

# Islands in the Nile: investigations at the Fourth Cataract in Sudanese Nubia

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*Salvage archaeology in advance of the creation of the Aswan Dam and Lake Nasser on the Nile contributed greatly to knowledge of Egypt's past. Now survey and excavation by members of the Institute at the site of a new dam has found evidence of Neolithic and later settlements much farther south in northern Sudan.*

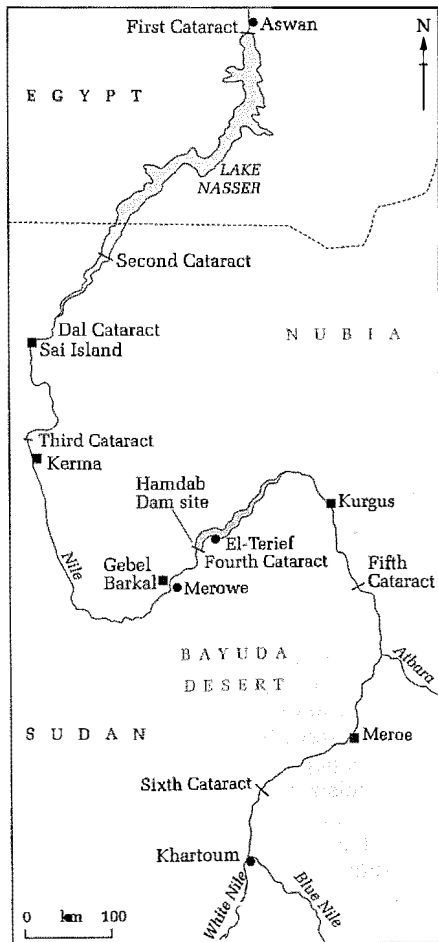
**N**ubia connects ancient Egypt geographically with the cultures of sub-Saharan Africa. In the region, the Nile provides a corridor of water and fertility through the inhospitable Sahara, as it does in Egypt, but the Nubian Nile Valley has a much more constricted floodplain that limits agriculture, as well as many cataracts (areas of rocks, rapids and islands) that make passage by boat difficult (Fig. 1). Although the valley has long served as a corridor for trade and the spread of cultural traditions, crops or livestock, it has also acted as a barrier, depending on the

nature of the human communities and environments of the region. Research in Nubia therefore provides an opportunity to understand the connections (or the lack of them) between Egypt and sub-Saharan Africa at different periods in the past.

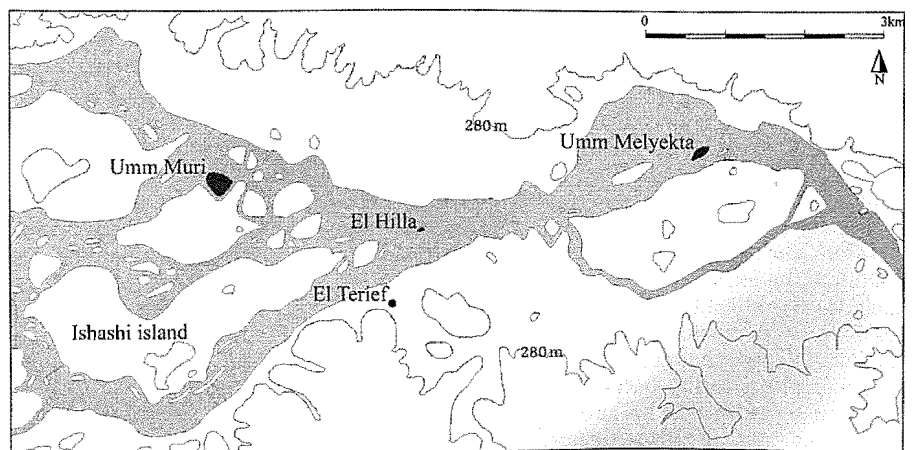
Much important archaeological research has been carried out in Nubia as salvage work in advance of dam building, particularly south of Aswan. Such rescue work began in the early twentieth century, when the region just south of Aswan was surveyed and excavated under the leadership of the Harvard scholar George Reisner. This was augmented by further survey and excavation in the early 1930s by the British team of W. B. Emery and Laurence Kirwan as the Aswan Dam was being heightened. These two large-scale surveys provided the first basis for a cultural chronology of Lower Nubia (the region between Aswan and the Second Cataract, Fig. 1), based mainly on the periodization of characteristic tomb assemblages. Then, in the 1960s, during construction of the Aswan High Dam, a massive international effort saw teams from institutions in many countries, from North America and western Europe to Poland, the USSR and India, excavating in Egyptian Nubia and the northern Sudan as far south as the Second Cataract. It was during this period that, for the first time, extensive excavations of settlement sites were carried out by several projects, and it became possible to complement the

cultural sequence of burial customs and material culture with an understanding of economy and community organization. There is still much to be learned from the continuing analysis, re-analysis and publication of the work of the 1960s, but meanwhile the Institute of Archaeology has become involved in a new international effort in advance of the building of a hydroelectric dam at the Fourth Cataract.<sup>1</sup>

Construction of the new dam (the Hamdab or Merowe Dam) has begun and in a few years the reservoir it creates will flood some 175 km of the Nile Valley up stream. In response to a plea for assistance from the National Corporation for Antiquities and Museums of Sudan, several foreign projects have recently begun work in the region. A project sponsored by the Sudan Archaeological Research Society of the UK started in 1999 with survey on the south bank and islands of the Nile in the area of El-Terief (Fig. 1). This was followed by excavations in the winter of 2002–2003, and in the following winter further fieldwork was undertaken in the area, the aims of which were to carry out further survey on the large island of Ishashi, to record in detail and analyze a rock-art landscape, and to excavate settlement sites on two other islands, Umm Melyekta and Umm Muri (Fig. 2). Work in the area of the Fourth Cataract presents challenges and unique opportunities. The area is sparsely populated and isolated from major routes of communication. Today it takes only two hours to cross the desert by vehicle to Merowe, the nearest town with telephones and supplies, but the location of the area suggests that in the past its communities were isolated both from major political developments within and trade between Egypt and Sudan. Therefore, archaeological research here can provide insights into the nature of regions peripheral to the ancient centres of population and power.



**Figure 1** Greater Nubia, showing the location of the Hamdab Dam at the Fourth Cataract of the Nile, the project area at El-Terief and other places mentioned in the text.



**Figure 2** The Nile Valley up stream of the Fourth Cataract, showing the location of El-Terief and the three islands where surveys and excavations were conducted during the winter of 2003/2004.



**Figure 3** Excavation in progress at the western end of Umm Melyekta island, showing some of the many pits, among which were found nineteen burials, including three Neolithic ones; January 2004.

### Finding evidence of Neolithic occupation

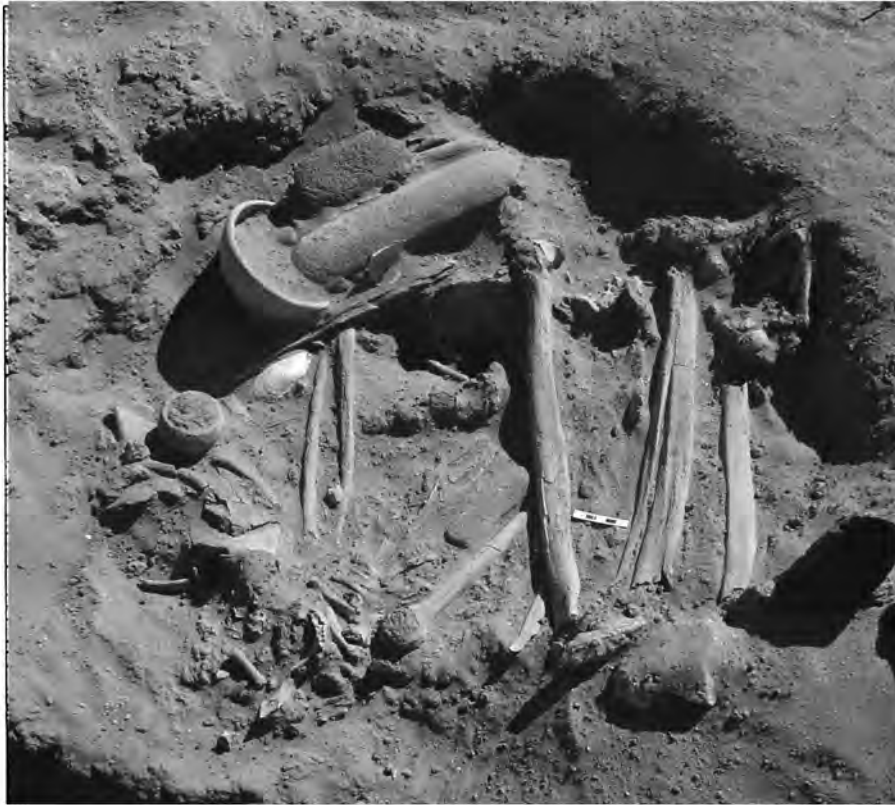
The history of Nubia can be seen broadly in terms of its similarities and contrasts with Egypt. In the fourth millennium BC, the onset of more arid climatic conditions led to the retreat of savanna southwards and the expansion of the Sahara desert. Neolithic pastoralists in the ancient Sahara became increasingly restricted either to savanna zones farther south or to living seasonally or year-round in the Nile Valley. In predynastic Egypt, this pastoral economy, together with the cultivation of grain crops of Southwest Asian origin, provided the food surplus that supported the rise of Egyptian civilization. During the Nubian Late Neolithic period (c. 4500–3000 BC), the existence of more complex societies is indicated in various parts of Nubia by burial customs that suggest parallels with Egypt. For example, there is evidence of a direct link between the Late Neolithic societies of Nubia and predynastic Egypt in the form of long-distance trade in prestige goods, such as beads made from rare minerals, and of the importance of personal adornment, indicated by the burial of cosmetic palettes with the dead.

In January 2004, on the island of Umm Melyekta (see Fig. 2), we found the first three Neolithic burials to be reported from the area of the Fourth Cataract. The presence on the surface of a rich assemblage of medieval pottery had suggested the possibility of finding intact medieval settlement, but excavation showed most of the pottery to be contained in deposits of windblown sand that cover older alluvial deposits overlying the granitic base of the island. The pottery included a small quantity of prehistoric Late Neolithic sherds. Excavations revealed a complex network of deep pits with straight sides dug into the alluvial deposits (Fig. 3). Many of the pits may originally have been used for storage in the prehistoric period, but none had intact fills that could securely date them. However, among them we discovered nineteen burials, including three of Neolithic date. These three burials had narrowly survived the erosive forces of the desert wind, and only the lowest portions of the pits were preserved. In some cases, pottery vessels and bones had been partly eroded away.

In the three Neolithic graves, the bodies were contracted and the burials show sim-

ilarities with burial practices farther north. For example, the bodies were accompanied by pottery bowls and beakers, and bone and stone tools (Fig. 4), as well as beads, including some made from non-local carnelian and amazonite, small cosmetic grinding stones made of volcanic pumice (also not of local origin), and collections of quartzitic pebbles. Some of the pebbles showed evidence of having been used for grinding, and others were perhaps raw materials for the production of stone blades. One of the burials was accompanied by part of a cattle horn (Fig. 5), reminding us of the importance of domestic herds in the life of the sparse and mobile Neolithic populations. It is probable that, during this period, groups of pastoralists came to the Nile at some seasons and camped on the islands, which provided opportunities for fishing. They cached stores, probably of food, in pits dug into the surfaces of the islands<sup>2</sup> – and cached some of their ancestors there as well.

These visits to islands in the area by pastoral groups evidently included artistic events. During field survey on the island of Ishashi, we found 33 rock-art sites, in addition to 29 sites of other types. Although



**Figure 5** Another Neolithic burial on Umm Melyetka island, with part of a cattle horn placed near the skull (scale bar 10 cm).

**Figure 4** A Neolithic burial on Umm Melyetka island showing grave offerings of pottery vessels, stone and bone tools, and mollusc shells (scale bar 5 cm).

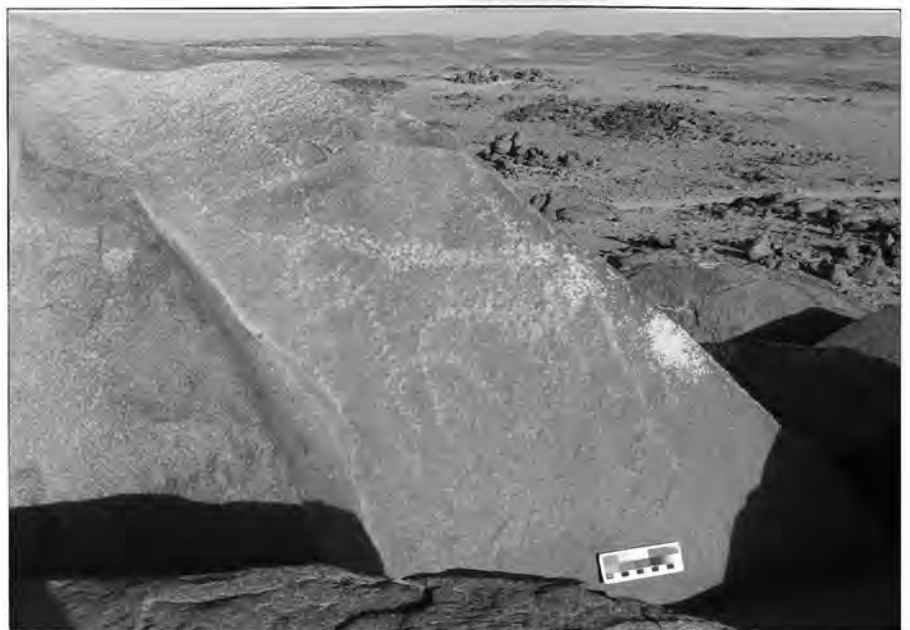
rock art is notoriously difficult to date, and that on Ishashi island must derive from several periods, some of it is likely to have been produced by prehistoric groups who had a particular interest in cattle pastoralism (Fig. 6). Other favoured images pecked into the boulders on rocky promontories were sheep and goats, giraffes (Fig. 7) and boats. Rock-art motifs of much later periods include camels, often with warriors on their backs, and ostriches. Detailed recording of this art revealed not only the images but also worn places where rocks had been struck, and where the boulders resonate with bell-like and drum-like tones. These rock "drums", often found in groups, are recurrently associated with images of cattle (Fig. 6), and quartz pebbles of non-local origin found near them showed wear patterns from use in striking the rock surfaces. Thus, in addition to producing images, we must conclude that musical performances were part of the repertoire of prehistoric activities.

**Finding evidence of Meroitic settlement**

There is little evidence on the islands studied in this project to indicate any intensive or long-term occupation in the millennia that followed the Neolithic, although a few burials here and elsewhere testify to continued human presence in the area. The periods after the Neolithic elsewhere in Nubia witnessed the rise of an indigenous Nubian state focused south of the Third Cataract at the urban site of Kerma (see

Fig. 1). This state was, during various periods, both a trading partner and a rival of the ancient Egyptian kingdom, until in the sixteenth and fifteenth centuries BC pharaohs from Egypt sacked Kerma and ultimately beheaded its ruler. Then, Nubia up stream from the Fourth Cataract as far as Kurgus, became part of the Egyptian empire, although evidence for any settlement or presence in the uninviting area of the

Fourth Cataract is lacking. Sometime after the Egyptian empire withered, local elites created a formidable state, Kush, based in the reach of the Nile between the Fourth and Third Cataracts, with its capital and religious centre at Gebel Barkal (see Fig. 1). In the eighth century BC, Kush invaded Egypt and, although its hegemony over Egypt lasted less than a century, a state continued to exist throughout the Nubian region until it mysteriously disintegrated



**Figure 6** Image of a cow pecked into a boulder on Ishashi island, with a rock-drum striking area visible as a light patch on the right-hand edge of the stone (scale bar 10 cm).



**Figure 7** Image of a giraffe pecked into the surface of a boulder on Ishashi island (scale bar 10 cm).

in the fourth century AD. During the latter half of this Nubian state's history, known as the Meroitic period (300 BC to 350 AD), settlement expanded southwards into the savanna hinterlands of the new capital city of Meroe, located in the valley north of Khartoum, and into Lower Nubia north of the Second Cataract.<sup>3</sup> Our discovery of the first known Meroitic settlement in the area of the Fourth Cataract, on Umm Muri island, indicates that expansion into this marginal region also occurred, although it was remote from the main corridor of trade, which ran from Gebel Barkal southeast across the Bayuda desert (see Fig. 1).

On Umm Muri island, surface survey revealed degraded stone and mudbrick walls. Initial surface collection suggested an early Christian date (sixth century AD), but excavation of one mudbrick building (Fig. 8), as well as testing elsewhere at the site, indicated three main occupation phases. The second and most prominent phase is represented by mudbrick buildings of the late Meroitic period, and ends with baked brick and stone foundations of Early Christian date (the third phase). During the Meroitic period distinctive painted cups were made from fine clays. A few such sherds were recovered during excavation, suggesting that these vessels were traded to the Umm Muri community, although most of the pottery vessels were handmade and wheelmade products procured more locally. In addition to the Meroitic period pottery, we found fragments of an ornate handle from a bronze vessel in Roman style.

The earliest occupation on Umm Muri island (the first phase) revealed by excavation consisted of post-built structures (Fig. 8), as well as deep storage pits with straight sides. Although these pits resemble those

on Melyekta island, there were no associated finds to suggest a Neolithic date. Rather, it may be that the Neolithic practice of caching stores in pits on the islands persisted or recurred. Deposits of wind-blown sand above the post-holes, with a fill of pot-sherds and pieces of animal bone and charcoal, indicate that some time passed between construction of the post-built structures and of the mudbrick building. Among the charcoal there was evidence, in the form of charred seeds and chaff, of a range of crops: wheat, barley, cowpea, hyacinth bean and sorghum (the sorghum remains were dated by radiocarbon to the second–first century BC). These crops indicate a combined system of cultivation that balanced traditional winter crops of Lower Nubia and Egypt (wheat and barley) with more southerly summer crops (the beans and sorghum). Interestingly, evidence from Lower Nubia suggests that sorghum and the other summer crops did not become a significant addition to agriculture there until the third to fourth century AD, and so we now know that this combined system had played a role earlier in settlement farther south in Nubia. Also of importance is the introduction of the cattle-powered irrigation wheel (the saqia), which probably only became available in the third century. With this group of crops it was possible to eke out subsistence by cultivating the narrow steep banks of the islands (Fig. 9), which offer only very limited areas of fertile damp silts suitable for agriculture.

### Insights from the margins of Nubian civilizations

The evidence recovered from the El-Terief area testifies to the fact that in the Neolithic and Meroitic periods, as well as in medieval times, the rocky islands were on the social peripheries of mainstream Nubian history. They nevertheless reflect broader regional patterns. Settlement in the area of

the Fourth Cataract was always difficult, but had its attractions. Neolithic herders may have been drawn to the islands still flanked by water during harsh dry seasons as safe places to cache supplies (probably of food) and as impressive landscapes for artistic and ritual performances. But, with the flourishing of the Meroitic state, the potential for further expansion encouraged some communities, at least at Umm Muri island, to plant the seeds of sedentary life. Permanent occupation was perhaps made possible only by the combined cultivation of sorghum, cowpea and hyacinth bean, and the traditional winter wheat and barley of northern Nubia and Egypt. This crop package helped to make the most of the limited areas of arable land available on the edges of the islands.

From the first century BC onwards, small village communities were established on the islands, and they participated in the trade, states and wars of the Nubian region. Despite being a backwater, the area could not be ignored. This is indicated for example by the existence of post-medieval fortified outposts, such as El Hilla (also excavated by our project), a fortified rocky islet in the Nile (see Figs 2, 9), from where some state or army, probably in the eighteenth century, tried to keep an eye on the area. Perhaps the potential for extracting gold dust from the Nile silts, as was done locally through the 1960s, was an attraction, but it is equally possible that the potential of the area to harbour and hide state enemies and outsiders encouraged official settlement. It is also in this area that archaeological exploration was longest delayed. Systematic research did not begin there until the 1990s as a result of the threat represented by construction of the new dam; but, despite the imminent submergence of the area above the Fourth Cataract (see Fig. 1), our work in the area has contributed to a more holistic history of past Nubian life.



**Figure 8** An excavated Meroitic mudbrick building on Umm Muri island, with post-holes of an earlier structure visible on the underlying surface.



**Figure 9** View south from the fortified islet of El Hilla towards the southern bank of the Nile at El-Terief. The small plants on the steep bank below the ruined wall in the foreground are planted crops (mainly pearl millet) being grown on land watered annually by the Nile. The groves of date palms on the far bank are watered by irrigation pumps and cannot be cultivated by the Nile floods alone, because the floods rarely reach them.

### Notes

1. Our fieldwork was made possible by the National Corporation of Antiquities and Museums (Sudan), and was aided by the hard work of our NCAM inspector Haider Mohammedain. The team included three UCL research students (Eric McCann, Ruth Pelling, Cornelia Kleinitz), Andrew Ginns, Ben Neil, Dr David Edwards (University of Leicester), Dr David Wengrow (UCL), and four UCL undergraduates (Louise Jordan, Sarah Lawson Sally Davis, Brigitte Balanda). For background on the archaeology of Nubia and Sudan and the history of excavation there, see W. Y. Adams, *Nubia: corridor to Africa* (Princeton: Princeton University Press, 1977) and D. N. Edwards, *The Nubian past: an archaeology of the Sudan* (London: Routledge, 2004).
2. Similar Neolithic pits, but with intact covers and fills that included stored barley and emmer wheat, have been found on Sai island near the Third Cataract of the Nile; see F. Geus, "Pre-Kerma storage pits on Sai Island", pre-published paper from the Ninth International Conference of Nubian Studies held in Boston, Massachusetts in 1998; available on-line at: [www.nubianstudies98.com/geus.htm](http://www.nubianstudies98.com/geus.htm)
3. On this process of settlement expansion and for some of the debates about it, see D. N. Edwards, *The archaeology of the Meroitic state* (Oxford: Archaeopress, British Archaeological Reports, International Series 640, 1996) and D. Q. Fuller, "A parochial perspective on the end of Meroe: changes in cemetery and settlement at Arminna West", in *Recent research on Kushite history and archaeology*, D. A. Welsby (ed.), 203–218 (Occasional Paper 131, British Museum, London, 1999).