

ALBERT RECKITT ARCHAEOLOGICAL LECTURE

Aksum: An African Civilisation in its World Contexts

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Summary

RECENT ARCHAEOLOGICAL RESEARCH AT AKSUM has resulted in an improved overall picture of Ethiopian civilisation between the fourth and seventh centuries AD. New evidence has been obtained for the age and significance of the famous monolithic stelae, now interpreted as royal grave-markers of the third to fourth centuries. A further fourth-century tomb has yielded finely carved ivory, the importance of which is discussed. Research was also concentrated on the living and burial areas of the non-elite population and a detailed picture has been obtained of the Aksumite subsistence economy. The planning and organisation of the research are also described and the whole evaluated not only in academic terms but in the contexts both of British archaeology overseas and of Ethiopian needs and aspirations.

Introduction

This paper offers an outline account of five years' research at the ancient Ethiopian capital, Aksum, and of the improved understanding which this work permits of one of Africa's most remarkable ancient civilisations.

Read at the Academy 22 February 2000.

Proceedings of the British Academy, 111, 23–59. © The British Academy 2001.

The research, directed in the field by the present writer on behalf of the British Institute in Eastern Africa from 1993 to 1997, permits ancient Aksum to be viewed both in the context of its Ethiopian and African homeland and as part of the changing wider world of the first millennium AD (D. W. Phillipson 2000). The paper also considers the organisation of the Project in partnership with its Ethiopian hosts and collaborators, and the pointers which it provides for the future direction of British archaeology overseas.

Aksum is a small town in the Tigray region of northern Ethiopia, close to the now-disputed frontier with Eritrea. It is a market and administrative centre with a population of about 50,000 people although it is not easy to distinguish those of the town itself from those of the immediately surrounding countryside. It lies at an altitude of 2200 m on a tongue of fertile high ground between the Mareb and Takezze rivers, westward-flowing tributaries of the Nile. Physiographically, this is part of the Ethiopian highlands, located closer to their western edge (where the land begins its irregular descent to the arid plains of Sudan) than to the Red Sea escarpment (Fig. 1). The region today is intensively cultivated to yield a variety of crops including both Near Eastern and indigenous Ethiopian species. Prior to the reforestation projects which began in the 1970s, the region was virtually tree-less; this situation probably developed around the middle of the first millennium AD. The *lingua franca* is Tigrinya, a South Semitic language related to modern Amharic but showing less divergence than does the latter from the ancient Ge'ez which survives in the liturgical usage of the Ethiopian Orthodox Church.

Today, Aksum houses the administrative offices of the central zone of Tigray, but to many Ethiopians and Eritreans its principal fame is religious: centred on the Cathedral of Maryam Tsion, Saint Mary of Zion, it is the place where Christianity was first adopted on Ethiopian soil in the mid-fourth century (Fig. 2). Until the revolution of 1974 the traditions of Ethiopian Christianity were inseparable from those of the monarchy, Aksum being believed to possess the Ark of the Covenant which had been brought from Jerusalem by the founder of the Ethiopian royal dynasty, Menelik I, son of King Solomon and the Queen of Sheba. Aksum is also renowned as the centre of an ancient civilisation, remains of its grand monuments contrasting with modern buildings in what is now, in per-capita income terms, one of the poorest countries in the world. Twenty years ago, the Ethiopian authorities applied successfully to UNESCO for Aksum to be inscribed on the list of World Heritage sites;

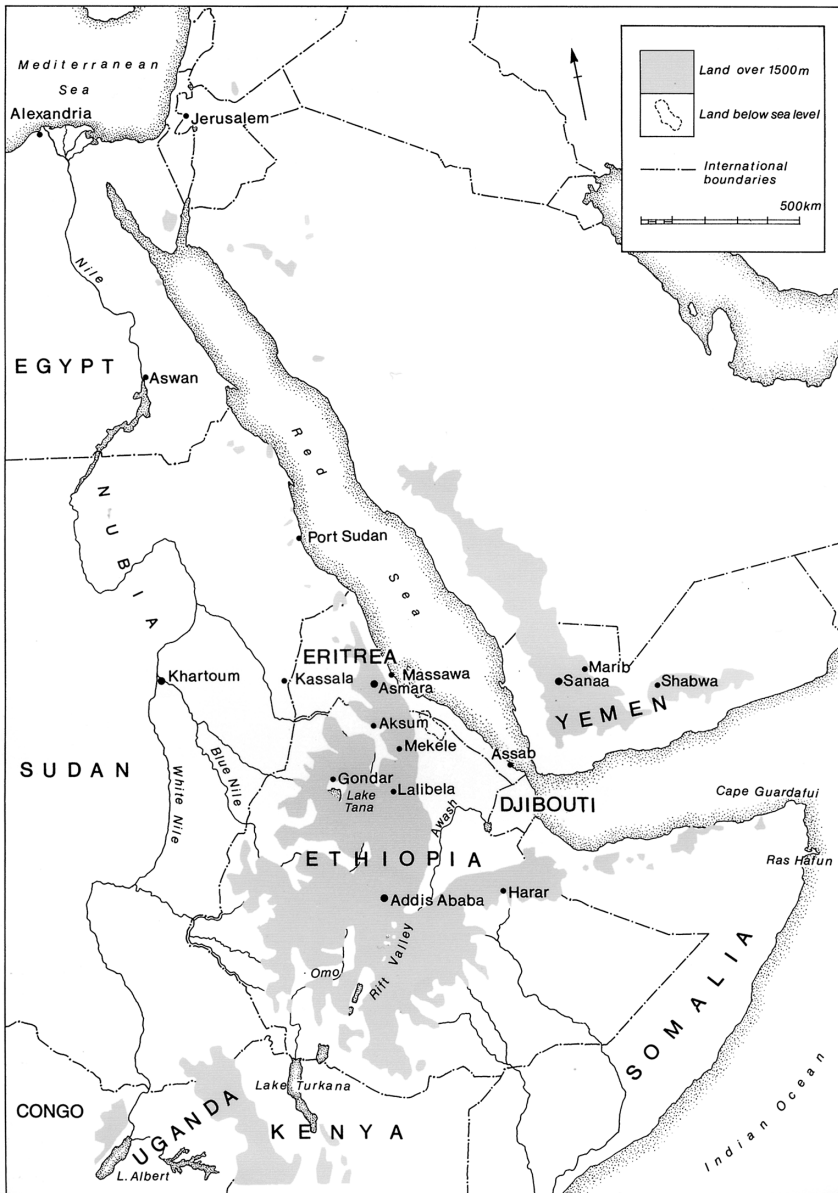


Figure 1. Map of northeast Africa and adjacent regions, showing the location of Aksum.



Figure 2. A view over Aksum town, looking west from Mai Qoho hill. The Cathedral Precinct is in the centre of the view, with the main stelae area on the right.

but on the spot there is no visible sign of this status nor, to my knowledge, has any tangible benefit accrued from it.

There are three principal sources of information about ancient Aksum. Brief mention occurs in the works of several classical, post-classical, and Arabic authors between the first and the eighth centuries AD. It features prominently in Ethiopian historical traditions, the earliest extant written versions of which probably date from the thirteenth or fourteenth centuries although some almost certainly incorporate earlier material. Lastly, there are the sites, monuments and artefacts which may be investigated archaeologically. This account is based on the last source, with frequent cross-reference to the first two.

Previous research

The physical existence of ancient Aksum was brought to the attention of the post-renaissance western world by a Portuguese ecclesiastic, Father Francisco Alvares, who was there in 1520 (Beckingham and Huntingford 1961). He saw the Old Cathedral a few years before its destruction by Muslim invaders and published a description which is, unfortunately, difficult to understand although his accounts of several other monuments tally well with the remains which still survive. The same cannot be said of James Bruce, who visited in 1770 and whose account, published twenty years later, gained numerous imaginary embellishments in the interim (Bruce 1790). It was not until the beginning of the nineteenth century that visits by outsiders became at all regular. Henry Salt went to Aksum on two occasions, publishing a factual account and reliable illustrations, as well as conducting the first archaeological excavation in Ethiopia when he cleared around the base of an inscription (Valentia 1809; Salt 1814). The establishment of Italian colonial rule in neighbouring Eritrea facilitated further and more prolonged visits by Europeans. Greater detail was provided in 1893 by Theodore Bent and his wife; their account was appropriately entitled *The Sacred City of the Ethiopians*. In 1906 the first major archaeological investigation took place: this was the Kaiser's Deutsche Aksum-Expedition led by Enno Littmann. In the course of only 84 days the group achieved an enormous amount of detailed recording which forms the basis for all subsequent research. A detailed study was made of Aksumite inscriptions. Such excavation as they conducted was aimed primarily at clarifying architectural details and plans, rather than establishing chronology or the functions which individual monuments had

served. The work of the Deutsche Aksum-Expedition (Littmann *et al.* 1913; for a partial translation, see D. W. Phillipson 1997) is of particular value because it was conducted prior to the Italian invasion and recent urban developments: a great deal of the archaeological material recorded in 1906 is no longer extant.

Further small-scale investigations were undertaken during the brief Italian occupation (e.g. Puglisi 1941), but it was not until the 1950s and 1960s that systematic excavations took place, this time directed by French archaeologists under the auspices of the Ethiopian government's Institute of Archaeology (summarised by Anfray 1990). Although preliminary reports of some of this work appeared promptly, it is disappointing that none has been published *in extenso*. During the years 1972–4, immediately prior to the Ethiopian Revolution, three independent research projects operated in the vicinity of Aksum. The largest was that of the British Institute in Eastern Africa, directed by the late Dr Neville Chittick, which completed a reconnaissance and two full seasons of what was planned as a wide-ranging investigation on ancient Aksum (Chittick 1974). More limited excavations were conducted by Lanfranco Ricci of the Istituto Orientale in Naples (Ricci and Fattovich 1988), and a survey of the surrounding countryside was begun by Joseph Michels (1994) of Pennsylvania State University. The Revolution necessitated the precipitate abandonment of all these projects.

Planning

In 1989 the results of Chittick's excavations, edited by Dr Stuart Munro-Hay, were published in the memoir series of the British Institute in Eastern Africa. A delegation from the Institute visited Addis Ababa to present copies of the book to relevant institutions and individuals, and also to signify to the authorities of the then government the Institute's eagerness, when conditions should so permit, to resume the research which had been abandoned fifteen years earlier. To mark the occasion, a two-day conference on Aksum was organised by the Institute of Ethiopian Studies in Addis Ababa University. Among the papers presented was one in which I pointed out that most of the research so far conducted at Aksum was concerned with the elite segments of its population: with monumental architecture and luxury imports in particular. Virtually nothing was known about the subsistence base of Aksumite civilisation, about the lives or burials of common people, or about whatever it was that Aksum

exported in exchange for its luxury imports. In some ways this paper (D. W. Phillipson 1990) formed an informal manifesto for the research which, four years later, it was possible for the British Institute in Eastern Africa to resume. The Institute's Governing Council, meanwhile, accepted my offer to lead new research at Aksum on its behalf.

In May 1991 a new government was installed in Addis Ababa and it became clear that archaeological activity at Aksum would shortly become possible once again. This was confirmed in the following year when I visited Aksum in the company of Dr John Sutton, the Institute's then Director. With the full co-operation of the authorities in Aksum and in Addis Ababa, we were able to make preliminary plans for new research. The assistance of Ato Ayele Tarekegn and Dr Kassaye Begashaw was invaluable at this stage; we also received essential advice from scholars at Addis Ababa University, notably Professor Tadesse Tamrat and Dr Merid Wolde Aregay. This visit permitted the preparation of a Research Design and costings for a project requiring five annual field seasons. We recognised that the only cost-effective way to work at Aksum required that research be on a large scale and that the expedition be effectively self-contained.

The Research Design built on the issues summarised in my 1989 paper but recognised that new research should focus on as many aspects of ancient Aksum as possible in order to start obtaining a more rounded picture of its civilisation; it is reproduced verbatim in the Project's final report (D. W. Phillipson 2000). The British Institute in Eastern Africa was able to make substantial resources available in support of the work, but more was needed. The Society of Antiquaries of London awarded the project a major research grant; additional much valued finance was obtained from the British Academy (and, in subsequent seasons, its Humanities Research Board), the McDonald Institute for Archaeological Research at Cambridge, and the Trustees of the British Museum. One-off grants for individual field seasons or for particular aspects of the research came from the National Geographical Society in Washington DC and, on two occasions, the Natural Environment Research Council. Support in kind, including invaluable advice, came from a number of Ethiopian institutions in the central government, the Tigray regional administration, Aksum Municipal Council, Addis Ababa University and the Ethiopian Orthodox Church. The British Council in Addis Ababa provided support and assistance in very many ways.

Five years of archaeological research owes as much to its personnel as to its sponsors. Dr Jacke Phillips was employed throughout as full-time

Research Assistant. In addition, 30 people from overseas contributed a total of 51 seasons' work in exchange for modest honoraria. Ethiopian personnel provided a further 54 person-seasons' work in professional or trainee capacities. In addition, an average of 94 workpeople was employed in each season. In total, well over 230 people have contributed to the Project's work: its achievements provide a clear indication of the debt that is owed to them.

The first field season took place between October and December 1993. It was on a comparatively circumscribed scale, emphasis being placed on building local understanding and trust. The need for this was not surprising, since few foreigners had visited Aksum in non-military capacities during the previous two decades and for almost a generation local people had been able to give little thought to archaeological matters. Work began in the central area dominated by the great stelae for which Aksum is justly famous, investigating three elite tombs of which two were clearly associated with the largest stela. In subsequent seasons these investigations were expanded, and excavation was also undertaken on lower-status burial sites, on areas of domestic occupation both within and on the edge of the built-up area, and at two rockshelters in the immediate vicinity. Particular emphasis was placed on the recovery and study of archaeobotanical and archaeozoological materials. Archaeological survey was undertaken within a 10-km radius of Aksum, lithic industries of Aksumite and earlier ages were investigated, and a study was made of the ancient quarries where stone for the stelae and other monuments was evidently extracted. A separate excavation was carried out in the final field-season at the specific request of the Ethiopian authorities, to investigate the site originally occupied by the second-largest stela, the fallen pieces of which had been taken to Rome by order of Mussolini during the Italian occupation of Ethiopia (Monneret de Villard 1938) and whose return appeared imminent.

The principles and policies on which fieldwork was based may be summarised as follows:

- 1 Since we were excavating in an urban situation, in an area which is of great interest to many Ethiopians and overseas visitors, it was essential that the work did not disrupt access and did not permanently disfigure the area. All open excavations were backfilled at the end of each season; protective coverings for underground monuments were designed and constructed so as to cause minimal visual impact.

2 Although the local infrastructure does not yet exist to develop newly discovered monuments for public access, steps were taken which will facilitate such development as and when it becomes practicable.

3 Complete openness was maintained as work progressed. Local people, visiting dignitaries, and parties of schoolchildren were welcomed. Tourists were encouraged to photograph the excavations. Every evening a meeting of the professional team was held at which individual members described their work and discoveries; this enabled everyone to appreciate the Project's overall achievements and ensured that the representatives of the Ethiopian authorities were fully informed of developments. At the end of each season public lectures were given in Aksum (with running translation into Tigrinya), in the Tigray capital of Mekelle, and in Addis Ababa. It was thus clear that people and media in the host country knew of discoveries before these could be announced overseas—a courtesy which was widely appreciated.

4 Publication has been prompt, so that results enter the public domain with minimal delay. Publication has been in media readily available and affordable in Ethiopia, as well as in those aimed at the international academic community. Preliminary reports on each of the first three seasons have appeared in British journals with offprints widely distributed (D. W. Phillipson 1994, 1995; D. W. Phillipson, Reynolds *et al.* 1996). A substantial account of the first four seasons has been published in Addis Ababa University's *Journal of Ethiopian Studies* (D. W. Phillipson and Phillips 1998). The detailed report on the Project's work, in two volumes (D. W. Phillipson 2000), was published only three years after the end of the last field season.

5 Training, primarily of Ethiopian personnel, has been provided at several levels. To this end, local trainees were employed to a total of 25 person-seasons in support roles and 29 person-seasons in professional capacities. In addition, it was possible to arrange for two Ethiopian archaeologists involved with the work to study and obtain post-graduate degrees at the University of Cambridge, at no additional cost to the Project.

Concurrently with the research here described, excavations and survey have been conducted on nearby Beta Giyorgis hill by archaeologists from Italy and the United States. The results (Fattovich *et al.* 2000; Bard *et al.* 2000) complement those outlined below, particularly for the Proto-Aksumite and Early Aksumite periods.

New discoveries at Aksum

Aksum was the principal metropolis of a major polity which arose during the early centuries AD in the highlands of northern Ethiopia and southern Eritrea (Kobishchanov 1979; Munro-Hay 1991; D. W. Phillipson 1998). The development of socio-political complexity in this region may be traced directly to the first half of the last millennium BC, although its economy was ultimately based on cultivation and herding practices which had developed in this region long previously. Substantial farming settlements arose in the Aksum area, the example that has so far been most intensively investigated being at Kidane Mehret, a short distance to the north of Aksum. Here, between the eighth and the fifth centuries BC, was a stone-built complex of angular rooms and courtyards, the farming economy being remarkably similar to that employed by the rural population of the area in recent times. Cattle were the principal livestock species; cultivated crops included wheat, barley and, perhaps, the local cereal teff. Material culture (Fig. 3) included rare cuprous artefacts but no iron, abundant hand-made pottery including storage vessels over 80 cm high, some stone beads and pendants.

At broadly the same time, the region attracted contact with what is now Yemen, across the Red Sea (Anfray 1990; Fattovich 1990). Features which make their first appearance on the African side at this time include monumental stone architecture and sculpture, as well as writing, all of which have a demonstrably greater antiquity in Yemen. The language of these inscriptions is South Semitic, to which family modern Amharic and Tigrinya belong. These features have been recognised at a number of archaeological sites in highland Tigray, notably Yeha and Melazzo. The highly visible nature of their remains has ensured that such sites have been more often and more intensively investigated than their peasant counterparts best known at Kidane Mehret. What cannot at present be judged is whether sites of the latter type possessed features derived from trans-Red Sea contacts or whether their antecedents were largely or exclusively local. Until further excavation of analogous sites permits these questions to be answered, it will be premature to seek understanding of the nature of the contacts which took place between the highlands that are now divided between Yemen and Ethiopia. The view conventionally held in the past, which now requires reconsideration, has been that the monumental Tigray sites were occupied by colonisers from Yemen who settled in circumscribed areas of exceptional fertility and established a polity named (in the unvocalised inscriptions) DMT, the subjects of



Figure 3. Pre-Aksumite artefacts from Kidane Mehret. The storage pot is 760 mm high, the stone pendant is 14 mm.

which included the indigenous peasantry. The Aksumite civilisation which subsequently arose around the beginning of the Christian era clearly displays both indigenous and allochthonous elements, although its formative processes remain very poorly understood. Within the relevant area, virtually no archaeological sites have been published which clearly date to the last few centuries BC or the first century AD. There is no indication of human settlement at the actual site of Aksum itself until the first century AD, which is also the date of the *Periplus of the Erythraean Sea* (Casson 1989), a trader's handbook to the Red Sea and Indian Ocean coastlands which refers to the port of Adulis near modern Massawa in Eritrea and to 'the Aksumite metropolis'.

By the third century, Aksum was capital of a powerful centralised kingdom, controller of abundant resources, ruler of extensive territories, trading widely and, by *c.*AD 270, issuing its own coinage which circulated both locally and internationally (Munro-Hay and Juel-Jensen 1995). During this time, Aksum rapidly established itself in nominal control of substantial territory and thereby acquired very substantial human and material resources. These territories appear to have comprised much of the modern Eritrea apart from the extreme north and west, as well as the greater part of what is now the Tigray region of Ethiopia; their southerly extent remains poorly understood. At times, Aksumite political authority extended eastwards across the Red Sea to the Yemeni highlands and, less certainly, westwards as far as the Nile valley. Whether, as is often suggested, Aksum conquered Meroe in the fourth century, there can be little doubt that it was the rise of Aksum which led to the economic decline of its Nilotic neighbour.

There is good archaeological evidence for a substantial population enjoying a high level of material prosperity. At and around Aksum, as at Matara and elsewhere, are remains of stone buildings with a tall central structure surrounded by an extensive walled court and ranges of rooms (Buxton and Matthews 1974). In the older literature, these buildings are often referred to as ‘palaces’, but the less committal ‘elite structure’ is probably a preferable designation. The largest and most elaborate of these structures was that in western Aksum known as Ta’akha Maryam. Those for which archaeological dating evidence is available were probably erected during the fifth or sixth centuries: we do not know whether similar structures were erected in earlier times.

By about the second century AD, burials were accompanied by grave goods of varying richness, some of great abundance, which indicates unequal access to resources. This inequality seems to have extended through at least some parts of the Aksumite countryside. Elite structures have been found in peripheral locations near Aksum, and rich burials are indicated at several widely scattered sites. Within a short distance of Aksum were sites whose inhabitants seem mainly to have been engaged in the production of food, apparently thereby maintaining a reasonable degree of material prosperity, as did people involved with craftwork and manufacturing (D. W. Phillipson 1998).

Although until recently archaeologists and historians have placed almost exclusive emphasis on international aspects of the Aksumite economy, there can in fact be little doubt that this economy was locally based, on the productivity of the land and indigenous agriculture. The

recent research has shown that, while sheep and goats were herded, cattle was the dominant domestic species being used both for food and for traction. Donkeys and chickens were also available. Inscriptions indicate that the herds were augmented by capture and tribute in the course of military campaigns (Munro-Hay 1991). The range of cultivated crops was remarkably similar to that exploited in the region during more recent times, including wheats, barley, teff, finger millet, and sorghum as well as chick peas, noog, and linseed. Cereals thus predominated, including varieties originating in the Near East as well as local domesticates. Oil was obtained from linseed and from the locally domesticated noog. Grape-pips and both seeds and textile fragments of cotton have also been recovered; in neither case can one be certain whether the plants were grown locally or their produce imported from elsewhere. Grape vines were, however, known to the ancient Aksumites, being represented in contemporary artworks; and rock-cut tanks in the vicinity (Fig. 4) may have been used for making wine (D. W. Phillipson 1998).

It has long been recognised that the Aksumites imported luxury goods from a wide range of sources, the evidence being both documentary and



Figure 4. Rock-cut tank, perhaps for making wine, at Adi Tsehafi, northwest of Aksum.

archaeological. The items concerned included glassware, beads, metals, textiles, wine, and probably olive oil. What has only recently become apparent is the extent to which these imports provided stimuli for local production: glass vessels were, for example, made in imitation of foreign forms, Aksumite metalwork displayed great technological and artistic sophistication, while wine was probably obtained from local as well as imported sources.

Ivory

The *Periplus of the Erythraean Sea* states that ivory was a major Aksumite export in the first century AD; and archaeological evidence now confirms this for later times also. The Tomb of the Brick Arches, dated to the late fourth century, has yielded quantities of finely turned and carved ivory in the form of boxes, decorative panels and furniture-components that are interpreted as having formed parts of an elaborate chair or throne (Fig. 5). At workshops on the outskirts of Aksum highly standardised flaked stone tools were used in enormous numbers to process raw materials such as ivory, timber and hides (L. Phillipson 2000).

Sixth-century Byzantine writers note the number and importance of elephants in Aksum and its environs (Munro-Hay 1991). Consideration of ivory enables us more fully to appreciate the importance of Aksum in international trade (cf., also, Cutler 1985). During the first century AD, North African elephants were nearing extinction and ivory was an extremely valuable commodity in the Roman Empire, being thinly cut and used in small pieces, often as inlay. A second-century papyrus indicates that ivory was also a major component in the Indian Ocean trade: African ivory was valued above its Indian counterpart in both India and China by virtue of its size, availability and carving properties. By the end of the third century, the supply of ivory in the Roman Empire was greatly enhanced, Diocletian's price-control edict gave it a very much lower value in real terms than it had had in earlier centuries (Lauffer 1971). Significantly, this is the time for which we now have archaeological evidence for the plentiful supply of ivory at Aksum, only a few decades after the establishment of Aksum's coinage which was clearly intended to facilitate international trade.

In the fifth and sixth centuries, ivory became progressively more widely used in the Mediterranean world (Cutler 1985). By contrast, it seems to have had little appeal at this time among the Sassanians or, until much later, the Arabs. It was available in larger pieces implying, whatever



Figure 5. Ivory artefacts from the fourth-century Tomb of the Brick Arches: furniture panel (490 mm long), turned plaque (103 mm) with central metal stud, and cylindrical box, 61 mm high.

may have been the practice in earlier times, that it was imported as whole tusks, probably including those of African savanna elephants. Dyptiches and pyxides are among the items now made in greatly increased numbers, while the mid-sixth-century throne of Maximian at Ravenna (Rodley

1994) shows that ivory could now be used on exceptional occasions as a major component in furniture manufacture, not merely as inlay, thus reflecting what we now know to have been an Aksumite achievement some two centuries earlier.

During the seventh century, there was again a marked reduction in the availability of ivory in the Mediterranean world (Cutler 1999). This date coincides closely with the decline of Aksum as a major economic force and issuer of coinage. One of the factors which has been cited to explain this decline is the establishment of Arabian control over the Red Sea accompanying the rise and spread of Islam, effectively cutting Aksum off from the international trade-routes which it had previously exploited. There seems to have been a similar reduction at the same time in the availability of African ivory in India and China: the Aksumite ships recorded by Cosmas Indicopleustes (Wolska-Conus 1968–73) in the harbours of Ceylon, where goods for trade with more easterly regions were transhipped, no longer had access to the Indian Ocean. Gradually, more southerly sources for African ivory were found as sea-borne traders penetrated as far as southern Mozambique (D. W. Phillipson 1993). In the early tenth century, al-Mas'udi visited the coast of what is now Kenya and Tanzania, commenting that most ivory exported from Africa went to India and China, not to Arabia (Freeman-Grenville 1962).

Coinage

Gold may have been another significant export. From about the third quarter of the third century it was used to produce coins, Aksum being the only polity in sub-Saharan Africa to have produced its own coinage in ancient times (Hahn 1983; Munro-Hay and Juel-Jensen 1995). Denominations were struck in gold, silver and copper, those in the two less valued metals being frequently elaborated by the application of gilding to particular parts of the design. Aksumite gold coins are found only rarely in Ethiopia and Eritrea but are more frequent overseas, notably in Yemen and India; significantly, they almost invariably bear Greek inscriptions. This, and the fact that their weight was apparently based on standards prevailing in the eastern Roman Empire, suggests that they were primarily intended for international circulation. By contrast, coins in silver and copper are much more common on Aksumite sites and bear inscriptions in the local Ge'ez language, as befits a medium whose circulation was largely internal. Even these, however, display clear links with Roman and Byzantine issues. Study of Aksumite coinage, which bears the names of successive rulers,

permits an ordering of the various issues and of the rulers named in their inscriptions. It is not easy, however, to correlate the names on the resultant 'king-list' with those preserved in traditional sources (Anfray 1968), the only undoubted links being provided by kings Ezana in the mid-fourth century and Kaleb early in the sixth.

Christianity

Study of Aksumite coinage throws considerable light on several other aspects of its parent civilisation: art-styles, metallurgy, regalia and religion (Hahn 1999). In the last-named instance, it provides a clear indication of the adoption of Christianity at Aksum during the reign of Ezana, an event also recorded in surviving Aksumite stone inscriptions, in Roman historical records and in Ethiopian historical tradition. Prior to this event, which probably took place around AD 340, the Aksumite rulers adhered to the polytheistic practices of earlier centuries which had much in common with those prevailing in South Arabia and was reflected in the use of the crescent-and-disc symbol on the earliest Aksumite coins. This symbol was replaced, during the reign of Ezana, by the Christian cross. The cross was subsequently accorded greater prominence in coinage design, sometimes accompanied by an inscription indicating the gradual adoption of the new religion through the Aksumite countryside (Munro-Hay 1999).

The adoption of Christianity exerted a powerful influence over the subsequent history of Aksum, which came to be regarded by Roman and Byzantine emperors as a potential ally both in doctrinal controversies and in political manoeuvres (D. W. Phillipson in press). Much of the Ethiopian and Eritrean highlands has remained a staunchly Christian area ever since; and the Ethiopian Orthodox Church traces its origin and its authority to Aksum, which remains to this day a place of unparalleled sanctity. The Cathedral of Maryam Tsion at Aksum was first built in ancient times: there is controversy whether this took place during the reign of Ezana or, rather later, during that of Kaleb. It took the form of a five-aisled basilica which survived, doubtless modified, until the sixteenth century; the huge plinth on which it stood may still be seen.

During the 150 years following Ezana's conversion, Christianity seems to have been gradually adopted by increasing numbers of Aksumites (D. W. Phillipson in press). Tradition recalls the arrival of ecclesiastics early in the sixth century, probably from Syria, who introduced monasticism and founded religious establishments in many outlying areas.

Burial

Apart from church buildings, none of which can so far be dated with any precision, it is only in the burial customs of the elite that the impact of Christianity's advent has yet been discerned in the Aksumite archaeological record. The most famous monuments which have survived from ancient Aksum are the huge monolithic stelae, carved in representations of multi-storeyed buildings; one, which still stands, is 23 m high and weighs approximately 150 tonnes (Fig. 6). Another, which probably fell and broke while being erected, would have been 30 m high and over 500 tonnes in weight: it may be the largest single monolith which people anywhere have ever attempted to erect (Fig. 7). These stelae were quarried about 4 km away from the site where they were erected: their extraction, carving, transport and erection would have required enormous investment of labour. The 1993–7 Project undertook a study of the ancient quarries at Gobedra Hill, west of Aksum, and was able to ascertain the route by which stone may have been transported from there into Aksum.

Figure 8 presents a reconstruction of the intended appearance of Aksum's elite burial ground—the central stelae area—in the mid-fourth century. The word 'intended' must be emphasised because it seems that the largest stela was never successfully erected. This stela was designed to mark a pair of tombs, at least one—the so-called Mausoleum—being a complex underground structure of great magnificence (Figs. 9–11). It appears to have been built in a pit, then covered with a thick layer of stone rubble behind a retaining terrace-wall. It covered an area 18 by 17 m, comprising a central passage entered through a monolithic portal (Fig. 10) at either end and with five sidechambers on either side. Inside each portal and at the entrance to each sidechamber had originally been a brick arch springing from massive rectangular slabs of dressed syenite. The walls of the Mausoleum (Fig. 11) were built of small undressed stones set in mud, the roof was of roughly dressed syenite slabs with three square apertures leading to vertical shafts, and the floor was paved with sandstone. All the walls and brickwork had originally been covered with a coarse gritty render, apparently unpainted, which would have given the impression that the entire structure was composed of syenite. Cracks to several lintels and displacement of the western portal may have been caused by vibration when the adjacent stela fell.

The archaeological deposits showed that the Mausoleum had been repeatedly entered and disturbed over many hundreds of years, perhaps until as recently as the seventeenth century. This helps to explain a reference,



Figure 6. Stela 3, still standing at Aksum, 23 m high.

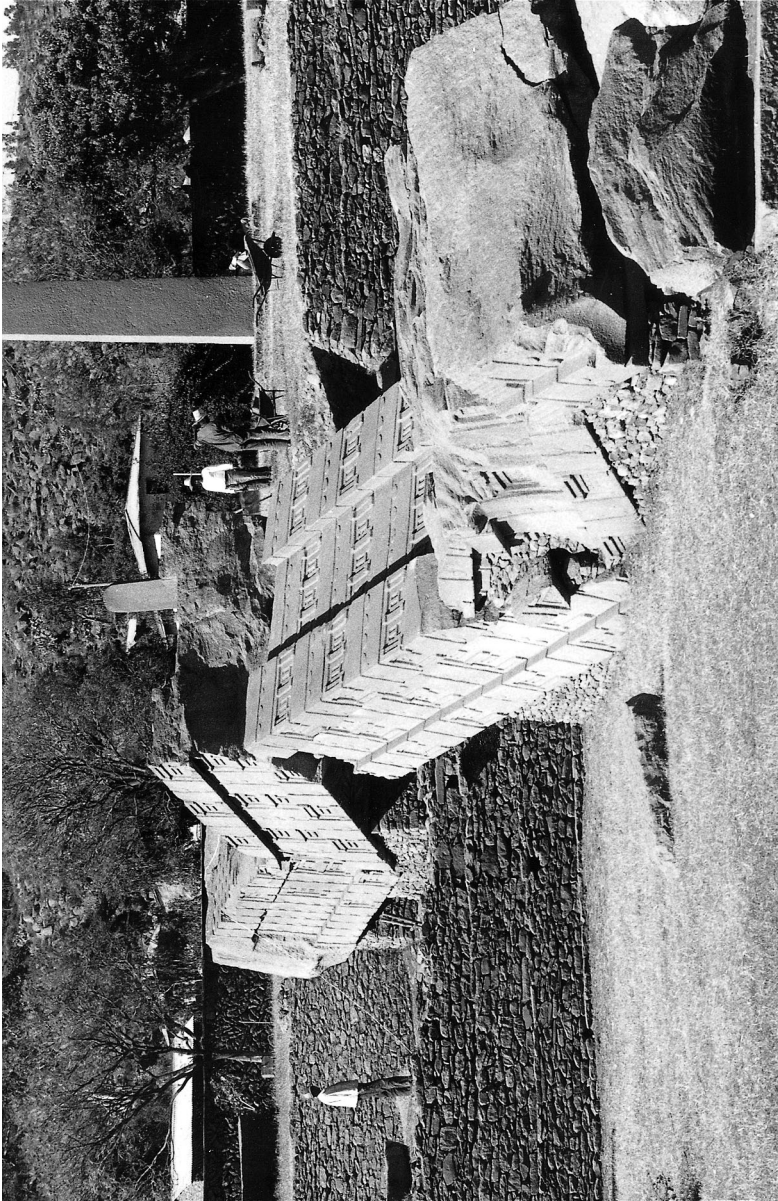


Figure 7. Stela 1, fallen and broken, probably since an unsuccessful attempt at erection.

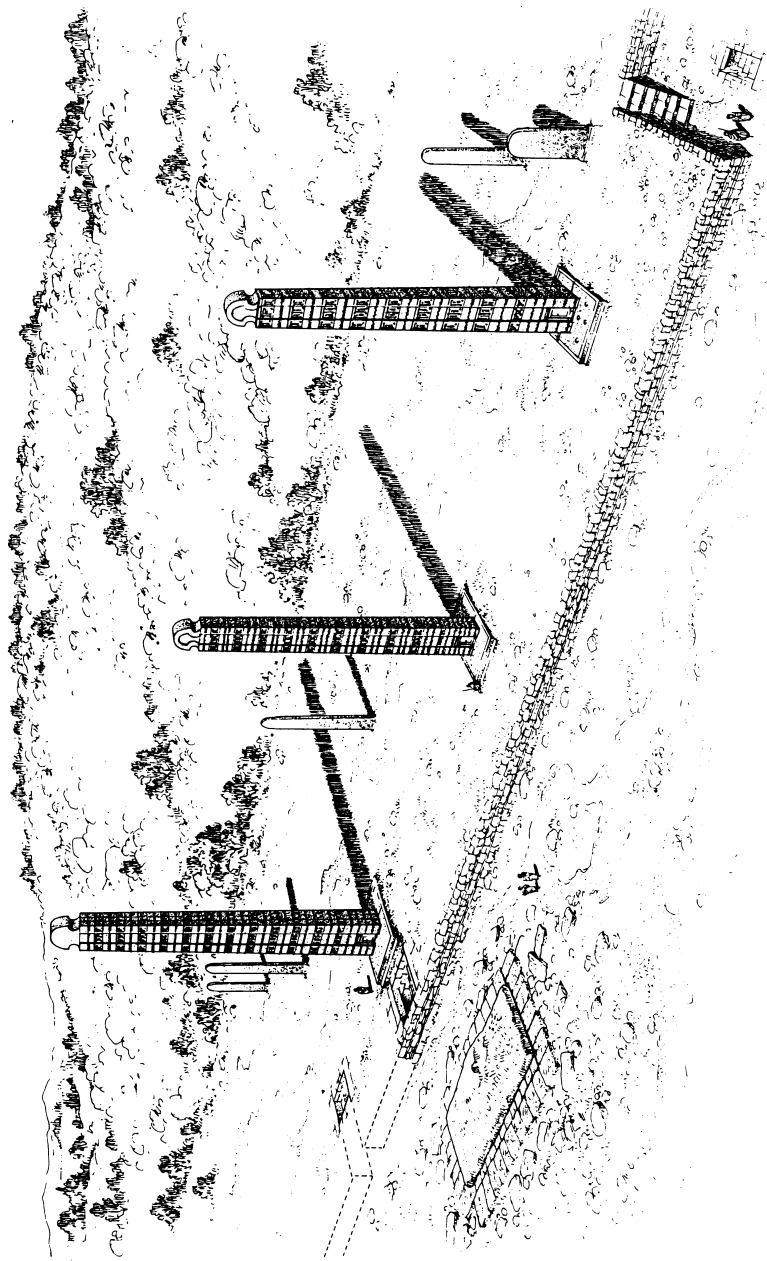


Figure 8. A reconstruction of the intended original aspect of Stelae 3 (*right*), 2 (*centre*), and 1 (*left*), had Stela 1 ever been successfully erected. The entrance to the Tomb of the Brick Arches is shown at bottom right.

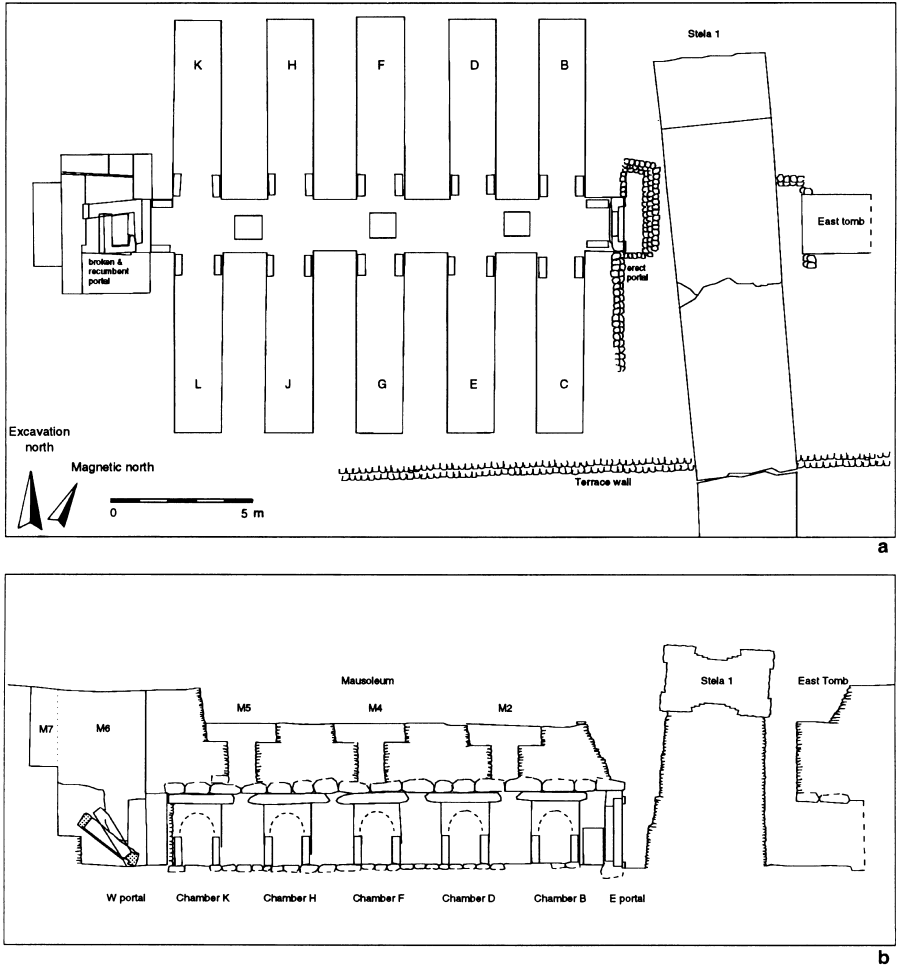


Figure 9. Plan and section of the Mausoleum and East Tomb, relative to Stela 1.

to which Stuart Munro-Hay (1991) has drawn attention, in the manuscript *Book of Aksum*, describing a place adjacent to the great stela where passages led away in all four directions. The sidechambers were found to retain traces in their lowest levels of deposits containing glass, gold, and other metalwork which, like the associated pottery, contrasted markedly with the overlying material and which may be attributed to the structure's primary use. Very extensive disturbance and robbing had clearly taken place throughout, even to the extent of lifting the paving slabs on the floor. The extent of disturbance made it difficult to isolate samples for



Figure 10. The monolithic eastern portal of the Mausoleum.

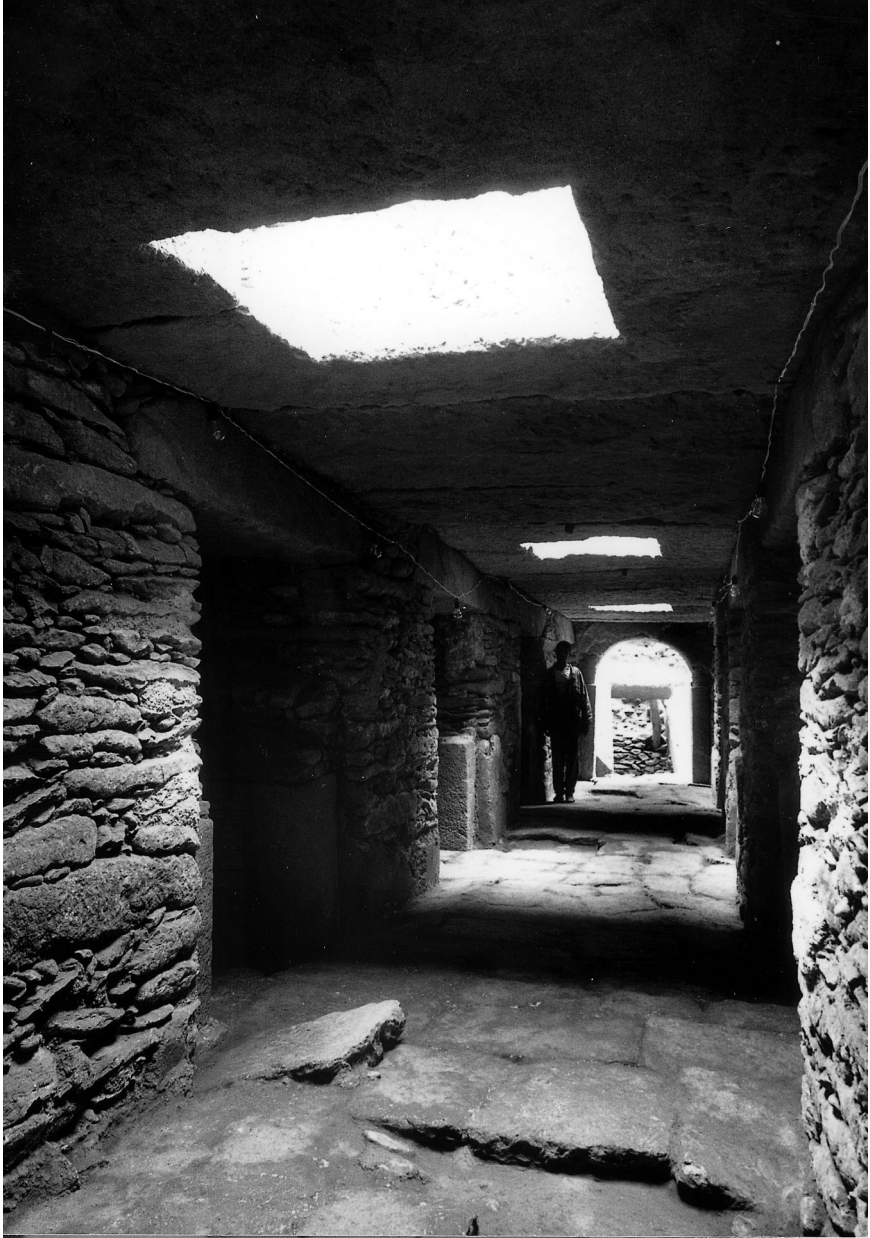


Figure 11. The central passage of the Mausoleum, looking west, after excavation.

radiocarbon dating which could confidently be associated with the monument's construction and initial use, but a fragment of *Acacia* charcoal embedded in the mortar of one of the brick arches has yielded an AMS radiocarbon date in the late third or fourth century AD, and a fourth-century result was obtained from a sample on the floor of one of the sidechambers. Other lines of argument (D. W. Phillipson 2000) suggest that this complex had been constructed around the middle decades of the fourth century.

There can be little doubt that the other great stelae were likewise tomb-markers and that these tombs, being by far the grandest such monuments at Aksum, were those of the kings. The three largest stelae were intended to stand in line, facing southwards over the main urban area. They were not equidistant, and increased in size and elaboration from east to west. The eastern Stela 3 and the central Stela 2 differed only slightly in height and weight but the western Stela 1, probably never successfully erected, was one-and-a half times the height and three times the weight of the others. If we assume that the eastern tomb associated with Stela 1 was the same size as that on its west, we have a precise explanation for the distance separating Stelae 1 and 2. Stratigraphy noted during excavation on the Stela-2 site in 1997 indicated the possible presence of what might be the eastern extremity of this eastern tomb, post-dating the Stela-2 substructure. The most probable explanation of all these observations, taken together, is that Stelae 3, 2, and 1 were erected in that chronological order. This would imply the existence of three royal grave-complexes, similar but progressively more grandiose. The most recent, dating to the fourth century AD, was not successfully completed, its stela collapsing whilst being erected at what was probably a near-final stage in the overall construction process. The consternation, not to mention injuries or deaths, which accompanied this catastrophe may readily be imagined.

There are at Aksum no large or elaborately carved stelae for which there is any reason to propose a date subsequent to that of the Stela-1 complex. Indeed, the next tomb in the westerly progression, the so-called Tomb of the False Door, is totally distinct: its design shows certain resemblances to the tombs associated with the stelae, but it is surmounted by a squat substructure retaining the representation of a false door that is characteristic of the stelae. This tomb (Munro-Hay 1989) had been totally robbed in antiquity and no convincing archaeological dating evidence was recovered; it nonetheless seems reasonable to suggest that it may belong to a time not long subsequent to that of the Stela-1 complex.

A second observation is that the fourth-century date attributed to the Stela-1 complex coincides closely with the time when Aksum is known officially to have adopted Christianity. The advent of the new religion thus also marks a pronounced stylistic change in the elite—presumed royal—funerary monuments. The logical conclusion is that two factors may have combined to initiate this change: the increased ambition in tomb design beyond the capacity of available construction technology, and the adoption of a new state religion. A further consequence of this proposition is the possibility of a more precise understanding of Stelae 3, 2, and 1. It has been suggested that they were erected, in that order, to mark the graves of kings. The most recent, Stela 1, may have been intended to mark the burial-place of the last Aksumite king to be interred according to the pre-Christian tradition. Christianity was formally adopted under King Ezana around AD 340. The succession of kings before Ezana is known from the coinage: the first issues, dated around AD 270 bear the name of King Endybis, who was followed by Aphilas, Wazeba, Ousanas, and then Ezana. Although there are no inscriptions to indicate the names of those interred in the graves marked by the various stelae, we have here a promising shortlist of candidates.

Use of upright stones as grave-markers has been widespread through much of northeastern Africa for several thousands of years (Fattovich 1987). Aksumite sites illustrate one specialised local manifestation of this tradition. The custom was followed at several levels of Aksumite society, the elaborate (probably royal) examples described above being contrasted with shaft or simple pit-graves marked with plain or undressed smaller stelae. There is corresponding variation in the quantity and elaboration of the associated grave goods.

This funerary evidence for socio-economic stratification is paralleled by the domestic architecture. Aksumite ‘palaces’ or elite structures utilised the same materials and stone-dressing techniques as were employed for the finest funerary monuments. In no case, unfortunately, has archaeological evidence been reported which would permit a confident assessment of the precise purposes to which these buildings were put. They may, however, be contrasted with other buildings, erected on a smaller scale using only undressed stone with or without supporting timbers, which are associated with farming pursuits and/or small-scale craft industry. It seems likely that the actual dwellings of the lowest strata in Aksumite society have not yet been unearthed; they are, however, probably represented by clay models of small thatched houses.

Art and Technology

Our knowledge of Aksumite art and technology is restricted by the limited survival of material. Although ivory has only been preserved in exceptional circumstances, most notably in the fourth-century Tomb of the Brick Arches, the techniques by which it was worked are informative. While flaked stone tools were probably used in its initial preparation and shaping, metal was employed at later stages: sawing, filing, scraping, cutting, drilling, and lathe-turning are all demonstrated, presumably requiring a range of specialist tools. Figurative carving included motifs such as intertwined vines and animals which are widely represented in the ancient world, but displays characteristic African stylistic features (Fig. 12). We can thus be confident that, not only was ivory a major export commodity, it was also worked locally with very considerable expertise.

Domestic and portable artefacts are better known. Pottery was, as elsewhere in sub-Saharan Africa, exclusively hand-made, without use of a wheel. The elaborately decorated wares known as 'Classical Aksumite' are mainly known from funerary contexts of the third to fourth centuries (Fig. 13); doubt remains of the extent to which such vessels were the prerogative of the elite and/or reserved for interment with the dead. Elaborate painted decoration has been preserved in certain circumstances, almost invariably in tombs, but may have been widespread. Many of the vessels from tombs are small and poorly fired, with soft fabric which contrasts markedly with that recovered on domestic occupation sites. The full significance of this variation vis-à-vis chronology, status and function cannot be understood until further excavations have been undertaken and published. Pottery of particular interest includes bowls in the foot of which stand moulded figures of yoked oxen, and jars with necks modelled in representation of female heads whose elaborate hairstyles strongly resemble those favoured in the area today.

It may be assumed that most domestic pottery was produced close to its area of use, although it has not yet proved possible to undertake the detailed fabric studies necessary to confirm this. At least some finer and smaller vessels were, however, transported over considerable distances. Although some Aksumite pottery was slipped and finely burnished, true glazes occur only on vessels—mostly wheel-thrown—which were imported from beyond the Aksumite polity. Imported pottery may be divided between vessels which came to Aksum primarily as containers for some foreign commodity, and those which were brought as luxury items in their own right. Examples of the two categories are large amphorae

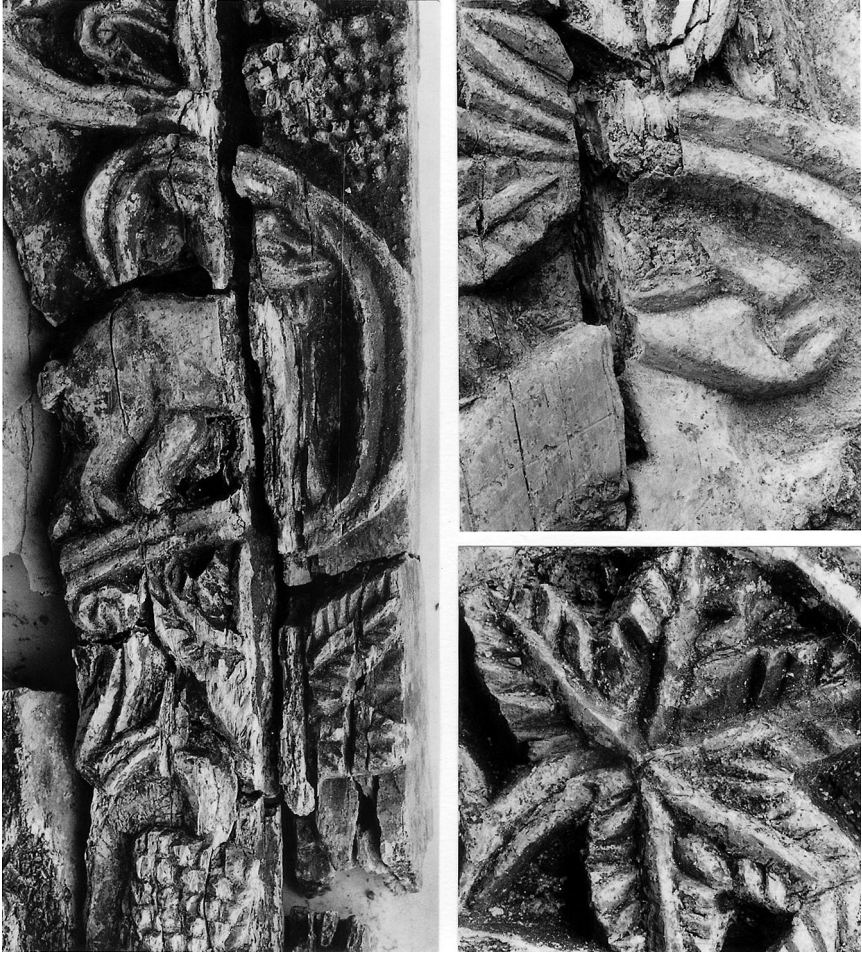


Figure 12. Details of the ivory furniture panels from the Tomb of the Brick Arches.

from Cyprus and/or Syria, which contained wine or olive oil, and the fine red-ware bowls of African Red-Slip ware made in the Mediterranean regions of North Africa. The former, once their contents had been decanted or consumed, were often re-used for a variety of purposes, while the characteristic shapes of the latter were imitated by Aksumite potters.

Quantities of glass vessels (Fig. 14) and beads are found on Aksumite sites, particularly but by no means exclusively in elite tombs. It was often assumed that all this material was imported and, indeed, very close parallels for some may be recognised at sites around the eastern Mediterranean. However, parallels for other items have proved extremely hard to find; and



Figure 13. Classical Aksumite pottery from the Tomb of the Brick Arches: pedestal bowl, face-jar and model of yoked oxen from the bottom of a basin.



Figure 14. Glass goblets: (*left*) third-century, from the Gudit Stelae Field; (*right*) fourth-century, from the Tomb of the Brick Arches.

certain vessels, although closely resembling Mediterranean counterparts, display idiosyncratic features. The suspicion that some of these items may have been produced in Aksum, perhaps by reworking imported glass which may have been broken in transit, has recently been confirmed by the recovery of raw glass in an industrial area of Aksum, providing clear evidence that some glass was worked (but probably not made) there. Such a practice was by no means unique to Aksum, being attested for example at several broadly contemporary sites in the Sudanese Nile valley. It is not yet possible clearly to distinguish all imported glass vessels from those that were produced locally, but it is clear that both categories are represented.

Gold, silver, ferrous and cuprous metals are well represented in the Aksumite archaeological record. They were clearly worked with considerable skill (Fig. 15): in addition to the basic smelting and forging, techniques for which we have evidence include welding, riveting, production of even-thickness plates, drilling, perforating, casting, polishing, plating (including both annealing and mercury gilding), and enamelling. Despite the recovery of slag and crucible fragments, no extensive Aksumite metal-working sites have yet been located. Wherever they were, such sites and their associated debris must have been very substantial and their operation must have involved much labour and fuel. Quarrying must have involved the use of large numbers of iron wedges, none of which have yet been found. The sheer scale of Aksumite metallurgy indicates that it was



Figure 15. Inlaid metal plaque, 113 mm square, from the Tomb of the Brick Arches. The front is of brass, the apertures filled with coloured glass paste; the whole is backed with an iron sheet.

largely local, involving production of utilitarian and luxury goods: a few imported luxury items have nonetheless been recognised.

Alongside the technological sophistication represented by the working of metal, ivory, and glass, it is important to recognise that the Aksumites continued to make and to use flaked stone tools in continuation of traditions practised in the area for many centuries, if not millennia, previously (L. Phillipson 2000). This, and the agricultural base on which the civilisation's prosperity ultimately depended, emphasise the local roots of ancient Aksumite civilisation.

When considering imports, it is essential to include the less tangible as well as those directly represented in the archaeological record. Here must be included Christianity itself, which came in later Aksumite times to occupy a major place in state and popular affairs which continued for many hundreds of years after the decline of Aksum. From the third century, Aksum's aspirations to membership of the eastern Mediterranean world were symbolised by the use of Greek in stone inscriptions and by the issue of coinage (Fig. 16).



Figure 16. Aksumite gold coin, c. AD 270, inscribed in Greek with the name of King Endybis. Diameter: 14 mm.

Although there are major lacunae in research coverage, it is possible to suggest some changing patterns in Aksumite material imports. In the third and early fourth centuries, glass and occasional pieces of metalwork are represented, pottery from outside the Aksumite hegemony being effectively absent. By the sixth century, however, glazed pottery was imported from Mesopotamia and Egypt, amphorae and their contents from Cyprus/Syria and the northern Red Sea, bowls from North Africa. Aksum's exports are less easy to recognise in the archaeological record of recipient countries, but gold coins in both Yemen and southern India/Sri Lanka indicate the scale of dispersal. Ivory cannot yet be traced to its original source but, as I have argued, it is tempting to attribute the decline of its price in the Roman Empire during the late third century, and its sudden scarcity from the early seventh, to the fluctuating fortunes of Aksum's export trade.

The date and manner of Aksum's decline is a topic surrounded by controversy. Ethiopian tradition is often interpreted as indicating its survival as a political capital into the tenth century; and the Aksumite coinage was formerly interpreted as having continued until that date. More detailed study has, however, suggested a significantly shorter coinage chronology which has recently received support from radiocarbon dates for Late Aksumite occupation. It now appears that issue of the coinage ceased during the seventh century and that by or even shortly before that time the scale of human settlement at Aksum sharply declined. Two factors may have contributed independently to this decline. Locally, the scale of the area's exploitation during the previous half-millennium must have had a great impact on the essentially fragile environment: greater scarcity of timber for construction and fuel will have reduced availability and increased costs of metal and numerous other commodities; increased run-off and soil erosion will have reduced agricultural productivity and predictability, affecting not only the overall prosperity and physical well-being of the population but also the availability of labour for prestige projects. Internationally, the rapid expansion of Islamic control of the lands bordering the Red Sea, most notably the conquest of Egypt in 642, effectively cut Aksum's link with the long-distance trade on which her prosperity had partly depended.

For centuries thereafter, the peoples of highland Ethiopia developed their predominantly Christian traditions on an island surrounded by Islam, maintaining only tenuous links with their co-religionists around the Mediterranean. It is in the architecture and other accoutrements of mediaeval Ethiopian Christianity that the legacy of ancient Aksum may

be most clearly seen. Churches both built (as at Debra Damo) and rock-cut (as at Lalibela) display the timber-frame construction attested in the Aksum 'palaces' and represented on the carved stelae.

The Aksum Project in its contexts

It is now appropriate to attempt evaluation of the Aksum Project's contribution to knowledge and understanding under four heads:

- 1 that of African archaeology,
- 2 that of the ancient world in the first millennium AD,
- 3 that of British archaeology overseas, and
- 4 that of Ethiopia today.

We can now view Aksumite civilisation more clearly and firmly in its Ethiopian and African context. This was not, as some earlier European and, indeed, Ethiopian scholars have suggested, a transplant onto African soil of an essentially Arabian culture. Its subsistence economy and aspects of its technology were both firmly rooted in indigenous practices which may be traced back for many centuries if not millennia. The basic technologies were essentially African. Other elements, with undoubted South Arabian connections, had been present on the African side of the Red Sea long before the rise of Aksum. The location of Aksum itself may best be understood as facilitating exploitation of African resources. These developments began on the Ethiopian plateau at a time when links between that area and the outside world beyond South Arabia were far less developed than was subsequently the case.

Aksum provides an important case-study of an ancient civilisation about which archaeological information is rapidly increasing but which is also known from a variety of historical sources such as are rarely available in sub-Saharan Africa. The picture that is emerging from the combined use of all these sources is one which emphasises both the far-reaching contacts of the Aksumite state and the breadth of influence which these contacts had on the development of a polity whose roots were firmly anchored in its African homeland.

From the third century onwards there was a marked increase in Aksum's involvement in international affairs. Contact with South Arabia continued and developed, at times amounting to Aksumite political control. More important, however, were links via the Red Sea both to the north with the Mediterranean world, and to the south, with lands

bordering the Indian Ocean and, by way of south India and Ceylon, with regions further east. These facts have been appreciated for a long time, primarily from written sources. Recent research permits numerous refinements. Aksumite coinage was initiated late in the third century in order to facilitate international trade; its use was subsequently adopted in local transactions. It was probably during the third century that ivory from Aksum became readily available in the Roman Empire. Imports from that area may not have become common at Aksum until rather later, but the archaeology of this period is poorly known except through the elite graves whose artefact assemblages may be atypical in this regard. By the sixth century, imports are attested from many sources.

The history of British archaeology overseas is long and notable. Today, opportunities for British students of archaeology to gain practical experience of work overseas are sadly depleted. What we should offer now is not merely the conduct of research but the training of the local people in whose hands the conduct of future investigations rightly rests. The Aksum Project provides a good example of how British archaeology, with modest financial input, can yield lasting benefits not only to our understanding of a major overseas archaeological phenomenon but also to international collaboration and to a developing country's future ability to develop its own archaeological base. This collaboration has not been a gesture of one-sided generosity: our Ethiopian colleagues have contributed at least as much to the Project's archaeological achievements as they have gained in expertise and experience. I believe that the Project's most lasting contribution may prove to be its collaboration with and training of Ethiopian personnel. This will be a contribution not only to the personal advancement of the individuals concerned but also to the furtherance of knowledge about one of the great civilisations of the ancient world.

More generally, what impact has the Project had in Ethiopia? We can claim to have become known at almost all levels of the political and ecclesiastical hierarchies as well as on the Ethiopian equivalent of a Clapham omnibus. After one of my public lectures in Aksum, a very old man said: 'White archaeologists have been coming here for as long as I can remember, but you are the first who has told us what you are doing.' But this does amount to a significant broadening of understanding, even in a country so proud and concerned about its ancient heritage as is modern Ethiopia. Our recommendation that the original site of Stela 2 be investigated archaeologically before the monument is returned from Italy was accepted at Ministerial level. Our work has increased knowledge of

Ethiopia's premier civilisation, as well as local concern for linked issues of planning, conservation, and the developing museum facilities. I hope that circumstances may soon be conducive for the work to continue.

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