

Chovai creek, which rises out of the drainages known as the Mcho ya Yamani, is the most northerly. Small settlements can be found on the northern and southern banks. The inhospitable terrain has not encouraged settlement and, like the other two creeks, the mangrove lined banks make anchorage difficult.

At the mouth of Anole creek there is evidence of settlements on both the northern and southern banks. On the latter there are remains of scattered stone buildings, step-ended tombs, one fallen pillar tomb, and a fine mosque. Of particular note is the fallen roof which is carved in patterns of recessed squares, identical to the remains of the collapsed roof of the mosque at Rasini, a short distance to the north. This latter mosque has justifiably received much attention from a variety of observers, the mihrab being described as "one of the perfect monuments of Muslim art in East Africa". The mihrab of the Anole mosque, however, conforms to the usual coastal mold, being recessed two metres and with no distinguishing stonework ribbing.

The last, and possibly best known, of these mainland creeks is the Meno wa Hori creek at Bur Gavo. Bur Gavo has arguably the finest anchorage after Hafun along the whole of the Somali coast and, as the water is deep, craft can navigate the 25km to Bushbushi at all times of the year. The site of Bur Gavo itself has been well documented. No signs of stone buildings were found at any great distance from the modern village, despite hectares of fertile land along the banks.

Of the sherds collected, the major part were undecorated pottery, as well as imported Chinese ware and Islamic monochrome. Nothing found pre-dated the mid 16th century.

From the survey of these creeks, it would appear that they follow the same general settlement pattern as those of other sites stretching from Kisimayu to Ras Kiambone to the south. They seem, from the rather sparse archaeological evidence to hand, to have been inhabited not much earlier than the last quarter of the 18th century and probably resulted from a secondary population dispersal. The sites on the Bajuni islands must be presumed to have a greater age, but the more fertile banks of the creeks certainly attracted the islanders to the mainland and incursions up the creeks themselves would have resulted in contact with people from the interior bent on trading their animal skins and ivory.

THE ARCHAEOLOGICAL MISSION OF GENEVA UNIVERSITY AT KERMA (SUDAN): 1984-1985 AND 1985-1986 CAMPAIGNS

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1984-1985 CAMPAIGN

During December 1984 and January 1985, the Swiss Archaeological Mission to the Sudan resumed the research in which it has been engaged for the last ten years. Our principal objectives are the study of the civilisation of Kerma and the history of southern Nubian cultures: members of the mission are also concerned with highlighting and safeguarding the regional cultural inheritance.

Excavation of the 3rd/2nd millennium BC town and the associated necropolis have continued. However, other rescue interventions were also undertaken. The remains of a residential building of the Napatan period were surrounded with a protecting wall after the last excavations. A project for the installation of a water pumping station compelled us to excavate a part of the Merotic cemetery situated within the modern town. Once more, extension of the cultivated area in the eastern desert has disturbed zones which had so far been untouched. This year it was apparent that numerous Neolithic mounds were endangered. A rapid prospection of the site of Ashkan, about 10km from Kerma, has demonstrated the interest of remains of this period. Finally, an architectural study was made of the ancient mosque in the village of Kerma, which is undergoing transformation. After discussion with the authorities concerning the value of this building and its annexes, it was decided to maintain the walls where feasible.

The ancient town

In the ancient town, very near the religious quarters, surface clearance has revealed the foundations of a round structure. This was situated at the intersections of passageways, and probably marked one of the centres of the city. The edifice is organised around three rows of wooden supports. Each alignment consists of three or four columns that form a quadrilateral of 8 to 9m on a side. A round wall encloses this inner space to give the building an interior diameter of about 15.5 to 16.5 metres. Segments of walls and small buttresses reinforce the mud brick masonry. On the exterior, postholes appear to indicate that a type of portico ran around the building.

The round wall and the interior arrangements were often transformed, since no less than five foundations are superimposed. The supports were also displaced and changed. Only one sandstone base has remained in situ. Some traces of a colour wash of red ochre could indicate that part of the elevation was painted. Around the building the foundation trench of a large enclosure-built with baked bricks shows the importance of the complex. The protection wall was later demolished and circular huts installed.

The edifice could have been a public building or a construction reserved for a notable, as suggested by comparison with the much more recent audience halls of the sultans of western Sudan or of the kings of southern Sudan. The curious structure was established about 2000-1800 BC, and appears to have been occupied during several centuries.

New excavations of mud brick houses were made in the western quarter. The general plan of the town has thus been completed. In one habitation, the finding of abundant material has thrown light on certain aspects of everyday life. Quantities of spindle whorls, used for spinning wool or flax were recovered, together with fragments of ostrich eggshell destined for the manufacture of beads. Some fragments were engraved with a scene representing men and women accompanied by giraffes. Amongst several axe heads, worn out by long use, we distinguished a small, almost intact example made of jadeite. Polishing tools and rollers made of ferruginous sandstone, and used for the decoration of ceramics, were also found.

The eastern cemetery

A new cleaning of the large funerary edifice K XI was undertaken, allowing a useful comparison with the religious constructions of the town. A chapel was subjected to detailed study.

Excavation of twelve tombs of the most ancient period of the cemetery will contribute to a better understanding of the origins of the Kerma cultures. Numerous samples of leather have provided suitable material for ^{14}C analysis. We note also that a very rich ceramic assemblage was associated with these burials.

The Napatan building

Three residential buildings succeeded each other at the same place. An even older occupation is shown by the presence of a more ancient building, located at the northwest side of the area studied. To preserve the group, and to present it to the public, a surrounding wall has been constructed following the limits of the parcel of land.

The Meroitic cemetery

Last summer a tomb was disturbed during the work involved in installing a trench planned to serve as a water supply. The tomb, occupied by three subjects, was well furnished and still partially preserved. Jars, a bronze vessel containing a sieved tube for drinking beer, and a sack containing a small ivory goblet, faience beads and an iron tweezer were the principal objects recovered from the burial vault. Other tombs were excavated in this zone, all of which will be destroyed by the installation of a water pumping station. The tombs were often surmounted by pyramids the bases of which are almost entirely eroded.

The Neolithic site of Ashkan (Kerma)

A prospection of the remains that are endangered by the extension of the cultivated land at Ashkan has demonstrated the importance of the pre- and proto-historical remains in the region. Six tombs preserved in the superficial layers appeared within a very small surface area (2.5 x 1.5m). Only four of them were studied. An oval vase decorated with undulations made by burnishing (rippled ware) and some beads can be directly associated with these burials.

The character of the ceramics and other objects recovered indicate diverse influences. Although not being able to associate this material directly with the cultures of central Sudan, we note nevertheless, strong analogies. Other features are reminiscent of objects of the populations that were installed further to the north (A Group). A dating to final Neolithic seems probable, and the advanced development of this culture points to a continuity between the end of prehistory and the beginning of the Kerma period.

1985-1986 CAMPAIGN

From December 5, 1985 to January 21, 1986 the Mission worked at Kerma, investigating further the ancient city and the necropolis of the 3rd-2nd millennium BC. In collaboration with the French Archaeological Unit of the Directorate General of Antiquities and National Museums of the Sudan, two sites threatened by destruction were explored at Kadruka (20km south of Kerma), in order to estimate their archaeological value and to anticipate the possibility of their protection.

The ancient city

Investigations were undertaken in a large area north of the Deffufa — main temple of Kerma — using extensive surface clearance, which allowed a clearer conception of the occupation of the city during Classic Kerma (1750-1500 BC). The houses usually consist

ing of a quadrangular room and an elongated hall, are generally built with walls wider than in preceeding periods. These dwellings are surrounded by large enclosures designed to protect the granaries and the kitchens as well as the light shelters for the small livestock.

A structure built of mud-brick, dated from the same period, was uncovered close to the Deffufa. Its perfectly circular plan and relatively high elevation, at-tested by the width of its exterior wall (0.50m), clearly show the distinctive character of this building. Its foundations rested upon a bed of fine sand. In its center lay a coarse block probably used to support a round base, carved in white quartz, which was discovered in the destruction levels. The floor of the monument, partially preserved, was constituted by a course of mud-bricks covered by a layer of hardened silt. The type of masonry as well as the care taken in the construction (floor layout, sandbed) associate this structure with cult edifices, thus a religious destination for it cannot be excluded.

Below this building and closer to the Deffufa, dwellings and potters' workshops are being studied. A house dated to Middle Kerma (around 2000 BC) is particularly well preserved. Older remains might belong to a defense wall razed to the ground upon which were later erected light wooden constructions.

The large rounded structure uncovered in 1984 was cleared and its surroundings were studied more precisely. Detailed drawings were made of its enclosure wall and of the numerous postholes, thus completing the plan of this edifice.

The eastern necropolis

Some ten graves were excavated in sectors CE 10 and CE 11, dated to Middle Kerma (around 2000 BC). One notices that the offerings are wealthier than in preceeding periods, sheep are regularly placed close to the deceased and the number of pottery vessels increases.

A rectangular structure built of mud-brick was also uncovered. Of modest proportions (1.40m x 0.90m), it might be a small oratory or an offering place. It remains the oldest monument discovered in the necropolis.

One burial was particularly well furnished. In a grave measuring 3.60m in diameter, the deceased rested upon a bed. Along the south side, 16 sheep were discovered in situ. One of them was crowned by a disk of ostrich feathers. Its horns were pierced in order to ensure the fixing of the head dress. The pearl pendants which often complete this type of attire were not recovered. However, 129 bucrania were disposed in a semi-circle south of the superstructure, itself constituted of black and white stones sunken in hardened mud.

Ancient Kerma necropolis at Kadruka (KDK3)

The necropolis was established upon a natural

mound approximately 38m x 32m. It comprised originally some sixty burials; however, more than half of them have been destroyed by wind erosion and the increasing passage of vehicles due to the extension of the agricultural zone. Six tombs were studied. The cemetery appears to be quite different from that at Kerma. The graves are narrow, the furniture relatively poor, ceramic offerings are practically absent. In one of the graves, belonging to a 40 to 50 year old man, were deposited a male and female goat as well as a male kid; while in the disturbed grave of a young man (17-18 years old) lay a 6 months old lamb adorned with an ostrich feather disk.

Classic Kerma agricultural unit at Kadruka (KDK 6)

A rapid intervention upon a site gradually levelled by agriculture revealed the presence of a 2nd millennium rural settlement. The habitations occupy a slight elevation which rises out of the alluvial plain. The foundations of one of them, the sides of which measure approximately 15m, were partially cleared. The structure comprises several small square rooms organised around a courtyard, the center of which is marked by a rectangular base. The walls surrounding the court were built of wood and vegetal fibres. The presence of grinders, millstones and numerous hearths, as well as the general layout of the building, indicate that we are dealing with an agricultural unit dated by the pottery to Classic Kerma.

The study of this settlement, one of the few known up to now, will allow us to obtain a better idea of the rural architecture. Other constructions surround this unit, which needs to be more thoroughly investigated.

GASH DELTA ARCHAEOLOGICAL PROJECT

November-December 1985 Field Season

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In November-December 1985, the Italian Archaeological Mission in Sudan (Kassala) continued systematic excavations at Mahal Teglinos (K 1) near Kassala, as part of the Gash Delta project that has been in progress since 1980 (NA 17: 64-71; 19: 26-30; 21: 30-33; 23: 17-19; 24/25: 20-22; 27: 45-49). The Mission is supported by grants from the National Research