## The mainlines of socio-economic development in the Sudan in Post-Neolithic times

It is a matter of some difficulty to understand and evaluate the social and economic development of the ancient Sudan in Post-"Neolithic" times. The difficulty arises from lack of written documents for much of the period involved, that is from 3,000 B.C. to the end of an organised Kushite state. Not only is a time span of over 3,000 years likely to give rise to considerable variations of the social and economic aspects of life, but there are also varying ecological conditions from the narrow desert surrounding riverain strip of much of Upper Nubia, to the wide grasslands of the central Sudan.

Lack of written documents, which aid so much in discerning the nature of ancient Egyptian life, means that hypotheses and deductions must be almost entirely based on the still rather scanty archaeological material. Even when written documents occur, from the time of the Egyptian occupation of the north, they are not very helpful, being concerned more with royal and divine activities than with providing information comparable to that available in Egyptian tomb scenes. As a result largely irrelevant material in Egyptian and untranslatable documents in Meroitic are all that are available.

Another problem in attempting to present a coherent story of society and its economic activities in the ancient Sudan is the considerable disparity between what is known of development in the stretch along the river downstream of the Fourth Cataract and what is known further upstream. For the downstream part it is possible, from archaeological evidence, to see a developmental sequence, upstream there is apparently either a dearth of material from the end of "Neolithic" times until the foundation of the city of Meroe, in about the eight century B.C., or the basic culture of the first agriculturalists as known from Shaheinab, Kadero, Zakiab, Geili, and Shabona and other sites recently investigated continued for over 2,000 years with little, or no, change. This long gap has been a cause of surprise to archaeologists working in the area, and though work at Kadada has gone some way to close the gap there still remains an archaeological problem which can, on present evidence,

best be solved by suggesting that the second alternative given above is the most likely. This implies that after the important development that the Neolithic sites demonstrate there was little change — a basically agricultural and perhaps trans-humant society growing sorghum and raising cattle and living in small villages with a technology dependent on stone tools, and making much pottery, occupied the area until, probably under outside stimulus, the originally copper, and later iron, using society responsible for the development of Meroitic culture developed and rapidly spread along the river and into the Butana. Because of this any discussion of Post-Neolithic socio-economic developments must be confined to the northern part of the country until the beginning of Meroitic civilization when a broader treatment can be used. Even for this limited area the information on which such a discussion can be based causes difficulty and in many cases only the most tentative views can be expressed.

The first archaeologically observable entity of any significance to be known from Post-Neolithic times in the Sudan is that commonly called the C-Group, the earlier metal using, though probably not metal working, A-Group, only being found in Lower Nubia — so we may conveniently start at about 2,300 B.C. (the time of the Egyptian Sixth Dynasty). Little can be said about society or food production at this time though archaeological material is plentiful enough. There is evidence from cemeteries to suggest an increase in population, and dwellings appear to have been tents of skin in earliest C-Group times, developing a few hundred years later into circular huts with walls at least partly built of stone.

The economy must be presumed to have largely consisted of self sufficient village units, but the presence of a considerable number of Egyptian objects implies that something was being rendered in return. It has been suggested that the Egyptians were recruiting mercenary troops in the area and that Egyptian goods represent payments made to such soldiers. It is certain from the records left by such Egyptian noblemen as Harkhuf and others based in Aswan, that the Egyptians were much concerned with trade to the south for the purpose of acquiring luxury goods. The materials which the Egyptians record as having been brought back by their trading expeditions to Nubia — incense, ivory, ebony, leopard skins etc. are not those likely to have been available locally in Nubia, and it seems more probable that they came from further south and that Nubian chiefs of whom that of Yam in the region of Kerma, perhaps Kerma itself, seems to have been a leading one, owed their importance to their ability to regulate the external trade.

Egyptian texts imply that Yam at least was organised as a small state, though we are unable to say more than that chiefs existed — the nature of their power and how it was exercised eludes us. The cemeteries do not demonstrate great differences in size or tomb contents and this suggests a society without marked class differentiation. Relations with Egypt, with occasional exceptions seem to have been good, and the Egyptian caravans bringing manufactured goods and sometimes food stuffs and

taking out the luxury goods from the south came and went regularly with little interference, and at times were escorted by local troops.

By the Egyptian Middle Kingdom some changes can be seen of which the most obvious is the group of forts built through the Second Cataract from Semna northwards showing that the Egyptians were becoming concerned at the growing power of the natives of the region, perhaps of the state of Yam, which may be the same as that now for the first time called Kush, but also perhaps implying that the Egyptians felt the need to exercise greater control over the flow of trade goods.

An increase in C-Group population can be seen at this time from the evidence of a considerable increase in the number of sites, an improvement in housing styles, and a decrease in the number of Egyptian objects found in tombs. The reason for this decrease is not entirely clear, perhaps there was less contact with Egyptians now largely confined within their **fo**rts, or a reduction in mercenary recruitment amongst the natives. It certainly implies an increase in agricultural production and the traditional view of the C-Group has always seen them as a cattle people. Nubia today, and presumably then, is not ideal country for keeping cattle and Trigger (1976: 52), amongst others, has suggested that cattle were kept as prized prestige objects but not in large numbers. In the few cases where animal bones found in excavations have been studied, sheep bones are seen to predominate. The main crops, though there is little direct evidence, would have been wheat and barley, examples of both of which have been found in A-Group contexts, and it is probable that dates formed an important part of the diet.

The site of Kerma and its large constructions which may well have been the centre of the state of Kush has been something of mystery for a long time. Recent work there (Bonnet, 1978, 1980) supplementing the classic examination by Reisner (1923) has emphasised its importance, and shows that a large town existed indicating a much more developed urban society than has usually been associated with the Sudan at this date and shows a very different society from that usually associated with the more or less contemporary C-Group. The large number of Egyptian objects at Kerma suggests a high level of wealth. Some organised administration is implied by the recently found fortifications of the town as well as by the need to control a large labour force to build the brick "deffufas".

The very large burials, such as the famous K III with its several hundred bodies, imply a powerful centralised monarchy and probably a massive use of slaves. Trigger (1976:94) and Adams (1975) have suggested that the evidence of the tombs shows considerable differences in wealth but no evidence for sharp class distinctions. I am not sure that to distinguish differences of wealth but not of class is valid, and it is certainly not easy to say on the basis of burial customs alone that the poorer graves represent people tied by kinship with the richer ones. The evidence on which this argument is based is primarily that there is no demarcation of richer and poorer areas in the cemeteries but that tombs of all sizes seem to be distributed at random.

At present it seems safer to suggest some considerable gap between the kings buried under large mounds with their sacrificed retainers and those buried in much simpler fashion.

The basis for the wealth of Kerma was almost certainly, as for the earlier Yam, largely due to trade with the south. Of southern materials only ivory was found in quantity, but it can be supposed that most of the luxury goods from the south were traded to Egypt as had been done in earlier times. Although control over trade may have been responsible for the wealth and power of the kings the main subsistence must have been from local agricultural production and Kerma is well placed for crop growing in an area of considerable fertility — the main crops can only be guessed at in the absence of direct evidence, but it can be assumed that wheat and sorghum were grown, as well perhaps as barley. A search for such crops needs to be made so that a better idea of agriculture at this important stage of Sudanese history, when perhaps the beginnings of the later Kingdom of Kush were laid, can be obtained. That grain was stored is shown by the finding of an Egyptian type granary associated with a C-Group settlement near to Debeira (Save-Söderbergh, 1963: 58), though this does not prove that similar construction were in use at Kerma.

What subsequently happened to Kerma is not clear, though Hintze (1964) suggests that it was attacked and burned by Tuthmosis I. Certainly the Egyptian occupation of Nubia in New Kingdom times must have caused considerable changes in both social and economic conditions. A number of Nubian chiefs who adopted an Egyptian way of life and used Egyptian burial customs are known. There is little to tell us of the common people and it has been suggested (Trigger, 1976: 130) that the pattern of land holding and of agricultural production, whatever it may have been in earlier times, now approximated to the Egyptian model, with Egyptians and Egyptianised Nubians owning land which was worked by native serfs. The tomb painting of Djehutyhotep from Debeira certainly suggests, if it is not just an automatic copy of Egyptian ideas, that the "prince" controlled land and workers. The social position of the workers is not known, but it has been suggested (Trigger, 1976: 130) that the two shades of skin colour represented amongst the workers may indicate two groups — Nubians and people from further south who were slaves.

During this period there is no doubt that the Egyptians, in addition to exercising political control and establishing towns and temples also controlled the economy, not only the primary agricultural production but also the flow of the luxury goods that had been sought by Egypt from earliest times — the flow of such goods to Egypt seems to have markedly increased and there was also a large development of gold production. The days of powerful independent rulers who could control Egyptian access to these goods, and profit from such control, were over and it is possible that the Egyptians, now ruling as far upstream as the Fourth Cataract, were directly in touch with the source of supply. Evidence of increased population in Lower Nubia in early New Kingdom times suggests that Egyptian control, if not responsible for it, at least coincided with an increase of wealth — but in the Sudan there is scarcely

yet enough information to decide whether the same held good nor to have a very clear picture of the society of the time and the transition to the considerable drop in population by the end of the New Kingdom is not as clear as it is in Lower Nubia.

The beginning of the Napatan epoch of the Kushite or Meroitic state, obscure as the reasons for it are, marks a sharp change in social relations. However the state may have been organised it was now an indigenous one for the first time since Kerma many centuries earlier. Social organisation is difficult to discern and the economic one almost invisible — political arrangements are less obscure, and the role of kings and priests can be partly understood. It seems that kings, subject perhaps to some control by the priesthood, were supreme, and we can assume a hierarchy of officials, perhaps similar to the Egyptian one.

With the change of emphasis caused by the increasing importance of Meroe, certainly by 300 B.C., when the first burials of rulers occur there, and perhaps somewhat earlier, some changes can be seen. There are still many obscurities in defining the nature of Meroitic society, but recent research has added something. We see a society with several social classes. At the top was the king — for early Napatan times something is known of the succession pattern with brother succeeding brother, but we do not know whether this system persisted through Meroitic times. The role of women is obscure though we have examples of women rulers. Below the king were certainly local rulers, administrators and priests, and many grave stones, particularly in Lower Nubia, give names and titles. This implies that such officials were to be found throughout the Meroitic state.

The town of Meroe provides some details suggesting differentiation in terms of wealth, and perhaps social class. The clearly defined and separated area, known conventionally and conveniently, as the "Royal City" may well have been such, since it contains large buildings, some of them of stone, as well as such luxury constructions as a Bath House and the area with special stone seats close by. Other parts of the town show different aspects of social and economic life. The main temple area is in one place, though there are temples elsewhere, industry, both iron working and pot making has its own areas, and the main domestic occupation section shows houses of varying size and standard of construction in different parts of the town, implying areas of different economic wealth.

Meroe was certainly a centre of early semi-industrial production, and it is reasonable to suppose that these products, of which we know for certain of iron and pottery, and rather less certainly of copper and stone quarrying, were for more than just local consumption. A scatter of luxury goods from the Mediterranean in the royal tombs, and rather fewer in the town site, show that there was contact with Egypt and perhaps the Classical world, but we cannot say for certain how these objects were paid for. We have no direct evidence that the luxury items sought by Pharaonic Egyptians were still being obtained from the Sudan but it seems highly likely. Ivory, which was much prized in Rome, would have been an important item, and one elephant tusk found at Meroe may have been part of a consignment meant

for further north. Although some items of the ancient Egyptian list may have come from further south, the emphasis on the elephant at Mussawarat al Sufra strongly implies that elephants were living in the Butana at the time.

Whatever the production of manufactured goods from Meroe may have been, the town like the rest of the country must have largely depended on local agriculture for its subsistence. In Nubia agriculture presumably continued in much the same way as in earlier times except that the introduction of the ox driven water wheel, the *sagia*, in the first centuries B.C., made it possible to irrigate greater areas, and therefore to increase production and make possible the larger population that archaeology shows.

Further south a climate with annual rain made for a different system and it is noticeable that at Meroe town the small knobs from the bottoms of sagia pots, that are so common at Nubian sites of the period, are completely missing. This indicates that the sagia was not in use and that crops were not grown in the sagia watered plots that is the normal method down river. Some crops could be, as they are today, grown on the seluka land along the river which would be covered by the annual Nile flood, but to provide sufficient food for the large town of Meroe that would not suffice, and from the evidence of modern usage it can be assumed that the considerable crop growing potential of the wadis was used. After the floods caused by the summer rains these wadis today are used for growing large amounts of sorghum and if they were so used in Meroitic times there would have been plenty of grain for the town and possibly a surplus for export to other areas.

We now have good evidence that sorghum was grown and was the main crop, as it is today. Large samples have been found at Meroe, some was found at Mussawarat al Sufra (Hintze, 1971), the well known scene on the rock at Jebel Qeili shows a god with several heads of sorghum in his hand, and some was found at Jebel Tomat (Clark and Stemler, 1975). It has also been found at Qasr Ibrim (Plumley, 1970: 15, Pl. XXIII, 1, 2; Mills, 1982:86) which suggests that it was grown along the Nile throughout most of the Meroitic kingdom. There is no such direct evidence for other crops, but it seems likely that the main pre-Columbian crops of the area today, bamia (Hibiscus esculentus), mulukhiya (Corcorus olitorius), various beans particularly ful masri (Vicia faba) and certainly Pennisetum typhoideum would have been grown. Pennisetum has also been found at Qasr Ibrim (Mills, 1982:86).

Another important element in the Meroitic economy was cattle, and to a lesser extent sheep; pigs, whose remains are common in medieval sites, are not found in Meroitic times. Cattle, apparently *Bos taurus*, are depicted in a number of scenes in tomb chapel reliefs, and study of animal bones from domestic refuse at Meroe shows that cattle bones predominate (Carter and Foley, 1980), indicating that beef composed a large part of the diet and that there must have been considerable herds in the neighbourhood. The Butana, especially if, as seems possible, the rainfall was somewhat greater than it is now, would have provided adequate grazing and I suggest that ancient reservoirs, some certainly of Meroitic times, that are scattered

across the land between the rivers Atbara and Nile were to serve the purpose of watering the cattle.

If this interpretation of Meroitic subsistence is right it assumes a considerable importance for the hinterland as being the area where the main food production, both animal and cereal, was carried out. What we are ignorant of are the people who did the work of planting and reaping the crops and herding the cattle. We know very little of occupation sites away from the river, although a considerable amount about temples. A number of interesting questions remain to be answered concerning the nature of the Meroitic economy and the social system behind it — who were the agriculturalists and where did they live? How were cattle owned, and how was grain distributed? Although much still remains unexplained, a great deal more can be said of economy and society in Meroitic times than for any previous ones. It can be seen that it was a complex society with a considerable range of activities and one that is, as a result of the wave of research now in progress, being better and better understood.

## References

Adams, W. Y. 1975. Nubia - Corridor to Africa. London.

Bonnet, C. 1978. Fouilles archéologiques à Kerma (Soudan). Geneva, nouvelle série, XXVI: 107 - 134.

1980. Les fouilles archéologiques de Kerma (Soudan). Geneva, nouvelle série, XXVIII:
31 - 72.

Carter, P. L. and R. Foley. 1980. A Report on the Fauna from the Excavations at Meroe. Appendix B to P. L. Shinnie and R. J. Bradley. *The Capital of Kush*, Meroitica 4. Berlin.

Clark, J. D. and A. Stemler. 1975. Early Domesticated Sorghum from the Central Sudan. Nature 254: no 5501:558-591.

Hintze, F. 1964. Das Kerma Problem. Zeitschrift für Ägyptische Sprache 91:79 - 86.

Hintze, F. 1971. Personal communication.

Mills, A. J. 1982. The Cemeteries of Qasr Ibrim. London.

Plumley, J. M. 1970. Qasr Ibrim 1969. Journal of Egyptian Archaeology 56: 12-18.

Reisner, G. A. 1923. Excavations at Kerma. Harvard African Studies I - V. Cambridge, Mass. Save-Söderbergh, T. 1963. Preliminary Report of the Scandicavian Joint Expedition. Kush 11:47-69.

Trigger, B. G. 1976. Nubia Under the Pharaohs. London.