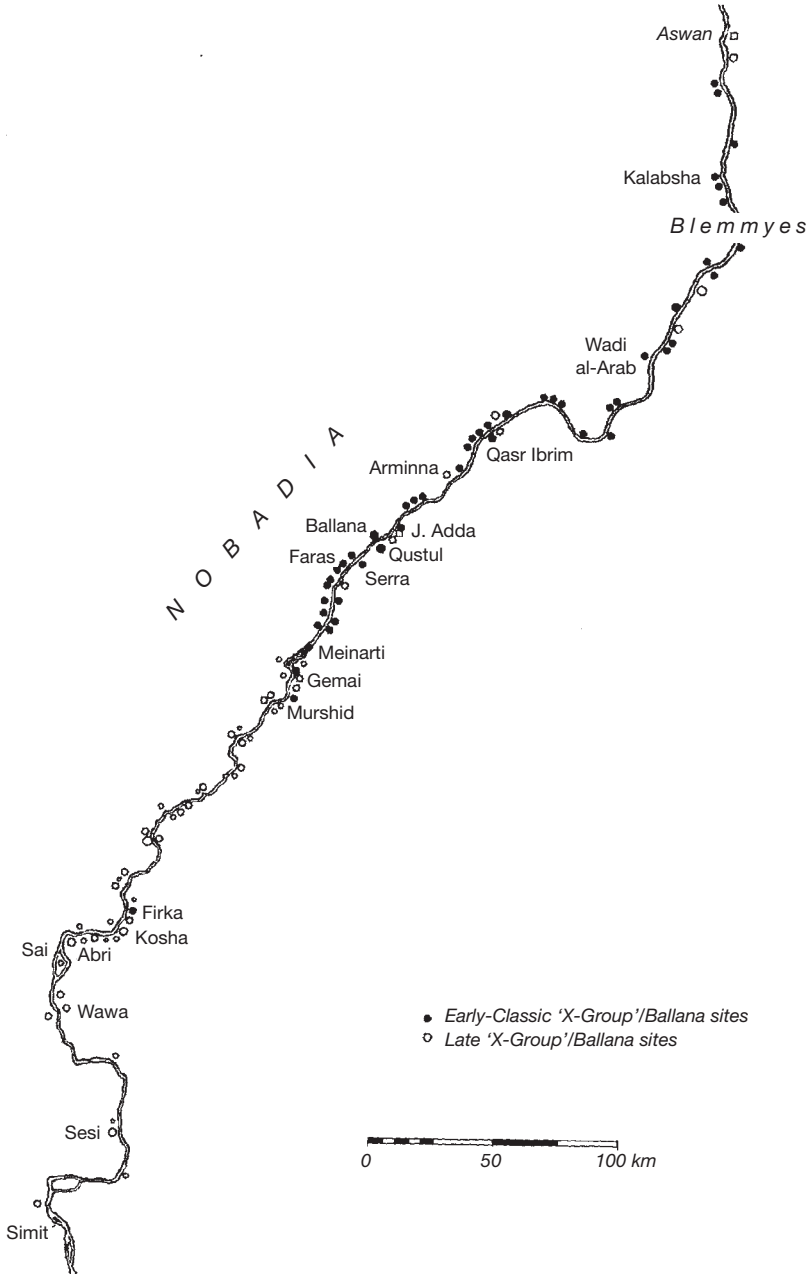

Figure 7.4 Post-Meroitic Lower Nubia, with spread of late sites south of the Second Cataract

Textual sources occasionally provide us with episodic glimpses of a period of unrest and insecurity in the frontier zone, warfare and raiding directed against the Egyptians, as well as between the Blemmyes and Nobadians. Inscriptional evidence from Philae suggests Blemmye raiding in the Nile Valley during the 370s (see *FHN* III: 1110ff) may have disrupted the Choiak festival. In the mid-fifth century, further unrest caused Bishop Appion to petition the emperors Theodosius II and Valentinian III to protect Aswan from raiders from the south (apparently both Blemmyes and Nubians) (*FHN* III: 1138ff).

The Meroitic heritage of the new elites emerging in Lower Nubia is reflected in an enigmatic Meroitic inscription of one Kharamadoye, who styles himself 'king' (*qore*), inscribed on the wall of the temple at Kalabsha (*FHN* III: 1103ff). This probably dates to the very late fourth or early fifth century. The text also seems likely to relate to military campaigns in Lower Nubia and particularly against a king Yismeniye, who may well be a Blemmye king Isemne otherwise known from a Greek inscription at Kalabsha. These wars continued until around the mid-fifth century when the Nobadian king Silko seems to have finally defeated the Blemmyes and asserted his control of the Dodekaschoinos. In a Greek inscription he left on the wall of the Kalabsha temple (Figure 7.5) he records three campaigns, perhaps including one against enemies to the south. The inscription has been linked traditionally with a representation of a mounted figure spearing an enemy cut into the wall nearby (Figure 7.6). That this figure

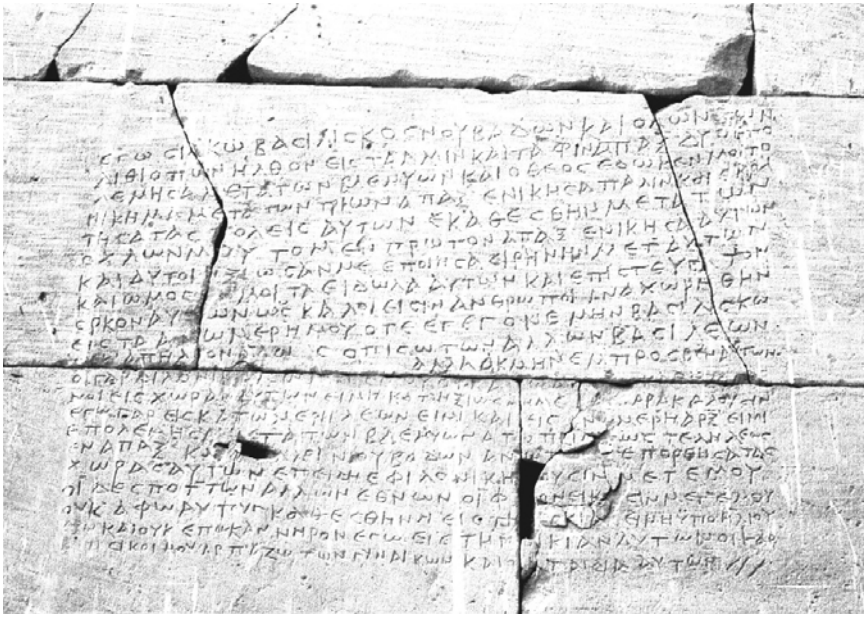

Figure 7.5 The Silko inscription at Kalabsha

Figure 7.6 Supposed representation of Silko at Kalabsha

might be the victorious Silko himself is certainly a seductive hypothesis (see Török 1988), although there is actually no direct link between the text and the figure which are placed some distance apart on the wall. Additional information on these struggles is provided by a papyrus letter written in Greek, found at Qasr Ibrim, which was sent by a King Phonen of the Blemmyes to the Nobadian king Abourni, apparently Silko's successor (*FHN* III: 1158ff).

Settlement landscapes

It seems likely that the core of the proto-Nobadian kingdom lay along the Nile between the Gemai area, at the south end of the Second Cataract, and perhaps Qasr Ibrim. If, as seems likely, areas further north were secured with the defeat of the Blemmyes, an expansion of settlement there was rather more limited. From its early beginnings in the fourth century, the post-Meroitic period in the north sees the development of a settlement landscape which was very different from that of the Meroitic period, with settlement moving into new areas, most obviously into the Batn al-Hajar (Adams 1977: 395), and a much wider dispersal of relatively small settlements. These changes were also accompanied

by some major changes in the location of larger centres, doubtless reflecting the political changes taking place during the period.

Due to our much better understanding of the chronology of post-Meroitic pottery in the north, it is possible to trace something of how this new settlement landscape developed over time (Williams 1991b; Rose 1993; Edwards 2001) as well as establish credible linkages with the historical narratives. While there is still much scope to refine ceramic chronologies, it is certainly possible to distinguish between 'transitional', 'early', 'classic' and 'late' assemblages for which date ranges may be suggested. 'Transitional' material is found in the Second Cataract region at sites such as Gemai, Meinarti, Faras and Serra East (Rose 1993). 'Early' and 'Classic' pottery types (Figure 7.7), are typical of the elite and 'royal' cemeteries, first at Qustul and then at Ballana, the first beginning in the late fourth century AD, around *c.*370–80 (Török 1988), and the latter beginning around AD 420 and continuing through to the end of the century. To these may be added a 'Late' post-Meroitic phase, apparent at a number of settlements in Lower Nubia but represented mainly in both

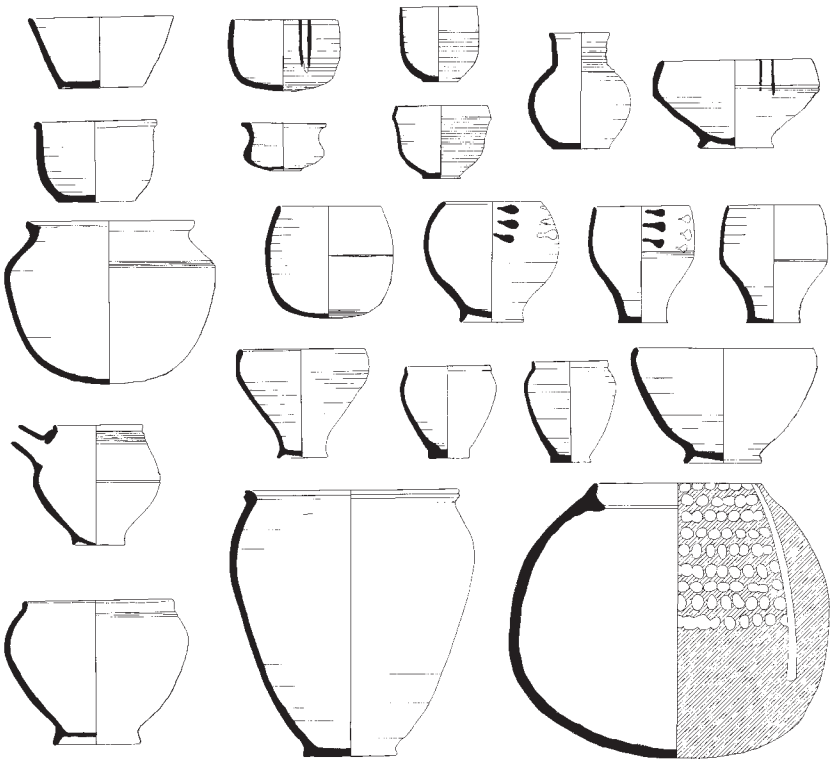

Figure 7.7 Post-Meroitic pottery in Lower Nubia

cemeteries and settlements in the more southerly areas of the Batn al-Hajar, extending as far south as the Third Cataract.

From early in the period there seem to have been significant centres around the Second Cataract, as far south as Murshid (Donner 1998) and Gemai (Bates and Dunham 1927), at Meinarti (W.Y. Adams 2000) and extending north as far as Abu Simbel. By comparison with Meroitic settlement in this area, sites appear more widely dispersed and more common on the east bank of the Nile. Most cemeteries remain quite small, the main exceptions being those at Argin, Ballana, Qustul and Jebel Adda. While Faras was to become a major centre in the medieval period, relatively little (early) post-Meroitic occupation was identified there, and it may have begun to develop only at the end of the post-Meroitic period.

North of Abu Simbel the limited nature of the fieldwork, and the incomplete publication of much of the work carried out there, makes an assessment of the scale of occupation rather more difficult. There are said to be post-Meroitic levels at Abdallah Nirqi, but when the settlement was founded remains unclear (Barcóczi and Salamon 1974). Further occupation was found at both Arminna West and Toshka, but only at Masmas do we begin to find a linear spread of cemeteries, continuing in Aniba. Qasr Ibrim also seems to have emerged as an important centre of population, with large cemeteries.

Downstream of Tomas, the character and scale of settlement becomes rather less clear, not least because of problems in dating sites. Unlike further south, the cultural history of the Dodekaschoinos was more complex, having had a Roman presence and what was until recently a poorly understood 'Post-Roman' phase (Rose 1993), as well as more typical post-Meroitic occupation relatively late in that period. During early fieldwork, and in many earlier synthetic studies, the cultural distinctiveness of this part of Lower Nubia was often not fully recognized, although even during the First Archaeological Survey of Nubia it was clear that 'post-Meroitic' occupation in the Dodekaschoinos was quite sparse.

South of the Second Cataract, the later post-Meroitic period sees a marked expansion into an area where Meroitic occupation had been extremely limited. Unlike areas further north there is very little evidence for any significant settlement south of Murshid-Gemai prior to the 'Late' period. South of the Batn al-Hajar, Firka and Kosha (Kirwan 1939) are rare early sites, probably dating to the later fifth century. At least 68 cemeteries are known along with some 20 settlements, many in areas previously not occupied. The major Meroitic centres at Semna and Tila do not seem to have survived, the latter was probably abandoned in the late third or early fourth century (Edwards 1996a: 114).

Most of the post-Meroitic settlements seem to have been quite small; most of their cemeteries contained no more than 30 graves. Many of those cemeteries were to continue to be used into the medieval period, tumulus burials gradually being abandoned as Christian burial forms were adopted. Such a division is in itself quite interesting and it is tempting to see here a southward expansion of

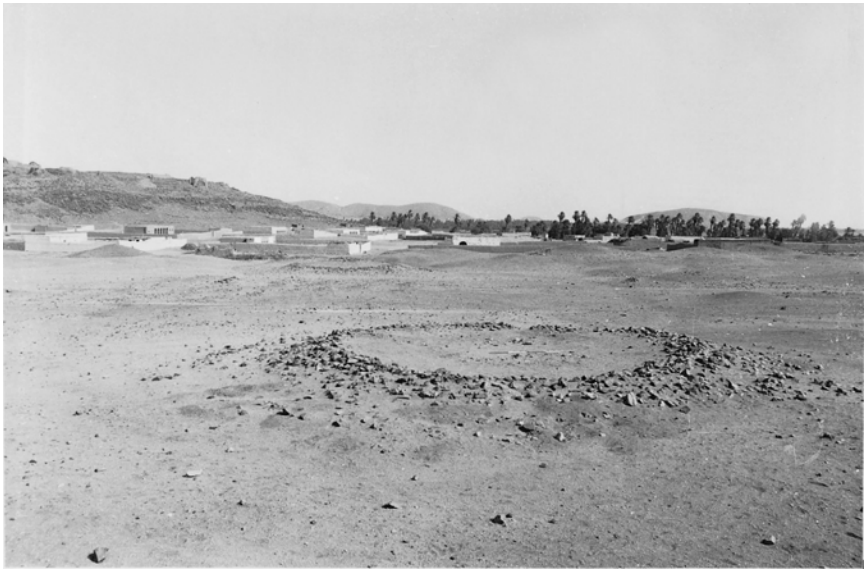

Figure 7.8 Late Post-Meroitic tumulus cemetery below the fortified hilltop of Jebel Sesi, Third Cataract region

the Nobadian sphere during the later post-Meroitic period. Survey in the Third Cataract region also suggests that the appearance of post-Meroitic settlement seems to be a relatively late phenomenon, with no known sites in the area prior to the 'Late' period. The Third Cataract may have marked a significant political frontier as it seems to mark the southern most extent of the distribution of Nobadian material culture. A fortified settlement may have been established at this time just to the north of the cataract at Jebel Sesi, opposite Delgo (Figure 7.8). A late cemetery below it included some large and richly furnished graves (D.N. Edwards 1994a). The rocky cataract zone seems to have been sparsely populated, but finds of late post-Meroitic pottery have been made as far south as Simit island, perhaps associated with a large fortified site there, only discovered in 2002.

Continuities

The new patterns of settlement which emerge in Lower and Middle Nubia during this period raise interesting questions concerning the relationship between post-Meroitic and earlier settlement in the region. Initial analyses of Meroitic/post-Meroitic settlement following the Nubian Campaign of the 1960s suggested there was considerable continuity evident, for example, in the numerous cemeteries which seemed to have both Meroitic and post-Meroitic

components (Adams 1977: 393–4). On closer examination, however, such continuity may have been much less than previously supposed. With the closer dating of sites which has become possible, it is clear that relatively few sites contain material which spans the Meroitic/post-Meroitic transition (Rose 1993: 97–102). In many more cases the post-Meroitic occupation appears only after a significant period of apparent abandonment. At sites such as Qustul, for example, there may well have been a hiatus of more than a century before the first post-Meroitic burials around *c.*380 AD, while at Abri, far to the south, there may be a gap of more than two centuries between the Meroitic and post-Meroitic phases of use.

Meinarti remains one site for which we have detailed information spanning the Meroitic/post-Meroitic transition and beyond. It seems to have been founded very late in the Meroitic period, surviving into the early post-Meroitic period, followed by a major rebuilding in the mid to late post-Meroitic (Adams 2000). Both Jebel Adda and Qasr Ibrim seem likely to have been continuously occupied from the late Meroitic through to the medieval period. At Faras, some early post-Meroitic graves were found but it remains unclear whether the area remained occupied throughout the period. The Meroitic settlement at Ash-Shaukan may have remained occupied into the early post-Meroitic period but was probably replaced by a new settlement 1km to the north at Abdallah Nirqi. Evidence for a transitional phase in the Meroitic settlement at Arminna West (Trigger 1967) may now be questioned, seeming to relate more to later mixing of deposits. However, the cemeteries associated with it do seem to indicate that the area continued to be occupied, and survived into the medieval period (Fuller 1999).

The spread of 'Ballana/Nobadian' culture into northern Lower Nubia may be linked with the consolidation of the Nobadian kingdom as a political unit and the breaking of Blemmye power in the Dodekaschoinos. To the south, the spread of settlement through the Batn al-Hajar up to the Third Cataract seems to have taken place in a relatively empty landscape where there is little evidence for any significant occupation from the late Meroitic period until *c.*500 AD. If any Meroitic settlements did survive through these centuries, the most likely location is in the Abri area and perhaps on Sai island where the archaeology of the Meroitic and post-Meroitic periods still remains poorly defined.

Agricultural revolutions and changing life-ways?

If at one level we can link the developing settlement landscape of Lower and Middle Nubia with political developments through this period, it may also be related to major changes in the very bases of society, especially in terms of agricultural regimes (Edwards 1996a). Central to this seems to have been the introduction of the *saqia* water-wheel to the region. While long considered to have been an introduction of the Meroitic period (Trigger 1965; Adams 1977) there is actually very little evidence for its widespread presence in Lower Nubia before the fourth century AD, perhaps first appearing in the Dodekaschoinos in

Romano-Egyptian contexts a century or so earlier (Rose 1993). In the fourth and fifth centuries, the distinctive *qadus* jars of the *saqia* wheels become abundant in post-Meroitic contexts.

While this new technology may have been important in expanding the opportunities for irrigated agriculture, its real significance may lie as part of wider changes to Lower Nubian agricultural regimes apparently beginning during the late Meroitic or early post-Meroitic period (Rowley-Conwy 1989). The introduction of the *saqia* not only permitted the expansion of cultivation but seems to have been instrumental in the development of new cropping regimes with the cultivation of a new range of crops within a multi-harvest cropping system. In earlier periods, farming was limited to *seluka* agriculture following the recession of the Nile flood, which was essentially limited to winter/spring crops. With the introduction of the *saqia*, not only was the area of cultivable land extended, but the irrigated fields could be cultivated all year round, allowing the best use of both temperate northern crops such as wheat and barley, as well as a new range of hardy tropical crops.

Linked in other areas with innovations of the early medieval period, and part of an 'Islamic agricultural revolution' (Watson 1983), this combination of new crops and *saqia* irrigation is appearing in Lower Nubia by the mid-first millennium AD. On the evidence from Qasr Ibrim, by the late Meroitic period, sorghum (Sorghum bicolor) is appearing in the region, followed by more advanced forms of sorghum with durra traits, as well as new forms of wheat (Triticum durum), termis beans, peas, as well as bulrush or pearl millet (*Pennisetum typhoides*) and sesame.

Such developments lie behind what was ultimately an agricultural colonization of the landscape which was taking place from the fourth and fifth centuries. A new type of Nubian settlement landscape was created; one which was to survive and develop into modern times. We must also suppose that the Nubians themselves underwent major transformations during this period as they learnt new ways of farming, developed new notions of land ownership and began to live according to new agricultural calendars. As we get better chronological definition on when the various new crops are appearing in Lower Nubia, it may be important to consider the possible time lags involved between their first appearance, assimilation into existing farming regimes and the development of new farming styles. While we are much less well informed about areas to the south, it seems very likely that very similar processes of landscape colonization were beginning to take place in parts of the river valley between the Fourth and Fifth Cataracts where again the arrival of the *saqia* gave agriculture a viability which it had previously lacked.

Tangible evidence for the development of these new farming regimes is now becoming available through isotope studies of bodies from Lower Nubia. These have shown both a shift towards new tropical C-4 crops as well as bi-seasonal farming regimes during the post-Meroitic period. Studies of hair samples show shifts in diet through the year reflecting the seasonal dominance of either C-3

winter crops or C-4 summer crops (White 1993; White and Schwarcz 1994). The new farming regimes also seem likely to have benefited the population more generally, probably mainly through improvements in dependable food supplies. The spread of settlement may also have been accompanied by an expanding population, at least by the later post-Meroitic and early medieval period. While post-Meroitic tumuli are more visible and easy to identify than Meroitic burials, their numbers are impressive. It is possible to identify somewhere in the order of 12,000–15,000 tumuli between the First and Third Cataracts. However we might translate this into 'living' populations (D.N. Edwards 1996a), this could represent *c*.40 settlements with an average population of 50–100 people. As a minimum figure, this is perhaps credible. Estimates for the south end of the Batn al-Hajar suggest figures in the order of 20/km of river bank in the late post-Meroitic period (Vila 1979). This is an area where it is still possible to walk for many kilometers without encountering a house. This impression is also borne out by a number of palaeodemographic studies in the Second Cataract area. These have shown Meroitic populations with low life expectancy (Armelagos *et al*. 1981; Martin *et al*. 1984) and rising life expectancy, especially in early adulthood among X-Group and medieval populations (Van Gerven *et al*. 1981).

Continuity and change

Post-Meroitic material culture in Lower Nubia is very different, in many ways, from that of areas further south. As during the Meroitic period, the proximity of Egypt is very apparent. Unlike areas further south, Egyptian material was still reaching the elites of the region. Identifying clear-cut cultural change at the end of the 'Meroitic period', especially through the fourth century, is not very easy. In many areas, there is considerable evidence for cultural continuity.

The development of small and dispersed agricultural communities also changed the character of most settlements. In contrast to the generally nucleated character of most Meroitic sites, with often substantial architecture including prominent 'official' structures, it has long been clear that most post-Meroitic settlements were far less substantial. Sites in the Second Cataract region have been described as 'small and crude, comprising random clusters of from three to eight small rooms. Walls are either of mud brick or coarse stone masonry' (Adams and Nordström 1962: 30). The early post-Meroitic settlement on Meinarti, one of the most fully excavated sites we have, seems to have been of a similar character (Adams 2000). Most previous interpretations of this change have tended to treat it as symptomatic of a more general cultural 'decline' associated with the encroachment of 'barbarism'. However, if we start from a rather different set of assumptions, much of this change may be accounted for simply in terms of the change in primary function of most settlements. Rather than being outposts of the Meroitic state in the north, most are increasingly farming settlements, and often new foundations, colonizing empty areas. By the

late post-Meroitic/early medieval period, many were being rebuilt with more substantial architecture.

While our knowledge of post-Meroitic architecture remains relatively limited, it is certainly by no means clear that the capacity for substantial building works disappeared with the end of the Meroitic period. From Qasr Ibrim, and less certainly, from Jebel Adda, there is evidence that major construction work, both in stone and mudbrick continued through the post-Meroitic period. At Qasr Ibrim, the stone-built Temple 1 appears to be of post-Meroitic date (Horton 1991) and it is likely that much of a large complex of buildings along 'Tavern Street' (Figure 6.8), including the stone-built 'Tavern' (D.N. Edwards 1994b; Rose and Edwards 1998) dates to this period. Stratigraphic evidence from the most recent excavations suggests that the core of this, a substantial mudbrick building at the end of the street, was not constructed much before the end of the fourth century.

It is likely that the 'citadel' at Jebel Adda was also a major centre during this period, perhaps first built in the late Meroitic period (Millet 1968: 47–50). However, on the basis of the published evidence a purely Meroitic phase of occupation cannot be demonstrated, either on the settlement or in the cemeteries. While some 'Meroitic' characteristics such as the use of pyramid superstructures and inscriptions still survived, Meroitic pottery traditions had essentially disappeared (Rose 1993). Unfamiliarity with this problematic transitional/early post-Meroitic pottery seems to have led to sometimes confusing compromise interpretations of the site and we do not need to assume that the cemeteries comprise 'Meroitic' burials re-used in the post-Meroitic period, as was originally suggested (Millet 1964). It seems likely that much of the construction on the citadel, including the 'Phase 4' temple, dates to the fourth century. This seems likely to have been the seat of the first Nobadian kings.

As in the south, new forms of burial appear, and old forms disappear. In general terms, contrasts may be drawn between the relatively homogeneous nature of Meroitic practice in the north, with its east–west extended burial, and much more varied practices during the post-Meroitic period. Pyramidal superstructures seem to disappear, probably by the early fourth century, being replaced by various forms of tumuli. Inscribed funerary stele disappear, probably as part of a more general decline in literacy. East–west burial forms remain, but many burials changed to a north–south orientation. Contracted burials, commonly oriented north–south, as they were in most southern areas, also became common in some cemeteries. Multiple burials became very rare (Vila 1982: 177), as also happened in areas further south. Beyond such generalized trends, variability and diversification may be detected at the community level. Detailed studies of a series of cemeteries at Arminna West (Fuller 1999) have provided a useful 'parochial' perspective on the complexity of such cultural changes. By the end of the fifth century, however, it seems likely that a greater uniformity in practice was returning, around the time that the new Nobadian kingdom was becoming well established.

The largest and richest burials of this period come from two cemeteries at Qustul and Ballana, discovered during 1931, and the object of a series of excavations (Emery 1938; Farid 1963a; Williams 1991b). The largest of the great tumuli which covered the burials was nearly 80m in diameter and 12m high. Several had elaborate multi-chambered substructures to contain the burial and abundant material which accompanied it (Figure 7.9). Among more than 200 tumulus burials, at least 11 may be identified as those of 'kings', probably four at Qustul and at least seven at Ballana. Many more were very richly furnished (Török 1988). The kings were buried with their royal regalia, including silver

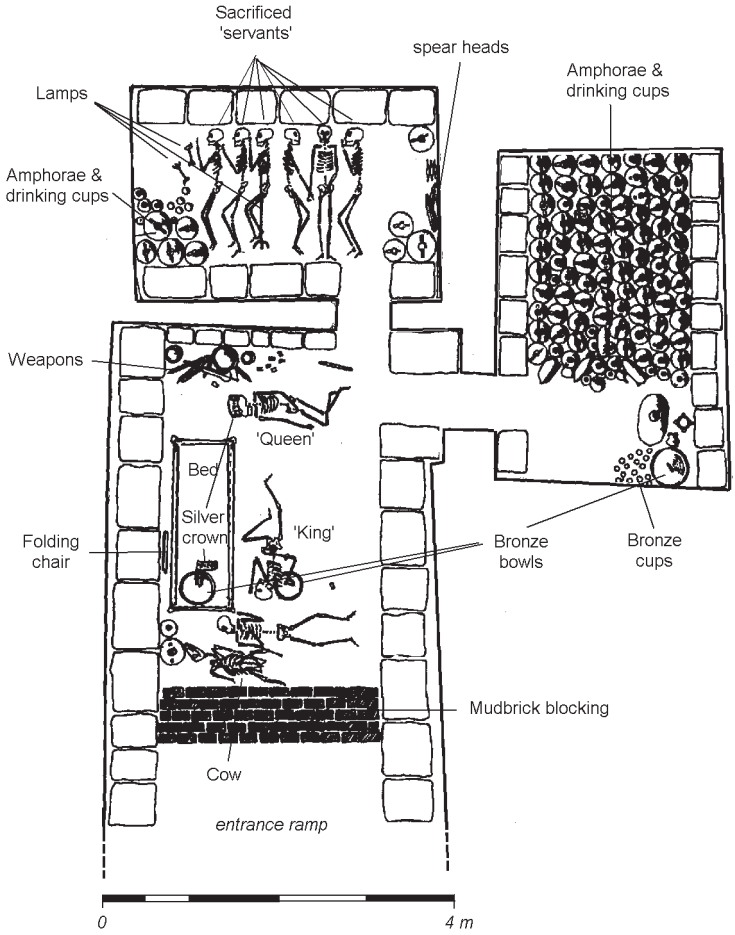

Figure 7.9 Burial chambers of a royal Nobadian tomb (B.95) of the late 5th century at Ballana

Source: based on Emery 1938: Fig. 68

crowns, with ceremonial spears and other military equipment similar to that found at al-Hobaji in central Sudan. A wide range of imported artifacts was also buried with them, including metal vessels, items of furniture, elaborate horse harnesses, wooden boxes with ivory inlays, toilet articles, jewellery, as well as large quantities of pottery, including Mediterranean amphorae, probably used in funerary rituals.

Of particular interest in these 'royal' tombs are numerous parallels which may be drawn with burials in earlier royal contexts at Meroe (Lenoble 1999; Lenoble and Sharif 1992). Continuities in ritual practice are very evident, as well as innovations. A remarkable feature at Qustul, only discovered in the last excavations at the site, were three rows of mudbrick chapels associated with three of the largest tumuli (Williams 1991b). Stone offering tables, in the Meroitic style, if now uninscribed, lay in front of these. In the entrances of some tombs, horses, camels, donkeys and dogs were buried, together with human sacrifices. Slaughtered animals were also found buried in pits elsewhere in the cemetery. Perceived as evidence of new barbarian practices by earlier generations, such sacrifices actually continue and develop practices already current in the late Meroitic period (Lenoble 1994c, 1996).

Other unusually large and rich burials are known from Gemai, just south of the Second Cataract (Bates and Dunham 1927), Firka, south of the Batn al-Hajar, and perhaps at Wawa, opposite Soleb (Kirwan 1939). Another series of very distinctive burials of this period are found at Qasr Ibrim (Mills 1982). Many of the latter have unusual features, including an abundance of metal (liturgical?) vessels which make it likely that these relate to priests and other officials who maintained the cults of the ancient religious centre into the sixth century.

Material culture

The production in the region of what we think of as Meroitic pottery probably largely ceased during the fourth century. Only a limited range of products seem to have been made by this time and it is difficult to find purely Meroitic assemblages which can be confidently dated much later than the mid-third century. During the late third and fourth centuries, however, Romano-Egyptian wares become increasingly abundant in the region, first in the Dodekaschoinos. In some early 'transitional' groups, they are commonly found associated with forms which seem to represent a continuation of Meroitic potting traditions. Substantial pottery groups of probably the earlier fourth century have recently been excavated at Qasr Ibrim (Rose and Edwards 1998). These include white kaolinitic finewares in what are essentially Romano-Egyptian forms.

By the late fourth century, a more distinctively 'Nubian' range of material seems to be developing (W.Y. Adams 1986), broadly represented by the range of material in the cemeteries at Qustul and then Ballana. A pottery workshop of this period has been found at Debeira East (W.Y. Adams 1986), while finds

of unfired sherds also indicate manufacture at Qasr Ibrim. How many others existed remains unclear. The homogeneity of forms and decoration found as far south as the Third Cataract could be the result of a limited range of production centres supplying the whole region, although it is possible that small numbers of traveling potters could also have met much of the demand. A new range of bowl forms emerges during this period, and distinctive decorative schemes, typically of vertical stripes, festoons and 'dumb-bell' decoration, generally in white and/or black on a red ground (Figure 7.7). Within larger forms, this period sees the development of longer-necked jars, comparable with the handmade 'beer-jar' forms so typical of ceramic repertoires in Upper Nubia. It may well be that this development of new jar forms was to meet specific functional requirements. The appearance of this new range of jars could relate to the culinary culture of the south, more specifically to grain beers (Edwards 1996b). Might this relate to the spread of sorghum into the north?

Unlike in Upper Nubia however, wine drinking and its paraphernalia is much more evident in the north, and we know that considerable quantities of wine amphorae were entering the region from Egypt. At the premier cult centre of Qasr Ibrim, vast quantities of amphorae and drinking vessels have been found in post-Meroitic levels, both in the area of the so-called 'Tavern' (Plumley and Adams 1974) as well as in adjoining areas during more recent excavations (Edwards 1994b). This seems to continue traditions already evident in the Late Meroitic period where Dionysian themes quite commonly appear on decorated pottery. A number of what appear to be wine-presses (W.Y. Adams 1966a) may well date to this period.

This period also sees a growing prominence of military materials, often included in burials, in a way never seen in the Meroitic period. As in more southerly regions, archer's equipment is particularly common. The often excellent conditions of preservation in the arid north have also preserved items such as elaborately tooled leather quivers as well as barbed iron arrows and archer's looses. Ironwork generally becomes much more plentiful during this period, with several finds of iron-working tools (hammers, pincers, shears) as well as essential agricultural tools such as iron sickles and hoes. Crafts such as basketry also seem to have flourished. Exceptional preservation conditions have allowed the survival of large quantities of items such as matting, woven trays and baskets at Qasr Ibrim (Wendrich 1999, 2000).

The post-Roman Dodekaschoinos and the Blemmyes

Sites of this period are marked by a distinctive assemblage of usually quite coarse wheelmade pottery, typical of contemporary Roman Egypt, usually accompanied by small quantities of a very distinctive type of handmade pottery (Strouhal 1982). Despite some attempts to link this handmade pottery with ceramic traditions originating in the south and more specifically with 'Noba' immigrants (Török 1988: 180–1), it is clear that it represents a very different

tradition from anything known from central Sudan. That this might be linked with the Blemmye has always seemed likely (Firth 1912; Emery and Kirwan 1935; Ricke 1967) and this now seems confirmed by recent finds of this type of pottery (termed 'Eastern Desert Ware') at several sites on the Red Sea coast, as well as further south at a number of locations within the Red Sea Hills (Barnard 2002). The presence of this pottery in the Nile Valley in northern Lower Nubia during the fourth and fifth centuries now seems a good indicator of the presence of these desert dwellers who had established a more permanent foothold in the Nile Valley. Occasional sherds have been found as far south as Qasr Ibrim and this distribution fits quite well with the range of known Blemmyan activity in northern Lower Nubia. While apparently disappearing in Lower Nubia during the late post-Meroitic period, it is noteworthy that during the early medieval period, small quantities of pottery which may be part of the same tradition have been found in riverine areas of central Sudan (Edwards 1998b), where they may reflect a more transitory presence of groups from the east in the Nile Valley, a presence already suggested by finds of 'Eastern Desert Ware' at Kurgus.

As in earlier centuries, the Dodekaschoinos continues to have been relatively thinly populated throughout the post-Meroitic period. It is likely that several of the temples and shrines in the region had associated settlements, but few of these were investigated in a systematic fashion during the early years of Nubian archaeology. One which was excavated in the 1960s was an enigmatic site on the west bank at Sayala, comprising a small complex of rooms built in rough stone. The complex comprised a series of open rooms with stone benches around the walls, and sometimes stone tables and what may be storerooms. Large quantities of wine amphorae, stamped mud amphora stoppers and drinking vessels found at the sites led to it being identified as a 'wine tavern' (Kromer 1967). However, the presence of several stone offering tables and the unusual character of the deposits tend to suggest a less profane purpose, perhaps associated with the cult societies of which we know the names of a number of Blemmyan officers (Trombley 1995). The only other substantial settlement site which has been investigated was at Wadi el-Arab (Emery and Kirwan 1935). While often represented as a Meroitic settlement, the pottery assemblage from the site is actually much more that of the 'post-Roman' Dodekaschoinos (Rose 1993: 81–3).

If settlement evidence is scarce, several cemeteries of this period are known from the Dodekaschoinos, particularly in the area between Kalabsha and Sayala, the largest being at Wadi Qitna (Strouhal 1984). The Wadi Qitna cemetery, with over 600 burials, may have been in use from the late third to the fifth centuries AD. It and nearby cemeteries had a number of distinctive features. Located in a very rocky region the burials generally lacked significant substructures and the bodies were laid in small chambers beneath cairns of loose stones, or more rarely, sub-circular superstructures built of stone slabs. These were often clustered together with several cairns built onto and around an original

burial(s). Such an organization of cemeteries has no obvious parallels elsewhere in Nubia and certainly appears very different from anything known from Late Meroitic, or post-Meroitic sites further south. A number of studies have investigated some of the possible social dimensions of the burial clusters, which may well relate to family groups (Strouhal 1986, 1990; Strouhal and Jungwirth 1971). The cairns are similar to the type of 'Circular Platform Tumuli' known from the Red Sea Hills (Sadr *et al*. 1995).

The flourishing religious life of the region is reflected in a number of temples and shrines, notably at the Temple of Mandulis (Merwal) at Talmis (Kalabsha). There seem to have been strong links with the Isis Sanctuary at Philae whose cult persisted through the fifth century, until finally suppressed by the Emperor Justinian in 537. From Diocletian's time, at the end of the third century, there seems to have been a measure of joint control of Philae between the local priesthood and the Blemmyes, a situation confirmed in the mid-fifth century (e.g. *FHN* III: 1153ff). Under the terms of the treaty the statue of Isis was taken from Philae into the lands of the Blemmyes and Nobadae; some cultic officials at Philae also served the Mandulis shrine. Commonly mentioned in inscriptions of this period are the officials of 'sacred dining associations', relating to cultic meals which were part of the rituals which took place when Nubians and Blemmyes visited Philae, collecting or returning the Isis statue (Trombley 1995: 225ff). That such institutions may be linked with the enigmatic remains of the Sayala '*Weinstuben*' seems not implausible, and similar associations may also have organized rites at Qasr Ibrim and Jebel Adda. Large quantities of discarded drinking vessels and amphorae were found in post-Meroitic levels at these sites.

Looking for the 'Noba'

The conventional narratives of the 'end of Meroe' seem increasingly difficult to sustain; by their nature they are also very difficult to relate to the archaeological data. Issues surrounding the supposed 'Noba migrations' also remain difficult to resolve. What is apparent, however, is that if there were any significant population movements in the late Meroitic period they have left little obvious trace archaeologically. Population movements are also not necessary to explain the cultural changes taking place during this period. The one area where we can identify intrusive populations during this period is the Dodekaschoinos, where the 'Blemmye' presence is readily identifiable.

Most of the more important cultural changes we can currently identify seem to have been taking place in more elite circles, and the institutions associated with them. What lay behind these changes remains far from clear, although interesting parallels may be drawn with similar processes underway in the late Roman Empire as new political and ethnic identities emerged around 'barbarian' military leaders (Lenoble 1999). That this was a period of insecurity and violence seems likely. There are tantalizing signs of episodes of violence and

destruction at Meroe, even if attributing them to invading Noba or raiding Axumites now seems less convincing than it did to earlier generations of scholars. Military prowess and capacity also appear more obvious in this period, with the higher profile of military equipment and fortified sites. Much more remains to be learnt about this period. It offers the possibility of studying the archaeology of the breakup of an Empire as well as of political renewal which comes with the creation of the Nubian kingdoms. The new identities which began to be formed in this period have also survived, in one form or another, into the modern world.

8

MEDIEVAL NUBIA (*c.*AD 500–1500)

Introduction

If the origins of medieval Nubia must be sought in the post-Meroitic period, great emphasis has traditionally been placed on the appearance of Christianity in the region during the sixth century. The idea of 'Christian Nubia' is now well-established through long-usage, although how appropriate it is to continue to define the period in this way is perhaps open to question, as it is when defining a later 'Islamic' period. Rather, the impact of first Christianity and then Islam should perhaps more properly be treated as fundamental research issues which need to be explored (D.N. Edwards 1999a). How Christianity transformed and shaped Nubian society during this period is rarely discussed although even within the riverine kingdoms, there are indications that the impact of Christianity varied considerably between, and within different regions (D.N. Edwards 2001). The spread of Christianity was also of course relatively restricted, apparently largely confined to the riverine parts of the Middle Nile (Figure 8.1). As in many parts of sub-Saharan Africa this was also a period in which the spread of Islam was a process of great importance (Insoll 2003). Areas such as the Red Sea littoral were to become very much a part of the Islamic world from quite early in the medieval period, while by the fourteenth century Islam has clearly also made considerable inroads into some more northerly parts of the riverine Middle Nile.

By the early medieval period, the Nubian kingdoms were only some of several substantial polities spread across Sudanic Africa, including major kingdoms such as Mali (McIntosh 1995) and later Ghana (Berthier 1997) in West Africa, as well as in the Ethiopian Highlands. By the eleventh century we have our first indications of substantial polities developing in Darfur, in Western Sudan (McGregor 2001a), and within parts of the Chad Basin to the west. The medieval history and archaeology of the Middle Nile needs to be more fully integrated with this broader macro-regional context. It may also be useful to consider wider environmental changes underway during this period, some of which may have had important local impacts during this period (S. Nicholson 1979). The second half of the first millennium AD was an era of crop failure and famine for

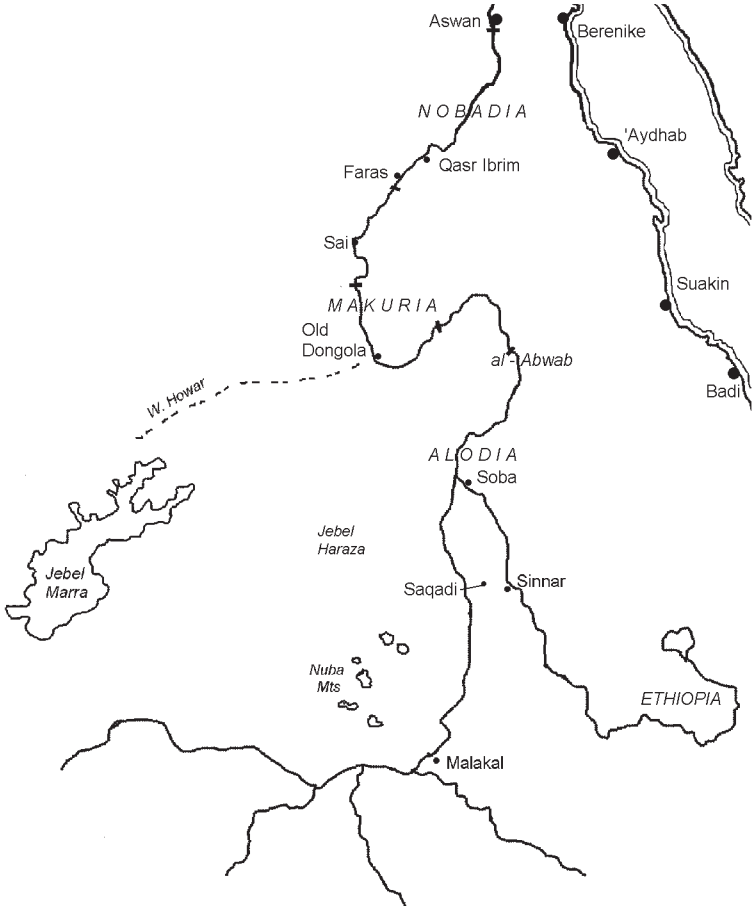

Figure 8.1 The medieval Middle Nile

much of Eurasia, perhaps relating to a major atmospheric 'event' of the early sixth century (Gunn 2000).

Whether there were major climatic changes in northeast Africa is still uncertain, but this is certainly possible. There were for example a series of exceptionally cold winters recorded in Europe in the century after AD 760–840, and ice was reported on the Nile in Egypt during the winter of AD 829, as it was in AD 1011 (Lamb 1977: 427). There were several exceptionally low Niles in the decade AD 828–37 and again in the period AD 939–48 (Popper 1951). That extreme fluctuations in Nile floods and the failure of rains may have had a wider regional impact is suggested by Ethiopian sources. Major droughts, in which God 'restrained the heavens' so that it 'could not rain', are recorded in Ethiopia during the time of Patriarch Joseph (831–49), and again of Patriarch Gabriel

(1131–49), both of which seem to have precipitated great 'pestilences' (Pankhurst 1990). These droughts in Ethiopia may credibly be linked with the low Niles of the 830s, and another recorded in 1144. Nile floods seem to have been generally good during the later medieval period. Only in two years during the period 1300–1522 were unusually low flood levels recorded, in 1373 and AD 1450.

A historical outline for the Nubian kingdoms

Historical records of medieval Nubia remain sparse and still dominated by external sources. Very few references to Nubia seem to have survived in late Byzantine Egyptian texts and we must rely mainly on Arabic sources for glimpses into the medieval history of the region, following the conquest of Egypt by the Muslim Arab armies in 640. Indigenous records are much more rare. While Coptic, Greek and latterly a written form of Nubian (Old Nubian) were used in the region during the medieval period, surviving materials are dominated by religious texts and there are very few that are useful for the writing of political or social histories. Tombstones and other inscriptions have proved a useful source of information for reconstructing elements of the religious and political hierarchies of Nubia, but we have very little information concerning the internal histories of the kingdoms.

While relatively few in number, these external sources provide glimpses of Nubia through the eyes of its neighbours, as well as recording some historical episodes, particularly concerning Makurian–Egyptian relations. References to Alodia are much rarer. The Arab sources (Vantini 1975) suggest that following the conquest of Egypt there were probably two campaigns into Nubia, the first probably in 642, with a second in 652. According to the histories written down some centuries later, Old Dongola was besieged. Despite some determined resistance, the Makurian king is said to have sought terms, and a treaty (later known as the *Baqt*) was drawn up. This established peaceful relations between the Nubians and the new rulers of Egypt.

This narrative is generally accepted as reflecting, at least in general terms, the first confrontations between the Nubians and the Arab and Islamic world. However, some caution is necessary in how these sources are used. Considerable problems remain with early Arab historiography and we need to bear in mind that the first written histories of the early Islamic period were compiled some two centuries later (Humphreys 1991). That histories written in the ninth century are reliable factual sources for the events of the seventh century is by no means certain. Certainly, a case may be made that accounts which stress Arab success in the Nubian campaigns, and subsequent inferior role of the Nubian kings in their relations with Egypt, may not be totally accurate (Spaulding 1995). The reliability of the accounts of the early Arab campaigns into Africa is not only at issue in Nubia; doubts have also been raised about accounts of the first Arab forays into the Libyan Fazzan in 662–4 (Brunschvig 1976). The events of this period will be looked at in more detail later in this chapter.

During the eighth century there are records of further wars or at least raiding between Nubians and Egyptian forces (Vantini 1975: 476). Diplomatic, and perhaps tributary relations also existed. A number of sources record how in 835 Georgios, son of King Zacharias, traveled to Baghdad to the court of the Caliph al-Mutassim, apparently concerning 'tribute' payments owed by the Nubians (Vantini 1975: 316ff). Following the overthrow of Abbasids in 865 political turmoil in Egypt seems to have spilled over into Nubia. In the later ninth century there was also a growing Egyptian interest in the resources of the Nubian Desert in the Wadi Allaqi region as well as further south. A major figure during this period is al-'Umari who, tolerated by the Tūlūnid government, took control of much of the area of the Nubian gold mines, until assassinated. Quite detailed accounts of his career are preserved by al-Maqrizi, quoting the Great Chronicle of Egypt (Vantini 1975: 708ff). These record that he came to control large areas of the Eastern Desert and northern Red Sea Hills, as well as establishing himself in the Abu Hamed region for some years. The Makurian King Giorgios had considerable problems in driving him out, also being afflicted by internal revolts by relatives. The stories also provide an early testimony of the problems faced by the Makurians kings in maintaining the unity of their kingdom. As al-'Umari was able to benefit from these internal divisions, later Egyptian rulers were to be able to take advantage of Nubian civil wars, to the extent of being able to install their own candidates on the Makurian throne.

In the mid-tenth century we again hear of major unrest on the Egyptian frontier, with 'Nubian' raids reaching the western oases and ravaging the Aswan area in 344 AH/AD 956. The origins of these raids and whether they were the result of government policy remains obscure, as do their possible links with Egyptian rebels. However they prompted reprisal raids into northern Nubia, which took Qasr Ibrim (Vantini 1975: 634) and a further Egyptian campaign in 963. After this, with the return of Fatimid rule in Egypt, relations between Nubia and Egypt are thought to have been relatively good in the later tenth century. A raid by Nasir ad-Dawla b. Hamdan into Nubia in 459 AH/AD 1066 was apparently crushingly defeated by the Nubians.

At the end of the twelfth century, with the overthrow of Fatimids, renewed hostilities on the frontier prompted a major punitive campaign by the new Ayyubid rulers of Egypt in 1173. Led by Salah ad-Dīn's (Saladin) brother Shams ad-Dawla Turanshah this, like most of the 'wars' seems to have been restricted to Lower Nubia, again culminating in the capture of Qasr Ibrim. Apparently unimpressed by the resources of Nubia, the Egyptians withdrew after two years.

During the Mameluk period there were increasing interventions by the Egyptians into Makurian politics, especially under Baybars and Qalāwūn. There was a campaign by an army of Qalāwūn into Nubia in 1288. The regent of Dongola Simāmūn ordered the governor of Lower Nubia to evacuate the region in advance of the Egyptian army. They fell back to the south, but he was defeated in battle and the Egyptians installed a puppet king at Dongola with an Egyptian representative and a small garrison. Once the Egyptian army returned north,

Simāmūn was able to return to Dongola and oust the Egyptians and the new king and while a large Egyptian expedition was again sent south the following year, forcing Simāmūn to abandon Dongola, he was again able to re-establish his control once the army left in 1290.

Al-Nâsir Muhammed succeeded in installing a Muslim member of the Makurian royal family, Abdalla Barshambu, on the throne at Old Dongola in 1311–12, but was quickly overthrown by Kanz ad-Dawla who survived to see the conversion of the old royal throne hall into a mosque in 717 AH/AD1317. Egyptian interventions in Makuria continued into the reign of al-Ashraf Sha'ban (1363–77) when Makuria seems to have collapsed, at least in terms of centralized government control. Old Dongola seems to have ceased to be the main political centre after this period, although the heirs of the Makurian kings may well have survived in Lower Nubia, appearing in texts as the Kingdom of Dotawo, perhaps based at Jebel Adda. A few documents relating to this period in Lower Nubia have survived. The latest dated document, of 1484, names a number of officials as well as a Bishop of Qasr Ibrim (Adams 1977: 533). After this date, very little is known of the region until the appearance of the Ottoman army in the 1560s (Alexander 1994, 1995). By that time the Funj sultans of Sinnar seem to have been, at least nominally, in control of the Dongola Reach. It would seem that the southern kingdom of Alodia had also disintegrated sometime before this; its capital Soba appears to have been largely ruined by the beginning of the sixteenth century when the Funj began to establish a new kingdom centred on Sinnar (Welsby 2002a).

The conversion of Nubia and its archaeology

We are fortunate to have historical accounts of the conversion of Nubia to Christianity, notably two (partisan) accounts of John of Epheseus and John of Biclar (Vantini 1975). While the new religion may well have penetrated into Nubia some generations earlier, from the mid-sixth century a number of official missions were dispatched from the Byzantine court to the region, representing both the Monophysite and Melkite (Dyophysite) churches. A Monophysite mission, apparently dispatched by the Empress Theodora, reached Nobadia in 543 and over two years the king and many of his nobles were baptized. Initially entrusted to the care of the Bishop of Philae, a second mission returned under Longinus around 551 to further the mission and establish the institutions of the Church.

John of Biclar seems to suggest that the Makurians were converted by 569, along with the Garamantes of the Libyan Fazzan, although no archaeological evidence for Christianity has yet been found in Garamantian areas (Mattingly *et al*. 2003). Another record of 573 seems to record a Makurian embassy reaching Byzantium, bringing ivory and a giraffe amongst other gifts. Links between Makuria and Byzantium may well be reflected in the distinctive Byzantine architecture of early churches at Old Dongola (Godlewski 1992). John of

Epheseus also tells us that the King of Alodia asked for a mission to be sent to him from Nobadia and Longinus travelled south, apparently passing through the Eastern Desert to avoid hostile Makurians. By the end of the sixth century, the three Nubian kingdoms were at least nominally Christian. Whether the different kingdoms were doctrinally distinct at the beginning has been much debated. However, following the unification of Nobadia and Makuria, Monophysitism seems to have been secure, acknowledging the authority of the Patriarch of Alexandria. While the influence of Egypt seems to have remained strong and bishops continued to be appointed by the Patriarch into at least the fourteenth century (Plumley 1975b), Nubian Christianity also begins to develop its own character.

Archaeological contributions to our understanding of the conversion of Nubia still remain relatively limited. The 'official' narrative has tended to dominate most discussions of this period, even if is often allowed that there may have been some penetration of Christianity *before* the official/royal conversion (Kirwan 1982a, 1987; W.Y. Adams 2000: 102) recorded in the texts. The conversion of Lower Nubia is portrayed as 'extremely rapid and thorough', a relatively unproblematic, and even 'inevitable' process (W.Y. Adams 1977: 444–5) for which the historical texts provide the key chronological benchmark around AD 550.

While it has long been suggested that the processes of Christianization in the north may have begun significantly earlier, possibly during the later fifth century, little progress has been made in tracing such earlier developments (Török 1988: 69–73). Archaeological studies have tended to focus on the appearance of Christian symbolism on artifacts as markers of religious affiliation, the adoption of the 'Christian' extended east–west burial without grave-goods, and subsequently, aspects of a more general cultural conversion, particularly in arts and crafts. In Lower Nubia such indicators are seen, for example, in the 'Christian' material, such as baptismal spoons and church treasures, in the royal cemeteries at Ballana (Török 1988: 69ff) or the appearance of 'votive lamps' with overt Christian symbolism in settlements (W.Y. Adams 2000: 86–9) and then the general transition from the 'typical' post-Meroitic tumulus burials to Christian forms. Aspects of more general cultural conversion associated with Christianity, drawing Nubia towards larger-scale cultural traditions of medieval Christendom are latterly seen in religious architecture and decorative arts and new repertoires of 'Christian' pottery.

Some recent work, looking at the internal chronology of post-Meroitic settlement (Edwards 2001), suggests that the shift to Christian burial practices was by no means immediate. The new practices seem to have first taken root in the core areas of Nobadia, north of the Second Cataract. Further south, however, there are also indications that not only was this area colonized at quite a late date, but that by then most of the population further north had already abandoned pagan burial forms. Late types of post-Meroitic pottery, which predominate in sites south of the Second Cataract, are rarely found in cemeteries further north.

With regard to the conventional narratives of conversion, some interesting questions may also be raised concerning the royal and elite burials at Ballana and the disappearance of this tradition of burial. On the ceramic evidence, these also stop earlier than pagan burials further south as late post-Meroitic pottery types are not found there. Current opinion (see Török 1988 for a review) also suggests that the last of the royal graves dates probably not much later than AD 500 and as such, significantly predates the historical missions to Nubia. Previous explanations for the end of the series of pagan royal/elite burials at the cemetery have thus looked to internal political developments, conflict with the Blemmyes or changing relations with Byzantine Egypt (Williams 1991b: 159). However, when seen within the context of wider regional developments, rather than seeking another cause for the abandonment of these great tumulus burials, the simplest and most parsimonious interpretation is that, after the last of these burials, the Nobadian kings and their elite were being buried according to Christian rites. As such, they effectively disappeared from the archaeological record. Their lead seems to have been quickly followed throughout much of Lower Nubia.

Were the Nobadian elites actually accepting Christianity a generation or two before the date of Julian's mission? Were some of the later burials at Ballana of individuals 'on the threshold of Christianity' (Kirwan 1982a: 143)? What have been described as Christian 'church treasures' (including a reliquary, censer, baptismal spoons, silver dishes and bowls) were found at Ballana, notably in tomb B3, perhaps datable to around AD 450–75 (Török 1988: 143). Rather than objects looted from an Upper Egyptian church by Nobadian raiders in the early fifth century (Török in Eide *et al*. 1998: 1141), we might wish to look again at Kirwan's suggestion that they actually relate to converts or potential converts, albeit still being buried with pagan rites (1982: 143). That the process of conversion of the Nobadian elite may have begun significantly earlier than the 'official conversion' recorded in the historical texts is certainly very possible.

Whatever the exact date of the end of the sequence of burials at Ballana, it seems reasonably certain that the abandonment of pagan burial practices was by no means immediate everywhere. Such overt pagan practices may have survived for no more than a few generations, but we may be able to see some of the dynamics of the process of conversion. It is perhaps not surprising that what appear to be very late pagan burials in the north occur at Qasr Ibrim which, as a great shrine and pilgrimage centre, may well have been one of the last bastions of the old religion in Nubia. If their exact date remains uncertain, they seem likely to be significantly later than any pagan royal burials found at Ballana.

Looking beyond the period of transition, a number of other significant changes can be seen in mortuary practice among Christian populations of the medieval period. One innovation was the appearance of collective tombs, probably most common among the religious, and perhaps reflecting similar practices found in monastic contexts in the Levant (Żurawski 2002b). Examples appear widely spread, from Soba (Welsby 1998) to Lower Nubia. The most

elaborate examples yet found come from a monastic context in Old Dongola, where the crypt of Archbishop Georgios (died 1113) was excavated in 1993. Amongst similar crypts in the complex, at least one burial associated with extremely fine textiles may be that of one of the secular elite. The walls of the crypt were covered with magico-religious texts, including parts of four gospels (Żurawski 2002b). Similar texts have been found within graves associated with the cathedral at Qasr Ibrim as well as at a little explored site on the west bank of the northern Dongola Reach at Koya (Bonnet 1991).

Graves were commonly marked with a range of superstructure forms (W.Y. Adams 1998a). Typically, from the early Christian period, brick mastaba or pavements covered the graves. More elaborate examples were formed into cross-shaped superstructures, plastered and whitewashed. More rarely, and usually restricted to the elite, or religious, grave stele were built into the superstructures, while wood or ceramic crosses might be attached to them. While some could be quite substantial, and even ostentatious, excavations from Old Dongola suggest that such superstructures were commonly dismantled and their materials re-used. Oil lamps were often placed at the graves, sometimes in specially constructed lamp niches on the tomb superstructure. Finds of small bowls are also quite common amongst surface pottery in cemetery areas, especially during the Early Christian period. Not all elements of the population received the same treatment in burial. Very small children and infants were often buried inside pots or amphorae within cemetery areas. They are also found within settlements, buried beneath floors (Barnard 1994), a practice still encountered in Egypt in the early twentieth century, believed to help mothers have more children (Blackman 1927).

Until recently, one dimension of medieval burial which remained obscure was that of the royal elites. In Nobadia, no royal burials were ever identified which might represent the Christian successors of the kings buried at Qustul and Ballana. Two otherwise unique rock-cut tombs at Old Dongola (Jakobielski 1982) have suggested the possible presence of elite burials there, but royal tombs at Old Dongola have so far proved elusive. A church recently discovered at Banganarti, a little to the south of Old Dongola, may change the picture (Żurawski 2002a, 2002b). Consisting of a series of chapels decorated with portraits of kings and the apostles and large numbers of inscriptions and graffiti, the church appears to have been a royal mausoleum and site of commemorative cults of the dead kings as well as an important centre of pilgrimage. Beneath the church is an earlier one in which kings and others were buried. It is possible that the first chapel dates back to the early medieval period. The presence of a large pagan tumulus cemetery closeby, at Hammur, suggests the possibility that earlier pagan kings were buried in the vicinity. One inscription which names a King Siti, King of Dotawo (a late manifestation of Makuria) during the early fourteenth century, suggests the site remained in use until near the end of kingdom.

Medieval societies: settlement, economy and material culture

In the early medieval period we are seeing the appearance of a new settlement landscape, with few obvious links to that of the Meroitic period. We can see the appearance of new urban centres, foci of political and religious power. If the fate of the Meroitic centres in their later years remains far from clear, there can be little doubt that these did not survive as major centres in medieval Nubia. New ways of living, already beginning to emerge during the post-Meroitic period, continue to develop, creating new rural lifestyles; in the north based on irrigated agriculture. Despite many changes, other aspects of peoples' relations with the landscapes may have maintained much older traditions. Rock drawings still continued to be created, marking significant places in the landscape. Landscape features also continued to be foci of popular religion, both in 'Christian' Nubia as well as other parts of the Middle Nile, as they have into modern times.

Especially in the north, we also can see the appearance of quite dense rural settlement, with often substantial villages. There were also some major shifts in the foci of settlement, and perhaps in forms of subsistence. By contrast with earlier periods, the use of both mudbrick and burnt brick architecture gradually became much more widespread. Traces of such settlements, including numerous village churches are still visible, very tangible traces of the medieval world, across much of northern riverine Sudan. Such traces tend to be less evident the further south we go. The erosive effects of seasonal rains have doubtless been an important factor in the much poorer preservation of building remains in more southerly areas, while we also know that much greater use was made of wooden structures in central Sudan during the medieval period. Until very recently, this has undoubtedly encouraged us to underestimate the cultural achievements and significance of Alodia and southern Nubia, just as it has perhaps encouraged an overestimation of the wealth and importance of medieval Lower Nubia.

Constrained by the available data, it was of course not unsurprising that the far north has so dominated our perceptions of medieval Nubia as a whole. However, there can be little reason to doubt that both in terms of environment and resources more southerly areas were significantly richer and diverse than those in the arid north. Contemporary reports such as that of al-Aswani record that Alodia (Alwa) was a more extensive and fertile country than its northern neighbour: 'the king of 'Alwa is more powerful than the king of Muqurra, has a larger army and more horses than the Muqurran: his country is more fertile and larger; but palm trees and vines are less numerous in his country' (Vantini 1975: 613). If our knowledge of medieval Alodia still remains extremely limited, there is certainly good evidence that it was a formidable and sophisticated kingdom, of the savannas as well as the Nile (Figure 8.1).

Figure 8.2 'Palatial' building beside the main churches at Soba during the 1985 excavations

Alodia

Our knowledge of the southern kingdom is still very much dominated by excavations at its capital Soba, first carried out by the Sudan Antiquities Service in 1950–52 (Shinnie 1961) and more extensively in the 1980s and 1990s (Welsby and Daniels 1991; Welsby 1998). Surveys of the site suggest that it may have spread over as much as 2.75km^2, although not all the area was occupied in any one period. Up to 29 mounds covered by red brick rubble seem likely to mark the sites of churches and other monumental structures (Figure 8.2). Many of the churches may have had cemeteries associated with them. Other buildings were built in mudbrick, but large parts of the site may have been covered with more lightly constructed wooden buildings. Trial excavations revealed areas filled with postholes marking the site of numerous round-houses and associated structures. The site may have reached its greatest extent relatively early in the medieval period. It does not appear to have ever been enclosed.

Excavations of parts of the largest mound on the site have revealed parts of a major complex of monumental buildings. At its west end, three churches were found, two of them possibly cathedrals, with a massive two-storey palatial structure adjoining them (Figure 8.3). Excavations at the east end of the mound in the 1950s uncovered parts of other buildings, substantial enough to suggest

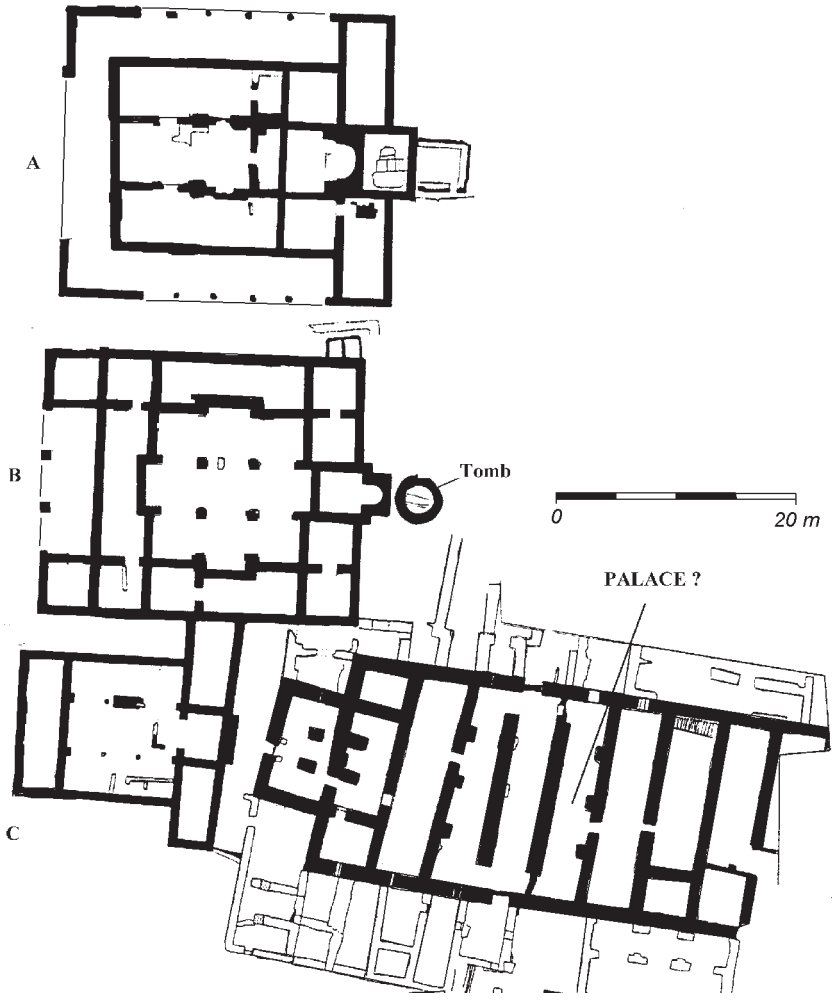

Figure 8.3 Soba churches and palace
Source: based on Welsby and Daniels 1991

to the excavator that they might have formed part of a royal residence. The presence of the cathedrals and palatial structure(s) indicate that this area was one of great importance at Soba and probably the ecclesiastical centre of the town, and presumably of the kingdom as a whole. However, whether the royal palace was also located here is unknown. While the close proximity of the 'palatial structure' to the cathedrals might point to it being a bishop's palace, it could equally be a 'royal' building and such identifications are only a matter of conjecture at the moment. A not dissimilar structure at Old Dongola, whose

second floor is still preserved, is currently regarded as a 'royal throne-hall' (Godlewski and Medeksza 1987).

As noted in the previous chapter, it seems likely that the early medieval period saw the construction of a number of fortified settlements such as those at Jebel Umm Marrahi, near the Sixth Cataract and Jebel Nakharu, opposite the site of Meroitic settlement of Dangeil. The date of their construction remains uncertain, but they seem unlikely to predate the late post-Meroitic period and, as further north, may relate to the consolidation of the early medieval kingdoms. Ibn Hawqal, who visited the region during the second half of the tenth century described the land as 'an uninterrupted chain of villages and a continuous strip of cultivated lands' (Vantini 1975: 162). However, very little is known of settlement between the Fifth Cataract and the confluence of the Niles (Edwards 1989). Some recent survey north of Meroe identified a small number of sites, including some possible farmsteads along the desert edge (Mallinson *et al*. 1996). It seems likely, however, that most medieval settlement was located much closer to the river, especially in the richer basin lands, areas which have still never been explored archaeologically. Few indications of any permanent occupation have been found in the Western Butana, although there are a small chapel and some Christian graves at Musawwarat es-Sufra (Török 1974b).

How far the territory of Alodia extended still remains unclear. Doubtless this changed over time. A number of sources suggest that in the Atbara area there was a smaller kingdom known as 'al-Abwab'. North of there, in the barren and

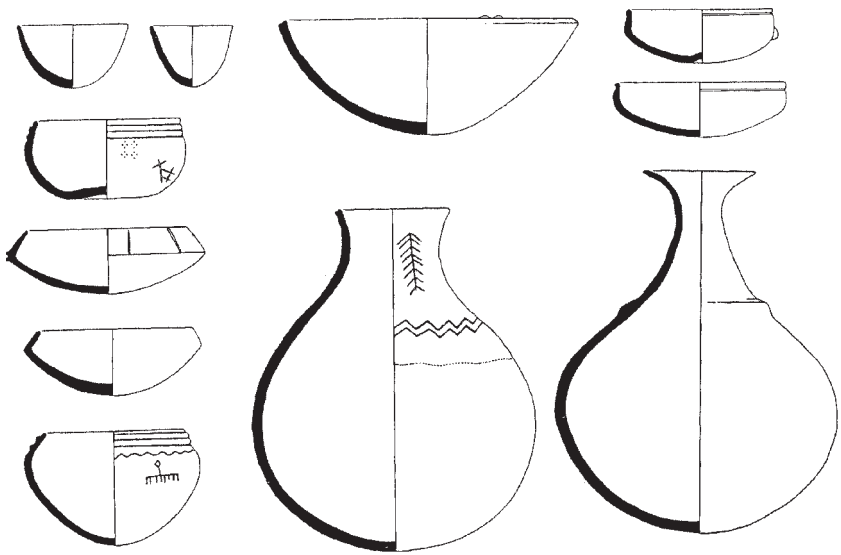

Figure 8.4 Medieval Alodian (handmade) pottery

rugged stretch of the Nile leading to the Abu Hamed bend, medieval sites, including enclosed settlements and churches, are quite numerous, especially on the islands (Edwards 1989; El-Amin and Edwards 2000). However, from what is known of the archaeology of the region it seems likely to have been more closely linked with the Makuria rather than Alodia far to the south. On the east bank, populations also seem likely to have interacted with groups in the Eastern Desert, as they have in more recent periods. Al-Aswani recorded that Beja groups known as the 'Zanāfij' lived in the area, together with, but apart from, the 'Nuba' (Vantini 1975: 608). The heterogeneity of populations in the region may perhaps be seen in cemeteries in the area; one recently excavated at Kurgus in the Rubatab region (Welsby Sjöström 2001) showed a remarkable variety of different superstructure forms, many of which seem likely to be of medieval date.

South of the confluence of the Nile, we again have little hard evidence for the form and character of medieval settlements, although a few isolated medieval structures have been excavated in the Khartoum region, for example at Defeia (Vercoutter 1961). Sites of ancient settlements are known along the Blue Nile, many of which seem likely to be of medieval date. Traditionally, surface scatters of redbrick rubble on these sites are thought to mark the location of churches, and in many cases this may well be the case. The only excavated church in the region is one at Saqadi in the interior of the Gezira, near Jebel Moya. Very little else is known of the archaeology of the interior of the Gezira, although some post-Meroitic graves, as well as occasional medieval finds, have been reported there, notably in the Manaqil area (e.g. el-Tayeb 1999).

Much of the material culture of medieval Alodia seems to develop out of earlier post-Meroitic traditions. Traditions of handmade pottery manufacture continued to thrive. Burnished black and red wares seem to have remained very common, unlike in the northern kingdoms where new wheelmade industries dominated production (Figure 8.4). As during the post-Meroitic period, black burnished pottery remains much more common in this region. As yet, how pottery changed and developed through the medieval period remains unknown. The most distinctive ceramic product of Alodia was a decorated wheelmade fineware ('Soba Ware') which appears to have been produced only in the earlier medieval period, its production limited to a variety of bowl forms and larger basins. With often elaborate polychrome decoration painted over a black or brown slip, it is very different from medieval wares made in Makuria. Pottery from the northern kingdoms and from Egypt is also found at Soba but only in very small quantities. 'Islamic' glazed wares were also imported, while some fine medieval glass has been found there, most of it broadly datable to between the ninth and fourteenth centuries. Most probably it came from Egypt, but some may have come from further afield, perhaps Iran (Morrison 1991).

Very little is known of subsistence practices in this region. Limited archaeobotanical remains recovered at Soba suggest that sorghum and bulrush millet were the main crops, with a limited presence of hulled barley. Some pulses were also found, as well as evidence for grapes and figs (van der Veen 1991;

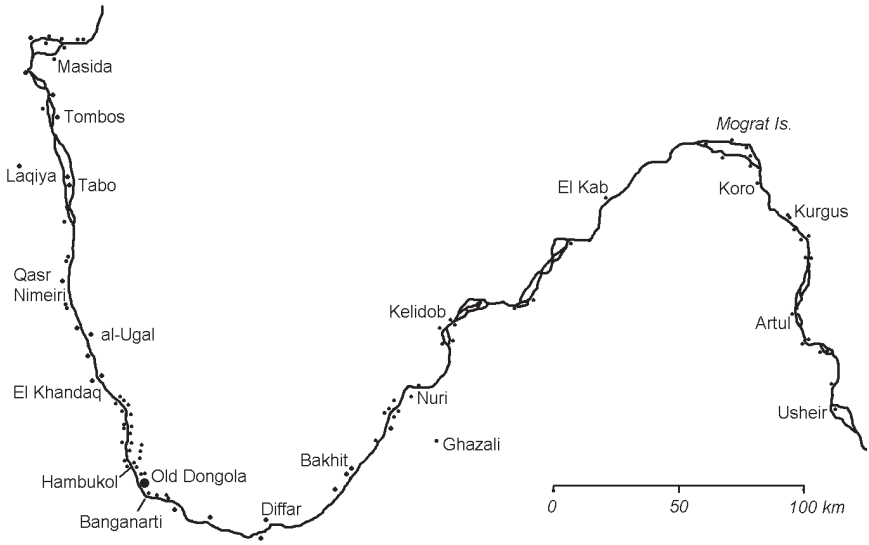

Figure 8.5 Settlement in the Makurian heartlands

Cartwright 1998). The presence of barley, albeit in small quantities, is of interest so far south. How and where it was grown remains uncertain. Al-Aswani reported that 'the commonest grain among them is the white dhurra which resembles rice; with it they make their bread and their beer; they have plenty of meat because of the abundance of cattle and large plains for grazing plain land'. He also noted the practice of both riverine and rainland agriculture within the Gezira ('the great island between the two rivers') inhabited by a people called the Karsa, and that 'the provisions of the (people of the) country of 'Alwa and of their king come from this district' (Vantini 1975: 613–15). One other key resource, essential for people and also for livestock, was salt. Zarroug (1991) has identified a number of locations in the Soba region which may have been exploited for salt during the medieval period. Salt-processing sites on the Atbara have been identified recently (Tigani al-Mahi 2000) although whether they were established as early as the medieval period remains unknown.

Makuria

Something of the broad patterns of medieval settlement in the medieval Dongola Reach can now be discerned (Figure 8.5), although virtually the only sites which have seen systematic excavations are within the capital, Old Dongola and at Hambukol (Grzymski and Anderson 2001), one of several medieval settlements in the Letti Basin. Recent surveys have begun to show the extent of medieval settlement elsewhere, although we still have very little information

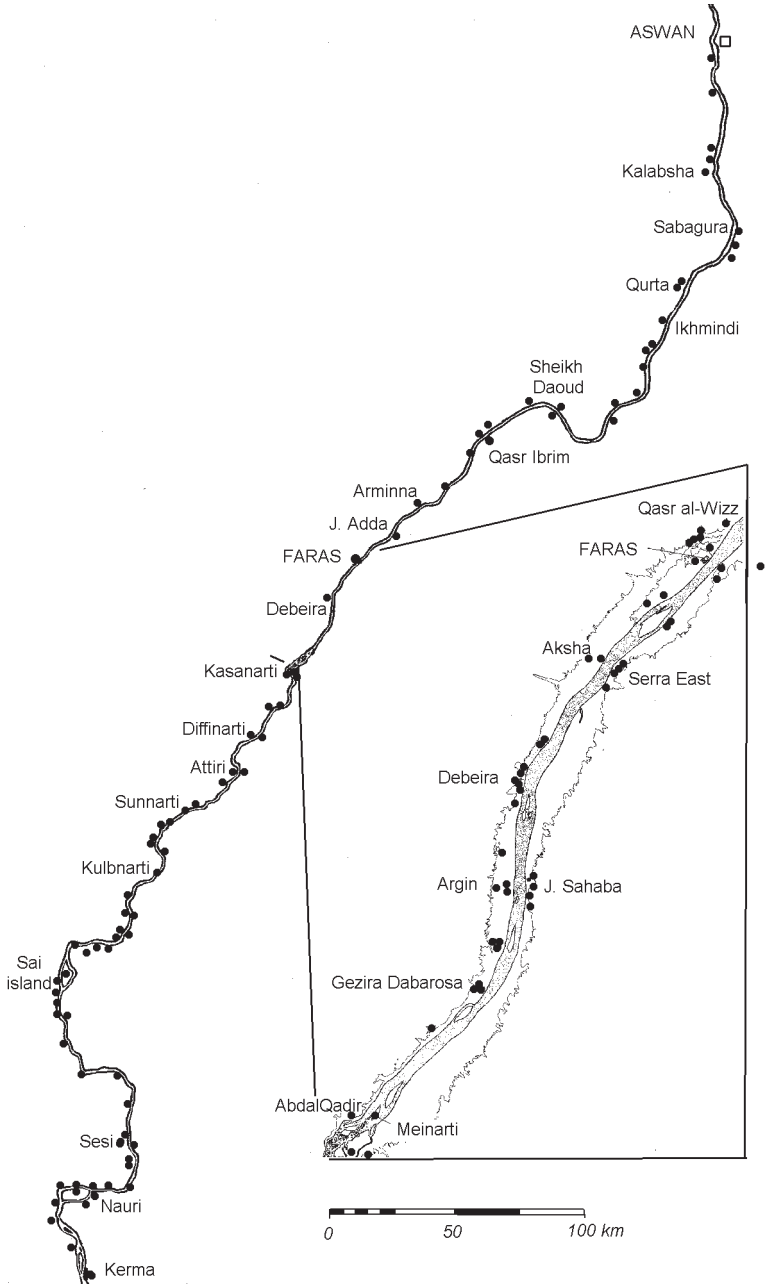

Figure 8.6 Medieval settlement north of the Third Cataract – only larger sites shown

from several potentially key areas such as the Kerma Basin and Argo Island, and the left bank of the southern Dongola Reach. Medieval settlement also seems to have been widespread in the very rugged landscapes between the Fourth Cataract and Mograt Island. While always thinly populated, this region was able to support small communities while also providing an area of refuge. There are several large medieval fortified sites along the river and on Mograt Island.

The medieval period also saw the appearance of much more settlement to the west of the Nile, where there is very little evidence for either Meroitic or post-Meroitic occupation. While much of the east (right) bank north of Dongola was increasingly afflicted by drifting sand, the west bank seems to have been more attractive for settlement, probably benefiting from the increased opportunities provided by irrigated *saqia* agriculture. Several substantial villages appeared in this area, their ruins often surviving into the nineteenth century. The remains of a large rectangular enclosure with rounded bastions survived at al-Khandaq into the twentieth century, although virtually no traces survive today. Several other large fortified sites were also built during the medieval period, some of which continued in use into recent times. One of the largest of these was at Jebel Bakhit, a hilltop site with massive bastioned walls enclosing an area of *c.*2.5ha (Żurawski 2002a).

Old Dongola itself seems to have been a sprawling settlement of similar size to Soba with outlying sites such as monasteries close by. Its core seems to have been a fortified hilltop likely to date to back to the late fifth or early sixth century AD (Godlewski 1991c; 1998). Very little is known about this area, although it may have palaces and churches within it, and seems to have been occupied as late as the fourteenth century. Just outside the northern walls two churches seem to have been built during the sixth century, at least one of which may have been destroyed by the Arab army in the following century (Godlewski 1992). In the following centuries, settlement seems to have extended northwards forming large suburbs, although only very small areas of these have been excavated (e.g. Godlewski 1991a). Further churches, monasteries as well as industrial areas, including pottery workshops, were spread across these areas.

Medieval occupation also spread into some of the small oases west of the river. Christian cemeteries are known from around the al-Laqiya oasis west of modern Dongola (Bonnet 1991), and other, probably medieval remains have been reported from Selima Oasis, to the north. Such locations seem likely sites for monastic communities, amongst others. Some 100km to the west of the Nile along the Wadi Howar, one substantial fortified site has also been located recently at Qala Abu Ahmed. The main enclosure covers an area of *c.*1 hectare, with stone walls surviving in places up to 4m high (R. Kuper 1989). It may well date back to the Kushite period but it seems likely to have continued to be used during the medieval period. Its location on this great wadi may relate to the need to control this route to the west of the Sudan.

Nobadia

The settlement archaeology of Nobadia is much better known than that of more southerly regions (Figure 8.6). The names of most twentieth-century settlements in Lower Nubia can be traced back to the medieval period and patterns of settlement seen in the region in recent centuries seems likely to have much in common with those established in the medieval period. Where post-Meroitic settlements have been investigated, most seem to have continued to be occupied into the medieval period. Elsewhere, the widespread continued use of cemeteries of the pagan period also suggests that medieval settlements continued the occupation of sites founded during the post-Meroitic period. In the Batn al-Hajar, over 60 per cent of pagan cemeteries also had Christian burials within them and in general it seems that most of the settlements, probably established in the sixth century, continued to develop during the early medieval period; a similar pattern was also encountered in the Sikkoot area south of Dal (Vila 1979). While survey of areas extending to the Third Cataract is not complete, the few pagan post-Meroitic sites all seem to be of a late date and the largest cemetery at Jebel Sesi, opposite modern Delgo, seems to mark the beginning of the site as an important centre. The fortification of the hilltop above the cemetery seems to have taken place during the early medieval period. If there was relatively limited settlement in this region during the post-Meroitic period, medieval sites datable to the early medieval ('Early Christian') period are far more abundant, probably part of an ongoing process of colonization by small farming communities.

If much of the patterning of medieval settlements seems to have been continuing processes already underway, some significant changes and new developments can also be discerned in settlement forms. Prominent in Lower Nubia is the appearance of well-fortified settlements, also encountered further south. These are most common in northern Nobadia where a series of such walled communities are known (Figure 8.7), notably at Kalabsha, Sabagura (Stenico 1961–2), Ikhmindi (Stenico 1960) and Nag el-Scheima (Bietak and Schwarz 1987, 1998). These rectilinear fortified sites all seem to date to the early medieval period and bear many similarities to contemporary late Byzantine models. A dedicatory inscription from Ikhmindi (Donadoni 1959) records its foundation in the reign of King Tokiltoenon, probably in the 570–80s.

Their construction probably reflects the continuing insecurity of the region, particularly exposed as it was, and had been for some centuries, to incursions from the desert. The rationale for the investment in such foundations is less certain, however. The agricultural resources of northern Lower Nubia, especially the old Dodekaschoinos, were never large, and historically it seems to have been more thinly populated than areas further south, as it had been during the post-Meroitic period (Rose 1993). As such, the early medieval period seems to have seen a significant growth in the region's population. More peaceful conditions may have provided a stimulus for this, but it seems likely that foundations

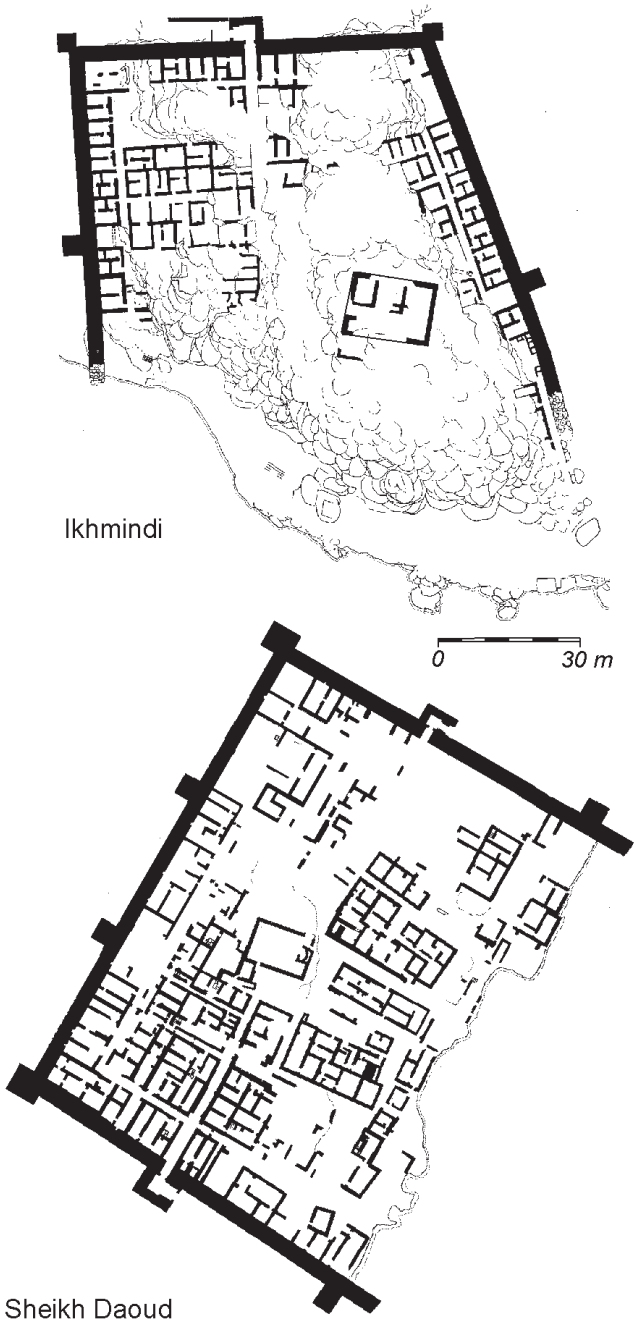

Figure 8.7 Early medieval 'townsites' at Ikhmindi and Sheikh Daoud

Figure 8.8 Plans of Arminna (top), and Meinarti *c.*AD 1100
Source: based on Trigger 1967 and Adams 1968b

found much of their importance as secure stations both for riverine trade from more southerly parts of Nubia to Aswan, as well as perhaps for routes running to the Red Sea.

Such sites were not restricted to the far north, however. Another fortified site lay at Sheikh Daoud (Figure 8.7) while the largest was constructed at Faras. Despite early speculations that the walls of Faras might be of Meroitic date (e.g. Griffith 1926a), it now seems certain that they were of early medieval date and many similarities have been noted between the methods and materials employed in the construction of both the enclosure walls and the cathedral (Karkowski 1986). The construction of the new town at Faras should perhaps be seen in the context of a series of changes taking place at, or soon after, the Christianization of Nubia. In the absence of evidence for any substantial settlement during the post-Meroitic period, Faras was developing as a new royal and religious centre and seems to have supplanted Jebel Adda, which was probably the main centre for the pagan Nobadian kings. There may have been a bishop at Faras from the early seventh century, although the great cathedral, excavated in the 1960s, was a new foundation of AD 707, built by Bishop Paulos (Jakobielski 1969).

The best-studied Nobadian settlement is perhaps that of Meinarti, an island settlement at the north end of the Second Cataract, established in the very late Meroitic, or perhaps early post-Meroitic period (Adams 2000, 2001, 2002). The settlement had a dynamic history with several distinct phases of occupation, marked by major rebuilding episodes. During the early medieval period, perhaps in the late sixth century the existing settlement was rebuilt, now with a church, becoming a sprawling and haphazard complex of buildings. Sometime around the end of the millennium the site seems to have been abandoned, for reasons which remain uncertain, although evidence of flood damage was found. After a brief hiatus, the site was re-occupied and rebuilt (Figure 8.8). Several much more substantial houses were constructed, often with numerous store-rooms, and it may well be that the site had developed a new official importance. A son of the Eparch was buried there in 1161 (Barns 1954), and the Eparch seems to have had strong associations with the island ('the Island of Michael') in later centuries. The site was then abandoned, the doors of many of the houses being blocked up, perhaps for a significant period. There is good reason to believe that this occurred during the Ayyubid campaign into Nubia in 1172–3.

When re-occupied, an unusual large building, decorated with wall-paintings was built within the settlement. Once thought to have been a monastery, this may well have been an official building, perhaps the home of the Eparch of Nobatia (W.Y. Adams 2002). Further rebuildings saw the appearance of some 'unit houses', small discrete structures very different from earlier building complexes. Probably some time in the thirteenth century much of the site was again abandoned; this time the inhabitants left many of their belongings behind. Strangely, these were not recovered when the site was re-occupied.

Figure 8.9 Later medieval 'castle-house' in the Third Cataract region

This phase of settlement ended around 1300. After this, there was only limited occupation on the site until it was abandoned, perhaps around 1400.

How typical the history of Meinarti was remains uncertain. Its island location, straddling the north end of the Second Cataract, was clearly one of considerable strategic importance. At least in general terms, settlement north of the Second Cataract seems to have been concentrated in walled settlements or other compact, densely packed communities. Where these have been studied, they also often show complex settlement histories, with settlements sometimes shifting locations following breaks in occupation. Debeira West (Shinnie and Shinnie 1978) also seems to have been abandoned sometime after *c*.1100, perhaps at the same time as Meinarti and perhaps part of a more general process which saw new patterns of settlement emerging after the twelfth century (Adams 2001, 2002). Several other important settlements also seem to have been largely abandoned at around this time, including both Arminna West (Figure 8.8) and Abdallah Nirqi. At the latter there were widespread destruction deposits (Barkóczi and Salomon 1974). Both the cathedrals at Qasr Ibrim and Faras were also damaged around this time. Other sites were fortified, while some new settlements were founded. At Serra East, on the east bank of the river nearly opposite Faras, the ancient Middle Kingdom fortress was re-occupied. The choice of site, in an otherwise bleak and inhospitable location, is probably a good indication that defence was a major concern. It is possible that the four churches at Serra dating to this period (Knudstad 1966) may relate to different

communities which relocated to the site. This may also account for up to seven churches at Jebel Adda (Millet 1967).

The extent to which the larger nucleated villages were part of a more complex settlement landscape of smaller hamlets and farmsteads is less clear. Clusters of houses and isolated buildings were recorded in some numbers by survey work within Sudanese Nubia, and some examples excavated, for example north of the main village at Debeira West (Shinnie and Shinnie 1978). They are not uncommon in areas further south. Further north, fewer such sites are recorded, but this may be largely a reflection of the much less intensive survey carried out in Egyptian Nubia.

During the later medieval period, further major changes in settlement can be seen. Several settlements in Lower Nubia proper do not seem have survived and there are very few 'Late Christian' churches in Lower Nubia. By contrast, there seems to have been an increase in settlement in areas further south. More than half of the medieval sites in the Batn al-Hajar are of later medieval date, including several large sites; they are also common in the Third Cataract region (Figure 8.9). Many of these were located in quite inaccessible areas and a concern for defense is often evident. That such areas served as 'a major refuge for populations fleeing from the political disturbances in other more exposed regions' (Adams 1977: 513) seems likely.

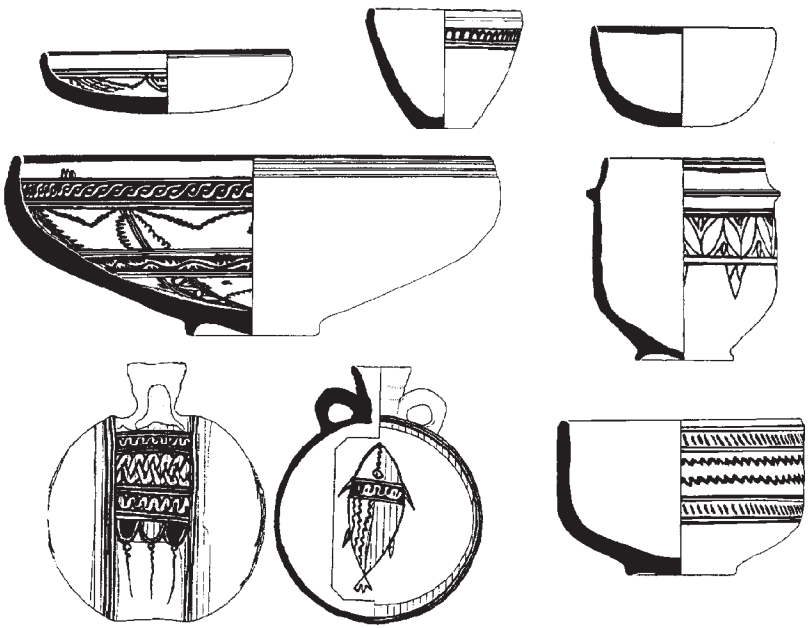

Figure 8.10 Decorated medieval pottery from the Dongola region
Source: based on Grzymski and Anderson 2001

Late medieval ('Late Christian') churches also tend to become much smaller, often little more than small chapels. Another distinctive architectural development, perhaps from the thirteenth century, are forms of two-storey 'castle-houses', commonly built with a stone lower storey and mudbrick superstructures (W.Y. Adams 1994b). These may be a development of earlier types of 'unit-houses'. There are a few such buildings north of the Second Cataract, at Qasr Ibrim, Jebel Adda, Faras and Serra, but most are found further south, largely between Tanjur (in the southern Batn al-Hajar) and the Third Cataract, where they are common (Edwards and Osman 2000).

Material transformations

Tracing how material culture changed and developed through the medieval period can as yet only be attempted in very general terms in the absence of many systematic publications of 'small finds' or pottery assemblages from excavations. Those that we have come largely from a few Lower Nubian sites. In the absence of the systematic recording and quantification of such material any conclusions must remain impressionistic. While settlement sites may produce many thousands of pottery sherds, how abundant really was pottery, and especially the fine decorated pottery which we know most about? How many pots did Nubian households actually own? We also face problems in that many of the most essential items of every-day life are likely to have been made from generally perishable materials, notably basketry-work, matting, textiles and leatherwork. Such items may well have been domestic manufactures but may also have been the stuff of local trade and exchange.

That the early medieval period saw an expansion of settlement, and an expansion of settlements with much more substantial architecture, seems clear. Major construction works were undertaken in larger fortified settlements, as well as in church building. Stone carving received a new impetus, while building in high-quality mudbrick, as well as the use of redbrick, again became widespread. New architectural styles also appear, the use of barrel-vaulting becoming common in some areas.

During the later sixth century new types of pottery began to be produced, some with explicitly Christian symbolism: the first 'Early Christian' wares. For nearly 1,000 years, such 'Christian' pottery remains our most ubiquitous and distinctive cultural marker (Figure 8.10) as well as our best chronological guide, largely due to the work of W. Y. Adams (1986). In Lower Nubia, the transition from 'X-Group'/Ballana pottery to 'Early Christian' pottery was not dramatic, largely continuing existing potting traditions. The bulk of pottery in circulation comprised a range of relatively plain red wares with limited decoration, clearly derived from late Romano-Egyptian styles. In the Makurian heartlands however, the revival of wheelmade pottery manufacture marks more of an innovation. In the north, there seem likely to have been several centres producing pottery.

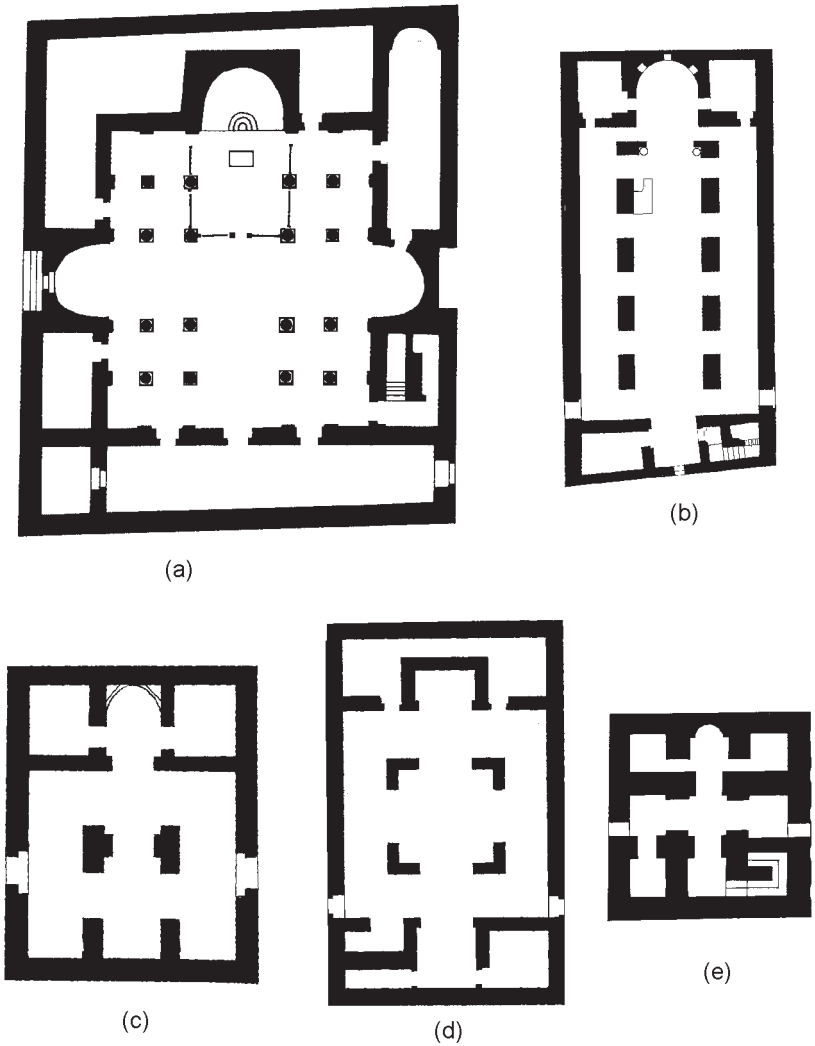

Figure 8.11 Nubian church plans: (a) 'Church of the Granite Columns', Old Dongola (after Godlewski 1992, fig. 20); (b) Basilican Church; (c) 'Classic Christian' form; (d) and (e) 'Late Christian' forms

Further south, Old Dongola (Pluskota 2001) itself became perhaps the main centre of production.

Sometime in the ninth century, pottery production in both these regions was transformed with the appearance of new styles of 'Classic Christian' wares, largely white slipped and often very elaborately decorated. These are as yet best known from the products of a factory at Faras, first excavated by Griffith

and re-excavated by Adams in 1960 (1962, 1986). Production there ended in the late tenth or eleventh centuries, when the factory was abandoned. In its aftermath, the demand for pottery in Lower Nubia seems to have been met increasingly by imports from Egypt.

What happened further south during this period remains less clear. The Faras pottery was not unique and 'Classic Christian' wares were also produced at Old Dongola and perhaps Ghazali in the Dongola Reach. There is no reason to believe that they were also abandoned at this time and presumably different patterns in ceramic supply are found in the Dongola Reach. In the eleventh century, a range of new 'Post-Classic' wares appear, if only reaching Lower Nubia in small quantities. Some or all of these may have been made at Old Dongola (Pluskota 1994) and Old Dongola may have become the main producer of later decorated wares. Whether the 'Late Christian' wares, which were relatively abundant in Lower Nubia, were also made there, or in the north, remains uncertain. A greater variety of wares in the very late medieval period ('Terminal Christian') suggests that new local production centres may have emerged during this period. A final interesting phase of pottery production appears close to the end of the medieval period, when wheelmade production disappears, to be replaced, for an indeterminate period, by a small range of handmade wares.

As well as being a fundamental tool for dating sites, pottery has the potential to provide valuable insights into the social and economic organization of the Nubian kingdoms. During the Classic Christian period for example, the existence of at least two main production centres provides interesting possibilities for exploring how and where they distributed. To what extent were the products of Faras distributed north of the Second Cataract, or were they more widely dispersed through all of Lower and Middle Nubia? To what extent did the Third Cataract and then the Batn al-Hajar create significant barriers to the distribution of Dongola wares further north? After the Faras potteries went out of use, for at least a century, relatively little pottery from Dongola seems to have been making the long journey north.

Further questions remain concerning the use of pottery, especially the often very elaborately decorated finer wares. The function of some pottery forms, such as jars called 'vases', remains obscure. That they were used with other drinking vessels seems likely and may well relate to socially important activities centred on communal drinking and perhaps feasting, maintaining long-established social practices. The prominence of an often highly elaborated ceramic culture during the medieval period does suggest some longer-term continuities with earlier periods in which pottery had so long been a form of material culture imbued with a special importance.

Organizing the state: Secular administration

Most of what we know about how the medieval kingdoms were organized relates to the northern kingdoms, unified under the king of Makuria by the early eighth

century. Exactly when this took place still remains unclear. The failure of the Arabic sources to distinguish between Nobadia and Makuria in their accounts of the events of the seventh century could suggest that the kingdoms were already united by that time (Kirwan 1936). By the time that the accounts were written down, however, memories of an independent Nobadia may well have been hazy. There have been suggestions also that the unification may have occurred in the late 620s, during the Persian occupation of Egypt (Godlewski 1998). It is also possible that the Arab army's passage through Nobadia on the march to Old Dongola precipitated the collapse of the northern kingdom. It is certainly only in the early 700s that we find positive evidence for a united kingdom with inscriptions in the north of the Makurian king Merkurios, who came to the throne in 697.

Relatively little is known of medieval Nubian kingship. From documentary sources we can reconstruct only a very sketchy outline of the succession of Makurian kings and even less concerning those of Alodia (Munro-Hay 1982–3; Welsby 2002a). The dynastic history of the kingdoms was clearly often turbulent, with contested successions and usurpers. Some kings were murdered while others abdicated, some opting for a religious life. An inscription of a King Giorgios (d.1158) was found in a monastery in the Wadi en-Natrūn in northern Egypt (Griffith 1928). Much has been made of the apparent existence of matrilineal principles governing royal succession in Nubia, harking back to Ibn Khaldun's story of the way in which the Juhayna Arabs seized power in Nubia through marrying Nubian women (Vantini 1975: 562). Despite the persistence of matrilineal models in discussions of medieval Nubia, and especially in relation to royal succession, such historical evidence as we have suggests that realities were much more complex and that no strict rules of succession existed. However, be that as it may, it is not unlikely that the right to rule of male monarchs was, at least in theory, transmitted through the female line, as indeed it continued to be during the post-medieval period in the Funj sultanate (Spaulding 1985a, 1998). Only descent from a woman of the royal lineage could confer the right to become king.

The relationship between the Makurian and Alodian royal families also remains an area of uncertainty. Some Arab sources suggest that in some periods, the kingdoms may have been united by a single ruler (Welsby 2002a: 89). A twelfth-century inscription from Faras also describes one Moses Giorgios as 'King of (the) Nobadians and Alwa and Makuria' (Latjar and Van der Vliet 1998: 47–8). Further clarification of such political and dynastic questions requires new documentary sources. Whether this putative political union was more widely reflected in the material culture of the period remains another issue to be explored.

We know at least the names and titles of many officials. Best known by their Greek titles, based on those current in the Byzantine world in the sixth to seventh centuries (Hägg 1990), Nubian versions of such titles also existed. Following the unification of the two kingdoms, we find the first references to

a Makurian governor in the north, the Eparch of Nobadia (Nubian: *Migin Sonoj*), in 707 'the most famous and wise Markos' who 'conducted the king's affairs' (Hägg 1990). The extent to which the Eparchs of Nobadia were external appointments from the south rather than being drawn from the local elites remains uncertain. Eparch Petros (d.798), possibly the same Petros who was the *domestikos* of an Eparch, Paulos Kolla in the mid-eighth century (Latjar 1991), was buried at Old Dongola. Others however, seem to have had their careers and families in the north. Goassi (d.1161) the son of Eparch Sentikol was buried at Meinarti (Barns 1954), on the Second Cataract.

Other Eparchs appear in several documents from Qasr Ibrim (Hägg 1990) and occurrences of the Nubian title *Sonoj* indicate that several others may have existed, for example at Adda. Within the administration of Lower Nubia, another senior post seems to have been that of the *domestikos*, a Byzantine title for a deputy of a range of high-ranking offices, which first appears in the fourth century. The king of Dongola seems to have had a *domestikos* while the Eparch of Nobadia's was usually referred to as the *domestikos* of Faras (Nubian: *Paran Samet*) and the names of several of these are known from the eighth to the twelfth centuries. By the eleventh century, the same person was sometimes both Eparch and *domestikos* of Faras (Latjar 1998). Other such posts were found elsewhere, for example at Taifa (*Tafan Sonoj*).

A title of 'admiral' (*Nauarchos*), an archaic Byzantine title , is also known. This provides an interesting echo of the Meroitic title of *Pelmos atolis* ('Generals of the Water') who should perhaps be seen as officials responsible for river traffic. Another early title is that of *Exarch*, represented by one Joseph Exarch of Talmis associated with King Tokiltoeton as well as King Eirpanome in AD 574. Whether this was a military, or even possibly an ecclesiastical position, remains unclear (Hägg 1990). We are less well-informed about regional government outside Lower Nubia. It seems that there were Eparchs in the Makurian heartlands; an Eparch of Gadēra (AD 883) as well as an Eparch of Makuria appear in texts from Old Dongola.

Nubian social worlds

Textual sources also give us a few glimpses further into the social worlds of medieval Nubians. Some show that women independently owned property, and were legally recognized as so doing, that they were active in financial transactions and, not uncommonly, were patrons of the Church. They may appear, for example, as 'owners' of churches and sponsors of wall-paintings (e.g. Latjar and Van der Vliet 1998).

New farming regimes were also being developed. The new crops which had appeared in Lower Nubia during the early first millennium are likely to have been spreading more widely (Fuller and Edwards 2001), including new subsistence staples as well as crops such as vines which seem to have been widely cultivated. The new styles of farming were organized around new farming calendars,

apparently using the months and seasons of the Coptic calendar, calendars still used today by some Nubian farmers. New farming regimes may be linked to the development of new forms of land ownership. Documents from Qasr Ibrim (G. Browne 1989, 1991) record that plots of land were owned and transferred between individuals, as well as being owned by churches. Land-holdings might also be quite widely spread. In the case of churches it seems that they may have acquired their own 'estates' to support them, and presumably their clergy. While we get some glimpses of such conditions in Lower Nubia, it cannot of course be assumed that practices in more southerly regions were similar. They may well only be typical of areas reliant on *saqia* irrigation where cultivable land remained relatively scarce.

Arab sources identify a number of peoples who lived on the margins of the Nubian kingdoms. How they perceived themselves is less clear. As we saw, early medieval visitors to Philae described themselves as 'Nubians'. Did they also perceive of themselves as Makurians or Alodians? To what extent were there distinct regional identities? We know that some regional units such as the 'Mahas' and 'Sikkoot' of Middle Nubia were recognized by the late sixteenth century when the Ottomans advanced towards the Third Cataract. No mention of them, however, has yet been found in medieval Nubian documents. Within Alodia, where the impact of Christianity may have been rather less than it was further north, what distinctions may have existed between Christians and others? To what extent was Christianity associated with social and political elites?

RELIGION AND THE STATE

Language and literacy

Undoubtedly one key contribution of the Church to the emergent Nubian kingdoms was in reintroducing a literate culture where, since the disappearance of written Meroitic in the fourth and fifth centuries, writing of any form had virtually disappeared. Understanding the use of writing in medieval Nubia is clearly a very complex problem. Initially, it was probably restricted to and rooted in, royal and ecclesiastical milieux, with monastic communities playing an important role, as in many other parts of medieval Christendom.

While there seems to have been some limited use of Greek in the pre-Christian Nubian kingdoms, the Christianization processes saw Greek, Coptic and latterly a written form of Nubian (Old Nubian) becoming much more widespread. The varied ways in which the different languages were used is of great interest. Greek and Old Nubian often appear linked, and may appear in the same text while the use of Coptic appears more distinct. If Greek and Nubian were favoured by native Nubians, Coptic may well have been used largely by Egyptians settled in Nubia, especially within the Church. Within Makuria proper, Greek seems to have been the normal medium for writing

except in monastic contexts (Latjar 1996). The more widespread use of Coptic as well as Greek in Lower Nubia probably reflects closer links between the north and Egypt and the presence of larger numbers of Egyptians.

The appearance of written forms of Nubian also raises interesting questions about its relationship with spoken Nubian. Two major forms of Nubian have survived into modern times in the riverine Middle Nile, Nobiin, and the two related forms of Kenzi and Dongolawi, the first found in the far north of Lower Nubia and the latter in the Dongola Reach. The written forms of Old Nubian are most closely related to the modern Nobiin form. This may merely reflect the fact that the vast majority of extant Old Nubian texts are derived from Lower Nubia, and what we are seeing may perhaps be better described as 'Old Nobiin'. However, the apparent similarity between Nubian texts from Old Dongola and Lower Nubia may indicate the existence of a standard written form of Old Nubian; in turn implying an underlying authority maintaining its uniformity. Whatever the status of the written form(s) however, this does not imply that spoken forms were uniform and there is every reason to suspect that many forms of Nubian, and possibly other languages, existed in different parts of the Nile valley, and beyond. One of our major Arab sources, Al-Aswani, writing in the late tenth century, records at least one major linguistic boundary between north and south, probably located near the Third Cataract, a boundary which seems likely to correspond to the modern boundary between Dongolawi Nubian and Nobiin speakers.

There are also interesting questions to be addressed about the growth of a literate mentality during the medieval period and its relationship with other traditions reliant on living memory and oral wisdom. Over the long term we may wonder how far such mentalities had developed, if only in restricted circles, by the time the written languages disappeared with the Christian kingdoms, to be supplanted by Arabic in the post-medieval period. How far had literate modes extended beyond the relatively narrow royal and religious contexts where they were first established to other arenas, to record keeping, to business?

During the medieval period we can see a growth in the uses of literacy. From what can be gleaned from our largest body of texts from Qasr Ibrim, itself an episcopal centre, many people were becoming familiar with literate modes, even though they themselves may not have had the skills of a clerk. What we lack evidence for, however, is a major shift from memory to written record of the kind which was taking place in much of western Europe, for example, during the twelfth and thirteenth centuries (Clanchy 1993). Monastic sites are still notable for the abundance of inscriptions and inscribed sherds, but inscriptions left by pilgrims visiting the Makurian royal 'shrine' of Banganarti seem to have mainly been made on their behalf by resident scribes (Żurawski 2002a).

Ecclesiastical organization

Documentary sources identify a number of episcopal sees in Nubia, some suggest six in Alodia and seven in Makuria/Nobadia (Adams 1977: 472). The three most prominent ones in Lower Nubia seem to have been at Qurta, Qasr Ibrim and Faras, with another at Taifa and later Talmis. Further south there was one at Sai. Within the Makurian heartlands we only know much about the one at Old Dongola itself, although the names of others (e.g. Kallama, Merka) occur; a bishopric of Shanqir would seem to have been in the Abu Hamed region.

As yet we have little information of the wider roles of the bishoprics. Administrative and legal documents from Qasr Ibrim suggest that, as in other parts of medieval Christendom, the Church provided important services in these areas, not least in recording legal transactions. Relationships between the bishoprics are less clearly understood. They may be presumed to have enjoyed the control of defined territories, but as yet we have little evidence for these. Documents from Qasr Ibrim (e.g. G. Browne 1989, 1991) include references to many places in areas to both north and south, but unfortunately we lack collections from other Lower Nubian bishoprics with which they may be compared. Further south, it is interesting to find a legal document from Nauri, in the heart of the Third Cataract region, which refers to the Bishop of Sai (Griffith 1928), suggesting that this area falls within a northern jurisdiction rather than looking to the Dongola Reach. Elements of the church hierarchy are reflected in numerous ecclesiastical titles known from Greek and other texts (Hägg 1990).

Nubian churches

If we as yet have little understanding of how the Church and its institutions developed, its church buildings made a considerable impact on the settlement landscapes of the Middle Nile. Many of these, at least in the arid north, have survived as standing monuments into modern times. The successive surveys in northern Nubia have identified somewhere in the order of 150 churches between the Third and First Cataracts (see W.Y. Adams 1965b for an early listing). These show considerable variety in form, while recent work further south suggests that much more still remains to be learnt about medieval church architecture (Welsby 2002a: 139ff). As we have found in dealing with earlier periods, the archaeology of Lower Nubia should not be assumed to be typical of other areas.

While we have numerous generalized plans of churches, relatively few have been the subject of detailed architectural studies or full excavation. What is clear is that they show considerable variability in form and size over many centuries (Figure 8.11), while there is good reason to suspect that some 'types' are restricted to certain periods, and perhaps regions. Notable amongst them is a 'Basilican' form, seen for example in the cathedrals at Faras and Qasr Ibrim and more 'Nubian' forms with arrangements of three rooms at each end, and

Figure 8.12 Church at Masida, near the Third Cataract. The rock at its east end bears ancient rock drawings

entrances from the north and south sides. A distinctively Nubian form, appearing by the ninth century, has a passage across the east end of the building. Rather different from these are various types of much smaller churches and chapels.

A few churches were built within old pagan temples. This included larger stone-built sites such as Wadi es-Sebua and Kalabsha, as well as small structures such as the mudbrick Taharqo temple at Qasr Ibrim. At Qasr Ibrim, the other temples were destroyed and demolished, their stones used to build the cathedral. In some cases, it may have been sites being appropriated rather than buildings. A church on the site of the great Taharqo temple at Tabo may have been built after the temple had been demolished (Welsby 2002a: 143) while a church was erected beside the pyramids of the ancient Kushite cemetery at Nuri (Dunham 1955). In the Third Cataract region, a small chapel at Masida was built against a boulder covered with ancient rock drawings (Figure 8.12), appropriating a more ancient 'place of power'. Most churches may be seen as 'community' churches of one form or another (Welsby 2002a), which we might suspect to have had a strong lineage focus, at least in smaller settlements. There were however also monastic churches and episcopal churches, perhaps 'owned' by kings. There were also what may be seen as 'memorial churches', which may include major early buildings beneath the great Cruciform Church at Old Dongola. Other churches have been found with prominent crypts and tombs,

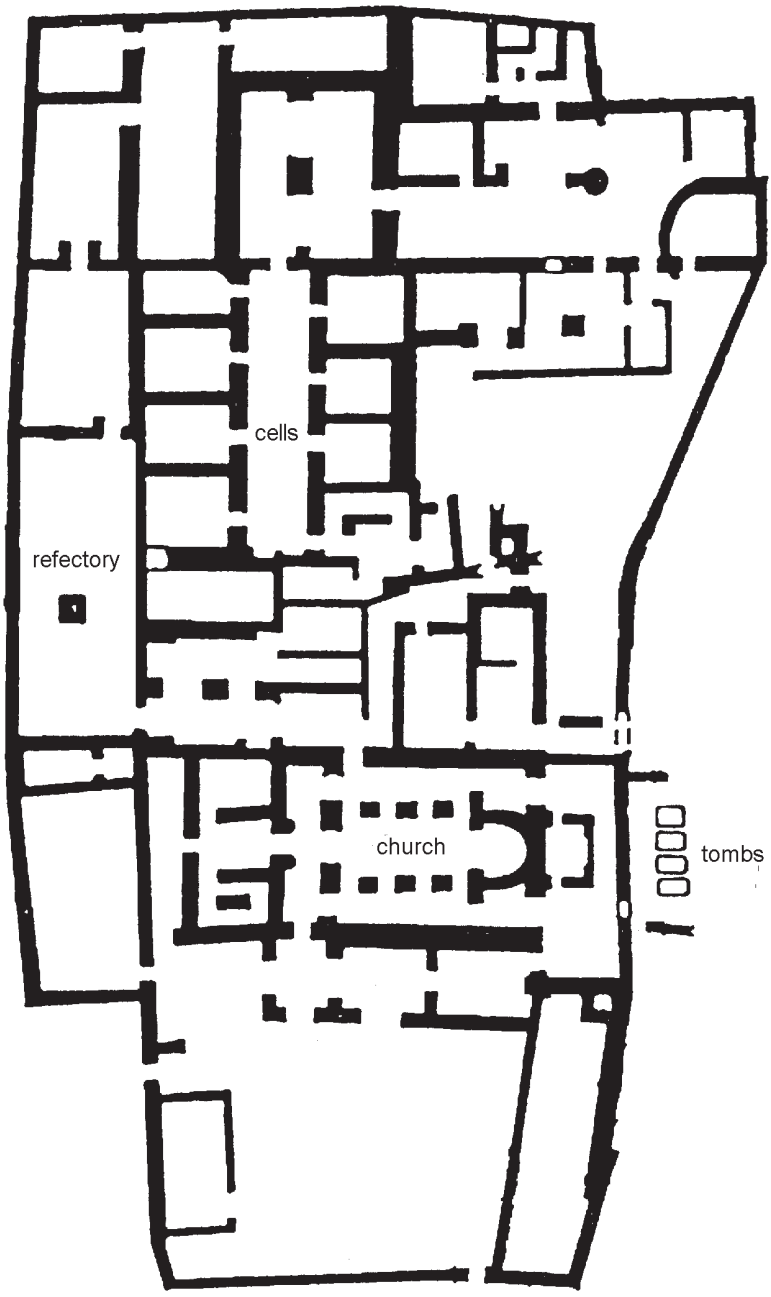

Figure 8.13 The monastery at Qasr al-Wizz
Source: based on Scanlon 1972, Fig. 1

perhaps honouring their founders. That they may have developed as shrines seems likely. One at Sahaba, near Wadi Halfa was to be appropriated in turn as a shrine of an Islamic saint, still honoured in the twentieth century (Gardberg 1970).

Since the first studies of Nubian churches (e.g. Mileham 1910), various typologies and chronologies of church forms have been suggested (W.Y. Adams 1965b; Gartkiewicz 1982; Grossmann 1985). No consensus has yet emerged however, and the lack of reliable dating evidence for many sites makes it very difficult to test the chronological implications of the typologies. How useful such typologies are likely to be, in more than a most general way, may also be questioned. The huge variability in form and size of churches apparent in other parts of the medieval world should certainly warn us against imposing over-simplistic schemata on Nubian churches. A recent study of a small church ('the Church on the Point') outside Qasr Ibrim (Kjølbye-Biddle 1994) has demonstrated that considerable problems still exist with existing typologies and the dates they suggest for different church types.

As elsewhere in Christendom, the Church owed much to the patronage of the Nubian monarchy and elite. Kings as well as other individuals both founded and 'owned' churches (Latjar and van der Vliet 1998), and commissioned wall-paintings and books (Rostkowska 1982). Such patronage will clearly have been of importance in determining the distribution of churches. Certainly, in some settlements in Lower Nubia they are remarkably abundant; there were at least seven churches within the small settlement at Tamit, as well as a cemetery church (W.Y. Adams 1965b). It is likely that, as elsewhere in Christendom, church building and enhancement was both a demonstration of piety and of status. That many churches were effectively private foundations may also be reflected in the modest size of so many of them. If individuals may have claimed to have been the 'owners' of churches, and possibly even monasteries (Latjar and Van der Vliet 1998), individual churches also seem to have been endowed with their own lands, which presumably supported their clergy.

Other aspects of the relationship between churches and their surrounding communities still remain unclear. They rarely seem to be sited at the heart of communities and certainly many were built on the margins of villages. In some cases this may be explained by their being additions to villages established during the 'pagan' post-Meroitic period. They were also not necessarily the foci for the burial of Christian Nubian communities. Many churches do not seem to have associated cemeteries and where groups of graves are found with them many of these may be linked with their priests and other religious, as we also find with the formal cemeteries around monastic centres. More generally, there does seem to be a continued preference for placing burials in the same type of areas, away from settlements, which had been used for burials in the pre-Christian period. In this way at least, the new religion may perhaps not have greatly altered the way in which Nubians perceived their dead and where it was appropriate for them to be located within the landscape. The continued use of

pagan cemeteries also indicates that Christian Nubians felt no particular need to separate themselves, and their dead, from their pagan forebears.

Medieval monasticism

That numerous monasteries existed in both Makuria and Alodia is suggested by accounts of al-Aswani, in the tenth century, and Abu Salih in the twelfth century. The possible sites of as many as 50 have been identified, although such an identification can be confirmed in relatively few cases (Jeute 1994; J.R. Anderson 1999). The few well-studied examples are large communal – coenobitic – types, typically with a church, refectory, dormitory areas and workshops, and appear similar to those of Egypt and Palestine (Hirschfeld 1992). In some cases, the presence of what are clearly special burials in central parts of the sites may be related to the saintly founders of the communities.

Some monasteries were located in the urban centres (e.g. Old Dongola) and were clearly wealthy and important institutions. Others were more isolated and more removed from secular life. By their nature, smaller and more compact sites are rather more difficult to identify, while not all small enclosed settlements need have been religious. Those with substantial integral churches are very likely to have been monastic, although some sites have rather modest chapels of irregular plan, which can only be identified where exceptionally well-preserved.

In Nobadia, the most fully studied example is that at Qasr al-Wizz (Scanlon 1970, 1972) on an otherwise barren cliff-top overlooking the river just north of Faras (Figure 8.13). This seems likely to have been founded *c*.850–950 and abandoned by *c*.1200 AD. The episcopal centre at Faras may have been the site of further communities as was probably the case at Qasr Ibrim where what is almost certainly a monastic dormitory block (Structure 785), very similar to that at Qasr al-Wizz, lay to the northwest of the Cathedral. Although it has been suggested that the building may be earlier (W.Y. Adams 1996: 42), the walls clearly overlay 'Early Christian' deposits and a medieval date seems very likely.

Examples of what may be more modest communities have been identified at Debeira West (Shinnie and Shinnie 1978). Several others are located south of the cataract in the remote and generally inhospitable Batn al-Hajar as well as south of Dal, for example at Akasha and Ukma (Mills 1965, 1973). More problematic is the identification of possible *laura* monasteries, which are likely to be much more difficult to identify. Anderson (1999) has recently suggested that a small settlement on Kulbnarti may have been such a community.

Within the Makurian core south of the Third Cataract, most known sites are in and around Old Dongola where a number of substantial monastic complexes have been identified. On the east side of the town, a large monastic complex (Kom H) was established during the seventh century and survived into the fourteenth century (Jakobielski 1996; Żurawski 1994). A huge mural painting of an anonymous Nubian king suggests that this 'Monastery of the Holy Trinity'

Figure 8.14 The Cathedral of Qasr Ibrim, Lower Nubia, converted into a mosque in the sixteenth century

(or perhaps the 'Monastery of Great Antonius') was a royal foundation, and its founder may be buried among high ranking ecclesiastics in its crypts. Cemeteries adjoining the monastery included many graves with impressive superstructures and there are suggestions that the complex, with its large annexe, perhaps similar to a Byzantine *xenon*, was a centre of pilgrimage, with special veneration for the abbots of the monastery who were buried there (Żurawski 1996, 1999). Notable amongst these was Archbishop Georgios, who died in 1113.

Another site on the north side of the town (Monastery DM) also seems to date back to the seventh century. This structure was notable for being established around a small enclosed memorial church (Dobrolowski 1991), of a plan otherwise unique in Nubia, and an associated tomb. Some 7km to the north of Old Dongola, another monastic complex has recently been identified at Hambukol (Anderson 1999) while a more isolated site lies at al-Ugal, some 60km north of the Letti Basin on the barren and sparsely populated east bank of the Nile (Welsby 2001a: 21–5).

If some sites were often not markedly separated from secular communities, one more unusual community, at al-Ghazali, was located in a more isolated location in an oasis on the Wadi Abu Dom, some 15km from the Nile (Shinnie and Chittick 1961). Unusually most of the main structures were built in dressed stone or redbrick. On the basis of many gravestones written in Coptic, the

community may have contained many monks of Egyptian origin. Other isolated areas, such as the al-Laqiya oasis, west of the Nile may have provided suitable sites for monks and hermits seeking isolation.

Other likely monastic sites can also be identified in the areas between the Fifth Cataract and Abu Hamed. A large enclosed settlement at al-Koro, a little south of Mograt island, has also produced a number of Greek and Coptic funerary inscriptions. Other sites have produced similar inscriptions and it is very likely that they relate to monastic communities (Crawford 1953a). In addition to these, there is some evidence for hermit and anchorite cells at several locations, both in Lower Nubia and Makuria proper, possibly connected to parent monastic institutions (J.R. Anderson 1999). These were often very simple structures, sometimes in natural caves or, as at Faras West, reusing a New Kingdom Pharaonic tomb (Griffith 1927). While al-Aswani reported more monasteries within the Alodian kingdom, none have yet been identified.

What roles monastic communities may have played remains uncertain. It is possible that some were centres for crafts. There are suggestions that pottery production at Faras may have been linked to a monastic community (W.Y. Adams 1986). The monastery at al-Ghazali has also been suggested as a manufacturing site, although it may well prove that the abundant fine pottery found there actually came from workshops at Old Dongola. More certainly, the monasteries are likely to have been important centres of key skills and arts, notably for the preparation of written materials as well as decorative arts such as wall paintings. It is not unlikely that an abundance of gazelle bones found in the Kom H monastery at Old Dongola (Moskalewska in Żurawski 1994: 332–3) relates to the demands of parchment preparation, gazelle skin being a favoured material for writing.

NUBIA AND ITS NEIGHBOURS

Long distance trade

Following a lengthy period when there is very little evidence for significant contacts between most of the Middle Nile and the north, the medieval period sees the re-establishment of a wide range of links with Egypt, and beyond. How such links were re-established among the newly Christian kingdoms remains unknown, although through the sixth and early seventh century, the Nobadian kingdom clearly enjoyed close contacts with Egypt. After the defeat of the Blemmyes, conditions seem likely to have been much more secure, especially within northern Lower Nubia. Following the Arab conquest of Egypt, trading clearly continued, with Arab merchants penetrating at least as far south as the Second Cataract. Al-Maqrizi recorded that trade further south was tightly controlled: 'No one, Moslem or otherwise, is allowed to go upstream beyond this point, except by permission of the Lord of the Mountain' (Vantini 1975:

603). The use of coin was also confined to areas north of the Cataract. Trade further south all seems to have been conducted through forms of barter; some items such as cloth were probably used as media of exchange, as they continued to be in later centuries.

The materials coming in to Lower Nubia included much pottery, although this varied by period, as well as glass and textiles; the latter may have been especially valued. Most of what we know of medieval textiles is based on evidence from Qasr Ibrim where large quantities of material survive (N. Adams 1996). Much of the coarser material may be locally made, but some very fine fabrics were finding their way into Nubia. This includes silks from the East, but also fabrics from other sources such as the royal workshops in Palermo (Granger-Taylor 1998). It remains unclear how widely such imports were distributed.

In view of the apparently hostile relations between Makuria and Nobadia during the sixth century, the development of trade and exchange between Makuria and Egypt may not have been easy, although by the later first millennium camel-borne desert routes may have become increasingly important. It is not yet possible to say when significant quantities of imported materials were beginning to appear in Makuria. Quantified ceramic data from the area is still largely lacking, but relatively little imported pottery seems to have reached this far south in any period. Small quantities of Egyptian wine amphorae do seem to be quite widely distributed, but local copies were also being manufactured (Pluskota 1991).

Further south, tracing patterns of medieval trade archaeologically is even more difficult. Most of our evidence comes from excavations at Soba, where only small quantities of imported artefacts have been found. These include very rare examples of 'Islamic' glazed wares as well as some fine glassware, most of it broadly datable to between the ninth and fourteenth centuries; most probably it came from Egypt, but some are from further afield, perhaps Iran (Morrison 1991). Occasional sherds of Chinese porcelain dating to the twelfth to thirteenth centuries have also been found (Welsby and Daniels 1991: 246). Whether some of this material was coming to Soba directly from the Red Sea coast, or was passed through Egypt remains unknown. Elsewhere, some other indications of engagement with long-distance trade were found in 'post-Meroitic' graves at Gabati, which may in fact be of sixth and seventh-century date (Edwards 1998b). These included examples of Aswani oil-bottles, including types known at Soba. Some turned ivory kohl-pots were also found. Whether these were manufactured locally remains unknown, and it is possible that they were imported, even if the ivory originated in the Middle Nile.

Perhaps the most intriguing problems concern Nubian relations with Egypt and the Islamic world. It has long been recognized that one of the most distinctive features of medieval Nubian history is the long and generally peaceful coexistence of the Nubian kingdoms with their Muslim neighbours. The basis for the establishment of peaceful relations between Nubians and

Muslims was the *Baqt*, a rather extraordinary treaty, which 'whatever it may have been, seemed to deviate from anything else in Islamic experience' (Spaulding 1995: 578).

The most 'authoritative' account of this was provided by al-Maqrizi in the fifteenth century, many centuries later. According to this account, the main feature of the 'treaty' was an obligation for the Nubians to deliver as tribute groups of slaves, possibly every year, in return for quantities of foodstuffs, wine and cloth. There is good reason, however, to believe that conventional interpretations of the *Baqt* which rely on the accounts reported by al-Maqrizi may require some revision (Spaulding 1995). That al-Maqrizi's version of the events of the seventh century was only one of many is quite clear, as may be seen in a series of different accounts assembled by Ibn Abd al-Hakam some 200 years after the events (Vantini 1975). Amongst these accounts are some which clearly accord, at least in general terms, with the al-Maqrizi version, with tribute being paid by the Nubians to the victorious Muslims. However, very different versions are also recorded, above all making it clear that it was the Nubians who were victorious in these early encounters. One version would have it that there never was a written treaty, and that all that existed was a truce. The conditions were 'that they would not invade each other's country, the Nubians would hand over to the Muslims every year a certain number of captives (*sabi*) and the Muslims would give the Nubians a specified quantity of wheat and lentils every year' (Torrey cited by Spaulding 1995: 584). As long as peace was maintained, prisoners of war would be returned by the victorious Nubians in exchange for foodstuffs – a very different story from that contained in the traditional narratives!

Spaulding has argued that from the time of Ibn Abd al-Hakam, political and legal imperatives amongst Islamic theorists necessitated a reworking of historical accounts, placing Makuria in a legally subordinate position to the caliphate, obscuring any surviving memories that the Nubians had been the victors of 652. The less palatable version was increasingly overshadowed, if still preserved in some accounts, such as that of a tenth-century Shi'ite historian Ahmad al-Kūfī: 'When the Nubians realized the destruction made in their own country, they . . . moved to attack the Moslems so bravely that the Moslems had never suffered a loss like the one that they had in Nubia. So many heads were cut off in one battle, so many hands were chopped, so many eyes smitten by arrows and bodies lying on the ground that no one could count' (Vantini 1975: 95).

While such reinterpretation of the Arabic sources clearly has considerable importance for the history of Nubia in the seventh century, it may also have important implications for our understanding of the nature of Nubian trade and exchange with the Islamic world, not least in suggesting that the Nubians may have perceived this relationship rather differently than later Islamic scholars, and those who have followed them. In particular, it may well be that 'payments' were viewed, on the Nubian side, as part of a system of reciprocal exchange, royally administered trade, and hostile to Islamic commercial

enterprise (Spaulding 1995). A rare reference to the *Baqt* in a letter from the new Abbasid governor to the Makurian monarch in 758, found at Qasr Ibrim (Plumley 1985), which was mainly devoted to complaints of mistreatment of Egyptian merchants in Nubia, may be seen as reflecting Nubian resistance to private commercial ventures.

However the Arab accounts of the *Baqt* are to be interpreted, it seems clear that Nubia, in general terms, was a source of slaves for their northern neighbour. It is likely that many were acquired from raiding enterprises on the peripheries of the Nubian kingdoms, as was the norm in the post-medieval period. One of the rare glimpses that we have of this trade appears in an Egyptian papyrus of the sixth century, recording the sale of a young Alodian slavegirl (Atalous, renamed Eutukhia) to one Aurelia Isidora of Hermupolis (al-Ashmunein) in Middle Egypt (Pierce 1995). In some periods, however, Egyptian incursions into Lower Nubia may also have secured slaves amongst the spoils of war. We know little of the scale of this trade or of the fate of Nubian slaves in Egypt, although a number of slave girls, some Christian, are mentioned in Cairene documents of the eleventh and twelfth centuries (Goitein 1967). By the later fourteenth century there is little evidence for much Egyptian interest in the region and southern trading links were focused very much on Ethiopia via the Red Sea rather than Nubia.

How goods circulated within the Nubian kingdoms remains unclear, although local systems based on barter are likely to have fulfilled most needs (Osman 1978). Attempts to reconstruct systems of exchange and other areas of the economy will require more systematic treatment of finds from excavations, especially with regard to quantifying artifacts. At Soba, large quantities of 'pilgrim flasks' as well as mud bungs, used for sealing large 'beer jars', were found discarded around the palatial buildings near its cathedrals. These would seem to relate to transport of goods around the kingdom. The pilgrim flasks may have been made in more northerly regions, indicating inter-regional movements (Welsby 2002a).

Beyond the Nile: Nubia and its neighbours

The medieval Nubian kingdoms seem to have remained centred on the Nile valley and their territorial claims may not have extended far to the west or east, although the Baiyuda Desert will have remained a crucial avenue linking Makuria and Alodia. Far to the east of the Nile, coastal regions were to follow a very different path. In the north, exploitation of the desert's mineral resources remained very important. More generally, Red Sea trading networks were flourishing during the medieval period, supporting a number of important coastal settlements, and a number of major routes across the Eastern Desert, linking the coast with Egypt and the Nubian Middle Nile.

One consequence of this was that the Red Sea littoral was exposed to and incorporated in Arabian and Islamic culture much earlier and to a far greater

extent than other parts of the region. The proximity of Arabia and the relative ease of transport ensured a close relationship with the east; a relationship which has endured into modern times. This relationship was marked both by the establishment of trading settlements with diverse populations and certainly, at times, the movement of possibly significant groups, mainly from the Hijāz, into Eastern Sudan, movements which continued into the mid-nineteenth century, when the forebears of the modern Rashaayda probably followed this route (Young 1996).

Muslim trading settlements were established along the Red Sea coast on islands or secure peninsulas. At Aydhab, trade goods found include glass bracelets from southern Arabia and a range of Chinese and other oriental pottery, mainly of the thirteenth to fourteenth centuries, but some later, suggesting it may have survived until the late fifteenth or sixteenth century (Horton 1987; Kawatako 1993b). Suakin was also established sometime during this period, and is first mentioned in historical sources in AD 969 (Horton 1987: 354). Another important centre was the Dahlak islands, which are rich in tenth to twelfth-century inscriptions, buildings and cisterns (Schneider 1983; Horton 1987: 352–3). Settlement on the island of al-Rīh first appears in the historical records in the seventh century, and was apparently ruined by the late twelfth century. The first exploration of the site identified a series of gravestones covering the period AD 997–1036 (AH 387–427) as well as buildings and cisterns. These included one of Al-Walīd ibn Ahmad ibn Al-Walīd ibn Abān, dated AD 997/AH 387 (Combe 1930; Horton 1987: Fig. 16.7). More recent work (Kawatoko 1993a) has found further tombstones of several other members Al-Walīd's family, the latest dated AD1046/AH 405, which seems to confirm the presence of Arabian groups remaining there for a significant period.

Other early settlers from Arabia in Eastern Sudan are represented by gravestones coming from Khor Nubt near Sinkat and *c*.75km south of Port Sudan, dated from AD 861–863/247–9 AH up to AD 941/329 AH (Glidden 1954). Other Islamic monuments also occur further inland along the Baraka valley (Fattovich 1990). Further north, the interior of the Nubian Desert and Red Sea Hills seem to have been quite intensively exploited, with numerous mining settlements, especially along the Wadi Allaqi and Wadi Gabgaba (Sadr *et al*. 1995). The histories of these mining centres is doubtless complex and many may well have been occupied for relatively brief periods, although some larger ones, notably the mining town at Deraheib in the upper Wadi Allaqi, may well date back to earlier periods.

The material so far recovered from sites in this area is also consistent with their lying very much within the Egyptian sphere, with little to suggest any direct links with Nubian areas to the west. Aswani pottery is prominent at the sites, while other locally made wares may be linked with 'Beja' inhabitants of the region. While we still have relatively little material from sites in the Eastern Deserts, finds from late Roman sites such as Berenike and far to the south (Magid *et al*. 1995) leaves little doubt that the distinctive handmade 'Eastern

Desert Ware', first found in the Nubian Dodekaschoinos relates to intrusive eastern populations and indeed may be associated with historical Blemmye/Beja groups.

During the early medieval period, these may be represented by distinctive 'platform tumuli' which are widely encountered in the Red Sea Hills and adjoining areas (Sadr 1991; Magid *et al*. 1995). Some, of probably early medieval date, have very distinctive types of incised pottery found with them (Sadr *et al*. 1995). Similar material is occasionally found in riverine areas of central Sudan, for example at Gabati (D.N. Edwards 1998b), reflecting interactions between desert-dwellers and riverine populations of the type which have continued into recent times. In the later medieval period, new types of cairn burials are appearing in the Red Sea Hills, which may reflect ongoing Islamicization of the Beja populations.

To date, little evidence has been found for contacts between the Kassala–Gash region and Alodia. Some medieval ruins are reported from Qoz Regeb on the middle Atbara while another site with possibly Alodian material has been located in the Gash Delta. Sites of this period are attributed to the 'Gergaf Group' (Fattovich *et al*. 1984). Historical sources record the names of various mixed farming populations in this region, including some with Muslim rulers. At times these apparently were vassals to the king of Alodia (Fattovich 1990). These appear to be distinct from Beja groups.

How far Alodian influence reached to the south remains very uncertain. The presence of a church at Saqadi, near Jebel Moya suggests that much of the Gezira may have lain within its control. However, very little is known archaeologically about areas further south. The appearance of new forms of pottery manufacture, probably in the late first millennium AD, suggests the possibility of new links developing with areas to the west during this period and perhaps the first appearance of iron (David 1982; Siiriäinen 1984). Pastoralism seems likely to have been well-established as the dominant economic form by this period, although co-existing with fishing and horticulture.

Kordofan and Darfur

There is very little in the way of archaeological information concerning areas to the west of the Nile during this period. In the tenth century, Ibn Hawqal recorded that there were people known as 'Highlanders' west of the White Nile, separated from Alodia by a sandy desert, apparently subject to the king of Dongola (Vantini 1975: 165). It is possible that he was referring to the Jebel Haraza region of Kordofan, *c*.150km from the White Nile. Populations there have in more recent times maintained links with the Dongola Reach, and there are suggestions that a (now extinct) Nubian language may have been spoken there (H. Bell 1973, 1975). The area of the hills has a reputation as a centre of ancient iron-working and numerous ruins of unknown date are reported from there. It may also have been during the medieval period that peoples speaking

Hill Nubian languages entered the northwest Nuba mountains, joining populations speaking a variety of other languages, including Nyimang, Temein, Kadugli, Daju Shatt and Liguri as well as the more ancient Kordofanian-speaking groups (Thelwall and Schadeberg 1983).

Further west, it seems likely that by the beginning of the second millennium AD, the first kingdoms were being established in Darfur, as they were in areas further west in the Chad Basin. Oral traditions provide accounts of an enigmatic people, the Tora, centred in the Jebel Marra region. These Tora have been associated with a number of ancient sites in the region, whose origins were otherwise unknown. It is probably during the medieval period that horses become more widespread in the region and they are likely to have been important in the development of political power and kingdoms of the Sudanic belt. Some of the rock drawings (MacMichael 1909) and rare rock paintings (Jungraithmayr 1961) of horsemen found in Kordofan and Darfur may well date back to the later medieval period.

There has long been speculation on links between the medieval Nubian kingdoms and Darfur. A. J. Arkell was particularly important in promoting these, indeed claiming to have identified a church and a monastery at Ain Farah (Arkell 1959b). However, as will be further discussed in the next chapter, his claims remain unconvincing (McGregor 2001a: 67). Until some more credible evidence is found, we still have no demonstrable links between the medieval Nubian kingdoms and the West.

The end of medieval Nubia

The fate of Alodia remains almost entirely unknown. Excavations at Soba provide little indication that it flourished much beyond the thirteenth century, and by that time some of its churches were probably ruined and the rich tombs associated with them pillaged. How and when the Alodian kingdom really came to an end remains a matter of speculation. Further north, the archaeology of the end of Makuria is not much less obscure. Some occupation at Old Dongola was maintained into at least the fourteenth century, as it was at Banganarti. Too little is known of the more general archaeology of the region to suggest the fate of individual settlements, although Old Dongola itself seems to have retained some significance, becoming the home of a number of Islamic holy men in the following centuries. Further north, Nubian communities preserving some form of political organization (appearing in texts as the kingdom of Dotawo) seem to have survived in areas between the Second and Third Cataracts, perhaps especially in the Batn al-Hajar, which may have increasingly become an area of refuge. The fate of areas further north is unclear, although Qasr Ibrim (Figure 8.14) seems to have retained some of its importance as an ecclesiastical centre into the late fifteenth century (W.Y. Adams 1996).

Few excavations of sites of this late period have been carried out, although those at Kulbnarti at the southern end of the Batn al-Hajar (W.Y. Adams 1994a)

have thrown some light on the fate of one island settlement. Some of the sites on the island seem to have remained occupied from the very late medieval period through the sixteenth century and beyond. Occasional finds of tobacco pipes and some distinctive schist-tempered wares (Adams wares H15, H16), almost certainly imported from Egypt, may relate to an Ottoman presence in the region from the later sixteenth century.

Recent work in the Third Cataract region has identified similar late medieval sites, which a number of radiocarbon dates suggest were occupied during the fifteenth and perhaps early sixteenth centuries. By this period, there appears to have been very little wheelmade pottery in circulation. Instead, this seems to have been replaced by a quite standardized range of handmade wares, some with quite elaborate painted or incised decoration. Similar pottery has also been seen on sites in the northern Dongola Reach. No clear evidence that the inhabitants of these sites were still Christians has been found.

Another feature of more northerly areas is a continued emphasis on fortified buildings. The most distinctive of these are the 'castle-houses', effectively fortified tower houses (W.Y. Adams 1994b). These occur both as isolated units and as parts of larger settlements, and most commonly in defensible locations such as islands. It would seem that at least some of the late medieval 'castle-houses' continued to be occupied into the sixteenth century and beyond. Some were incorporated into larger sites. Enclosure walls and sometimes further towers may have been added, creating a new type of fortified house, today known as '*diffi*'. These were certainly not the only type of buildings used in the late medieval period, but simply the most solidly built, and much use was also made of less substantial structures, whether rough stone huts or wooden buildings.

If we can catch some occasional glimpses of late medieval life, mainly in the far north, very little can be said about the larger scale social changes underway as the medieval kingdoms gradually disintegrated. Of great importance was the appearance and spread of new forms of Arab and Islamic identities in the region. This process had several components. Significant migrations of actual 'Arab' populations are commonly assumed to have taken place, and indeed there are some records in the medieval histories of groups such as the Beni Kanz entering Lower Nubia, while adventurers such as al-'Umari sought their fortunes in the Eastern Deserts and Red Sea Hills, working with or, as often, in conflict with indigenous Beja groups. The scale of these incursions remains very difficult to assess. Only in the thirteenth or fourteenth centuries does it seem likely that such groups were reaching areas west of the Nile, groups identified by Ibn Khaldun as Juhayna Arabs, also responsible for the final conquest of Dongola and Makuria.

What the social realities were behind these population movements still remains very uncertain. Most of the evidence that links various people and 'tribes' of the modern Sudan to these medieval Arabs resides within their genealogical traditions, which have acquired authoritative and definitive forms since being recorded in works such as MacMichael's *History of the Arabs in the*

Sudan (1922). As will be further explored in the next chapter, one of the key purposes of such genealogies was to establish and confirm 'Arab' ancestries for different groups, ancestries that became increasingly desirable during the post-medieval period. The following centuries were to see the creation of new and very different identities in much of the riverine Middle Nile, bringing with them new relationships, and often conflicts with neighbouring regions.

9

POST-MEDIEVAL SUDAN AND ISLAM (*c.*AD 1500–1900)

Introduction

After the disappearance of the medieval Nubian kingdoms, the following 500 years saw new kingdoms arise across the region, the most important of which were the Funj Sultanate of Sinnar and the Sultanate of Darfur (Figure 9.1). Between and around these, other smaller polities were developing, for example in parts of Kordofan, as well as in parts of southern Sudan. Within many riverine areas, even if nominally controlled by the Funj, local leadership was commonly in the hands of 'tribal' leaders, often known as *meks*. As elsewhere within Sudanic Africa, these kingdoms often had wide horizons, they and their peripheries were increasingly tied into large-scale trading networks while also sharing wide-ranging cultural ties forged through the spread of Islam. In 1820, Muhammed Ali, the new ruler of Egypt, was to conquer the central Sudan, annexing the territories of Sinnar, then Kordofan and Darfur, bringing a sixty-year period of colonial rule, generally known as the 'Turkiyya'. This period saw the creation of much of the framework of what has become the Sudan of today.

Very little in the way of systematic archaeological research has been concerned with the post-medieval centuries. Until recently there has been little recognition that the archaeology of recent centuries might be worthy of study; the 'Islamic' archaeology of Lower Nubia was largely ignored during the successive archaeological campaigns prior to its destruction during the 1960s. As in so many parts of the world, 'recent' levels on archaeological sites have all too often been removed without record. An apparent lack of more elaborate and decorated craft products has also meant that post-medieval material culture has had, for many, little attraction as an area of study. Pottery and other artefacts tend to be identified simply as 'Islamic' or, perhaps 'Funj'. As Adams has made clear in the last major review of the state of 'Islamic' archaeology in Nubia (W.Y. Adams 1987b), serious study of this period is still a project for the future, and one with considerable potential. Relatively little has changed since then and this chapter must remain concerned more with the potential than with the reality of the archaeology of this period. It will also discuss how such a project may take many forms, reflecting the often diverse approaches which have been developing in recent years amongst archaeologists concerned with more recent periods.

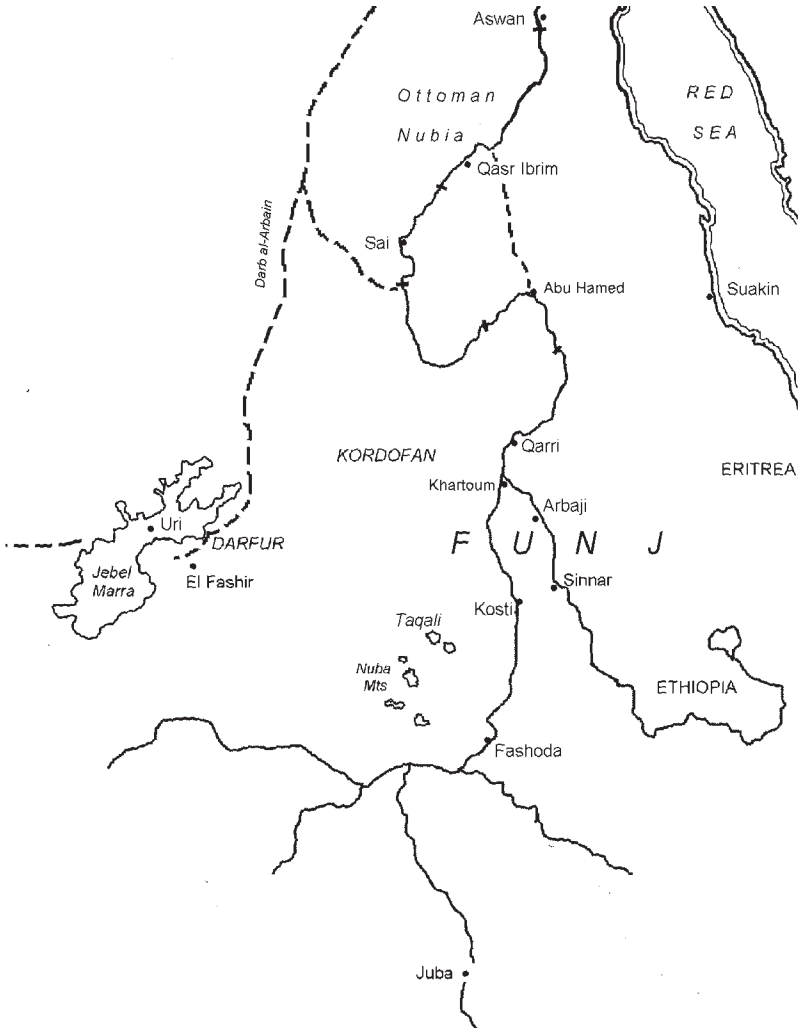

Figure 9.1 The Post-medieval Middle Nile

Archaeological agendas for the post-medieval period

Traditional archaeologies of the post-medieval Middle Nile have tended to be framed simply in terms of an 'Islamic' archaeology, in succession to a 'Christian' medieval archaeology. While the spread of Islam in the Sudan certainly is a key theme in the history of the post-medieval period (Levtzion and Pouwels 2000), the extent to which Islam can or should define this period is rather less clear.

The more recent history of the Sudan cannot fail to remind us that, even today, Islam defines the identity of by no means all of its citizens, and even then in many different ways. Processes of 'Islamization' are still ongoing, often part of political projects, and are still contested. Contemporary projects concerned with the 'Islamization of everyday life' (e.g. Beck 1998) continue processes which have, in many areas, been underway for several centuries. A simple emphasis on Islam is also unlikely to reflect the full richness and diversity of the many histories of the Middle Nile, regional and local, of the last 500 years. The ways in which Islam was to transform the Middle Nile is a key issue to be explored and assessed, rather than being taken for granted as the defining characteristic of the post-medieval period. It is also not a process that can be easily restricted to the post-medieval period, having begun much earlier, during the medieval period (Soghayroun 2000).

Rather than framing research simply in terms of an 'Islamic Archaeology', a number of different approaches to the archaeology of the last 500 years may also be possible. One focus may remain on the political units of this period, exploring the archaeology of the Funj Sultanate in the central Sudan, the Kayra Sultanate in Darfur, or the Ottoman Empire in northern Nubia and along the Red Sea littoral. To what extent did they create shared cultural forms within their territories? How was material culture implicated in the creation of new tribal, religious and national identities? In the nineteenth century we then have the imposition of the Turco-Egyptian colonial government over much of the region, followed by that of the Mahdiyya, which survived until 1898. These units were in turn surrounded by numerous smaller-scale societies on their margins. How the cultural as well as political hegemony of the Nile Valley was gradually extended remains one key research area. The gradual incorporation of areas such as Kordofan is an essential part of the history of the creation of the modern Sudan (Stiansen and Kevane 1998).

Exploring other themes and long-term processes may also be possible, however, cutting across these periodizations. Other lines of research may wish to explore some of the concerns of 'historical archaeology', as practiced in other parts of the world (Orser and Fagan 1995; Reid and Lane 2003). There is clearly considerable potential, for example, for developing research concerned with the post-medieval spread of Europe and its values, the development of capitalism and 'modernity'. If we wish to avoid charges of excessive Eurocentrism (apparent in many definitions of historical archaeology), such issues also need to be addressed within the specific local contexts and particularities of the history of the Middle Nile. Tensions between traditional forms of exchange and more commercial practices were already appearing in the medieval period as 'Arab' merchants tried to gain access to Nubian markets (Spaulding 1995). What may be termed 'capitalist' forces were in turn to be an important element of the intrusive institutions and social forces which were to pull apart the Sinnar Sultanate during the eighteenth century (Spaulding 1985a). However, the appearance of these forces and the growth of more general global linkages during the post-medieval

period were not initially through European contacts. Instead they came through the great powers of the Near East, notably the Ottoman Empire, while intellectual links were mediated through Islamic traditions entering the Middle Nile from a number of directions. The slow infiltration of coin and the growth of monetary economies were also rooted within long-established regional trading traditions. When the first steps towards modernization, 'improvement', and small-scale industrialization were made in the nineteenth century, they were mediated through exploitative policies of the colonial government of the Turkiyya, inspired in turn by the policies for modernizing Egypt of Muhammed Ali and his successors.

If historical archaeology may suggest new areas of research for us, its theory and methods may also have implications for the practice of archaeology in the region, not least in promoting an active concern for, and dialogue with, others forms of historical research. A range of sources is available which may be integrated with archaeological research. Historical sources, both local and foreign, gradually become more abundant and have provided the basis for detailed and coherent histories of Sinnar and Darfur and adjoining regions. From the nineteenth century there are useful accounts of several parts of the region by early European travellers.

We also have the possibility to look beyond the written word and explore the potential of oral traditions, sources which have come to occupy such an important place in Africanist history (Vansina 1985). These have been used to great effect in a number of studies in the Sudan (e.g. Ewald 1985), although they have yet to figure in any significant way in archaeological studies. Oral traditions may be especially valuable in both supplementing and challenging histories based solely on written sources. What may be termed 'Orientalist' traditions of historiography, which have tended to focus almost exclusively on Arabic sources, have been criticized for the partial and incomplete view of the post-medieval history of Sudan which they often create (e.g. Spaulding and Kapteijns 1991), in particular through excluding large numbers of 'Sudanese' who did not aspire to, or qualify for, 'Arab' identities.

Alternative histories, drawing on alternative historical sources, are especially important in recent centuries, the time in which the master narratives of cultural and social identity of the modern Sudan were being forged (Johnson 1997, 2003). Oral traditions may provide a means through which the complexities of race, identity and social status may be explored, particularly in looking beyond histories framed in terms of genealogies which established 'Arab' ancestry and identities for a wide range of 'northern' Sudanese. Since the Condominium, such genealogies have been one major focus of Sudanese historiography (e.g. MacMichael 1922; Hasan 1967) as well as being hugely influential in forging popular perceptions of Sudanese history. All too often *The History of the Arabs in the Sudan* has been mistaken for the History of the Sudan.

For many parts of the Middle Nile we also have a wealth of ethnographic accounts, many of which have a significant historical component; often dating

back more than a century, they may also be valuable historical documents in their own right. While these are often closely linked to colonial rule during the Condominium (Asad 1973) they can be very valuable in bridging the gap between the familiar present and much more alien pasts, as well as alerting us to how dynamic recent histories have been, contrary to popular perceptions of timeless 'traditional' societies.

This was also a period which saw great changes in the status of languages across the region. It seems clear that the inhabitants of many parts of central riverine Sudan were speaking forms of Nubian, and perhaps other languages, during the medieval period, and perhaps for some centuries after. However, by the nineteenth century Nubian had been largely displaced by Arabic. Only in the northern Dongola Reach and areas further north did Nubian languages survive. Little work has yet been done in this area, although it seems that systematic studies of place names and their history (e.g. H. Bell 1970) may be very valuable. In areas such as the Manassir region above the Fourth Cataract, occasional Nubian place-names can be still identified, and indeed sections of the population still identify themselves as 'Nuba' (Salih 1999). In other areas such as the Rubatab, downstream of the Fifth Cataract, there appear to be strata of non-Arabic place names, which are also not recognizably 'Nubian' (Ahmed al-Mutassim personal communication). In many other parts of the Sudan, the penetration of Arabic may have been much slower. In Darfur, it seems that the business of the Kayra court was conducted in the Fur language until the twentieth century, even if written records, when required, were recorded in Arabic (McGregor 2001a).

Over the last 500 years or so, another important area where we begin to find better sources of information is environmental history. This period saw significant climatic variability in the Sahel and Sudanic Africa, notably with more humid conditions during the sixteenth, seventeenth and parts of the eighteenth centuries, corresponding to the 'Little Ice Age' of more northerly latitudes (Nicholson 1978). This may be seen in substantially higher water levels in Lake Chad as well as increased Nile flood levels. Climatic decline set in during the eighteenth century and by the early nineteenth century the climate seems to have been comparable with that of recent times. For riverine Sudan, this has been marked by a decline in major and destructive floods during the twentieth century (Walsh *et al*. 1994). What have been rare and unusual events over the last century may have previously been much more commonplace.

One consequence of the climatic deterioration of the eighteenth century seems to have been a series of severe droughts, commonly accompanied by famine. While wars could also create famines, such droughts and the social stress they created also provoked movements of populations and the conflicts which ensued. Some areas, like the Upper Nile, will have been particularly vulnerable to excessive rains and floods (Johnson 1991), while others, in the Sahel, will have been vulnerable to drought. Beginning in the 1680s, we know of some droughts which effected the whole of Sudanic Africa. In Wadai and Darfur these entered

chronicles and oral traditions as a great 'seven-year' famine. Similar conditions existed in Funj central Sudan between 1680 and 1692, notably with the Great Famine of 1684, known as *Umm Lahm*. A long and severe drought is also known to have affected most of the central and western Sudanic belt from the late 1730s to the mid-1750s; how prominent this may have been further east remain unclear. Such droughts and other disasters provide a background in which peoples were forming, reforming and often moving through these regions. It may have been during the times of stress during the later eighteenth century that the Berti, for example, moved from northern Darfur into eastern Darfur (Holy 1991).

In the riverine areas of the Middle Nile during this period we also see some very high Nile floods drawing on heavy rains in Ethiopia. A relatively wet period continued into the 1790s when a trend to drier conditions returned, with often widespread and extended droughts across much of Sudanic Africa from the 1820s, especially in Chad. In the Middle Nile, several unusually high and potentially destructive floods are recorded in the 1840s, but whether there were also good rains in the region during these years remains unclear. Several more high floods in the late nineteenth century fall within a period of generally wetter conditions (1875–95) across most of Sudanic Africa as well as much of East Africa (Nicholson 1978). Within the same period there was however a great famine in 1888–92 which effected much of Sudan, Ethiopia and East Africa, combining the great rinderpest outbreak, which decimated cattle stocks, drought and locust outbreaks. While rarely likely to be identifiable in the archaeological record an awareness of such disasters is important in shaping our perceptions of societies in the nineteenth century, which were often under great stress, rather than being representative of a more timeless 'traditional' past.

Funj Sinnar

As we saw in the last chapter, virtually nothing is known of the late history of Alodia, nor how a new kingdom ruled by the Funj came to replace it. Later traditions, written down in the nineteenth century and known as the 'Funj Chronicle' (Holt 1999), provide one account of the end of Soba in which the first Funj king Umara Dunqas, apparently already a Muslim, defeated the kings of Soba and Qarri in AD 1504 (AH 910), probably in collaboration with one Abdallah Jamma, progenitor of the Abdallab Arabs. Who the Funj were, and where they may have come from has long been debated. They were not an ethnic group, nor does there appear to have been Funj language. Instead they formed a hereditary ruling elite, in which the right to rule was passed down through the female royal line (Spaulding 1985a). While later creating an Arab identity and ancestry for themselves, claiming descent from the Umayyads, their origins seem to have lain in the southern Gezira. Some traditions have suggested links with the Shilluk peoples of the White Nile. The late traditions of their relationship with the Abdallab Arabs also remain open to debate, with some claiming

that the Abdallab Arabs may first have overthrown Alodia (Holt 1963), only later being displaced by the Funj.

We are lucky to have one invaluable account of the region provided by Theodoro Krump, who visited Sinnar in 1700–2 (Spaulding 2001) as well as some European accounts in the later eighteenth century, notably that of James Bruce (Bruce 1790). The first modern history of the Funj was compiled by O. G. S. Crawford (1951), also the first archaeologist to show much interest in this period (see Crawford 1953a, 1953b). Since the 1970s a growing body of new historical scholarship has been accumulating (e.g. Spaulding 1985b). Even so, still very little is known about the sixteenth century, during which the Funj seemed to have gained control of all riverine areas from the southern Gezira to the Third Cataract. By the eighteenth century the kingdom also had considerable interests west of the Nile, in Kordofan.

In the seventeenth century we get occasional glimpses of the complex and often violent internal politics of the kingdom. Early in the seventeenth century there seems to have been a major revolt by the Abdallab. While the Funj suppressed the revolt, in its aftermath the Abdallab sheikhs seem to have acquired effective control of the northern part of the Funj domains; their capital was at Qarri, near the Sixth Cataract. This domination of the north does not appear to have continued beyond the seventeenth century. The Shaiqiya, who dominated the southern Dongola Reach (Nicholls 1913), seem to have secured their relative independence from the Abdallab, although still recognizing the Sultan's authority. In the eighteenth century they had a reputation for raiding throughout the Dongola Reach, into parts of Nubia further north, as well as across the Baiyuda into central Sudan. Their kings or *meks* established several local power bases in the southern Dongola Reach, centred on a series of castles (Figure 9.2).

Darfur

By the later medieval period, it seems clear that there were kingdoms in Darfur, although we know very little about the early kings of the Daju dynasty. Their successors the Tunjur, who also ruled parts of Wadai further west, left not much more of a mark, although through their involvement in long-distance trade, we catch a few glimpses of them in historical records (O'Fahey and Spaulding 1974; O'Fahey 1980a; McGregor 2001a). The extent to which Islam may have penetrated the region under the Tunjur remains unclear; most traditions seem to suggest that they were 'pagan'. Slaves from the region named 'al-Tunjurawi' appear, for example, in early seventeenth-century records in Egypt (Walz 1978). Their origins are also obscure (O'Fahey 1980b), although 'Tunjur' groups still occupy two areas of Darfur, as well as being found in parts of Chad, and further west. Military power, probably derived mainly from their use of cavalry, is likely to have been central to their rise. No king-lists of the Tunjur have survived, but names of some of their rulers are associated with various 'Tunjur' ruins in the

Figure 9.2 Post-medieval 'castle', probably with a medieval core, Gezira Tombos, Third Cataract region

region, mainly in northern Jebel Marra. The most commonly named was Shau Dorshid. Their rule may have ended during the later sixteenth century when they were displaced by the first Kayra sultan, usually named as Sulayman Solong ('Solongdungo'), also credited with fostering Islam within his kingdom.

By the eighteenth century there seems to have been regular conflict on the eastern margins of the kingdom in Kordofan, contesting Funj domination. By the end of the century it had been annexed by Darfur, although with the coming of the Turkiyya, the region was increasingly drawn back towards the Nile Valley and its growing cultural hegemony (Stiansen and Kevane 1998). On the southern side of this area, the same period sees the development of smaller polities such as the kingdom of Taqali, extending into the northern Nuba mountains, which may have become a Funj province during the mid-seventeenth century (Ewald 1985).

The post-medieval sultanates

Most of what we know of the two major sultanates – the Kayra of Darfur in the west and Funj of Sinnar – comes from the seventeenth and eighteenth centuries, a period when the increasing influence of Islamic law, customs and trading practices were transforming socio-economic relations as well as redefining identities. The importance of such innovations should not be underestimated and indeed the combined pressure of new forms of commerce and Islamic

practices were probably instrumental in the destruction of many traditional institutions, especially among the Funj (O'Fahey and Spaulding 1974; Spaulding 1985a). With the much more abundant historical data available for this period for the first time it is possible to sketch out something of how these kingdoms were structured in economic and socio-political terms, although it is likely that they had much in common with earlier kingdoms (Edwards 1996a).

In Darfur, subsistence practices are likely to have been very varied, with camel and cattle nomadism and rainland hoe agriculture practised in the different environmental zones moving from north to south. The hill slopes of Jebel Marra which enjoyed more reliable rainfall formed an especially productive area. Specialized camel nomadism may well have been introduced in some areas by new 'Arab' groups as early as the fourteenth century AD. Over time some of these may have shifted to cattle herding in wetter areas, forming the nuclei of groups which have come to be known as the 'Baggara' (O'Fahey 1980a: 6). The introduction of the camel will have allowed greater use of the more arid northern parts of the region.

By the late seventeenth century, land, while not scarce, was being disposed of by the state in the form of estates, increasingly regulated according to legal practices introduced from the Nile Valley with the coming of Islamic learning. These included 'administrative estates' granted to regional chiefs and notables, giving them rights to various customary taxes and dues and the labour of their tenants. Direct taxes and tithes seem to have been payable exclusively to the Sultan (O'Fahey 1979). The particular importance of these estates seems to have lain in the herds they supported rather than their agricultural produce; wealth being accumulated mainly in the form of livestock, even among agriculturalists (G. Haaland 1969, 1972). The granting of full rights to the land and taxes on production ('estates of privilege') was reserved for members of the Kayra royal clan and increasingly to Muslim religious leaders and merchants (O'Fahey 1979: 264). The control the Sultan exercised over subsistence production from the royal estates was primarily directed towards sustaining the royal palace (or *fashir*), the focus for royal display and consumption, which also had important ritual and cosmological roles.

Similarly varied forms of subsistence and economic power bases may be found at Sinnar. While historical records are more abundant for more northerly areas, 'the demographic and geopolitical centre of power' seems to have lain in the rainlands further south (Spaulding 1979: 329). Within more northern areas, riverine irrigated agriculture was predominant with seasonal farming and grazing of inland wadi-systems where rainfall allowed, for example in the Western Butana (Bjørkelo 1983). Further south, the opportunities for extensive rainland agriculture, especially in the Gezira, greatly reduced the dependence on riverine farming. Agriculture was generally mobile, following the changeable seasonal rains and the demands of shifting agriculture. Under such circumstances, labour rather than land was the scarce resource. However, while seasonal crops could be grown in all areas watered by the rains, permanent settlement

required perennial water sources and population centres were necessarily focused on either the river or in areas where permanent wells could be dug.

Rainland cultivation co-existed with semi-mobile pastoralist groups, similarly influenced by seasonally changing supplies of water and grazing. Major axes of seasonal movements were between the hinterlands of the Gezira and the Butana and the Niles. Here, as in Darfur, the investment of wealth in livestock by cultivators allowed for the transition from one mode of livelihood to the other. Modes of existence, as well as 'tribal' identities, may have been fluid and dynamic (Spaulding 1979).

Control over subsistence production by the Funj Sultan and his provincial magnates extended to the collection of services and dues, which have been described as essentially feudal relations based on marked social distinctions between commoners and nobles (Spaulding 1985b). As with the 'estates of privilege' in Darfur, these payments took the form of both labour services and various products, including first fruits of the harvest and, in certain areas, quantities of crops like sesame, cotton and tobacco. Direct levies on agricultural production demanded a proportion of any crop to be delivered to the Sultan's treasury to support the court, the elites and later royal troops. Levies on herders are also recorded demanding a tax of one-tenth of their herds. Such livestock taxes were probably of greater importance for the Sultan, representing mobile wealth, which could be more easily transported to the capital, for the support of non-productive elements of the elite. They were delivered annually to the Sultan by his provincial vassals with great ceremony (Spaulding 1979: 344). In the southernmost areas other important resources were also available. This included gold, slaves, iron, honey, exotic skins, rhinoceros horn and civet. In some areas, the local population was directly encouraged by their local lords, on behalf of the Sultan, to pan for alluvial gold.

The mechanisms through which it was possible for the Sultan and his provincial magnates to control and exploit these different forms of subsistence production varied from region to region. There was a complex system of customary law and rules of conduct, based on the fundamental legal distinction between nobles and commoners. Such distinctions were reinforced by elaborate sumptuary laws whereby, as Spaulding notes, the elite could be identified as the 'clothes-wearing people' (Spaulding 1985b: 78–83). Political ties were also formed by the bestowal of titles and court privileges on 'tribal' elites, including marriage to women of the royal clan, which provided the ultimate legitimation of the provincial elite. It is also possible to discern forms of client–patron relations in the exaction of forms of taxes or tribute reciprocated by gifts, such as cloth from the Sultan's treasury.

Similar reciprocal arrangements can be seen in the collection of more exotic goods from the southern provinces of the kingdom. Finds of large gold nuggets were dispatched directly to the sultan while smaller finds were passed to royal officials, the finders being rewarded with modest gifts. In some gold-rich areas, a tax levied in gold dust was required to receive permission to carry out

a burial. Regulation of the hunting of certain animals is also likely to have been important. Customary restrictions on the hunting of many wild animals remains a powerful and widespread tradition in the region (Tigani al-Mahi 1994). Hunters were required to turn over leopard skins to their local lords for transmission to the Sultan.

Military power was undoubtedly essential for the maintenance of the state and indeed warfare and raiding may be seen as a fundamental activity of the state, either as punitive action or for the acquisition of slaves. In Darfur, as in many parts of Sudanic Africa, an essential element in military power was the availability of cavalry horses (H.J. Fisher 1972, 1973; Law 1980), in this case imported from the Dongola Reach (O'Fahey 1980). Slave raiding around the periphery of the state is likely to have been a crucial source of wealth for the elites, either to acquire personal retainers or for export to Egypt. Within the Funj state military expansion brought vast areas under the sultan's control. Annual campaigns, the *salatiya*, were mounted primarily to gather slaves, most of whom became royal possessions. The slaves acquired in this way were not only important for their value in long-distance trade, but were also incorporated into the Sultan's military units and bureaucracy, essential for maintaining the power of the Sultan over his provincial and district vassals.

As in earlier periods, long-distance trade was an important source of economic power for both sultanates. The Fur Kayra dynasty may well have inherited trade networks existing under the (pagan) Tunjur or even earlier (O'Fahey 1980). By this period, new caravan routes were developing, often largely displacing the traditional riverine route through Lower and Middle Nubia. West of the Nile, the Darb al-Arbain ('Forty Days Road') ran south from Egypt into Darfur, where it linked with other routes running across Sudanic Africa. Other desert routes ran east of the Nile, notably to Abu Hamed. Egyptian merchants were certainly trading at the Tunjur 'capital' at Uri in the sixteenth century (Walz 1978). The close royal control on trade is well recognized, although the details of its organization are obscure, especially as much of our documentary evidence is of Egyptian origin (e.g. Walz 1979). In general however, it can be seen that the main exports were slaves, gold, camels, rhinoceros horn, ivory, ostrich feathers, tamarind, gum arabic and natron. Imported goods include textiles, copper, tin, lead, beads and cowries and a range of small metalwork. Such imports had considerable importance within Fur contexts; cloth, iron 'hoes' and copper and tin rings (Hasan 1979) served as media of exchange and could represent considerable wealth.

Within the Funj Sultanate, three main spheres of economic activity can be seen, distinguished by different participants, location, commodities and media of exchange and by the form of control exercised over them (Spaulding 1985b). Local exchange was primarily in the form of barter or gift, also within social transactions such as bridewealth. Regional trading networks were concerned more with the exchange of regionally specific commodities, which might include agricultural for animal products and specialities such as dates, cloth and salt,

and be focused on defined markets and fairs, controlled by the Sultan or his regional officials. Such markets served as a tool for social control. We hear of cases where Funj subjects were compelled to surrender firearms on pain of exclusion from the local markets on which they depended for salt.

Long-distance trade within the sultanate was primarily the monopoly of the Sultan and was concentrated on the export of gold, slaves and ivory, brought together at the royal market or *bandar* at Sinnar. While traders were allowed to make small gifts to the vassal lords through whose lands they passed on the way south, they were not allowed to do business outside the capital. The Sultan (with his court officials) remained the greatest merchant within the state, having a monopoly of gold production, perhaps half of the ivory, and receiving at least half of the slaves captured during the annual *salatiya*.

As the control of long-distance exchange played a major role in maintaining royal power, the loss of such control was ultimately to prove disastrous. During the eighteenth century, the gradual disintegration of the Funj state appears closely linked with the erosion of royal prerogatives, including trading rights, as vassals of the Funj Sultan were able gradually to establish independent trading networks (Kapteijns and Spaulding 1982). This phenomenon may be placed within the context of more wide-reaching external influences on trade. By 1700 the gradual introduction of coin and commercial exchanges was also weakening the royal control of exchange. During the same period Muslim merchants, increasingly independent of royal controls, were able to usurp the power traditionally associated with long-distance trade, enhancing their local power bases (O'Fahey and Spaulding 1974). Similar developments were also found in Darfur with the appearance of new informal but powerful elites, largely outside the existing state hierarchies, including merchants, powerful slaves and *fuqara* (religious leaders).

Post-medieval settlement

As yet, our knowledge of the archaeology of central Sudan during the Funj period is pitifully inadequate and has not increased greatly from what Crawford knew 50 years ago. For our knowledge of post-medieval settlement we are almost entirely reliant on written sources. Even the Funj capital at Sinnar still remains largely unknown beyond the sketches of early European travelers (Fitzenreiter 2000). Probably the next most important settlement was Arbajī, reputedly founded in the later fifteenth century by a Hadarī trader. Its site is still known and into recent times was marked by low mounds of settlement debris. A brief survey in the 1970s suggested that the settlement may have covered 7–8 hectares, and had a substantial *qubba* cemetery associated with it (Khalifa 1979).

The spread and growing influence of Islamic holymen is one prominent theme in the post-medieval history of the Sudan, marked by the settlements which grew up around them and their *qubba* tombs (Figure 9.3), potentially new

Figure 9.3 Qubba tombs at the religious centre of 'Aylafun on the Lower Blue Nile

'Islamic' settlement landscapes and new landscapes of religious power (Spaulding 2000). These same individuals, as the historians and chroniclers of their society, have also played a fundamental role in the construction of northern Sudanese historical consciousness through their written legacy, notably compilations of biographies of religious notables such as the Kitāb al-Tabaqāt of Wad Dayf Allah. These have in turn become primary sources for more general historical studies of the period (e.g. McHugh 1994; Spaulding 1985b).

The religious holy men (*fuqara*) were to become part of new Islamic elites and were to exercise considerable power and influence in both the major kingdoms as well as in intervening areas. The power and reputation of many never extended beyond their local communities. Others however, were to become part of extensive networks of power, commonly working through Sufi *tariqas*. The special status acquired by these holy men was certainly to transform settlement as well as social landscapes of many regions and seems to have been an important impetus to the growth of urbanism. As trade slipped away from royal controls, new merchant classes were increasingly important to a series of trading and market towns, such as Shendi and Berber, of which we occasionally catch glimpses in the historical texts. New forms of social and political relationships were formed, with new concepts of private property, as well as new 'Arab' cultural and ethnic identities.

Many questions about the religious enclaves which grew up around these holymen still remain to be addressed. To what extent were they new foundations?

Ed Damer, for example, rose to prominence in the eighteenth century as the centre of the Majdhubiyya *tariqa*, who enjoyed a great reputation and wielded considerable power (Lorimer 1936). While their accumulation of estates and followers in the area can be traced in historical documents (Spaulding 1985b), how they related to existing communities remains far from clear and, as with most of such sites, no archaeological investigations have been undertaken to explore their early histories. Only in rare cases do we have even basic descriptions of such key centres, such as Abu Haraz on the Blue Nile (al-Hassan 1978). Old Dongola is a rare example of a site where we may presume some kind of continuity with medieval communities, where the old capital of Makuria was to re-emerge as the seat of a number of notable Islamic teachers and holymen. The details of this transition are still far from clear, although the material marks of this new class of Islamic notables is very apparent in a great *qubba* cemetery outside the town.

The importance of *qubba* tombs as early monuments to the spread of Islam is increasingly well-recognized, and some work has begun on their recording and description. However, much more remains to be learnt from their systematic study as part of broader historical investigations. Most obviously, the spread of such monuments across northern and central Sudan appears quite uneven. They are, for example, prominent features of parts of the northern Dongola Reach and further north, as well as being found in many of the religious enclaves of the Gezira and central Sudan (McHugh 1994; Soghayroun 1987). In other areas, they are much rarer. Written sources can throw little light on such patterns. The biographies contained in the Tabaqāt , for example, are largely restricted to a relatively limited area of central Sudan. The histories of a myriad of lesser religious figures, many of whom never enjoyed more than local reputations remain unrecorded. On current evidence, other early Islamic monuments seem rare. While Sinnar is know to have had large mosques, exactly when communal mosques began to be constructed elsewhere remains unknown. One reputedly very early mosque – the so-called Abdallah Ibn Abi Sarh's mosque – at Old Dongola appears to be of much more recent date (Eisa 1994b). In many rural areas outside the religious enclaves the first documented examples only appear in the nineteenth century (e.g Berti *et al*. 1986).

The little that we know about 'Funj' material culture comes from a few excavations on the Blue Nile, at Abu Geili, on the east bank (Crawford and Addison 1951) and from around Sinnar itself. One group of burials at Abu Geili were found to contain some very distinctive pottery dishes as well as iron axes and spears. A late-sixteenth-century coin from the site suggests occupation quite early in the period. The pottery bowls (Figure 9.4) seem to be a feature of female graves, while male graves seems to have contained mainly weapons. Other burials at the site followed Islamic norms, although their date is unknown. Similar graves are known from Sinnar itself, with extended burials, oriented north–south, head to the south, *but* with the same large pottery dish over the head and shoulders of the body (Arkell 1934). Found only about 100m from

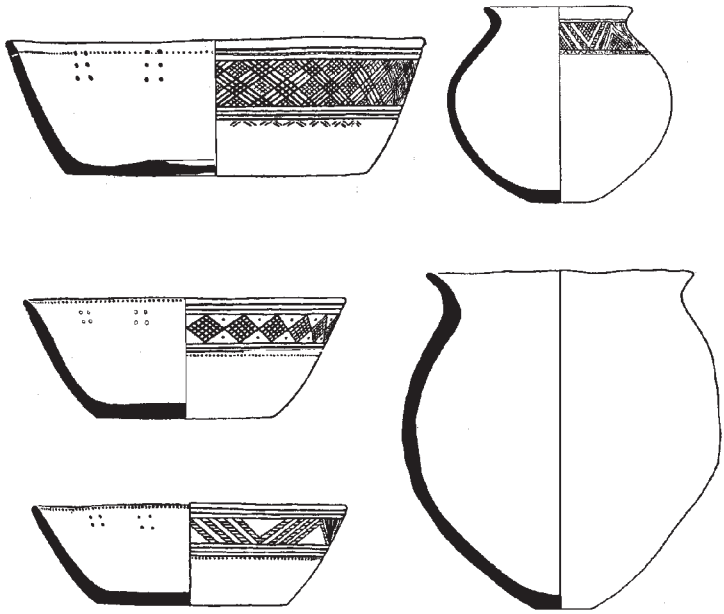

Figure 9.4 Funj large open bowls and jars
Source: based on Crawford and Addison 1951

the site of the old mosque at Sinnar, burials such as this suggest that Islamic practice was perhaps accommodating local practices even at the heart of the kingdom.

Virtually the only other archaeological site of this period that we know of is one at Dar el Mek, a small hillside settlement in the Jebel Moya massif in the interior of the Gezira. Its uniqueness makes it very difficult to interpret. A post-medieval date seems clear, with the presence of tobacco pipes and some 'Funj' pottery. However, much of the pottery represents types not yet recorded anywhere else and whose date and associations remain unknown. Many fundamental questions concerning the material culture of the period remain unanswered. To what extent was 'Funj' material culture, only known from a handful of sites in the Sinnar region, really representative of the Funj domains as a whole? Were there widely distributed forms of 'Funj' pottery? The most distinctive features of ' Funj' graves were the pottery types buried in them, especially the large flat-bottomed handmade dishes elaborately decorated with incised geometric designs. The forms suggest that they might be communal eating dishes and may perhaps relate to wooden prototypes. A handful of sherds of what may be 'Funj' braziers or incense burners were found at Soba (Welsby and Daniels 1991) while some potentially similar material has been reported from the Abdallab centre at Qarri, near the Sixth Cataract (al-Sanjak 1978). There are as yet no finds of

similar material further north, however, and no comparable material seems to have been found in the Dongola Reach.

We are even more ignorant of the material evidence for the opening of Sinnar to contacts with the 'outside world', a process that has begun to be studied on the basis of historical records (e.g. Spaulding 1985a and b). Visitors such as Krump in 1701 could describe the slave girls of the Sheikh of Qarri as wearing 'silver bands on their arms, and their hair was decorated with very many silver coins, and also some Venetian sequins, all of which rustled. From their ears hung silver or golden rings, and around their necks were {beads of} Venetian glass, agate or coral' (Spaulding 2001). As yet however, we only have occasional reports of glass shards, glazed pottery and perhaps clay tobacco pipes on the surface of post-medieval sites.

Darfur and the peripheries

In Darfur our archaeological knowledge is restricted largely to surface observations of relatively prominent ruins (e.g. Musa 1986). Little is known of the more general settlement of the region, likely to have been structured around relatively mobile settlements (Tobert 1994). A number of ruined stone-built settlements may be associated with the Tunjur, according to local traditions (McGregor 2001a). These range from single buildings to large enclosed settlements with substantial stone and occasionally redbrick architecture. Buildings are commonly curvilinear, based around stone-walled roundhouses, a common architectural form in the Jebel Marra region. One of the most important is at Uri, northwest of modern Kutum, a site which seems to have been a major trading centre and perhaps the capital of the Tunjur. Further Tunjur sites lie to the west in the Wadai region, in modern Chad. Our knowledge of Uri is limited to sketches of a number of compounds, possible 'palaces' and a mosque, first identified in the 1950s (Balfour Paul 1954b). The date of the mosque's foundation remains unknown, but with some Islamic burials also seen in the area (Arkell 1946b) raises the possibility of some Islamic presence in this murky period. Imported beads (Venetian, and perhaps Indian) bear witness to some external trade.

The most impressive of these sites is Ain Farah, *c.*130km northwest of al-Fashir (De Neufville and Houghton 1965). Located at the site of rare perennial springs, the settlement comprises a complex of stone-built enclosures and roundhouses, including some large palatial buildings, as well as another mosque. Some circular brick ruins may also be the remains of Islamic *qubba* tombs (Balfour Paul 1955). The reputed discovery of two sherds of medieval 'Nubian' pottery in the mosque at Ain Farah prompted Arkell to speculate on possible links between the site and the medieval Nubian kingdoms, and indeed that the site was actually 'Christian', with churches and a monastery (Arkell 1959b). Much has been made of these supposed links in more general works. However, on closer inspection, the whole story of the supposed finds of 'Christian' pottery at the site is very problematic and seems likely to be based on a simple confusion

by their discoverer between the Ain Farah site and another Christian ruin somewhere else in Sudan (McGregor 2001a: 67). Until some more credible evidence is found, we still have no demonstrable links between the medieval Nubian kingdoms and the West, despite Arkell's often enthusiastic claims (e.g. Arkell 1961). Possible links between pottery found in the Koro Toro region, north-east of Lake Chad (Treinen-Claustre 1982) and types known from the Nile Valley, Meroitic or medieval, also seem unlikely, the different types of pottery really having little in common except the use of geometric painted designs.

Sites which may be associated with the Kayra sultanate are concentrated largely in the Turra Hills within the Jebel Marra massif, an area which is today quite thinly populated. Several large enclosed sites are known as well as the burial ground of the Kayra sultans at Turra, where the tombs were restored by Ali Dinar at the beginning of the twentieth century (McGregor 2001a).

Monuments of the penetration of Islam into the region are still scarce. The first *fuqara* were probably entering Darfur during the sixteenth century, mainly from the west rather than from the Nile valley. At the site of Old Shoba, near Kebkebiya (Figure 9.5) where there is a brick palace of Sultan Mohammed Tayrab, a brick mosque is dated to *c*.1760 (Balfour Paul 1954a; Reed 1994). Over the next two centuries, larger numbers coming from the Nile Valley were increasingly active in the region. The adoption of Islam as the state religion of Darfur probably occurred quite late in the eighteenth century. Major changes occurred under the Sultan Abd al-Rahman, who also established a permanent capital at al-Fashir at the end of the century. Having lived for many years as a holy man, his commitment to Islam was very apparent, although his attempts to enforce Islamic practice were not always successful. A ban imposed on the drinking of millet beer in 1795 was widely ignored, even within his own palace (see G.W. Browne 1806: 201). Outside the capital the development of Islam as a meaningful spiritual force amongst rural populations may have come much more recently (Holy 1991).

The extent to which contributions to cultural change in the region may have been coming from western sources as much as from the east still remains uncertain. From the earliest traditions which have come down to us, it is apparent that the Darfur region had long-standing contacts with populations in the Chad Basin, with continuing movements of groups between the two areas. Such patterns of movement have continued into modern times. This very different orientation and distinctive 'western' character may be apparent in a number of areas of material culture in more recent periods. Of particular interest to archaeologists should be the ways in which the formal repertoires of pottery found across Darfur (Figure 9.6) during the twentieth century are consistently very different from those of regions to the south and east, if sharing some specifically Islamic forms such as ablution bowls and jugs (*Rakwa* and *Ibriq*). In most parts of the region pottery manufacture, like iron-working, is restricted to specific groups, generally held in low regard and stigmatized by their clients (Tobert 1988; Abdelrahman 1984).

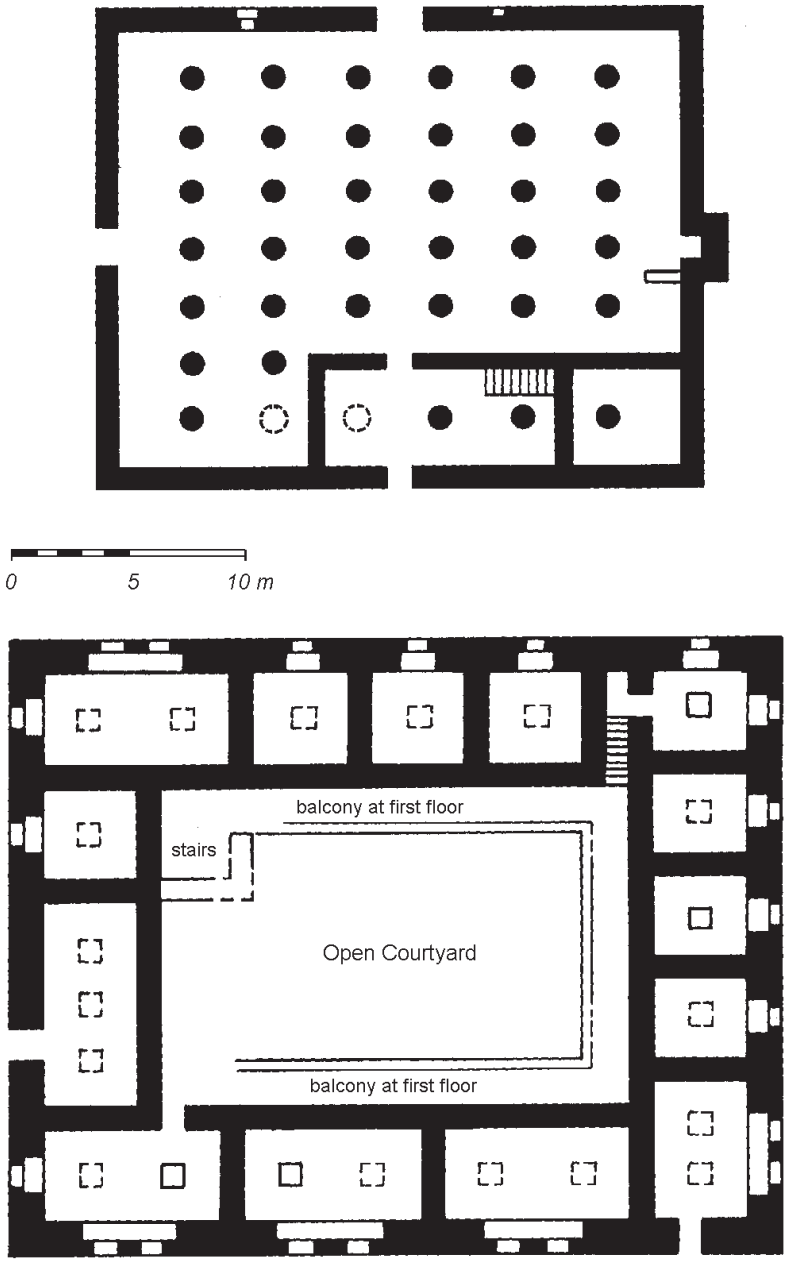

Figure 9.5 Mosque (top) and brick palace (bottom) at Old Shoba, North Darfur, associated with Sultan Mohammed Tayrub *c.*1760

Source: after Reed 1994: Fig.13

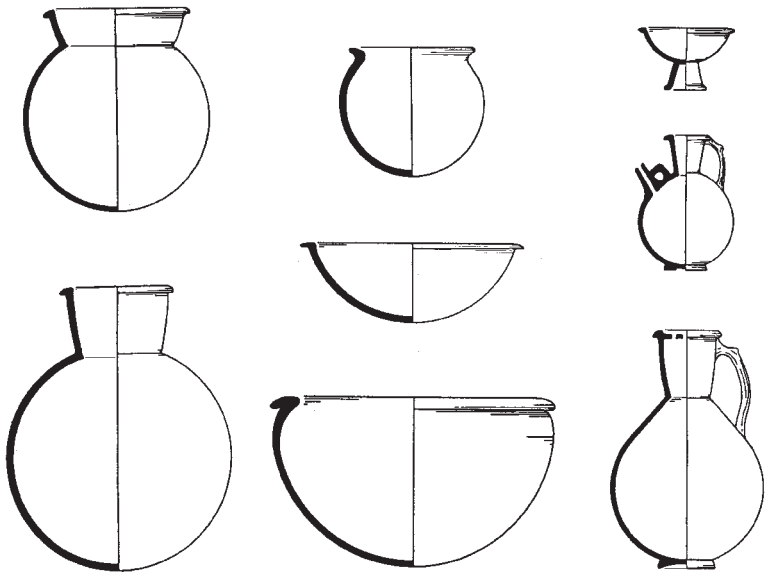

Figure 9.6 'Modern' forms of Darfur pottery
Source: based on Tobert 1988

In this respect another elaborated craft, the making of decorated gourds, is of interest. Carved wooden bowls and decorated gourds are both products commonly associated with the 'west' in riverine Sudan. Whether they were long-established local crafts in the region remains unknown. However, there are some indications that elaborately decorated gourds found there may be drawing on influences from still further west. The elaborate decoration of Darfur gourds, seen for example in a group produced by Sultan Ali Dinar's 'official-gourdmaker' (Sterns 1917), has much in common with styles well-documented in more recent times in northeast Nigeria (Berns 1985; Perani 1986).

Dongola and the Ottoman north

Old Dongola seems to have survived the disintegration of Makuria and remained a regional centre, albeit shifting its focus to an area to the south of the old medieval town. In March 1701, Krump passed the town, noting the presence of an old church, then 'walled up'. Close by was a large cemetery with the *qubba* tombs of Islamic religious notables and great sheikhs. While a considerable body of knowledge concerning the history of these figures survives in oral traditions, relatively little has made its way into academic literature. Elsewhere in the region, the major monuments of this period are a series of large castles such as Qasr Wad Nimeiri, al-Khandaq and Merowe. Many may well have medieval cores and some remained in use into the nineteenth century.

Rather more is known of areas of northern riverine Nubia, which by the later-sixteenth century was controlled by the Ottoman Empire. Very little is known of sites of this period in Lower Nubia, although there seem to have been several important settlements including Faras, Jebel Adda, Qasr Ibrim and Derr, while some others are known to have had quite substantial mosques (Monneret de Villard 1935: pl.X). We only have much archaeological information from Qasr Ibrim (Adams 1987b). Great advances have recently been made in understanding specifically Ottoman aspects of the region's archaeology (Alexander 1994, 1995, 1997, 2000). This work has also been valuable in developing our appreciation of the complexities of local cultural developments during this period. Following the defeat of the Mameluk Sultanate of Egypt in 1517, the Ottomans moved south into Nubia in the 1560s, when a new frontier *Sanjak* was established centred on Qasr Ibrim. The actual frontier may have been established on the Second Cataract. In the 1580s, it was pushed south, with campaigns through the Third Cataract; later traditions recount a battle between the Ottomans and the Funj at Hannek. While the full story of the campaign remains unclear, it brought the frontier garrisons further south to the island of Sai. There was a brief attempt to create a new Ottoman province (Eyelat) in the region, but this was soon abandoned. After *c.*1586 the southern frontier seems to have stabilized around the Third Cataract.

Garrisons, which were to become hereditary, were to remain at both Qasr Ibrim and Sai into the eighteenth century; documentary sources (Hinds and Ménage 1991; Hinds and Sakkout 1986) show they became established in the region as landowners and farmers, while maintaining distinct identities. It was under Ottoman rule that modern Nubian identities began to take shape, set apart from the Funj state and the socio-political and religious developments taking place in central Sudan during this period. The material remains of Ottoman garrisons at Qasr Ibrim and Sai, far from being representative of 'Islamic-period Nubia' as a whole, actually relate to very specific military communities, only one element of a complex tapestry of different populations and identities within Nubia during this period. These included a hereditary governing class, known as the '*kashefs*', as well as different strata of 'Nubian' populations, as well as settled Arab groups. This diversity was still apparent in the late twentieth century (Kronenberg and Kronenberg 1963, 1964, 1965). As yet, relatively few other sites of this period can be identified, most of them being in the Batn al-Hajar (W.Y. Adams 1987b), as well as a few in the Third Cataract region (Edwards and Osman 2000). The only systematic excavations have been at Kulbnarti, in the southern Batn al-Hajar (W.Y. Adams 1994a; Adams and Adams 1998), a site where there seems to have been continuous settlement from the late medieval period into modern times. With no obvious Ottoman military presence, the site may be more representative of Nubian settlements, although the local *kashef* may have maintained a presence on the island. The most distinctive type of site of this period is a small fortified site, commonly known as *kourfa* or *diffi*. Commonly found between the Third

Figure 9.7 Nineteenth-century fortified 'Diffi' in the Third Cataract region

Cataract area and the Batn al-Hajar, many of the surviving examples are probably of nineteenth-century date (Figure 9.7). However, a few examples incorporate late medieval 'castle-houses' while some brick-built examples may be of seventeenth- or eighteenth-century date. By the nineteenth century, construction using clay blocks or *jalus* becomes much more common.

Southern 'peripheries'

The material links between the Funj domains and the peoples who lived on its southern margins remain unknown, although the historical sources hint at various ways in which the resources of these peripheries were exploited. Material influences may have been limited although it is possible that the Funj state exercised ritual influence in many outlying areas, drawing on the sacred nature of Funj kingship as well as the reputation of its holy men. In more recent times, amulets made in Sinnar, in close proximity to the kings, were highly valued for their special magical powers amongst peoples of the upper Blue Nile (Jedrej 1995).

Along the White Nile, the early Funj centuries were also probably important ones for the formation of new peoples, from amongst whom the Shilluk were soon to emerge. While their early history is still obscure (Gray 1961; Mercer

1971), the first development of a powerful Shilluk polity seems likely by the mid-seventeenth century. The Shilluk 'heartland' of that period seems to have lain along the White Nile between Tonga and Kaka/Muomo, and a permanent capital seems to have been established at Fashoda by the late eighteenth century. As yet, virtually nothing is known of its material culture, despite some exploratory work around Malakal and Er Renk (Kleppe 1982b, 1982c).

Through the seventeenth and eighteenth centuries the Shilluk were raiding far to the north, past al-Kawa (Eleis), coming into open conflict with the Funj, when threatening their routes to the west. Early traditions also point to much regional conflict, notably with Nuer and Dinka peoples of the time. There may also have been contacts to the northwest as far as the Nuba Mountains. In the early nineteenth century the Shilluk *reth* controlled the White Nile north of Kosti and was forced southwards only in the second half of the century, after which the region was gradually drawn into the control of the Turkiyya government.

The full extent of early contacts with the north remains unclear. Shilluk war fleets of canoes were clearly much feared along the White Nile and the military power of the Shilluk and their neighbours at times clearly posed serious challenges to the Funj. Early trading relations are not well documented. Items such as iron, cloth, grain and probably salt were much in demand, but whether there was much trade out of the region prior to the nineteenth century remains unknown. There are suggestions that the ivory trade, for example, only began to flourish in the early nineteenth century, inspired by European demand, and perhaps the destruction of elephant herds in more accessible areas. Only with the beginning of the Turkiyya did the penetration of northern merchants and adventurers up the White Nile begin to accelerate, seeking both ivory and slaves.

Egypt in Africa: the Turkiyya

In 1820, Muhammed Ali, the new ruler of Egypt, launched a campaign up the Nile with an army commanded by his son Ismail Pasha. Ostensibly at the behest of the Ottoman Sultan, who authorized Muhammed Ali to annex the territories of Sinnar, Kordofan and Darfur, this invasion began a 60-year period of colonial rule, generally known as the 'Turkiyya', although also sometimes referred to as the 'Egyptian', 'Turco-Egyptian' or 'Ottoman' period. This period is of central importance in the development of the modern Sudanese state, through the processes of geographical expansion and definition which established its modern form. It was also a period in which new identities were being created and others destroyed. In 'deep rural' areas, refugees from slaving and wars coalesced with others, often taking on new identities; this was a period of flux and change in the Upper Blue Nile (e.g. James 1979) and the Nuba mountains (Nadel 1947; Spaulding 1987). In the east, new links were forged across the Red Sea. The mid-nineteenth century saw for example the creation of new Arab tribes such as the Rashaayda from groups of immigrants from western Arabia

(Young 1996). In central Sudan, a growing population removed from its communities by slaving and warfare was to form a new class of what became 'Sudani' – Sudanese.

The period also sees the Middle Nile becoming engaged, really for the first time, in processes of 'modernization'. Processes of global capitalist development were impinging on the region. At the same time, however, this global framework may be balanced by the presence of the Ottoman Empire which, even at this late date, still retained some of its influence as 'its own World Empire' (Baram and Carroll 2000). With the Egyptian conquest, historical records also improve markedly. There is increasing official documentation as well as unofficial accounts from a small but growing band of foreign observers, notably Europeans working for the government or making their way as adventurers (Santi and Hill 1980). Many records were lost at the end of the century, during the Mahdiyya, but much has survived.

Economic changes were also accompanied by new forms of government and order. The exploitative character of Egyptian rule has been quite well documented (e.g. Bjørkelo 1983, 1989). However, such exploitation was not simply a purely local phenomenon, part of colonial processes, but part of larger-scale processes effecting Egypt, and the Ottoman Empire as a whole, during this period. From the later eighteenth century, Egypt was increasingly incorporated into European world trade (Crecelius 1981), and by the early nineteenth century it was largely producing commodities, notably cotton, for European consumption. Muhammed Ali was also instigator of far-ranging programmes of 'modernizing' social and economic reforms in Egypt, with a new engagement of government in the processes of production. In Egypt these were replacing earlier extractive models with attempts to 'discipline, coordinate and increase what were now thought of as the "productive powers" of the country' (Mitchell 1988: 35). Across Egyptian society new disciplinary mechanisms were appearing, building on military reforms – the *nizam jadid*, the 'new order'. Beginning at the same time as the conquest of the Sudan, this 'new order' was to be part of Sudan's experience during the Turkiyya.

Turkish rule had a considerable impact on the settlement landscapes of the region with the founding or revival of settlements as regional and local administrative centres, military bases and trading and market centres. This period was of course crucial for the development of Khartoum which, from being a small village, quickly grew to become a major town, although very little of its nineteenth-century form or fabric has survived, beyond a group of large tombs on what is now Abbas Avenue (McGregor 2001b). While some early interest was shown by O. G. S. Crawford, who identified and published brief notes on a number of nineteenth-century sites between Atbara and Abu Hamed (1953a), little attempt has been made since to record or investigate the built-heritage of this period; most of what survives probably lies in more isolated and less-developed areas. On the Red Sea coast, the old Ottoman trading port at Suakin, a town largely built of coral (Greenlaw 1976) and almost entirely

ruined today, remained an important centre and gateway to Arabia through the nineteenth century.

Sites which do survive are fast being eroded; one notable provincial example is the town of al-Khandaq in the Dongola Reach (Soghayroun 2000). Located on the site of a substantial medieval settlement, its later history is uncertain until it re-emerged as a regional centre in the 1820s. Largely depopulated today, the abandoned shell of the old town is still an imposing monument to the Turco-Egyptian government of the nineteenth century, but is fast decaying (Figure 9.8). Its mosque, which remains largely intact, is a rare example of early nineteenth-century mosque architecture.

In more isolated regions the government presence may often have been slight, while the existence of written sources varies very much from region to region. Areas of Nubia north of the Third Cataract, for example, are rarely mentioned in histories of this period. The local population had offered no resistance to the initial invasion of Ismail Pasha's army in 1820–21 and subsequently remained relatively isolated from the major political dramas of the period, a relatively thinly populated rural region. In histories of the Turkiyya (e.g. Hill 1959) the region is rarely mentioned except as lying on the route between Egypt and central and southern Sudan.

If conventional histories have passed many areas by, the realities were of course often rather different, and most regions often had turbulent local histories during this period. Recent work around the Third Cataract suggests that there

Figure 9.8 Turco-Egyptian mosque at al-Khandaq

is considerable potential for archaeology to combine with research into oral traditions to begin to recover something of this past. In the region, the official Egyptian presence was marked by a large fortified compound built close to the seat of the Mahas '*mek*' at Kokke. Beside it a mosque was built, reminiscent of the one at al-Khandaq, dated by one inscription to 1828–9. While the Turkish government seems to have had little direct engagement with the local economy, the more general influx of Egyptian and other craftworkers in the wake of the conquering army is reflected locally in a number of families who arrived in the region in the nineteenth century. One of these was a family of potters whose descendants were still active in the late twentieth century, having been assimilated into the Mahas community, becoming Nubian-speaking and effectively 'becoming' Mahas.

The area also shares some of the wider experience of the Middle Nile of this period in terms of an ever-increasing tax burden imposed by the new government. These new taxes inspired an armed revolt in April 1833, of which we have a near first-hand account provided by Hoskins (1835), an English traveller passing through the area. While a relatively minor affair for the government, significant numbers of Mahasi, running into hundreds, seem to have been killed during the revolt's suppression, a loss of life likely to have caused major disruption in Mahas communities. About the history of the revolt, its suppression and aftermath, very little information seems to survive in oral traditions.

As well as direct resistance, increased taxation appears to have caused significant disruptions to land-holdings as elsewhere in the Sudan. In both the Berber and Dongola Provinces there seems to have been a significant decline in the number of *saqias* by the time of the Mahdist revolt. Oral traditions from the area record that excessive taxation was responsible for dispossessing many, who were forced to relinquish their claims to *saqias* for which they couldn't afford to pay the taxes. Such disruption was traceable in settlement histories where the founders of nineteenth-century settlements were identified as individuals who had been forced to abandon their lands and relocate to found new homes.

In this period of uncertainty, other prominent markers in the settlement landscape were fortified *diffi* houses; a large proportion of surviving *diffi* seem to have been constructed during the Turkiyya. As fortified enclosures they probably well reflect the insecurity of the period, as well as those who still managed to survive and perhaps prosper during the period. Unlike many, their owners retained enough property to warrant such protection. Why they are such a feature of the Mahas–Sikoot landscapes and not other areas of northern Sudan as yet remains unclear.

In other parts of the Middle Nile we may find evidence for government interest in the processes of production. Early industrial ventures included soapworks, indigo workshops and gold washings, notable examples of the latter being the gold extraction plants established up the Blue Nile at the end of the 1830s. Indigo growing and processing were encouraged following Muhammed

Ali's establishment of a government monopoly in 1824. In Egypt, Armenian specialists were imported from Bengal to oversee the development of new factories (J. Balfour-Paul 1997) and factories had certainly been established in the Sudan by the 1830s. As in Egypt, farmers were forced to cultivate indigo, along with other crops like cotton. And as in Egypt, these measures inspired huge resentment and often active resistance. Desertion of the land and even revolts were a common problem in Egypt (Rivlin 1961) as they were in central Sudan (Bjørkelo 1983). The location of a number of the nineteenth-century indigo factories can be established from documentary sources. While apparently more common in central Sudan, there were a number in the north, including one at al-Khandaq (Santi and Hill 1980: 45) and another, probably the northern-most in the Sudan, at Mushu just south of the Third Cataract (Hoskins 1835). An 'industrial archaeology' of such enterprises is still to begin.

The issue of slaves may in turn draw us to other interesting questions relating to the fast-expanding trading and other networks developing during the Turkiyya. Following the final collapse of the Funj state, the Turco-Egyptian government was responsible for major changes in trading relations in the region, especially with regard to the Upper Nile. While the eighteenth century seems to have seen the final erosion of the royal monopolies on long-distance trade, the new regime brought new trading imperatives linking in to ever wider world markets, as well as government attempts to assert new controls on trading activities. The expansion of such activities into southern Sudan was one major development following exploratory voyages made up the White Nile during 1839–42. As the century progressed, private trading expeditions greatly increased, in the hands of growing numbers of northern *jallaba* traders, many of whom were encouraged to seek new opportunities on the state's peripheries due to oppressive conditions at home. They were joined by small numbers of European adventurers interested mainly in slaves and ivory. With attempts to control the slave trade during the later nineteenth century, the major exports were increasingly ivory and gum Arabic, while textiles ('Manchester goods') seem to have been the major import, reflecting changing conditions in Egypt.

Trade up the White Nile was operating in a non-monetary market and beads seem to have been the primary exchange item, although cowries also acted as a form of currency in some areas, as in Kordofan. As in other parts of Africa, the appearance of a wide range of new 'fashion items' along the Upper Nile is likely to be the most obvious indicator of the huge quantities of ivory extracted during the nineteenth century (Lonsdale 1992). First-hand accounts of the mid-nineteenth century, such as that of J.-A. de Vaissière (Santi and Hill 1980), give us some insights into the variety of trade beads, as well as their exchange value: an elephant tusk might be had for 2 pound of blue glass beads and 4–5 pounds of glass trinkets along the Upper White Nile in the mid-1850s. New sources of beads may well have radically transformed bead usage in the Upper Nile and in turn encouraged the development of new styles of bodily adornment and display. A profusion of coloured glass, as well as metal and cloth, will have

provided many new opportunities not previously available within communities relying on locally available materials such as ostrich eggshell, bone and ivory (Fisher 1984).

The importance of personal adornment as markers of social identities seems to have been very great as studies by Mack (1982) and Kleppe (1986) have shown. In the historical sources we get hints of differing local tastes during this period, very suggestive in terms of the material representation of identity. De Vaissière recorded how: 'the Galla [?Mangala] ask for round, red glass beads, cowries . . . the people of the Lokkaia mountains want instead bracelets of red leather and dada of the kind called *franji*, while the Bilin ask only for *keri* or round, black and white, glass beads' (Santi and Hill 1980: 150). In other areas, changing styles of 'traditional' Lotuxo or Didinga coiffure, for example, traceable from the 1860s (Mack 1982), may ultimately be linked to new trading relations which link them with *jallaba* or European traders, and through them to the bead factories of Venice. One by-product of the Europeans' insatiable demand for ivory in the nineteenth century may have been an explosion of elaboration of personal adornment in these far distant regions.

The value and meanings attached to these new trade goods were also clearly dynamic. As more traders entered the Upper Nile region, different types of beads swiftly passed from the highly desirable back to the realm of more everyday things, apparently losing their value as goods for barter. De Vaissière observed in early 1854 at one stop on a trading voyage: 'there has been a popular revulsion against glass beads. The matrons and local lordlings have decided that glass beads, previously cherished as fashionable, were no longer good taste. This means that we have as good as nothing to offer them in exchange of tusks.' (Santi and Hill 1980: 142). Over the longer term, some were to acquire new value in more recent periods. Among some Dinka groups, for example, antique 'guen-jang' beads, types 'selling during the Turkish Rule', have maintained a considerable value as items of personal property: 'since its source of production have become extinct it has become so precious that no one can correctly state its value' (Makec 1986: 129). Strings of such beads, each worth an ox, may represent the wealth of a man at his wedding (Fisher 1984: 58–9).

In this period we also get our first glimpses of distinctive cultural practices which were to be recorded in ethnographies of the late nineteenth and twentieth centuries. Rare 'archaeological' notes may also be encountered, such as the construction of megalithic grave monuments in areas west of the main Nile, noted by Evans-Pritchard (1935) during the early twentieth century, although it was a practice dating back half a century and perhaps much longer.

Mahdiyya

The Mahdist era (1883–98) saw the expulsion of the Turco-Egyptian colonial government, and forms an interesting and potentially distinctive period, one which saw considerable social upheaval as well as economic change accom-

panying a political revolution. Its impact on the region was considerable. The new state order which emerged and was maintained by the Khalifa is now commonly represented, and celebrated, as an early manifestation of Sudanese nationalism. However, behind such popular representations of this period, there are also many other histories to be found, differing from region to region. For many, the Mahdist state was alienating and oppressive, and a new form of internal colonialism. It had very little control in southern Sudan outside a few garrisons (Collins 1962; Johnson 2003).

Material traces of the Mahdiyya still survive in many areas, if now being fast eroded, and together with oral traditions, they certainly have the potential to provide us with many different histories of this crucial period, which still remain largely undocumented. One obvious feature of the Mahdist period which awaits archaeological investigation is its legacy of military sites. At the centre of the state there are the fortifications in Omdurman and Khartoum, elements of which still survive (Fitzenreiter 2000). Other military outposts which often appear in military histories of the period are also known to survive, for example Mahdist gun positions on the Sixth Cataract, still quite well-preserved in the 1970s (al-Sanjak 1978). A small Egyptian army outpost of this kind was excavated on Meinarti island close to the Second Cataract (W.Y. Adams 2002).

Garrison settlements also existed in many areas, with notable examples in the north being at (New) Dongola, Firka and Saras. The one at Dongola has

Figure 9.9 Mahdist fortification at Jebel Wahaba, re-occupying a medieval site overlooking the Third Cataract

disappeared between the modern town, but elements of others may still survive, notably at Firka where we also have near-contemporary photographs of the 'dervish village'. Other smaller Mahdist stations for managing transport and river traffic have also recently been identified in the Third Cataract region (Figure 9.9), linking the northern frontier garrisons with their sources of supply in the Dongola Reach and central Sudan. Oral traditions also make it clear that there was considerable local resistance to the Ansar presence and their requisitions, often leading to bloodshed. Several areas seem to have seen open fighting between the local inhabitants and Mahdist troops, in which some of the larger *diffi* served as defensible refuges. Fear of Ansar 'tax-collectors' (e.g. Bedri 1969: 44–5) also encouraged the hiding-away of valuables; old storage pits, located in isolated areas, are often linked with this period. Some settlements were temporarily abandoned as whole families fled to Egypt, only returning after the Reconquest. Local resistance not withstanding, local traditions also recall others who joined the Ansar army, fighting in the north. Following the destruction of Walad al-Nujumi's army by the Egyptian army at Toshka, we also find survivors of his army and their dependents settling in the region, as is also reported in the Batn al-Hajar (W.Y. Adams 1977: 630–1).

Wider linkages to Sudanic Africa and beyond

A more general feature of the post-medieval period as a whole is the incorporation of the region into wider social and economic networks. A new mobility based on Islamic pilgrimage is likely to have been one important factor in this. Trans-Sudanic routes were certainly a key part in these networks, not only in linking Darfur to regions further west but also bringing parts of central and northern Sudan into contact with populations from central and western Sudanic Africa. Of these, one important, if neglected, group was that of the 'Fellata', people of Hausa/Fulani origin. Early manifestations of such movements seem likely to have been focused more on caravan routes linking West Africa and Egypt rather than the central Sudan (Levtzion 1986), although some West African 'Takruris' may have passed along more southerly routes through Chad, Darfur and Kordofan.

During the later nineteenth century, such movements seem to have greatly increased, one result being the establishment of significant Fellata settlements in several areas of central and eastern Sudan, while more scattered groups and individuals are more widespread (Abu Manga 1999; Yamba 1995). Today the Fellata settlements are well recognized and significant parts of the settlement landscapes in central Sudan. The extent to which West African cultural traditions are present is not well-documented. Many Fellata settlements eschew permanent houses, reflecting their status as pilgrims, although there are reported cases of mosques being constructed in the Gezira region in a typical West African style (Herman Bell pers. comm.; Yamba 1995: 74). Even areas of northern Nubia were not unaffected by such movements. While riverine routes through Nubia

were very insecure during the eighteenth century, we find reports in the early nineteenth century of small groups of Takruri pilgrims going north to join Cairo Haj caravans (J.L. Burkhardt 1819; Linant de Bellefonds 1958). Some oral traditions suggest that at least some of these 'Takruri' pilgrims may have stopped and settled in the region.

There are also other themes which may be explored. Continuing processes underway during the medieval period, there were major changes in agricultural regimes across the Middle and Upper Nile, notably with the spread of new crops coming both from the south and north (Rowley-Conwy 1989; Dirar 1993), one element in the region's increasingly global linkages. Within a wider African context, some crops have become incredibly important. Maize, for example, seems to have entered Africa in a number of different areas, probably appearing first as a niche crop within existing complex cropping systems. Through the twentieth century it has developed into a mono-cropping grain staple in many countries, although its success within the Sudan in ousting existing staples seems to have been rather less than in most other parts of the continent.

The history of different crops in the regions has yet to receive much attention. During the post-medieval period, those parts of Nubia at the extreme southern end of Ottoman domains on the Nile (Alexander 2000) are particularly well placed for studies of the impact of new crops entering the Middle Nile both from Asia and from the New World. While cobs of maize have been found in 'Ottoman' levels at Qasr Ibrim (Rowley-Conwy 1989) we cannot be more precise in dating the first appearance of maize in the region. How significant it may have become within Nubian agriculture in general, away from the Ottoman military posts, is also unknown. That it developed as no more than a niche crop seems likely, and while still known in the area (Nobiin: *makaada*), it is rarely eaten. It was certainly not deemed an appropriate crop to replace existing grains (mainly wheat and sorghum) used for making the flat breads (Nobiin: *kisra*) which had been a food staple at least since the mid-first millennium AD.

The spread of maize in other parts of the Sudan may be linked to other historical processes not necessarily relating to the north. While recorded in Ethiopia as early as the seventeenth century, it only develops as a significant crop in the highlands in the early 1800s, today being its most abundant grain crop. Other routes may have been followed into more southerly parts of the Sudan where it had arrived by the mid-nineteenth century. It may well have arrived via East Africa. Following its introduction to the East African coast by the Portuguese in the sixteenth century, maize seems to have followed caravan routes into the interior, being well established in garden agriculture of Ugandan kingdoms by the 1860s (McCann 2001). Other important crops include Okra (*Hibiscus esculentus*), a major food resource in many parts of Sudan, and certainly a major element in the Nubian diet (Nobiin: *weka*) in recent times. Apparently originating in the 'Abyssinian' centre of origin of cultivated plants (an area that

includes present-day Ethiopia, Eritrea, and the eastern, higher part of the Sudan) very little is known about its early history and distribution.

Another significant alien introduction is tobacco, which was widely grown and used in northern areas by the early nineteenth century (J.L. Burckhardt 1819). By the late nineteenth century it was quite widely grown in central Sudan, in Darfur, Kordofan, the southern Fung and Equatoria, as well as in Nubia (Bacon 1948). However, while probably entering the region with the Ottoman army, the history of its use and development as a local crop remains unknown. As yet unrecognized in archaeobotanical research, its spread potentially can be traced in the archaeology of clay pipes, known both from Ottoman sites in the north as well as Funj sites (Crawford and Addison 1951: 98).

Tracing the history of new foods and new forms of culinary culture may also be related to more general questions surrounding the development of new cultural and religious identities. The appearance of bread foods in Nubia during the early medieval period seems likely to have gradually displaced the long-established use of grain for a repertoire of porridge and beer foodstuffs. It is traceable both in the spread of wheat from Egypt into northern Nubia, as well as in the appearance of new ceramic forms associated with the preparation of flat breads/pancakes, in more southerly areas, adapted for preparing sorghum breads. In the post-medieval period, such changes may be linked with major political changes in the Funj state during the eighteenth century, where traditional elites were challenged and ultimately displaced by new Islamicized and Arabized elites, whose identities were linked with, among other things, the rejection of alcohol and the traditional beers. An association with a culture of wheat (and bread) among the new emerging classes of Islamic teachers, merchants and holy men was explicitly noted by Burckhardt when visiting central Sudan in the early nineteenth century. Similar patterns may also be seen elsewhere in Sudanic Africa where the spread of wheat and bread has been associated with Arab–Berber influences, favoured by merchants as well as local elites (Lewicki 1974) developing new identities increasingly linked to Islam.

Over the long-term, this expanding frontier of wheat and bread, spreading from the riverine core, has been a slow and still incomplete process, but one with strong political impetus. Promoted at the expense of indigenous Sudanic crops and foodstuffs, this shift is a continuing leitmotif of processes (and rhetoric) of 'development' and 'modernization' favoured by those with power, notably the urbanized and often foreign decision-makers, while also associated with the highly politicized 'Islamicization' of the modern Sudan underway since the 1990s.

Conclusion

While the spread of Islam and the way it transformed social and political institutions is certainly one key element in the archaeology of the post-medieval period, there is clearly much more that may be done. If we choose to focus on

Islam, archaeologists may aspire to do much more than simply describe and record 'Islamic' monuments. Settlement patterns were changing, new foci of religious and political power were developing, and broader social and intellectual horizons were opening up, both within Africa and beyond. The uneven spread of Islam and its limited impact on large parts of the Sudan even today may also remind us of the need for regional and local archaeologies, which may deal with the very varied historical experiences of this period.

As historical archaeologists, working with documentary history as well as oral traditions, we may also explore new issues, not least those concerned with conflict and resistance to the shifting and growing power of the central riverine state. The need for such regional histories is perhaps most pressing on the margins of the states, both to the west and east, but especially in the south of the Sudan, areas still largely marginal to the dominant historical narratives. Simplistic divisions between 'north' and 'south' are, however, unlikely to be very appropriate. Even within parts of the 'core', within Nubia, we may discover local histories of resistance both to the colonial rule of the Turkiyya, as well as to a new internal colonialism of the Mahdiyya. Such histories were doubtless repeated in many other areas and also in many other periods.

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List of bibliographic abbreviations

ANM	*Archéologie du Nil Moyen*
ASAE	*Annales du Service des Antiquités de l'Égypte*
BAR	British Archaeological Reports
BIEA	British Institute in Eastern Africa
BIFAO	Bulletin de l'Institut Français d'Archéologie Orientale
BSGE	*Bulletin de la Societé de Géographie d'Égypte*
BzS	*Beiträge zur Sudanforschung*
CRIPEL	*Cahiers de Recherche de l'Institut de Papyrologie et d'Égyptologie de Lille*
EES	Egypt Exploration Society
FHN	*Fontes Historiae Nubiorum* (3 vols, ed. T. Eide, T. Hagg, R. H. Pierce, and L. Török, 1994–8, Bergen: University of Bergen)
JARCE	*Journal of the American Research Centre in Egypt*
JEA	*Journal of Egyptian Archaeology*
LAAA	*Liverpool Annals of Archaeology and Anthropology*
MittSAG	*Mitteilungen der Sudanarchäologischen Gesellschaft zu Berlin*
MDAIK	*Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo*
MNL	*Meroitic Newsletter*
NRC	National Research Council
REM	*Répertoire d'Épigraphie Méroïtique*
SARS	Sudan Archaeological Research Society
SARS Newsletter	*Newsletter of the Sudan Archaeological Research Society*
SNR	*Sudan Notes and Records*
Sudan Studies	*Sudan Studies: Newsletter of Sudan Studies Society of the United Kingdom*
SSSUK	Sudan Studies Society of the United Kingdom
ZAS	*Zeitschrift für Ägyptische Sprache und Altertumskunde*
ZPE	*Zeitschrift für Papyrologie und Epigraphik*

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