



## EDITORIAL

It appears likely that a substantial number and variety of conferences on African archaeology will have been celebrated in the three-year span between September 1992 and September 1995. This encouraging development is illustrated in the present issue of *Nyame Akuma*, where the reader will find announcements of six conferences, two of which deserve special mention. First and foremost, of course, are the forthcoming biennial meetings of SAfA, the parent organization of this bulletin.

The SAfA conference is scheduled to be held at Indiana University, April 28 to May 1, 1994, under the organizational guidance of Kathy Schick and Nick Toth. In addition to the rich scientific program that has generally characterized these meetings, the agenda will undoubtedly also include a series of important issues to be considered in the business session, such as the possibility of a European venue for the 1996 conference. For more detailed information on the 1994 SAfA meetings, please see the entry in the "Meetings" section of this issue.

The same section also contains the first announcement of the long-awaited 10th Pan African Congress of Prehistory and Related Studies, which is scheduled to take place in Harare during September, 1995. A strong vote of thanks for undertaking the congress is owed to the Department of History at the University of Zimbabwe, particularly Prof. Pwiti, to whom the bulletin extends an open-ended offer to assist by any means at our disposal in the process of organizing the congress.

On a completely different subject, readers may be interested to know about a new graduate program in archaeology at the University of Minnesota. The program will offer M.A., M.S. and Ph.D. degrees in Interdisciplinary Archaeological Studies and will require the completion of a curriculum in archaeology plus one other related field, such as geology, ecology, ancient history, etc., according to the student's interests.

Within the archaeology curriculum, there will be two distinct emphases, one on archaeological science and the other on cultural resource management. These emphases, together with the absence of any requirement in anthropology, may render the IAS program especially interesting to archeologists in African countries.

Students may enroll in the IAS program at either the Twin Cities (Minneapolis, Saint Paul) or Duluth campus of the University of Minnesota. The program will be initiated in autumn, 1993, and applications are currently being accepted. Inquiries should be addressed to

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Finally, an *erratum*: the copyright date of 1990 was inadvertently omitted from the review of John Sutton's *A Thousand Years of East Africa* in *Nyame Akuma* 38.



## ARTICLES

## ■ CAMEROON

**From Clay to Pottery, with  
Style: 1990–1992 Fieldwork  
in Cameroon**

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Despite a continuously renewed ethnoarchaeological interest in pottery, studies concerned with technique remain occasional or lack a systematic approach and a geographical dimension. Comparing techniques at a regional level, or even at an ethnic level, is often difficult due to the number and dispersion of potters studied (for an exception see Barreteau and Delneuf 1990, Delneuf 1991). Also, factors linking techniques and culture are rarely explored in the ethnoarchaeology of pottery. Technical processes are still considered to be governed by environmental and functional constraints (Arnold 1985, Rice 1987) and artisans are too often assumed to be obsessed with the physical and chemical nature of their pots.

Using the isochrestic definition of style proposed by Sacket (1982, 1990), and attempting to evaluate the degree of cultural integration of techniques (Lemonnier 1986, 1990, 1991), I have made a stylistic comparison of pottery technical processes (*chaînes opératoire*) among several ethnic groups in Cameroon. This research focused both on the diversity of technical options chosen by the artisans and on explaining the reasons underlying their choices.

The preliminary results show that traditional pottery techniques actually depend very little on functional and environmental constraints. Each technical

process is almost completely interchangeable between societies and ecological contexts. Technical choices are especially dictated by the social environment of the artisan (modes of transmitting knowledge, relationships with other technical systems and the symbolism of technical actions). The notion of technological style (Lechtman 1977, Lechtman and Steinberg 1979, Childs 1986), or more precisely, of technical style (see Ingold 1990), seems therefore particularly well adapted, and this permits us to develop new directions in archaeology (Childs 1991, 1992; Gosselain 1992a, c).

### Fieldwork

Cameroon offers an excellent opportunity for a comparative study of techniques due to its ethnic and ecological diversity. I chose to work in the southern part of the country because the pottery making has been little documented (as opposed to the northern part: Barreteau and Delneuf 1990, David and Hennig 1972, Delneuf 1991, Sterner 1989) and because it has a clear archaeological and linguistic interest: it served as the point of departure of the Bantu expansion, it has a great variety of ethnic groups, and it is the crossroad of several linguistic groups.

During summer of 1990 and spring of 1991 and 1992, I observed a number of potters in the Central, Western, Northwestern, Littoral, Adamawa and Eastern provinces. In total, 82 artisans were studied in 44 villages (Fig. 1 and Table 1). These artisans belong to 21 ethnic groups, representing 7 different linguistic groups (Dieu and Renaud 1983): Narrow Bantu, Ring Grassfields, Eastern Grassfields, Mambiloid, Tikar, Oubanguian and Adamawa (the first five groups are part of the Wide Bantu) (see Table 1). My intention was to cover the entire area occupied by each of these groups. Despite a survey tour of more than 2,500 km, the geographical distribution of the artisans under study remains unequal (especially for groups such as the Basaa, Bamum, and Gbaya).

This is explained by the disappearance of pottery production among these groups, the inaccessibility of certain areas, and field season deadlines. The study area, however,



**Table 1. Data on potters studied in 1990, 1991, and 1992. Nbr: number of potters. Letters in parentheses following a village name indicate that the potter lives in a village of another ethnic group: Ma—Mambila, Bf—Bafeuk, SA—Sanaga, Ya—Yambassa, Kw—Kwakum, Ke—Kepere, Gb—Gbaya, Vu—Vute.**

Ethnic Groups	Languages	Linguistic Groups	Nbr	Villages
Nsei	kənswei nsei	Ring Grassfields	1	Bamessing
Yamba	yamba	Eastern Grassfields	9	Mbui, Mbem, Sarki Mbaka (Ma)
Bamum	shu paməm	Eastern Grassfields	5	Mamarom
Bamileke	fe'fe'	Eastern Grassfields	4	Babwantou
Mambila	mambila	Mambiloïd	6	Atta, Ngonnkor, Kouroum
Vute	vute	Mambiloïd	5	Yangba, Nguila (Bf), Mangay, Doume
Tikar	tikari	Tikar	9	Mambioko, Akouen, Kong, Massaroum
Banen	tunen	Narrow Bantu	3	Ndikinimeki, Logndeng
Basaa	basaa	Narrow Bantu	4	Likound, Mbay
Bafeuk	bafək	Narrow Bantu	4	Yassem, Ndimi, Nguila
Djanti	tibeə	Narrow Bantu	2	Ngora (Sa)
Balom	lɔfa'	Narrow Bantu	2	Mouzi, Beandong
Bafia	rkpa'	Narrow Bantu	9	Goufan I, Kiki, Biamo, Mouko, Bouraka (Ya)
Sanaga	tuki	Narrow Bantu	2	Ngoro, Nguette
Yambasa	yambasa	Narrow Bantu	1	Kellende
Eton	eton	Narrow Bantu	3	Emana, Kela (Sa), Kouze (Sa)
Kwakum	kwakum	Narrow Bantu	1	Hona
Pol	pori	Narrow Bantu	2	Hona (Kw), Deng deng (Ke)
Kaka	kak)	Narrow Bantu	3	Daiguene (Gb), Momdjomo
Gbaya	gbaya	Oubanguaian	5	Manbarla, Yoko (Vu), Moïnan, Adinkol
Kepere	gbetɛ	Adamawa	2	Deng deng

becomes larger when the learning places of the artisans are included. For example, some of the artisans learned pottery techniques in a village other than that where they were observed. Because of the deeply rooted character and resistance to change of certain stages of the technical process (Gosselain 1992a), one may reasonably assume that the observed techniques were also practised in these learning places.

In the field, working with the artisans consisted of a detailed observation of the entire technical process (from the procurement of raw materials until the pots are put into circulation); an interview covering the biography of each potter, the modalities of his/her learning process, and the non-technical aspects of the activity (taboos, rituals, economic situation, determination of the reasons underlying his/her technical choices, and the vocabulary of the activity; a series of measurements (plasticity of the clays before and after treatment, firing temperatures—27 firings were recorded with 3 to 11 thermocouples; see some results in Gosselain 1992b); and an extensive sampling (pots, tools, clays, nonplastic additives, barks used for post-firing treatments).

So far the results of the comparative study indicate that although none of the technical choices is truly original, the combination of these choices in the *chaîne opératoire* permits differentiation of the artisans. The shaping stage proves to be particularly relevant for differentiating ethnic groups. In total, nine shaping techniques were identified and their distribution correlates quite well that of linguistic groups (Gosselain 1992c). The study of the economic context shows that most of the groups have a domestic mode of production. The only exception are the Yamba, among whom the activity is restricted to men in a craft specialisation or semi-specialisation context.

**Laboratory**

Most of the analyses are still in progress. The clay and pottery samples were, and continue to be, analysed at the Université Libre de Bruxelles (Impedovo 1991, Yachou

1991), at the University of Oxford, and at Tervuren Museum. The focus of such analysis is on the comparison of chemical, mineral, textural, and physical properties, and on confronting these with the empirical reasoning of the artisan. The other aim is to test the feasibility and relevance of provenience studies in this part of the African continent. Other analyses are being conducted on the same pottery in order to identify the traces of technical processes (radiography, thin sections, and scanning electron microscopy).

Finally, organic coatings are being analysed and experimentally tested in order to evaluate the use of the pots.

Along with this laboratory work, a series of typological experiments on decorative systems and morphological parameters are being carried out. These experiments will eventually lead to a selection of criteria for identifying different production levels (individual, community, ethnic, and regional levels), as well as for recognizing the taxonomic systems used by the artisans (Gosselain and van Berg, in press)

**Acknowledgements**

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included Scott MacEachern (project head), Claire Bourges, Ross Jamieson, and Laurie Beckwith from the University of Calgary, Canada. In addition, three Cameroonian archaeology students from the University of Yaounde, Djime Rama, Rodger Ndombe and Gerald Lamba worked with the project from 27 July to 24 August, under an agreement by which the Projet Maya-Wandala provided them with training. Finally, Raymond Asombang, from the faculty of the University of Yaounde, visited the research area and inspected sites in early August.

The Projet Maya-Wandala was conceived of as a successor project, building upon the archaeological and ethnoarchaeological research carried out by members of the Mandara Archaeological Project/Projet Archeologique Mandara (including MacEachern) between 1984 and 1991 (David and MacEachern 1988, David and Sterner 1989). Research was conducted from Mora, in the Département of Mayo-Sava, and focused upon archaeological survey of and excavation around the numerous inselbergs extending north from the Mandara Mountains, which have their northernmost extension in this region. In addition, ethnohistorical inquiries were an important component of this season's research. There is some overlap between the Mandara Archaeological Project archaeological survey in 1984 and the Projet Maya-Wandala survey area in 1992. This happened because of different research strategies in the two seasons; our 1984 Mandara Archaeological Project research (David and MacEachern 1988) was oriented toward establishing a regional culture-historical sequence, while 1992 Projet Maya-Wandala research was considerably more narrowly focused.

**Archaeological Research in Northern Cameroon, 1992—the Projet Maya-Wandala**

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The first field season of the Projet Maya-Wandala took place between 16 May and 31 August, 1992, in the Extreme-Nord Province of Cameroon. The crew for this season

**Research Goals**

The objective of this work was to elucidate the historical relationships between populations found in this area today and in the recent past (i.e., over the last 150-200 years), and earlier populations, now remembered as the semi-legendary Sao and Maya peoples (along with several local, even lesser-known groups). The ethnic milieu in the area today is dominated by the dichotomy between plains-dwelling

populations (overwhelmingly Muslim, urban, literate, and organized into small chiefdoms and states) and montagnard groups (mostly animist and/or Christian, rural and, in this area, organized in small, acephalous ethnic units). The mountains are densely settled, the plains much less so. The results of Mandara Archaeological Project research in the 1980s indicated that this situation had been reversed before perhaps 200 years ago, with substantial Sao and Maya settlement on the plains and relatively sparsely occupied mountains. We wished to study the processes by which these earlier Iron Age plains populations had been supplanted by later groups, and especially by the Wandala, inhabitants of a small state of the same name who linguistically and culturally seem to have resided in the region for a long time. The Wandala have been Muslim for more than 250 years, and their associations with montagnards have often been ambiguous (MacEachern 1991, 1992, in press).

To that end, we concentrated our research on areas which are associated in oral traditions with both Sao/Maya and Wandala occupation. Wandala settlements are usually associated with the inselbergs which dot the plains north off the Mandara Mountains, so it is not surprising that most of our work took place around three of these inselbergs, Gréa, Doulo, and Aissa Hardé. Gréa figures in a number of Wandala written histories and oral traditions, as an important Sao centre and later as a large Wandala village, albeit one that retained considerable independence from Wandala centralized authority. Doulo was the capital of the Wandala state from the sixteenth until the nineteenth century, and it was the centre of a Maya chiefdom before that. Aissa Hardé, though much smaller than the other two inselbergs, was also described in local histories and oral traditions as an important Maya and Wandala centre.

### Research Results

Field work over the period 1 June–25 August, 1992, resulted in the discovery of 65 archaeological sites (Fig. 1). In addition, surface collections were made in seven localities where artefacts were found but

where their densities did not warrant designation as a site. Determination of the ages of these sites must await radiocarbon and thermoluminescence analysis of the recovered material, but general examination of the pottery and other artefacts indicates that the vast majority of sites and the components that make them up are datable to the Iron Age, and probably to the last 1,000–1,200 years. However, we have found a number of components (areas and/or levels within a site) that may date to the Neolithic period (before ca 1 A.D.), and two components which may date to the Late Stone Age. The latter are, unfortunately, probably undatable, since they are merely surface scatters of eroded stone tools. In any case, the objective of this project was the study of Iron Age cultural sequences, so we did not extensively pursue analysis of these earlier components.

Of the sites recorded, 27 were located either at the foot of or on the heights of Gréa inselberg, and two were located about 2.5 km away from the inselberg in an area known for its Sao occupation (Fig. 2). Similar sites were found in the same area during Mandara Archaeological Project archaeological survey in 1984. Gréa was obviously an important Iron Age habitation area, as ethnohistorical and historical sources also indicate. Manaouatchi-Gréa (PMW 602), with related sites, was an extremely large village (at least 2 x 1.5 km) surrounded by a 3 km long cobble wall that probably stood 1–1.5 m high. Gréa inselberg itself was a long-standing focus for occupation by Mafa montagnard groups; Gréa Tlala-Mafa (PMW 603) is a large ridge-top site overlooking Manaouatchi-Gréa. Eleven sites were found in the immediate vicinity of Doulo inselberg, and one in a dry stream bed about 2 km to the east, three were found around Aissa Hardé (including two very large, deep mound sites) and three more in the immediate vicinity. Six were found at the foot of or near Sera Ourda inselberg, and 12 were found close to smaller inselbergs in the area (Mahola, Wawidive, Wakashimre, Sava, and a number of others).

The concentration of sites around the edges of inselbergs is very noticeable. Projet

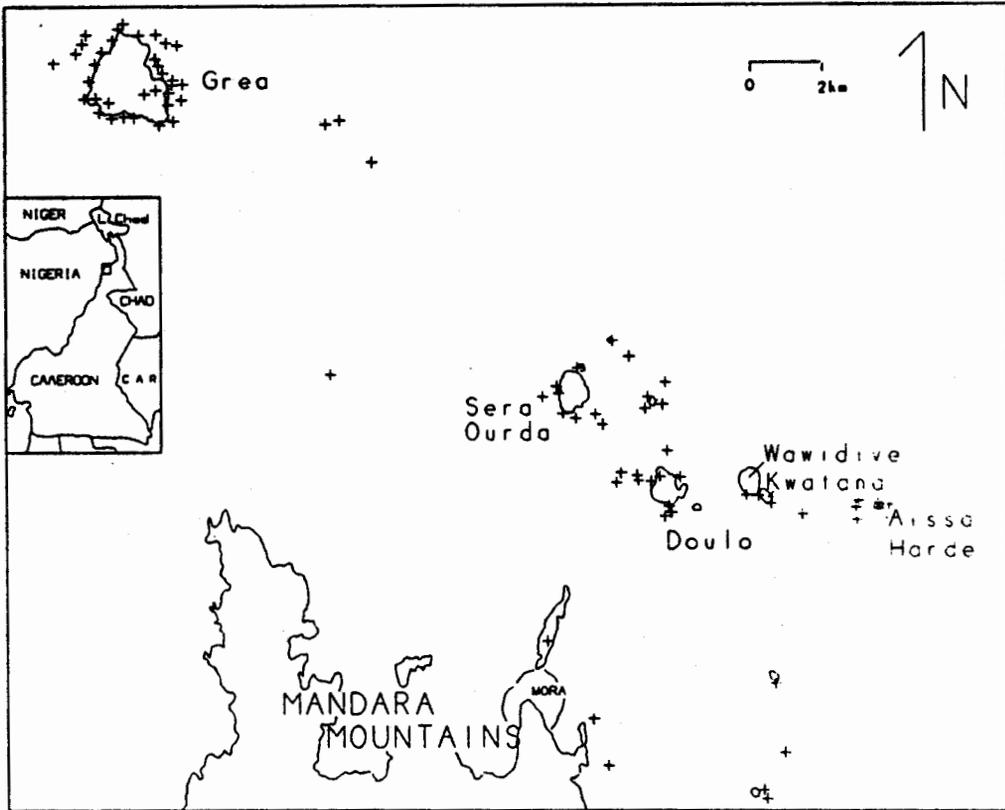


Fig. 1. Sites in the plains north of the Mandara Mountains (includes sites discovered during 1984 and 1992 surveys).

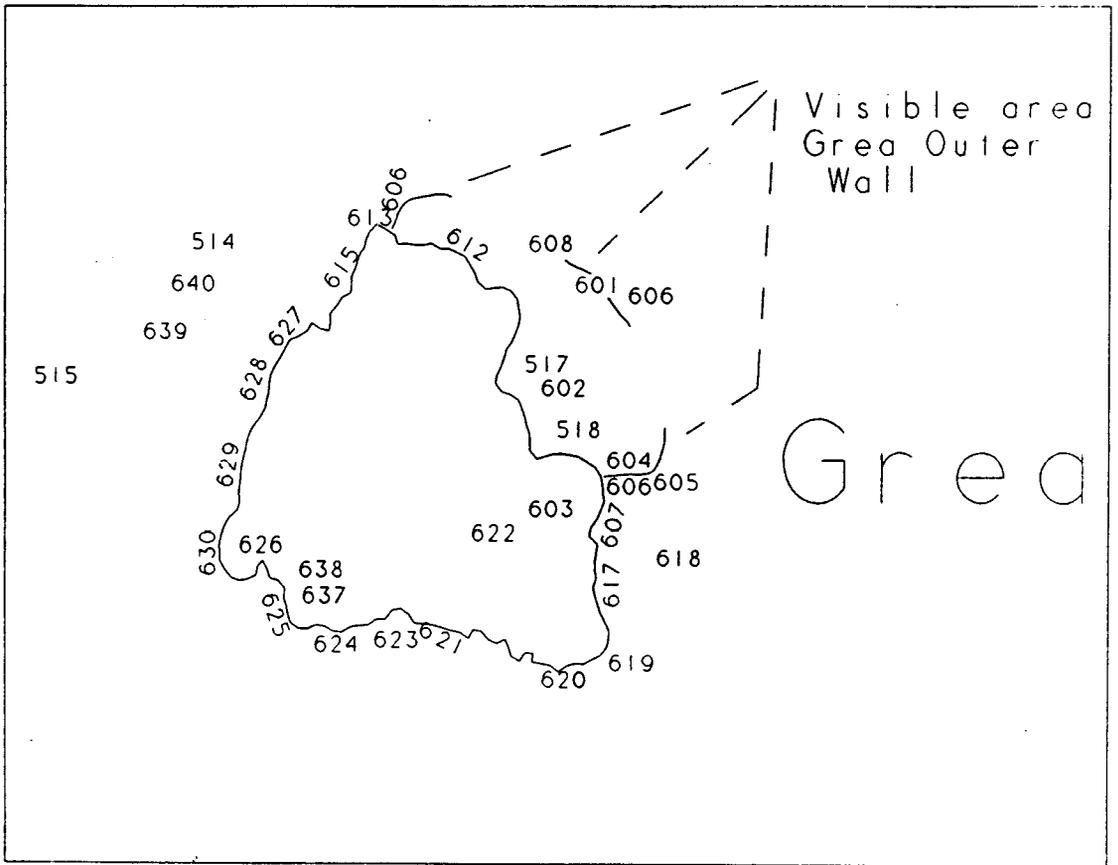


Fig. 2. Sites around Gréa inselberg, with the Gréa wall feature indicated.

Maya-Wandala 1992 research resulted in no discovery of large sites in the plains at more than 1 km distance from inselberg edges; even the two Sao mound sites found near Gréa are small compared to many of the inselberg-edge sites. These findings contrast with the results of the 1984 Mandara Archaeological Project research at and around Mehe Djiddere, about 8 km east of the eastern edge of the Projet Maya-Wandala survey area, where three Iron Age mound complexes were discovered in the plains and one excavated. It should be noted, however, that extensive stratified-random survey by Mandara Archaeological Project field crews in 1984 did not lead to the detection of large Iron Age plains sites in the area where Projet Maya-Wandala and Mandara Archaeological Project survey overlapped, which reinforces our 1992 findings.

It is not as yet clear whether our 1992 results indicate (a) that inselberg edges were actually vastly favoured over areas further out on the plains for Iron Age sites or (b) that depositional processes have concealed and/or destroyed sites which exist(ed) on the plains during the Iron Age. The latter scenario is possible, but we should remember that the depositional/erosional processes that might be expected to affect plains sites are to a great extent caused by runoff from inselbergs and the Mandara massif itself. Under those circumstances, inselberg-edge sites should have been at least as heavily impacted as sites further out in the plains. This also has implications for our understanding of Neolithic/Iron Age population shifts, since there seems to be a relative lack of Neolithic sites on the plains.

We excavated six of the sites found. These were (in order of excavation) Manaouatchi-Gréa (PMW 602—two 2 m x 2 m pits, plus a number of shovel tests), Gréa Twin Peaks (PMW 618—one 2 m x 1 m pit), Doulo Igzawa 1 (PMW 636—one 2 m x 2 m, one 1 m x 1 m pit, plus shovel tests), Doulo Igzawa 3 (PMW 652—two 1 m x 1 m pits), Doulo Kwovre (PMW 631—one 2 m x 1.5 m pit, plus shovel tests) and Doulo Chefferie (PMW 635—one 2 m x 1 m pit started, but not finished). All units were excavated to sterile levels except for Doulo Chefferie,

which was halted due to opposition from one local Wandala noble. Given that this occurred in the last week of field work, we decided not to restart excavation at this site, leaving the pit uncompleted at 40 cm bd. Site depths varied widely. Our deepest unit was PMW 602 Pit 2, excavated on a mound feature on the very complex and diverse site of Manaouatchi Gréa; sterile levels were reached at 2.5 m bd, and we excavated to 2.85 m bd. Average site depth was 1.5 m.

Firm conclusions derived from these excavations must await artefact and faunal analysis and site dating. Nevertheless, we can make some preliminary judgments. In the first place, it is fairly obvious that Iron Age groups have lived around Gréa and Doulo inselbergs at least for a considerable amount of time, perhaps 1,000 years at Manaouatchi-Gréa and 500 years (and conceivably much longer) at Doulo Igzawa 1 and Doulo Kwovre. Site depths are significant in these cases, and evolution in ceramic styles are easily detectable. It is possible that the lower levels of these three sites date to the end of the Neolithic or early Iron Age. The Iron Age settlement pattern around both inselbergs (extensive settlements spread along slope edges) is different from that of historical Wandala peoples, who settled in defensible, nucleated towns like Manaouatchi-Gréa and Doulo; it is also the pattern ethnohistorically linked to the Sao and Maya, who do not seem to have sited their communities with defense as a first priority.

In the second place, there are significant differences detectable between sites around both Gréa and Doulo inselbergs; the difficulty is telling whether these are due to different site ages, site uses, or site ethnic occupations—or to some combination of these (and other) factors. For example, the ceramic and lithic assemblages from the Gréa Twin Peaks site are very different from those from Manaouatchi-Gréa, even though the two sites are only a kilometer apart. This is probably due to ethnic (Mafa or "proto-Mafa" at Gréa Twin Peaks versus "Wandala" at Manaouatchi-Gréa) and occupational (stone bracelet and grindstone production at the former site, no such work at the latter) differentiation between the

sites. Similarly, although both Doulo and Gréa are now occupied by Wandala populations, the decoration and morphology of prehistoric ceramics probably related to "proto-Wandala" occupations from both areas are quite different.

Substantial ethnohistorical data were also gathered in the course of this season's fieldwork. We gathered data from informants on the location of sites, on site functions and on the political and social relationships between different sites. This sort of investigation is, of course, most valuable and reliable when concerned with relatively recent sites; the recent Iron Age and Wandala sites that we worked on are good candidates. Thus, informants were unanimous in saying that the Sao/Maya were not warlike people, that this was expressed in their site settlement systems and that this was the reason that the Wandala were able to defeat them. Local traditions also hold that conflicts between different Wandala centres were quite common, and that especially the settlement at Gréa was frequently at odds with the more orthodox Wandala centres, probably because of its strong Sao traditions.

Traditions about Mafa montagnard occupation on the heights of Gréa area are also of interest. Oral traditions state that Mafa arrived at Gréa just after the arrival of the Wandala people, which, if confirmed, would indicate an occupation at least 250–300 years old. Mafa communities were traditionally located in the Mandara Mountains to the south, and not on isolated inselbergs; this is the northernmost extension of Mafa territory. Such traditions also indicate fairly close, and constant, cooperation between Mafa and the dominant Wandala. This situation is quite unusual in this area; I am now examining Wandala-montagnard interactions around the isolated inselbergs (Keroua, Gréa, Doulo, Urza) where important Wandala settlements are located.

### Conclusions

As I have said, only preliminary analysis of materials recovered from this season's

research has been completed, and any conclusions drawn at this point must of necessity also be preliminary. However, available data and ethnohistorical information gathered during this field season have implications for our ideas about the makeup of the Wandala state. There is a tendency to think of traditional states as organized along modern models—that is, unitary, monolithic, and with well-defined borders and internal organizations. We might tentatively conclude that the Wandala state was set up according to a different organizational model, one in which different important settlements—to some extent isolated geographically and conceptually by their proximity to inselbergs on the plains, and possessing considerable defensive capabilities for the same reason—were only loosely governed by the ruling lineages of the Wandala. In addition, our excavations indicate that there was considerable cultural continuity from the Sao and Maya to the Wandala occupations at both Gréa and Doulo.

### Acknowledgements

The first season of field research by the Projet Maya-Wandala was very rewarding. Our three-year programme of research is funded by the Social Sciences and Humanities Research Council of Canada (Grant number 410-92-1860). I would like to thank the Government of Cameroon, and especially the Ministry for Scientific and Technical Research, for their assistance in facilitating our work. I would also like to thank a very fine field crew, both Cameroonian and Canadian, for their efforts in making this season a success. I look forward to the next Projet Maya-Wandala field season, just across the Cameroon-Nigeria border in Nigeria, between May and August, 1993.

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*in press* Selling the iron for their shackles: Wandala-montagnard ethnic relations in northern Cameroon. *Journal of African History*.

**Preliminary Results of the 1991-1992 Field Season at Shum Laka, Northwestern Province, Cameroon**

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Shum Laka, a huge rockshelter of some 1,200 m<sup>2</sup> is situated in the Northwestern Province of Cameroon. This area is thought to be the homeland of Bantu-speaking people, whose archaeological past is still poorly known. Test pits from 1981 and 1984 (de Maret et al. 1987, Asombang 1988) revealed the potential of the rockshelter for interdisciplinary research to identify more precisely the nature of cultural and environmental changes during the last 10,000 years.

The preliminary results of geomorphological research, conducted in 1991-92, indicate that the Shum Laka rock shelter probably originated as a weathering pocket in a cliff of tertiary basaltic tuffs. Following the evacuation of fines, the original cavity became larger and deeper due to subsequent phases of weathering and removal of loose material. The bedrock floor has an irregular shape and is covered by deposits deriving from chemical and physical weathering of the overhang. The resulting 7.5 YR clay matrix contains at least two stone-lines of coarse fragments. The deposit also contains boulders of 2 m and more. In the center, the

lowest area of the cave, the deposit contains a member of fine dust in the upper part, mixed with thick ashlayers. Here, an area of some 48 m<sup>2</sup> was excavated this year to a depth of  $\pm$  50 cm. The excavations were conducted with small brushes only. The sediment was first dry sieved through 5 mm mesh and after flotation, wet-sieved through 2 mm mesh.

The general impression is that the material remains and structures are in primary context. Human skeletons were found in anatomical association; stone structures, hearths, and small concentrations of lithic, ceramic, and faunal remains were also unearthed. These concentrations are very well limited both horizontally and vertically. So far we see a difference between an area that yielded mainly small lithic concentrations, containing the "famous" tools of the axe/ho type and also ceramics and fauna, and an area with human remains and few artefacts or animal bones. Dating the various occupations is still a problem, due to the very fragmented nature of the charcoal. One date of  $3,140 \pm 80$  BP (Beta-51834) (1,230 BC) is from a pit with a human skeleton, stone artefacts, and finely decorated pottery; another date of  $2,120 \pm 110$  BP (Beta-51836) (200 BC) is associated with coarse pottery and stone artefacts. Previously, dates between 8,000 and 2,000 BP were obtained (de Maret et al. 1987: 574).

The lithic industry can be tentatively described as a blade industry. The raw material consists mostly of basalt and quartz, while a smaller fraction consists of other rocks such as devitrified lava or obsidian. The first stages of the lithic reduction sequence apparently did not take place in the cave itself, since cortical elements are rare. In this respect it is interesting to mention a test excavation in a smaller cave nearby (Shum Laka II), that yielded precisely the reverse: many cortical elements and few finished tools. The relationship between the two caves needs further investigation.

The faunal remains are numerous but heavily fragmented. All identifiable fragments represent species typical of a forest environment throughout the whole sequence. Not a single savanna element was

found. Inquiries among older people of the village indicate that the deforestation must be recent. Many of the larger species represented, which include gorilla (*Gorilla gorilla*) and common chimpanzee (*Pan troglodytes*), have now disappeared from the region. Despite this local extinction of forest species, however, there has never been a replacement of forest animals by wild savanna species.

In the 5 m<sup>2</sup> which were close to the opening of the cave, the excavation was brought down to 90 cm below the surface. The ash-layer here attains a thickness of some 70 cm and consists of many discrete occupation layers. Here also a stone circle was uncovered surrounding a bundle of human long bones.

A trial trench outside of the cave shows that the deposits continue here for more than 2 m deep. According to the geomorphological studies, these deposits which also contain archaeological material, are apparently in situ as well. From the sedimentation rate inside the cave it can be inferred that these deposits must be at least 20,000 years old. The presence of even older sediments in pockets in local bedrock depressions is possible.

In the southwestern part of the site, there are dense concentrations of human bones. In one instance, a vertical shaft contained, at the top, a complete skeleton of an infant with a stone arrowhead stuck through its *ilium*, probably hit while on its mother's back. Only two meters away from the foregoing is another example consisting of two skulls, of which the most complete belongs to a young individual whose head was resting on one of the large rocks.

In conclusion, the results of the new field season in Shum Laka have been more successful than expected and if funding permits, we will carry on for several more years. This will give us, for the first time, an idea of the physical and cultural characteristics of the early inhabitants of this area and the nature of the changes occurring at the end of the Stone Age.

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**Prospection des Sites d'Habitat dans les Arrondissements de Djoum et Mintom (Sud-Cameroun)**

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**Techniques et Méthodes**

Dans le cadre du programme de recherche sur le peuplement ancien du Sud-Cameroun, des recherches furent menées dans le département du Ntem et l'arrondissement de Zoétélé. Ces prospections ont permis de mettre en évidence des sites d'occupation préhistoriques et métallurgiques. Afin de tester l'existence des points de peuplement ancien dans les parties les plus reculées et frontalières de la forêt du Sud-Cameroun, une campagne de prospection fut menée du 1er au 10 août 1992 dans les arrondissements de Djoum et de Mintom. Cette prospection a permis aussi de compléter les recherches commencées depuis quelques années dans le Sud-Cameroun, afin d'obtenir une carte complète des zones d'occupation anciennes de cette partie forestière du Cameroun.

Pour réaliser ces prospections trois zones de prospection furent choisies: l'arrondissement de Djoum, l'arrondissement de Djoum et les rives du Dja. Djoum est une ville créée vers 1922 par l'administration française. Elle est le siège de trois groupes de populations : les Bulu, les Fang, et les Pygmées. Cette cité coloniale relie le Cameroun et les populations Bantu au Gabon et au Congo. Les enquêtes et recherches à Djoum ont permis de tester ces sites anciens de peuplement et d'apprécier le sens de l'occupation de cet arrondissement par les populations Fang-Bulu.

La seconde zone de recherche Mintom est à 80 km au Sud Est de Djoum. C'est un arrondissement frontalier qui relie la province du Sud à l'Est Cameroun par Lomie-Ngoila d'une part, mais aussi le Nord

du Congo. Cet arrondissement est peuplé par les populations Fang et Pygmées. Les recherches menées ont permis de suivre le sens de l'occupation du sud forestier et de vérifier les informations recueillies à Djoum.

Enfin la rive droite du fleuve Dja fut importante à prospecter dans la mesure où les points d'occupation ancienne ont depuis la préhistoire souvent été les rives des cours d'eau, car les hommes dans l'histoire s'y sont installés pour le ravitaillement en eau.

Compte tenu des difficultés de prospection archéologiques en forêt (Ossah Mvondo 1991), une démarche appropriée fut adoptée. Une grande place fut accordée aux enquêtes orales. Ainsi les entretiens avec le sous préfet nous ont permis de connaître l'occupation spatiale des différents groupes de population de l'arrondissement, et de repérer les grandes chefferies de troisième degré. Dans les chefferies, le choix des interlocuteurs fut porté sur les chefs eux-mêmes et les personnes les plus âgées du village. La technique interrogatoire fut la libre conversation sur des questions précises portant sur la vie matérielle précoloniale et leurs anciens sites d'habitat, leurs origines et le sens de l'occupation de leur espace forestier.

Ces séances de conversation orale donnèrent lieu à la descente sur le terrain avec les anciens sur les antiques sites d'habitat, afin de les localiser, les repérer et éventuellement chercher les témoins matériels de cette occupation ancienne. Des interrogations sur le terrain permirent de mieux orienter les textes et surtout une bonne compréhension du site d'habitat et de l'espace forestier. Toutes les informations recueillies à Mintom-Djoum-Route d'Oveng et la rive du Dja affirment que les populations Fang-Bulu de ces arrondissements ont pour origine commune le site d'Ako'oafem.

Les sites repérés, il fallait passer à la recherche des témoins d'une occupation ancienne par le test au sondage. Les premiers indices furent les palmiers anthropiques, les termitières, et les monticules considérées comme des dépotoirs. Tous les tests réalisés ont donné des résultats positifs grâce à l'apparition des vestiges à quelques centimètres de

profondeur. Les prospections ont été aussi faites à partir des cartes. Elles permettaient de voir le sens de l'occupation actuelle de l'espace sud forestier, l'emplacement des villages par rapport aux grands axes routiers et aux éléments naturels.

A partir de ces éléments, on pouvait, avec les autres données orales, choisir objectivement le village d'enquête et l'emplacement possible des sites d'occupation. Le matériel léger fut recueilli alors que les objets lourds furent laissés in situ sur ce site après des prises de vues photographiques.

### Résultats des Prospections

Les enquêtes orales menées auprès de la chefferie de Djoum village-Ekom à 1 km sur la route Sangmélina-Djoum, chefferie occupée par les Boulou, ont permis de repérer l'ancien site d'habitat d'Ekoum. Il se trouve à l'Ouest du village actuel, à gauche de l'axe routier. Nous fumes conduits sur les lieux par Edou'ou Mvele Samuel. Selon les sources orales à l'origine, Djoum était composé des villages Engogom et Djom. Ces villages furent réunis par l'administration française pour former la cité de Djoum, vers 1922. Akoafem est le premier point d'occupation ancienne, ensuite Engogom et Djom sont les autres points d'occupation ancienne antérieurs à la formation de la ville.

Le site actuel est envahi par les arbres, les palmiers, les plants de cacao et quelques plantes alimentaires. Le matériel recueilli après le sondage de surface se compose d'une enclume en place, de quelques morceaux de céramique et des scories. L'enclume atteste la pratique des activités métallurgiques. Elle a une largeur de 36 cm et une épaisseur de 25 cm. La partie droite a une largeur de 15 cm et une épaisseur de 10 cm. La longueur totale est de 68 cm. Cette enclume présente des traces d'usure à plusieurs points de sa surface, de dimensions différentes. Ces différentes localisations des traces d'usure indiquent les différents plans de travail et le mode d'utilisation de l'enclume. Tous les autres éléments qui participaient au travail du métal n'ont pas été retrouvés.

La céramique se limite à un morceau de lèvre. Elle indique un vase avec un profil en S. La surface est noire, la partie interne du vase était engobée. La technique de fabrication est grossière avec des intrusions des morceaux de quartz dans la pâte. Les scories de la dernière catégorie de vestige se présentent sous forme de petits nodules. Ces données permettent d'affirmer que le travail du fer fut une pratique technologique dans la vie des populations de Djoum. Cette technologie selon nos informateurs aura connu sa fin définitive en 1958. Les deux éléments spatiaux qui apparaissent sur le site sont l'atelier et le dépotoir. Ces vestiges sont importants pour la suite des travaux. Ils auront permis d'attester la présence d'un site d'habitat à Ekom, de programmer les campagnes de fouille, et de dater la durée d'occupation du peuplement ancien de cette partie du sud forestier camerounais.

Après l'arrondissement de Djoum, une seconde prospection fut effectuée à l'arrondissement de Mintom, suivant le sens du déplacement des populations vers le Sud-Est, selon les sources orales. Les enquêtes orales nous conduisirent dans le village de Ze, à 1 km de Mintom ville, sur la route Mintom-rive du Dja. L'ancien site d'habitat fut indiqué par Mr Simon Assae Nsan. La prospection du site aujourd'hui occupé par les arbres et les plantations, a permis, après quelques tests, de découvrir les témoins matériels d'une occupation ancienne de Ze.

Quatre types de vestiges composent le site : une fosse, des morceaux de céramique, une perle, et un éclat. La fosse est de forme rectangulaire, d'une profondeur de 1.20 m, 1.50 m de longueur sur 1.10 m de largeur. La découverte de cette structure pose le problème de l'hygiène dans la vie antique des populations du Sud-Cameroun. On peut se demander si la fosse avait servi de dépotoir pendant ou après sa première utilisation. Le sondage effectué dans quelques endroits de la fosse n'a permis de découvrir aucun vestige cassé, ou brisé.

La céramique compose la majorité des vestiges du site. Dix-huit tessons furent recoltés. Quatorze tessons sont des morceaux du corps du vase et quatre appartiennent à l'ouverture. Il est difficile de

préciser les parties du corps auquel appartiennent les céramiques. Au niveau des caractéristiques externes des tessons, on peut noter deux colorations: des tessons noirs et des tessons marron. Les tessons marron représentent près de 80% de l'échantillonnage. Les deux types de couleur indiqueraient deux modes de cuisson céramique à Ze: une cuisson oxydante et une cuisson réductrice. De plus, la présence sur le même site de deux types de céramique pose le problème de l'origine des différentes céramiques. La faible quantité des tessons noirs implique-t-elle une importation à Ze de ce type de céramique? Une étude approfondie du site permettra d'aborder d'autres problèmes tels que les modes d'acquisition, les provenances, les circulations et la commercialisation. L'observation des tessons permet de constater un traitement fin de la surface et de l'intérieur des vases avec une engobe. Le dégraissant est constitué de petits grains de quartz répartis dans la pâte. Cette technique fine caractérise surtout la céramique marron, alors que les tessons noirs sont grossièrement façonnés. Les dimensions moyennes des tessons noirs sont de 7 cm de long et de 5 mm d'épaisseur. Alors que les tessons marron ont une épaisseur moyenne de 6 mm et une longueur moyenne de 5 cm. Aucun tesson des deux groupes n'est décoré.

Le troisième type de vestige est une perle bleue ciel perforée. En effet plusieurs sites du Cameroun ont déjà livré ce type de perle: Mdaga dans l'Extrême-Nord et Elig Kono dans le Centre. Cette perle était assemblée avec plusieurs autres à l'aide d'un fil. C'est ce qui explique la présence d'un trou de 2 mm. Cette perle indique la prise en compte du corps comme objet de décoration et support esthétique chez les populations Fang de Ze. Mais plusieurs questions se posent: Quelle était la partie du corps décorée, s'agissait-il d'une esthétique féminine ou masculine. Les perles étaient-elles importées ou fabriquées localement? Les prochains travaux vont éclairer ces aspects de la vie esthétique dans l'histoire des populations de l'arrondissement de Mintom. Le quatrième vestige est un objet lithique. Il s'agit d'un éclat de 3 cm de longueur.

La prospection le long du Dja sur le principe de l'occupation ancienne par les hommes des rives des cours d'eau a permis de localiser le site métallurgique d'Alat Makay. Il se localise dans le village du même nom sur la piste reliant Bi à Lomié. Les vestiges se trouvent en surface devant l'église EPC du village. En effet les fortes pluies de cette région ont provoqué une érosion du sol de 50 cm de profondeur, ce qui, en lessivant la couche d'argile, a mis en surface de nombreux scories témoins de la métallurgie du fer. Le site par la disposition des vestiges a une structure spatiale circulaire. La dispersion des scories est circulaire sur un diamètre de 4 m. Il se compose de centaines de petits scories mesurant entre 6 cm, 3 cm, et 1 cm de longueur. Deux morphologies de scories sont attestées à Alat Makay: la forme cylindrique, de petites dimensions, et la forme globulaire, de grandes dimensions. Ces types de scories de leur taille se rapprochent des scories des sites de Zoétélé.

La zone de concentration maximum des scories est au centre. Un objet en silex fut aussi trouvé à côté d'une lentille de charbon. Cette lentille se présente comme une dispersion de charbon plus de la cendre de forme allongée. Elle semble être postérieure au site dans la mesure où elle n'appartient pas au niveau de la couche d'argile décapée par l'érosion dans laquelle se trouvent les scories. Ces vestiges attestent la pratique de la métallurgie de fer dans l'arrondissement.

D'après les sources orales, Alat Makay est une ancienne zone d'habitation Fang, les populations Esawam avaient migré vers le site d'Akoafem, avec la fondation du poste par l'administration allemande. Une deuxième migration de ces populations partit d'Akoafem vers Alat Makay en traversant cette fois le Dja avec la chute du poste allemand d'Akoafem pendant la première guerre mondiale. A fut dans le passé un centre de transit. Il reliait les deux rives du Dja. Il était aussi relié aux pistes qui allaient vers Bengbis, Messamena, Lomié—à l'Est, au Sud-Est, il reliait Mintom-Lelé-Souanké. Pendant la période allemande il servait de transit entre Kribi-Ebolowa et Lomié. Sur cet axe étaient acheminés, le mais, le sel, le caoutchouc et les autres

produits d'échange. Ainsi, ce site depuis la période précoloniale, était un centre de distribution des produits locaux et européens sur un rayon de plus de 100 km. Ce qui pose le problème de la logistique, des échanges et du commerce au Sud-Cameroun pendant la période précoloniale.

La prospection des deux arrondissements a permis d'après les informations orales de détecter les autres sites: ainsi sur la route Djoum-Oveng, Minko'o est un site de métallurgie de fer, de même que Akontang et enfin Akoafem. Tous ces sites n'ont pas été visités pendant cette campagne. Ces prospections ont permis d'attester que la forêt recèle des sites archéologiques témoins des occupations anciennes, malgré les difficultés de prospection propres à la forêt. L'hypothèse selon laquelle cette bande frontalière aurait les zones d'occupation les plus anciennes de la province du Sud mérite d'être nuancée. En effet toutes les enquêtes orales menées à Djoum-Minko'o, Ekom, Mintom, Ze, Zoulabot et Alat Makay affirment que cette zone est une occupation récente. Les populations Fang-Bulu qui occupent actuellement ces départements jusqu'aux frontières du Congo-Gabon, ont pour berceau Akoafem d'où ils sont venus après la dislocation de la ville. Cette dispersion a permis aux différents groupes d'occuper les nouveaux espaces.

Mais deux problèmes se posent: Peut-on considérer cette zone comme inhabitée avant la dispersion? La datation des sites et la découverte de nouveaux objets permettront de répondre à cette question. La civilisation Fang-Bulu n'a-t-elle pas occupée toute la région depuis Akoafem jusqu'aux frontières?

Dans tous les cas, l'antériorité d'une civilisation Fang-Bulu par rapport à l'occupation allemande est énoncée. Compte tenu de l'antériorité d'Akoafem par rapport aux autres sites prospectés, il est impératif d'organiser une campagne de prospection dans ce site. Elle permettra avec les fouilles et sondages de vérifier les données des sources orales sur l'ancienneté du site, de déterminer avec précision les deux phases d'occupation précoloniale et coloniale du site. Enfin, la fouille permettra d'apprécier

les premiers éléments de la culture matérielle Fang-Bulu qu'on pourra comparer avec les sites des arrondissements. Les premiers sites prospectés méritent d'être datés car ils permettront d'établir le sens de l'occupation de cette partie sud de la forêt et de suivre les mouvements migratoires des populations Fang-Bulu, de l'antiquité aux périodes contemporaines, avec leur permanence et rupture.

La deuxième hypothèse selon les sources orales est que les populations Fang ont migré d'Alat Makay vers Akoafem et d'Akoafem vers Alat Makay. Ce qui implique deux centres de dispersion des populations Fang-Bulu: Alat Makay et Akoafem. La conséquence est une origine bipolaire des populations. La datation du site d'Alat Makay et les résultats d'Akoafem permettront d'établir scientifiquement les circuits migratoires et le sens de l'occupation par les populations Fang-Bulu de cette zone forestière.

La troisième hypothèse est que les sites d'Alat-Djourn-Akoafem, Ze, Minko'o ont connu antérieurement à l'occupation Fang-Bulu des vagues anciennes de population Kaka-Djem qui auraient progressivement migré à la fin du XIXe siècle vers Kribi, Lolodorf, et le Congo. Les recherches archéologiques dans le Sud du Cameroun ouvrent de toute évidence de nouvelles perspectives sur l'histoire du peuplement du Cameroun dans l'antiquité.

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■ EGYPT

**Archaeological Investigations in the Badari Region, Egypt: A Report on the 1992 Season**

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This contribution outlines the results of the second season of the "Prehistory of Badari Project" which is principally concerned with Predynastic period (>4000-3100 cal BC) developments in the Badari region near Assiut in Middle Egypt. A short first season was conducted in 1989. A preliminary report on this appeared in *Nyame Akuma* (Holmes and Friedman 1989), and the final report on this season has now been accepted for publication (Holmes and Friedman forthcoming). The objectives of the 1992 season were to extend the survey begun in 1989 and to surface sample and test excavate further Predynastic sites.

The Badari region lies on the east bank of the Nile, and may be defined as the area between (and including) the two large wadis, Wadi el Asyuti and Qau Bay (see Fig. 1). This is a stretch of low desert approximately 60 km long, and includes Brunton's three sectors, Badari, Mostagedda, and Matmar (Brunton 1937, 1948; Brunton and Caton-Thompson 1928).

A major concern of the present project is the modern encroachment of the low desert and consequent damage to the archaeological record. Modern land-use activities were noted as having a significant impact on the

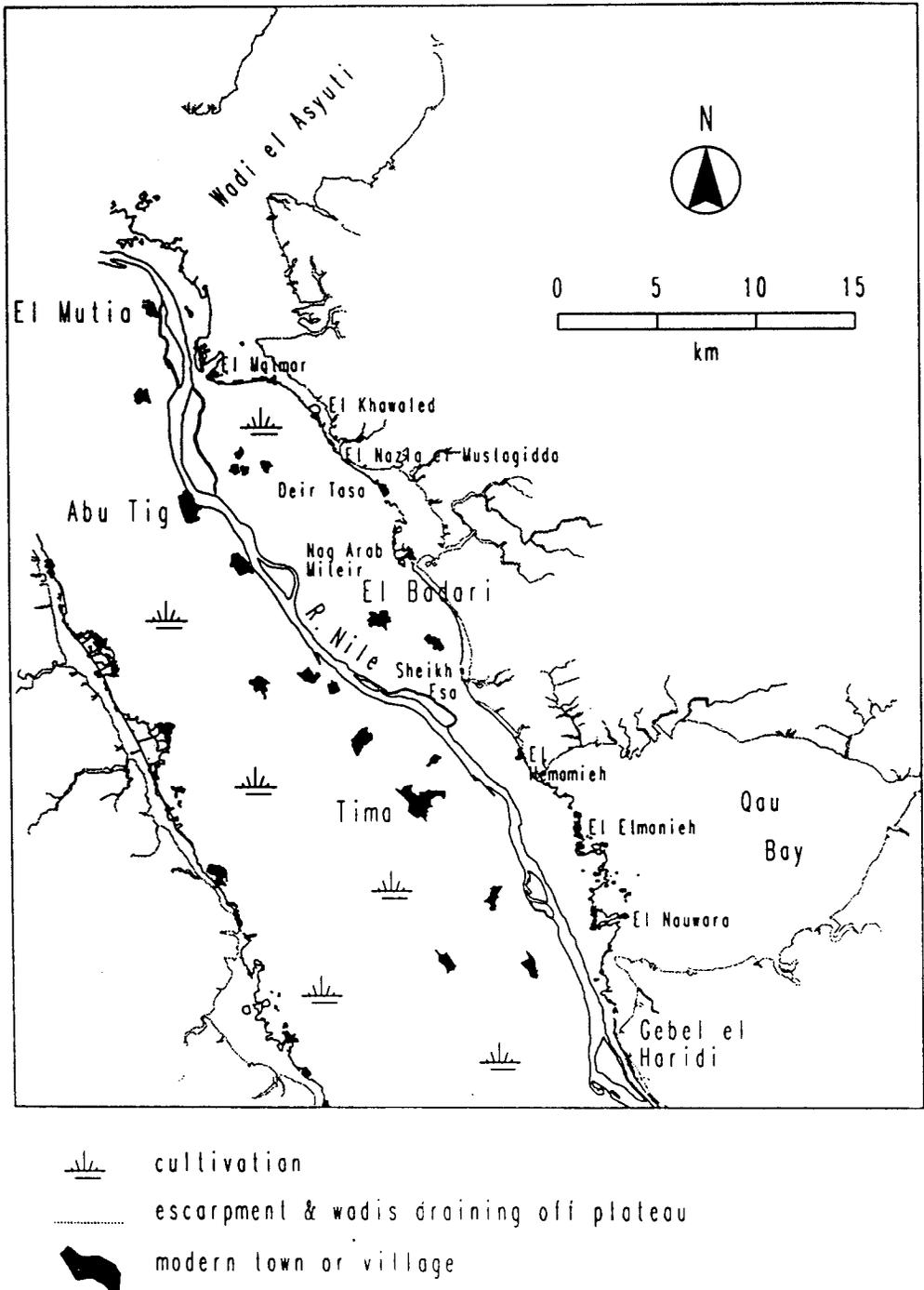


Fig. 1. Map of the Badari region derived from a SPOT satellite scene taken 6 December 1987.

survival of archaeological sites in the areas surveyed in 1989 (Holmes 1992). Since then modern use of the low desert has intensified, the principal activities being the creation of new fields, house-building and the expansion of existing cemeteries. In order to get a quantitative measure of these developments, the writer is currently analyzing two satellite scenes of the region.

In July–August 1992 some 40 km of low desert were field-walked between Gebel el Haridi (the southern limit of Qau Bay) and the modern village of El Matmar. In addition, two late Predynastic (Gerzean) localities (BD-36 and BD-51) were systematically surface sampled, and an early Predynastic (Badarian) site (3400) was test excavated.

### Archaeological Survey

As in the first season, the aims of the field survey were to record sites of all periods, historic as well as prehistoric, to document the occurrence of any modern activity on the sites, and to identify Predynastic localities worthy of more detailed investigation. Sites visited in 1989 were checked again. This allowed an update on their condition with regard to modern encroachment. Furthermore, the locations of most of the sites visited this season were recorded using a GPS (Global Positioning System) satellite receiver. This can provide a position accuracy of around 30 m.

During the second season, more than 140 archaeological sites were visited, at least 24 of which have not been recorded before (a further 4 “new” sites were found in 1989). Most of the localities in the region were originally recorded by Brunton. While the majority of his sites could be relocated, around a dozen could not, and this is because despite being actively sought, they either have definitely been destroyed, or are

probably destroyed (except in the case of one group of rock tombs which could not be found). There are also a few small areas which were not checked where sites had been noted by Brunton as well as by Gabra (1930). However, from the level of modern activity seen from a distance those sites are also presumed to have been destroyed, but it was not considered time-effective (time being somewhat limited) to walk over those areas to confirm this.

The destruction of sites by modern agriculture and other activities is certainly proceeding at a rapid rate. To give an idea of this rate, the condition of the archaeological localities visited in 1989 can be compared with observations made during the second season. Of the 42 localities visited during the first season, 5 (12%) were found to have been completely obliterated with a further 3 having been partly destroyed by modern land-use. In 1992 the total of destroyed sites had increased to 14 (33%) with another 4 showing substantial modern damage, including site 3400 discussed below.

The newly recorded localities are primarily Roman, a period which Brunton tended to dismiss as unimportant. There are, in fact, numerous Roman sites in the Badari region including cemeteries in the low desert, and rock tombs and quarries in the cliffs of the limestone plateau. The 1992 survey also resulted in the discovery of at least 7 previously unreported Predynastic sites (labelled BD-4, BD-6, BD-17, BD-51, BD-52, BD-57, and BD-59). BD-4 and BD-6 are situated in the southern part of Qau Bay. BD-4 shows indications of Badarian settlement remains, but unfortunately most of the site has disappeared through modern sand quarrying; BD-6 is a large Gerzean cemetery. BD-17 is located between Caton-Thompson’s site of North Spur Hemamieh and the limestone promontory just to the north. It occurs

on a small spur, or talus slope, and shows evidence of Badarian and Gerzean occupations. BD-51 and BD-52 occur at the foot of the limestone promontory to the south of Nag 'Arab Miteir. BD-51 appears to have been a large Gerzean occupation site which was reused as a cemetery during the Graeco-Roman period. BD-52 consists of both Protodynastic and Dynastic cemetery components. BD-57 is a small Predynastic occupation locality opposite the village of El Nazla el Mustagidda with Badarian and later Predynastic pottery. Finally, BD-59 is a large site to the north of El Khawaled with evidence of Badarian occupation and possibly a Badarian cemetery. Part of the site was also used as a burial ground in Dynastic times.

### Surface Sampling

Two localities with Gerzean occupation remains were chosen for systematic surface sampling: BD-36 and BD-51. These were tested using a surface scrape technique rather than a normal hand collection straight from the surface. The surface deposits and artifacts were scraped off using a trowel and passed through a fine-mesh sieve (approximately 3 mm). This ensured the recovery of all artifacts including very small items many of which would have been missed if the collection had been by direct pick up, as well as any larger artifacts that might otherwise have been obscured by a thin layer of dust.

#### BD-36

BD-36 is one of the series of sites Brunton recorded between the village of Sheikh 'Esa and the tomb of Sheikh Ahmed, approximately 4 km to the north. Unfortunately, it has not been possible to determine the Brunton site to which BD-36 corresponds. The low desert is dissected by numerous small wadis or gullies and Brunton referred to the inter-gully patches of desert as

"spurs." Most of the spurs in the Sheikh 'Esa-Sheikh Ahmed stretch of desert have sites, but they could not be exactly matched to Brunton's set of site and spur numbers. Hence each locality has been assigned a "BD" number. BD-36 is likely to be either Brunton's site 3000/10 or his 3000/11 (Brunton and Caton-Thompson 1928: 47).

While BD-36 does have *in situ* deposits, there are also some indications of older disturbance. There are few Dynastic burials which had been plundered and presumably Brunton also dug in one or two spots. Nevertheless, BD-36 was in reasonable condition and it was obvious that its main period of use had been during the Predynastic. Two 5 x 5 m areas (A and B) were marked out for surface sampling. Square A was positioned near the tip of the spur, while square B was placed where the spur sloped down into the gully on the south side. These units yielded a combined total of 712 Predynastic sherds, 86.0% of which are of straw tempered Nile silt (the Predynastic ware types of the Badari region are discussed in Holmes and Friedman forthcoming). Sherds of untempered Nile silt ware (representing polished red and black-topped red vessels) form 9.6% of the collection with the remainder comprising sherds of a coarse organic fabric and a marl ware. This collection undoubtedly points toward a Gerzean date, a conclusion corroborated by a decorated marl ware sherd (with a painted spiral) found a short distance away from one of the collection units.

There were 447 lithic (flint) items also recovered from the two units. The majority of the pieces (80.1%) consist of small-sized debitage (i.e., flakes, flake fragments, and shatter that would pass through a 20 mm sieve). The remainder is composed of 35 flakes, 13 blades, 16 bladelets, 12 chunks, a core, a core preparation flake, and 11 tools. The latter include two truncations, a burin, and a

denticulate which are made on fairly regular blades and bladelets.

#### BD-51

BD-51 is one of the newly discovered sites mentioned above. It shows extensive evidence of Predynastic occupation and was used in the Graeco-Roman period as a large cemetery. As a consequence there are only a few undisturbed patches of Predynastic sediment.

A 5 x 10 m area was marked out for surface scrape sampling. Although this was disturbed with evidence of plundered later graves, it also showed a concentration of Predynastic sherds. Any disturbance is likely to have merely redistributed the Predynastic artifacts rather than to have altered their composition. Unfortunately, completely undisturbed Predynastic localities are now rare in the Badari region.

The 5 x 10 m sampling unit produced a total of 1,027 Predynastic sherds. As at BD-36 the most common ware is the straw-tempered fabric (71.9%). Next in abundance are sherds of untempered Nile silt (17.4%). Also present are sherds of coarse organic ware (9.0%), and marl ware (1.3%). In addition, there are five sherds (0.5% of the collection) of a fine Nile silt fabric which is characteristic of Badarian ceramics, and two of the pieces show typical Badarian-type rippling. While the bulk of the collection clearly indicates a Gerzean age, these five sherds suggest that the site has a Badarian component as well.

The lithic collection numbers 574 items mainly composed of small-sized debitage (69.5%). The rest of the collection includes 93 flakes, 10 blades, 17 bladelets, 5 cores, and 25 tools. Among the tools are two endscrapers, five notches, a burin, a truncation, two broken blade tools with alternate backing retouch, and two unusually small bifacial crescent drills.

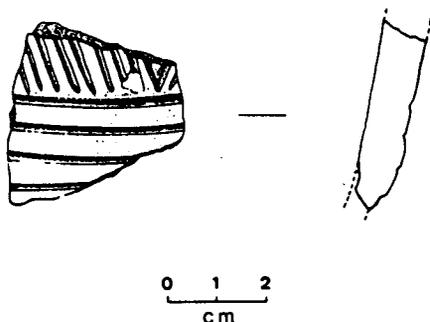
#### Test Excavations at Site 3400

Site 3400 lies about 0.5 km north of the modern village of Deir Tasa, and is one of Brunton's "Tasian and Badarian villages" (Brunton 1937: 3, 13-14). When visited in 1989, it appeared to be largely undisturbed and indeed was noted as the best preserved Badarian locality visited that season. However, in 1992, more than half of the site was found to have been cut down (by more than a metre) and converted into irrigated field plots. What was left of the site still appeared undisturbed and a 2 x 4 m test pit (TPI) was excavated. This revealed an in situ trash pit containing layers of ashy brown sediment and abundant charcoal.

These sediments yielded a pure Badarian artifact assemblage. A total of 354 potsherds and 2112 lithic artifacts were obtained. The predominant ceramic category is an organic tempered ware (90.4%) with black cores and brown surfaces variously wet-smoothed, irregularly burnished or evenly burnished all over. The other main Badarian ware type is the untempered fine Nile silt fabric (8.2%). The surfaces of this ware are generally slipped and burnished (usually a lustrous even polish) and many show the characteristic Badarian rippled decoration as well. The excavation also produced two sherds of what Brunton would have classed as "Tasian beaker" fragments (see Fig. 2).

Besides a large element (75.0%) of small-sized debitage, the lithic assemblage contains 330 flakes, 64 blanks of blade or bladelet proportions, 10 cores, and 29 tools as well as a few other items. The basic blank technology is geared for the production of flakes together with a few elongate specimens having length/width ratios of 2 or greater giving them a blade or bladelet-like appearance. However, there is no indication of a separate blade or bladelet reduction process. The tools

from locality 3400 are generally rather ad hoc specimens, including end-scrapers, denticulates, notches, perforators, and irregular truncations. There is also a small bifacial triangle.



**Fig. 2. An incised "beaker" sherd from Locality 3400.**

The botanical and faunal samples recovered have still to be analyzed. However, the animal remains do include several fish vertebrae. Two charcoal samples and a potsherd have been submitted for accelerator dating. At the moment the Badarian is poorly dated. Existing dates suggest that it extends back to more than 4000 cal BC, but its chronological limits are unknown.

**Conclusions**

Although only a small test excavation has been carried out at site 3400, the results obtained make a substantial contribution to our knowledge of Badarian settlement artifactual remains. There have been claims for a Badarian presence beyond the Badari region, but these have generally been made on the basis of inadequate information (discussed in Holmes 1988; 1989: 180-83). Indeed, until the Badarian tradition is properly understood in its "home" region, it will not be possible to definitively state whether it is present in other areas. The early Predynastic of the Armant region (Myers and

Fairman 1931; Mond and Myers 1937: 1-3, 6-8, 61, 166-76, pls. LIV, LVI), for example, is intriguing and its apparent Badarian character needs explaining (cf. Holmes and Friedman forthcoming). However, given that there is regional variation during the Amratian period (ca. 3900-3500 cal BC), it seems reasonable to suppose that there were regional cultural variants before then. The problem is a dearth of Predynastic sites in Upper Egypt, besides those of the Badari region, that are older than around 4000 cal BC.

The ceramic assemblage from site 3400 with its two "beaker" sherds also supports the view that what items Brunton considered "Tasian" do, in fact, form part of the normal Badarian repertoire. The lithic data affirm the characterization of the Badarian industry described on the basis of Brunton and Caton-Thompson's collections in the Petrie Museum at University College London (Holmes 1988, 1989), i.e., that it is a generalized flake-blade industry with simple flake tools, tools made on elongate flakes of blade proportions, and occasional bifacial tools. However, the rare tools made on regular blades seen in the older excavators' collections that were apparently from Badarian contexts are in fact probably not Badarian, but rather belong to the later Mostagedda industry.

Brunton thought that the post-Badarian settlements were primarily Amratian in date (Brunton and Caton-Thompson 1928: 48, Brunton 1937: 7582). This conclusion was considered suspect when the lithic artifacts from Caton-Thompson's and his excavations were analyzed (Holmes 1989: 174, 390). The recent field observations suggest that the sites, which yielded the lithic artifacts assigned to the Mostagedda industry, are at least predominantly Gerzean as is the case with the surface sampled localities, BD-36 and BD-51. There is an extreme paucity of material in the

Badari region that can be ascribed to the Amratan. Given the apparent continuity of occupation at the stratified site of Hemamieh (Holmes in press, Holmes and Friedman forthcoming), it does not seem likely that the region was abandoned at that time, but rather that the Badarian tradition continued, though perhaps in some "evolved" or "transitional" form.

However, the most pressing problem is the rapid destruction of sites as the low desert is reclaimed for agriculture and building space. It is hoped that further fieldwork, concentrating on excavation, can be carried out next year.

**Acknowledgements**

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## ■ GABON

### Archaeological Fieldwork and Labwork in Gabon during 1992

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#### Introduction

Again, as in 1991, archaeological fieldwork and labwork was restricted due to financial difficulties (see Clist 1992). Nevertheless fieldwork was possible in the Estuaire Province at the Okala site near Libreville and along the Rembou river, an as yet unknown area of Gabon. Labwork was devoted to developing a Geographical Information System (GIS).

#### Fieldwork

##### Okala Site, Estuaire Province

In Clist (1992: 7) it was briefly stated that a 14C date of  $39,690 \pm 670$  BP (Beta-46142) had been obtained from the Okala site (Fig. 1). This interesting date comes from square N2 at -130 cm. The charcoal sample comes from a charcoal layer of c. 8 m<sup>2</sup> total surface. Preliminary identification of the charcoals by R. Dechamps of the Tervuren Museum in Belgium (Section d'Anatomie des Bois Tropicaux) has yielded *Brachystegia* *cfr. cynometroides* and *Microberlinia brazzavillensis*. The trees identified suggest a primary forest in a somewhat more humid climate.

The 13C samples from bottom to top of the profile were studied for vegetation composition studies: all readings fall between  $-25.4\text{‰}$  and  $-27.6\text{‰}$ . Sample n°1 comes from under the 39,690 BP charcoal layer; sample n° 6 comes from -40 cm,

where a date of 5,580 BP has been obtained associated with Late Stone Age artefacts. Thus, no evidence of savanna vegetation exists from c. 40,000 BP to c. 5,500 BP. Phytolith analysis of a nearby soil sample at the same depth as 13C sample n°1 has a composition radically different from other more recent samples (Powers 1990).

Another 12 m<sup>2</sup> were excavated in October 1992 at the site to enlarge the charcoal sample for more wood identification and to test the association of artefacts with this charcoal layer. All squares were rapidly brought down to c. -130 cm. New charcoal was brought to light and additional quartz and flint artefacts were found in squares N-O/1 and N-O/-1 under the charcoal layer, i.e., between this layer and the upper part of the laterite. They do not differ from Late Stone Age artefacts found on the site.

A paper is being prepared on the new archaeological and paleoenvironmental findings. These correlate well with similar discoveries during the Remboué River Project (see below).

#### Remboué River Project, Estuaire Province

From April to December 1992, work was done along the upper reaches of the Remboué River. The Remboué is a south to north flowing river connecting with the Estuaire at Chinchoua (Fig. 2).

The British Gas Gabon oil company has been working on an onshore exploration permit which extends roughly from Kango on the Estuaire to Sainte Croix on the Remboué river. Between mid-1991 and mid-1992, six wells were drilled: Kango 1, Ayeme 1, Akondjo 1, and Remboué 1 to 3. Helipads, connecting roads and landing areas for river transport were also constructed during the process. During the last 3 months of 1992 another 4 small wells were drilled (Remboué 4 to 7). British Gas Gabon has strong concerns about the local environment and commissioned studies of the fauna, flora, anthropology, and archaeology to determine the impact of its oil operations on the environment. A working agreement with BG has allowed me to conduct new

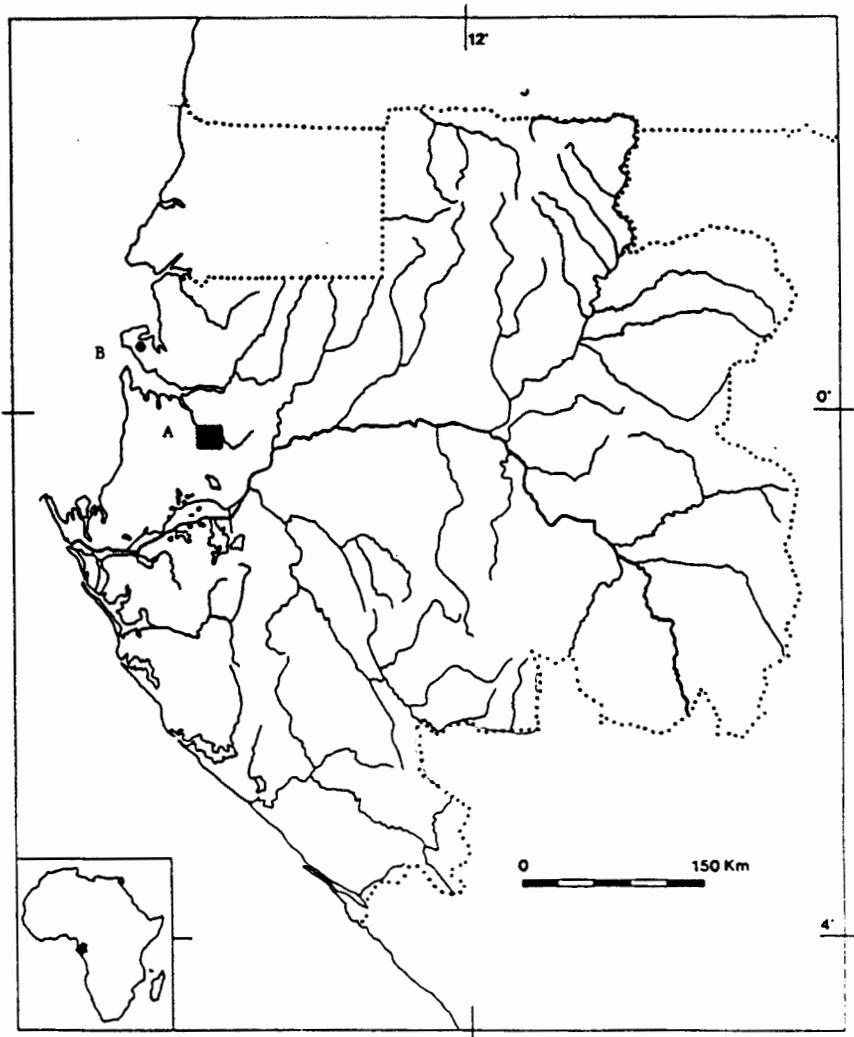
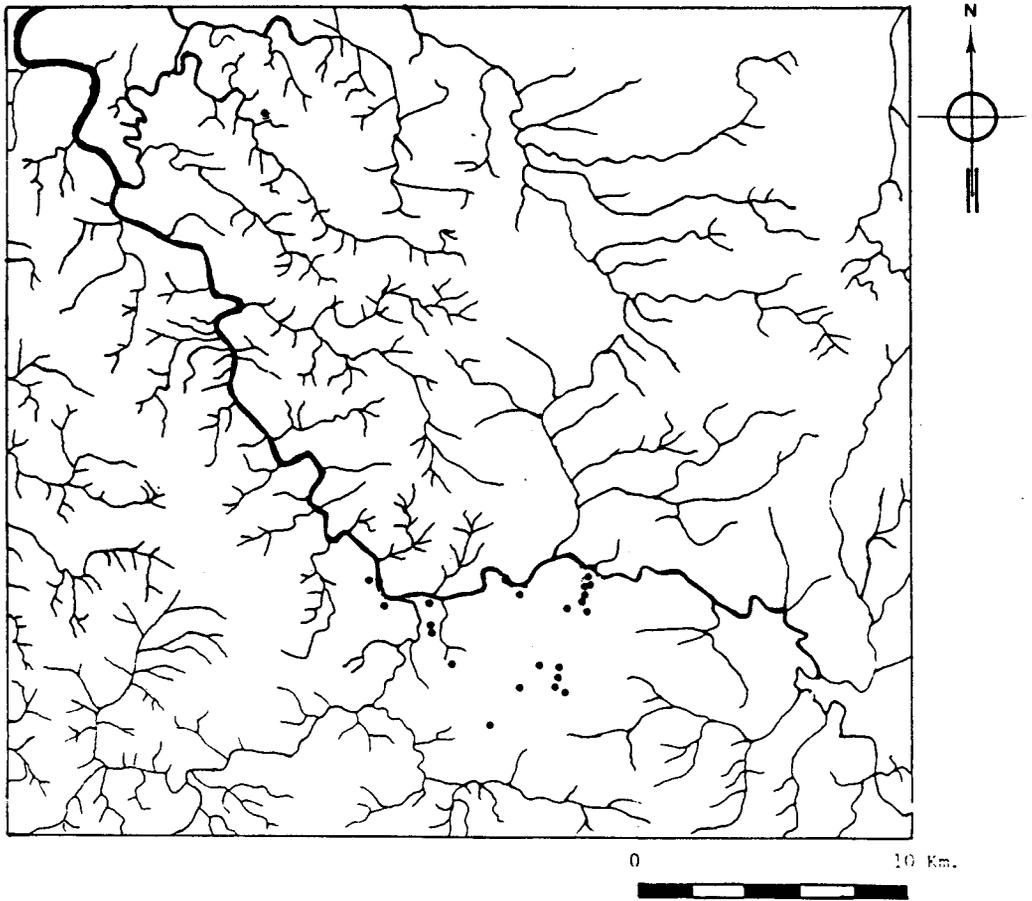


Fig. 1. A = general area of the Remboué River project; B = Okala site.



**Fig. 2. Location of archaeological sites along the Remboué River.**

archaeological surveys and excavations in an as yet unknown area of the province and to provide interesting data along a river system connecting the Estuaire trade system to the Ogooué trade system known to have been active during the seventeenth to nineteenth centuries. This represents an important contribution to the results of work carried out along the Estuaire since 1985.

### Palaeoenvironmental results

It was decided from the start to use wood charcoal and carbon 13 content of soils to trace environmental changes in the Remboué River area. Soils samples were taken on the Remboué at locations 2, 8, 9, 15, 19, and at Okala. Charcoal samples were set aside for wood identification by R. Dechamps, Tervuren Museum, Belgium, but this study is not yet completed. All the soil columns show the same pattern: forest cover throughout the clay cover without any trace of savanna vegetation. All  $^{13}\text{C}$  readings fall between  $-24.9\text{‰}$  and  $-30.0\text{‰}$ . One site is important for dating the palaeoenvironmental evidence: location 9, where a radiocarbon date of  $18,020 \pm 80$  BP (Beta-53553) has been obtained from a depth of  $-110$  cm in the clay, sampled from a sub-horizontal and continuous charcoal layer. This date shows that the lower half of the deep clay cover is of Pleistocene age, at least at some locations. The date also agrees well with the c. 40,000 BP date from Okala (see above) at the base of the clay.

### Archaeological results

The Remboué Project resulted in the discovery of 25 sites of various periods with 29 archaeological components, i.e., 4 are multi-component sites. Two sites can be identified with the Middle Stone Age. One is a quarry at the Kango 1 platform, located north-west of Kango. Previous surveys had not identified the site. It was only during the platform's survey that the quartzite and quartz tools were found: one proto-handaxe, one very nice discoid nucleus, one chopping tool, one pick, one simple nucleus and two flakes. The second site is location 1 on a foresters' dirt road going south from the Remboué. It is contained within a layer of

quartz gravel at the base of the clay mantle: of the 24 artefacts found, 95.5% are on quartz and 4.5% on flint. Flakes and simple nuclei were recovered. There is no clustering of sites in the countryside. The Middle Stone Age locations are randomly distributed and rare.

Nine Late Stone Age sites have been located but none were dated. The sites occur at varying depths in the clay cover on hill tops. Tools are rare except for location 25 where quite a few flakes are retouched (c. 8%). Raw material is mainly quartz (from 60 to 94%), with flint (from 6 to 35%) and quartzite for the rest. LSA sites can be found near rivers, like the Remboué, or quite far inland—6 kilometres from the main river system.

No Neolithic sites were found, but 12 Iron Age sites were located. Pottery is found on all the sites and is associated with grinding stones, iron slag, charcoal, and laterite blocks.

Refuse pits were dug through the clay at different sites. At location 9, the pits were dug on the south slope of the hill and are c. 0.50 to 0.80 m in diameter with a depth of c. 0.60 m. They are thus of small volume. There is one exception: a pit dug on a north slope leading down to the Remboué river at location 25 which cut through the clay and was also dug into the laterite and the upper part of the weathered rock. Though its opening could not be exactly pinpointed, it is thought to have been at 0.40 m below surface while the pit extended to a depth of 2.50 m with a mean diameter of 0.70 m. It is the first time such a large pit has been noted in the province.

Several Iron Age sites were radiocarbon dated. They suggest the area was settled by Iron Age inhabitants around 2,180 BP (location 12; Beta-53555:  $2180 \pm 100$  BP) and was more or less constantly occupied from then on: location 3 at 1,750 BP (Beta-53552:  $1,750 \pm 70$  BP), location 9 at 1,650 BP (Beta-53554,  $1,650 \pm 50$  BP), location 11 at 1,360 BP (Beta-54220:  $1,360 \pm 70$  BP), and location 15 at 670 BP (Beta-54221:  $670 \pm 50$  BP). There seems to be a concentration of sites along the Remboué within a 4 km corridor as a survey of foresters' roads to the south did not yield any Iron Age sites. Test pits at location 15

dated to c. 670 BP showed the village covered a minimum of 900 square metres. The density of artefacts is not high on Iron Age sites. This is clearly different from contemporary villages on the Gabon estuary. It can thus be proposed the villages of the Remboué were smaller.

Three such historical sites were found. They are conspicuous for their imported European artefacts, such as glazed pottery, white clay tobacco pipes, gun flints, guns, iron implements or objects, glass beads, and glass bottles. Two sites were dated: location 22 yielded a date of  $10 \pm 60$  BP (Beta-53556) and location 15's date was modern (Beta-54222). Locations 15 and 22 also had Gabonese pottery, showing that pottery-making may still have been practised in the first half of the nineteenth century, as the sites were dated by the tobacco pipes and beads to A.D. 1760–1840.

It must be stressed that no site with imported European objects was found inland. This is in keeping with the first good European descriptions of trade in the province showing European goods moving up and down the main rivers; the Remboué was the main economical route between the Estuary and the Ogooué river at the time (Bowdich 1819). It is possible our location 15 is the old village of Akonjdo known from English and French texts, since the early twentieth century village of Akondjo, abandoned sometime around 1930, lies just 800 m upstream.

By comparison with Iron Age sites historical villages differ markedly in density of artefacts (European and Gabonese), which are much more abundant at the latter. This may point to larger villages developing at staging posts of European trade. This is further evidenced by test pits revealing a c. 8,100 m<sup>2</sup> extension of the archaeological layer at location 15.

Part of a trade gun was found at location 15. This is the first such weapon ever to be found during excavation in Central Africa (see Dubrunfaut 1984).

## Discussion

The main vegetation type in the study area since c. 40,000 BP appears to have been a forest cover. Absolutely no trace of extensive savannas was found. Furthermore, the lower half of the clay cover—on locations where the sediments have not been heavily eroded away—apparently dates back to 40,000/18,000 BP, while the upper half is substantially younger; this agrees well with what is known of Late Stone Age sites further north (Estuary) dated to after 8,000 BP and lying in the upper part of the clay. This apparently contradicts the hypothesis that the forest was limited to refuge areas during the dry climatic episodes of the late Pleistocene of Central Africa, with savannas taking over the rest of the land. It has been shown recently that Central Africa may have witnessed a switch from rain forest to montane forest during the dry climatic episodes (Bengo and Maley 1991, Elenga 1992). This would be in accord with our data, as  $^{13}C$  readings can not distinguish between two types of primary forests.

J. Maley (1987)—followed by B. Peyrot (1989)—has proposed three forest refuge areas: the Monts de Cristal, the Mayombe mountains, and the Massif Du Chaillu. Previously my work near the Fernan Vaz had shown the Mayombe refuge limits to extend further to the west by c. 80 km minimum (Clist 1991, 1992: 6). The 1992 data from north and south of the Gabon Estuary again has shown since c. 40,000 BP a forest vegetation where large expanses of savannas should have been. Three models can be suggested to explain this:

1. Montane forest took over from rain forest in the Estuaire Province.
2. The forest refuges have been misplaced; this has been suggested by J. Reitsma, A. Louis, and J. J. Floret (Reitsma, Louis, and Floret, 1992). They think the Monts de Cristal refuge area was on the western slopes of the mountain extending towards the Atlantic (i.e., our area).
3. The Gabon Estuary and Remboué River areas were included in a

refuge area of a river gallery type, separate from the Monts de Cristal refuge.

Our paleoenvironmental data, briefly outlined here, will be developed in a forthcoming paper (in preparation).

By finding connections between archaeological sites and their environmental and palaeoenvironmental features, we have been able to map the probability of disturbing sites during future oil exploration/production work in unexplored areas of the Estuaire Province. This map should lead to better Archaeological Heritage Management by British Gas Gabon. Moreover, the approach to reducing impact on cultural resources that we have developed in Gabon is also being used by British Gas in operations in other countries, notably Tunisia.

The main archaeological results of our 1992 field work are the following:

It can now be suggested on more secure grounds that Middle Stone Age sites found on and in stone-lines at the bottom of clays in the Estuaire Province date to before 40,000 BP. At Okala, flint and quartz artefacts were found under the c. 40,000 BP charcoal layer. They are markedly different from stone-line industries found in Gabon (Locko 1991).

It is possible to find 40,000 to 12,000 BP sites in situ in the clay; they are rare but present.

While Neolithic sites (4,000–2,100 BP) were frequent on the estuary to the north no such sites were found on the Remboué. Though not conclusive, this is strongly suggestive of absence of human settlements in this area at that time.

Location 12 dated to c. 2,180 BP with iron slag pushes back some 200 years the iron smelting technology on the Atlantic coast of Gabon. Up to now the earliest date was of 1,900 BP from Kango (Clist 1990, Jézégou et Clist 1991).

It has also been shown that the density of Iron Age sites is high, as in other areas of Gabon that have been well surveyed. The Iron Age sites around the Remboué do not concentrate on the river and they are not very large.

Perhaps during the Late Iron Age, but surely during historical times, villages fall back on the Remboué river and are larger in extent at least partly because of European trade. The archaeology of eighteenth and nineteenth European trading posts in Gabon appears to hold great promise.

### Labwork

The most interesting labwork has been the development of a Geographical Information System linked to our 14C dates and archaeological site data bases. A map of archaeological risk of the Libreville area was finished in November using SPOT satellite images and the Multiscope/Windows software. Next year (1993) work will continue with the Institut National de Cartographie using their MapInfo and Déméter softwares. Our objective is to develop a GIS cum archaeological atlas which may be put to use in countries of Central Africa for Archaeological Heritage Management purposes.

### Acknowledgements

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## ■ MADAGASCAR

### The Central Androy Project, Southern Madagascar

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A first season of research was conducted in the Androy region of southern Madagascar during July-September 1991, as a collaborative project between the University of Sheffield (Dept. of Archaeology and Prehistory), U.K., and the Musée d'Art et d'Archéologie, Antananarivo. The aims of the project are to reconstruct the relationship between human settlement and environment in the last 2000 years, and to explore the archaeological, historical and social context of monumental tomb building.

The Androy region lies in the extreme south of Madagascar. Some areas have been archaeologically investigated but large areas remain unsurveyed. It is a dry environment with large expanses of spiny forest. In the coastal zone there are dune formations, some of which have dense layers of *Aepyornis* shell fragments. This giant bird became extinct after the arrival of people, within the last 2,000 years (Dewar 1984, Burney and MacPhee 1991).

The study area for the 1991 season was selected after an initial reconnaissance of the region. During this first stage, six archaeological sites were discovered, dating mainly to the nineteenth century. Investigations of occupation layers in the coastal dunes immediately east of Faux-Cap revealed two relatively early sites. One occupation layer produced Talaky-style pottery (for the first millennium A.D. site of Talaky see Battistini, Verin and Rason 1963). Another layer with hearth, but no trace of pottery, was found at a lower level. This lay at least a metre above the *Aepyornis* shell layers, and no association between human activity and the presence of the bird could be demonstrated.

The survey area (Fig. 1) was 50 km from the sea, at the junction of a low plain and a range of hills, running north-south, just south of Antanimora. This area was chosen for its topographic and landscape diversity, its suitability for locating archaeological surface finds and its proximity to areas of previous research and documentation. Some 130 archaeological sites were found within the survey area of 7 x 12 km, by intensive surface inspection. The earliest of these may be dated by their pottery to the Andranosoa phase of the tenth-twelfth centuries (Heurtebize 1986, Radimilahy 1988). The distribution of scatters of pottery from this period indicated a dispersed settlement pattern of small open sites, often close to dry watercourses. There was a large, stone-walled enclosure (Amanda, literally "the fort") of this date amongst the hills. Its fortifications and haematite burnished fine wares indicate its high status associations. Whilst this enclosure covers 3 hectares, the type site of Andranosoa, 20 km to the north, is 30 ha. in extent. Amanda has a series of

simple corridor entrances, an unusual feature among Madagascar enclosures. Analysis of animal bones at Andranosoa indicates a predominantly cattle-based economy (Rasamuel 1984), similar to today.

Settlements of the thirteenth-seventeenth centuries (Rezoky and Bekatrafay ceramic phases) were found generally within 200 m. of Andranosoa phase sites. Three of them were defended hilltop sites, the largest being a 6 ha. area partially enclosed with a stone wall (Vohidolo, literally "mountain of ghosts"). Its proximity to Amanda suggests some form of locational continuity.

Settlements of the eighteenth century were found in very different locations from those of earlier centuries. This apparent discontinuity can be paralleled in the European written sources of the time, referring to this region as the land of the Ampatres in the mid-seventeenth century and of the Antandroy (the name of the people who live there now) at the beginning of the eighteenth century. Settlements of the eighteenth, nineteenth and twentieth century are concentrated in the lowland plain rather than the hills. Today, and in recent times, this settlement pattern has consisted of small villages regularly shifting location, temporary cattle camps or communities occasionally deserting the area in times of drought.

The large and monumental rectangular stone tombs built today by the Antandroy seem to have originated in the nineteenth century. Earlier monuments, possibly dating back to the sixteenth century and ending in the nineteenth century, are considered to be small stone-marked graves. The modern tombs, for single inhumations, are the focus of ritual investment of labour and wealth, and are increasingly emulated by all sectors of the population. Their origins seem to be in the tomb styles of the nineteenth century ruling dynasty.

Research proposed for 1993 will attempt to locate other large enclosures beyond the 1991 survey area, including the eighteenth and nineteenth century royal sites (apparently protected not by stone walls but



by living walls of Dideraceae trees). Theroyal origins of contemporary tomb styles will also be followed up.

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■ MALI

**The Neolithic Lacustrine Site of Kobadi (Malian Sahel): New Paleoanthropological Data**

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An archaeological and anthropological field study was performed in July 1989, on the Neolithic site of Kobadi (malian Sahel) by two of us (OD, MR) in order to improve our knowledge about the sahelian area's Neolithic people and their response to the aridification of the environment during the Holocene. The purpose of this paper is to present the main results of the paleoanthropological data collected during this fieldtrip. The research was conducted in a franco-malian program of archaeological research (Ministère Français de la Coopération) by the Laboratoire d'Anthropologie et de Préhistoire des Pays de la Méditerranée Occidentale (LAPMO-Université de Provence-CNRS, France) and the Institut des Sciences Humaines (ISH-Bamako, Mali). Teamleaders are Michel Rimbault (researcher in LAPMO) and Klena Sanogo (director of the ISH).

The site of Kobadi, discovered in 1954 by R. Mauny and M. Giengier, is located 12 km northeast of Nampala, at 15°22' N and 5°29' W. This site is a Neolithic midden formed by abundant and well-preserved food wastes, associated with artefacts and burials. Fish (*Clariidae*, *Ariidae*, *Centropomidae*), turtles (*Trionyx triunguis*), crocodiles (*Crocodilus niloticus*) and large mammals, such as *Hippopotamus amphibius*, *Phacocheirus africanus*, and *Limnotragus spekei* have been identified (Rimbault et al. 1987).

The presence of many fish, reptiles and three wild species of large mammals demonstrates important differences in climate and hydrography compared to today (Petit-Maire et al. 1991). The fauna identified at Kobadi are closely dependent on water and characteristic of sahelian or soudanian steppe vegetation. At 3,000 BP the Inland Niger Delta reached as far as 15° N (Raimbault and Dutour 1990). The human settlements date from this period, according to the 14C dates, which were performed on human and animal bones (Table 1), the site has been occupied for about one millenium.

**Table 1. Radiocarbon dates of the site of Kobadi**

Bones	Sample	14C Datings
burnt hippopotamus bones	P2	3335 ± 100 BP
burnt bones	P1	2880 ± 120 BP
mammal vertebra	Dak-56	2663 ± 145 BP
human skull	P8	2415 ± 120 BP

The P1, P2, P8 datings on the samples found by M. Raimbault in 1984 were done by J. F. Saliège, Département de Géologie Dynamique, Université Pierre et Marie Curie, Jussieu, Paris. The Dak-56 sample, found in 1954 by R. Mauny, has been dated in the radiocarbon laboratory of IFAN, Dakar. Another sample (of charcoal), from C core of 1989's excavations, has given a date around 3300 BP (unpublished).

Earlier archaeological (Monod and Mauny 1957) and anthropological (Chamla 1968) data were limited because of the scarcity of artefacts and the fragmentary condition of human remains. Lithics and ceramic materials from the site are presently being analysed, and numerous bone harpoons and punches are also available for

study (Reimbault and Dutour 1989). However, this paper is concerned mainly with the results of a paleoanthropological study of the material excavated in 1989, details of which are published elsewhere (Georgeon 1991, Georgeon et al. 1992).

All inhumations were located in deposits containing lacustrine fauna. There is no burial structure: bodies were laid down in the ground at shallow levels. Ceramics, ochre, animal bones, and fragments of millstone have been found close to many of the bodies. Of the 97 sepultures counted, 42 attitudes of the body were noted on the site by two of us (O.D., M.R.). The lateral decubitus position was the most frequent one (35/42), especially on the right side in hyperflexed position (Fig. 1). Bodies were usually turned towards the east (71/82) (Fig. 2). This fact suggests a burial ritual similar to what has been observed in Niger (Paris 1990) and in Mali (Dutour 1989).

The 16 skeletons recovered were in variable state of preservation. Only one was perfectly preserved (H97), two were in very good condition (H1, H37), two were in good condition (H2, H3), two were in poor condition (H6, H80) and four were very badly preserved (H4, H73, H95, H96). H5, H40, H52, and H90 are the skeletons that have were chosen for isotopic dating. In fact only 11 skeletons could be studied: two adult women (H37, H97), one subadult woman (H3), four adult men (H1, H2, H6-A, H80), and four whose sex cannot be defined.

Six crania have been studied, but only one endocranial volume has been estimated: 1306.645 cc ± 0.918. Cranial vaults are thick (frontal eminence: 6–10 mm; bregma: 4–8; parietal eminence: 8–12; obelion: 6–12). The moderate upper facial prognathism—calculated from the gnathic index of Flower—(92.78 for H3 and 95 for H37) contrasts with the marked alveolar prognathism (60° for H97, 65° for H1 and 72° for H37); this disposition, considered by some authors as important in racial diagnosis, is well known in Upper Paleolithic populations (Billy 1969).

In occipital view the skull is house shaped. In *norma facialis* the supraorbital breadth of H97 is large, greater than the largest present masculine average (Howells

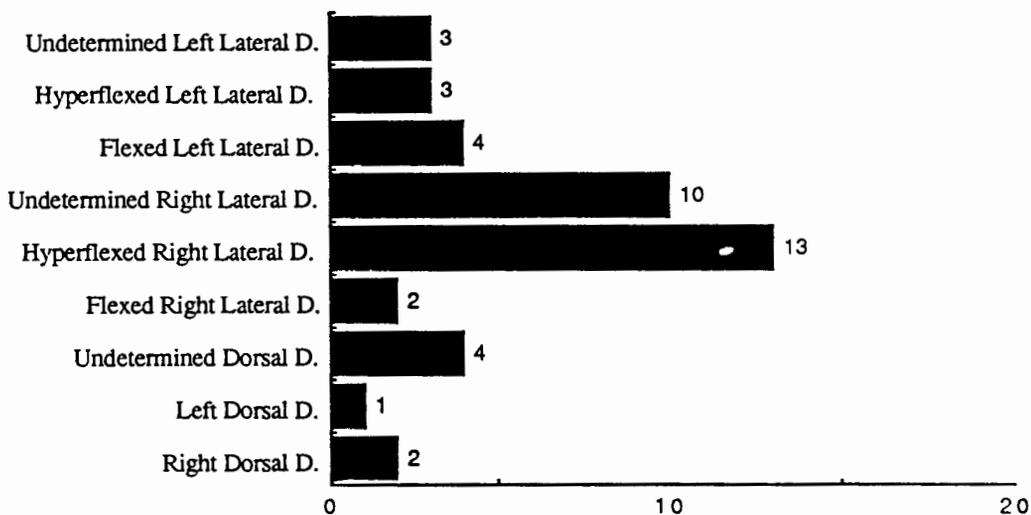


Fig. 1. Distribution of the 42 attitudes of the bodies noted at Kobadi.

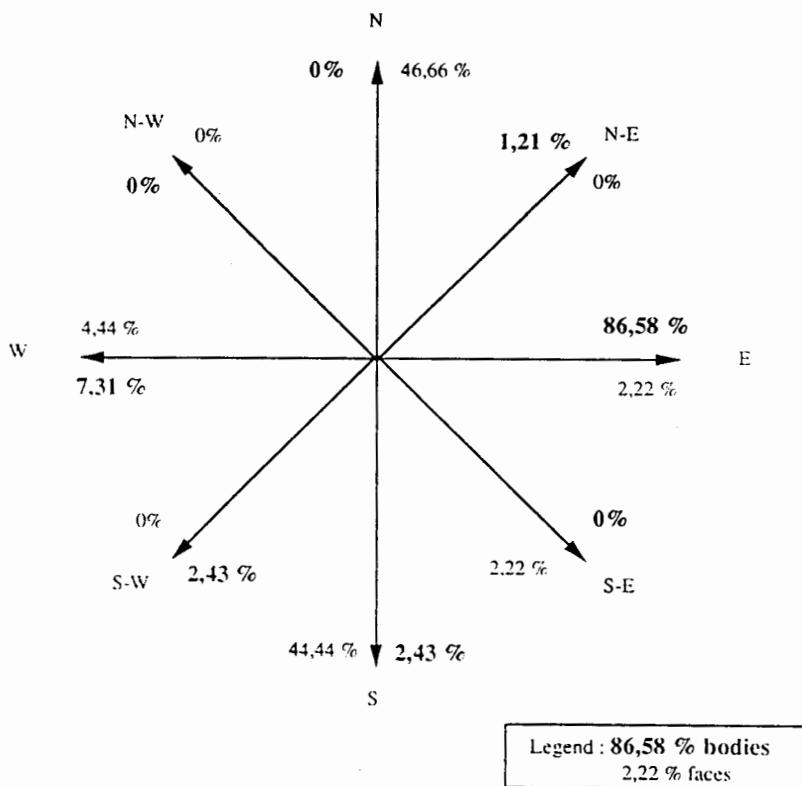


Fig. 2. Orientation of the 97 skeletons at Kobadi. (Of 97 skeletons recorded, the orientation of 42 bodies and 45 faces could be noted.)

1973). The H37 feminine skull exhibits in the left external part of the frontal bone, between frontal eminence and temporal crest, an oblique supraorbital groove. This character is known on present and prehistoric people, especially on women (Hauser and de Stefano 1989).

Two faces can be measured; the values of the bizygomatic diameters are large, indicating a wide (126 mm for H3), or very wide (144 mm for H37) face. Orbits of H97, the only complete face, are of rectangular shape and low. Nasal indices indicate broad (53.33 for H3 and 56.25 for H97), or very broad (65 for H37) nasal apertures. In H37 the breadth of the nasal notch is not very large, inferior to mean values of present populations of northern Africa (Howells 1973); the value of this index is important because of the small value of the nasal height, inferior to all present averages.

The morphology of the lower edge of the nasal aperture of H3 and H97 are similar in type and H37 looks like a praenasalis groove type. For another individual (H1) the morphology is more complex and does not correspond to any type. The external edge is sharp and separated by two limbs on the level of the lower edge; it delimits a short crescent-shape dip comparable to the praenasalis groove type. Behind the posterior limb, this disposition is completed by a little dimple delimited by the internal edge of the pyriform sinus and by a third dimple surrounded by the continuation of the external edge and the protusion of the incisor crest. We note that nasal morphology is extremely varied, which diminishes the value of this feature for "racial" diagnosis.

There has been dental mutilation in two feminine upper maxillae (H37, H97): the two lateral incisors have been removed. In both cases, the alveolar bone is completely healed. This suggests that the mutilation was carried out on young children. This type of mutilation can be seen in other prehistoric populations of Northern Africa (Briggs and Margolis 1953).

On the seven mandibles studied, we observed marked sexual dimorphism (robustness of masculine ones) and very pronounced muscular insertions. The feminine mandibles H3 and H37, and the

masculine one, H1, are short (brachygnathic); H97 is mesognathic. The *corpus mandibularis* is thick. *Ramus mandibularis* index is very high because of large breadth and moderate height. The angle of the *ramus mandibularis* shows an eversion on all masculine mandibles. Coronoid processes are short and broad; the mandibular incisurae are shallow. In three cases, the mandibular condyle is lower than coronoid process, and in two other cases these structures are at the same level.

Concerning the postcranial skeletons, we observed morphological variability in the axillary edges of the scapulae. The ventral groove type, the most frequent, is present on three of the cases; one case bears two grooves—a type known in Upper Paleolithic people and in many modern Australian and Melanesian populations (Vandermeersch 1981). Finally, one case shows a ventro-axillary groove and rounded dorso-axillary surface. Acromial bones have been identified. We observed olecranian perforation on distal epiphyses of the humerus (3/9). The three femurs which have not been damaged are very long (457, 463 and 470 mm). Pilastr protusion is more or less varied: weak (106.64) or strong (125.29). The relief of the rough line is pronounced on four of the femurs: lateral and mesial crests did not fuse on the diaphysis. This disposition seems to be uncommon in living populations, but it can be observed on Neanderthal femora which do not show pilastric structure. On two other femurs, we can see that these crests connect on the medial line (present pattern).

### Conclusion

The anthropological study revealed several morphological features shared by this Neolithic population of the malian Sahel and the early Holocene one of Hassi-el-Abiod in malian Sahara (Dutour 1989). The latter have been compared with the more ancient Iberomaurusian series from the Maghrib. However, at least 80 inhumations remain to be studied at Kobadi.

During the early Holocene, the Araouane area was dotted with lakes, but around 4,000 BP, the area suffered climatic

deterioration. So, we can imagine that people who had lived in this region since 7,000 BP, had to migrate to more hospitable areas. Their presence south of the Inland Niger Delta at Kobadi by 3,000 BP allows us to think that they moved in the same direction as the paleodelta after 4,000 BP. This hypothesis must be confirmed by new excavations in Kobadi. We are confident that the necropolis of Kobadi will constitute a reference site for paleoanthropological study in Northern Africa.

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## **A Preliminary Reconnaissance and Survey at Gao**

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A brief archaeological reconnaissance mission was undertaken in the Gao region in January 1993. This visit forms part of a larger doctoral research project entitled, "The archaeological recognition of the acceptance of Islam in the Sahel, c. 800–1200 A.D." The project aims to assess the spread and acceptance of Islam over the time period, 800–1200 A.D. A multidisciplinary approach is being adopted involving surface collection and survey programmes and limited archaeological excavation in the Gao and Ansongo regions, allied with the collection of ethnographic data and the examination of written and oral historical sources.

Fieldwork is being concentrated at the city of Gao and its associated site of Saney, and further down the River Niger in the Bentiya area, near the town of Ansongo (Fig. 1). Both site complexes are located within the sixth region of the Republic of Mali (De Moraes Farias 1990: 65). Due to the state of insecurity resulting from the aftermath of the Tuareg rebellion and a lack of transport it proved impossible to visit the Ansongo area during the reconnaissance mission. This situation will be rectified in September 1993 as transport and security clearance have now been arranged. Hence this report concentrates on the site of Saney, and the mosque of Mansa Musa in the old town of Gao, Gao Ancien.

The site of Saney is located approximately 4 km to the east of the modern city of Gao, in the Tilemsi valley (Flight 1975a) (Fig. 1). It forms a low mound rising to 8 m above the surrounding terrain, and covers 30–40 ha (Flight 1979). The

mound is associated with a cemetery 100 m to the east. Saney first came to prominence in the 1940s following the discovery of several marble and chlorite schist grave stelae, subsequently dated to the twelfth century. The marble stelae were made in Almeria, (Muslim Spain), and were transported via Almoravid traders to Gao (Flight 1978). Several small excavations have been carried out at Saney since the 1940s, for example, by Raymond Mauny in the 1950s and Colin Flight in the 1970s (Flight 1975a, 1975b, 1979; Mauny 1951). Unfortunately these excavations have never been fully published.

The so-called mosque of Mansa Musa is situated in the Songhai Arma quarter of Gao Ancien at the 2.5 km point on the road to Bourem. It was excavated in 1950 by Raymond Mauny, and was dated to 1364 A.D. by a badly preserved stela. Alongside the mosque several graves and the remains of stone built walls were found. When the site was excavated it was outside of the urban area of Gao, and was surrounded by archaeological remains estimated by Mauny (1951) to cover 2 km<sup>2</sup>. Over the past 40 years the size of Gao has increased drastically and the mosque site is now isolated on an open space, roughly 300 m long by 200 m wide, otherwise entirely surrounded by new buildings.

A collection of archaeological material was made at Saney, in the vicinity of the mosque of Mansa Musa, and in other selected areas of Gao Ancien and its outskirts. Each area was traversed separately, material was collected, and features such as the outlines of walls and burials were planned and photographed. This was undertaken both to provide a representative selection of pottery and other material for dating purposes and to assess the condition of the known sites and the potential for future fieldwork.

The site of the mosque of Mansa Musa has fared reasonably well but is now beginning to suffer the effects of rubbish dumping and trampling by both people and livestock. Excavation is required and three zones in what is termed the mosque area have been isolated for possible future investigation.

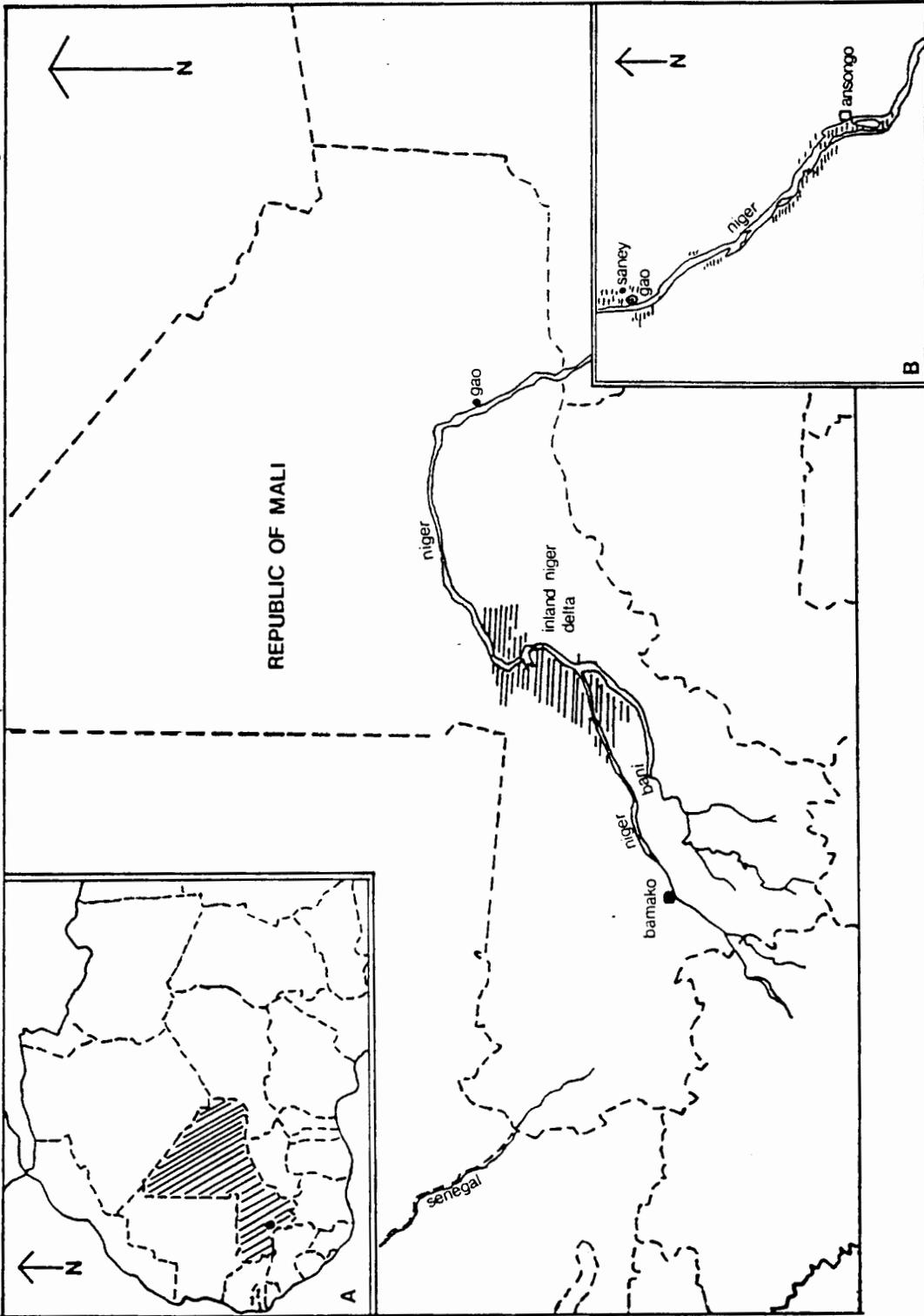


Fig. 1. Main map, the Republic of Mali. Inset a: the location of Mali within west Africa. Inset b: the Gao site complexes. (Adapted from the Michelin 1/4000000 map, Africa, north and west.)

The first zone is that of the actual mosque. The mosque plan was outlined by an old man who remembered the 1950 excavation. No traces are visible on the surface except for a depression explained as the location of the cistern of the mosque. There is also a noticeable absence of gravestones in this area of the site. The informant's story was given support by the finding of the remains of substantially built stone walls just to the east of the Bourem road, which tally with the location for just such walls marked on Mauny's plan (1951: 843). Further corroboration was provided when measurements were taken from the walls back to the mosque location proposed by the informant. Once again these concurred with Mauny's plan. The walls join each other and form small cell-like chambers which are as yet unexplained. This second zone will be further investigated in September.

The third proposed zone of excavation was found whilst walking the site and is situated to the southeast of the mosque. The rim of a large pot was discovered eroding out of the ground in the vicinity of a number of shallow buried tombstones. Outlines of graves and numerous gravestones could be seen, indicating the existence of an extensive cemetery. Several of the tombstones were lying flat on the ground and a number of them were broken. The tombstones are made from chlorite schist, which is local in origin and similar to that used to make some of the stelae at Saney, referred to above. The possibility exists that stelae bearing engraved inscriptions exist, which will aid in the dating of the mosque.

Saney has suffered greatly from the attention of treasure hunters. The habitation mound, the site of the medieval town, is dotted with bore holes dug by two man teams of robbers to obtain beads to sell in the Islamic Republic of Mauritania. The whole surface of the site is littered with archaeological remains, pot sherds and complete vessels, fragments of iron and wood, bones, and beads. Erosion is being exacerbated in the robbed areas by the formation of deep run-off channels that are also cutting through the less damaged areas.

Excavation will be focussed in two areas of Saney. Little work has been done on the site of the medieval town, which is now in the process of being destroyed. Archaeological excavation is urgently needed before this process is complete. The North Western area of the habitation mound is relatively untouched, so attention will be concentrated here. The cemetery to the East of the habitation mound will also be investigated further. The cemetery is of especial interest as according to Flight (1979: 7) it possibly contains the remains of a twelfth-century mosque. Flight developed this hypothesis after excavating a number of tombs, termed the "grand and petit caveau" by Mauny (1951). If the mosque (Flight's structure X) does exist it will provide a body of twelfth-century data to compare with the fourteenth-century mosque of Mansa Musa.

The pottery collected from the surface of the sites of Saney and the mosque of Mansa Musa is interesting. However, it should be noted that the following observations are only preliminary as the material has not been fully analysed.

There are distinct similarities between the pottery recovered from Saney and the material collected by S. and R. McIntosh in their 1984 survey of the Gourma Rharous area, to the North West of Gao on the Niger Bend. Several sherds from comb impressed carinated bowls were found, along with sherds of diamond hatched burnished red slipped wares, red slipped decorated and undecorated bottle necks, deep and shallow channelled red slip wares with painted white decoration, and sherds decorated in a checkerboard pattern of slipped and unslipped areas, delineated by comb impression. All these wares are described by S. and R. McIntosh (1984: 33-35) in their survey report. This material probably dates from the early second millenium, though as S. and R. McIntosh (1984: 34) argue, the absolute chronology of the material cannot be determined without excavation and radio-carbon dating.

No sherds from comb impressed carinated bowls or checkerboard decorated wares were found in the vicinity of the mosque of Mansa Musa. Abraded sherds from deeply channelled wares were

collected along with some sherds from twine impressed wares. Fragments of tobacco pipes, (introduced to Africa in 1591—S. and R. McIntosh 1984: 27), were not found at either site. Once again the point must be made that a full chronology cannot be established without excavation.

The potential offered by the archaeological sites of the Gao region in the reconstruction of the history and events of medieval West Africa is immense. Following on from the field season planned for September to December 1993, it is hoped that early next year further and more exciting results will be able to be reported.

**Acknowledgements**

I am extremely grateful to Dr. Klena Sanogo, the director and Dr. Mamadu Dembele, the assistant director of the Institut des Sciences Humaines and Dr. Mamadou Diallo Iam, the director of the Centre National de la Recherche Scientifique et Technologique in Bamako for allowing me to conduct my research. I am also grateful to Monsieur Berti Sekou for accompanying me and helping me in the field and to Monsieur Mohamed Elmokhtar Toure, Chef de Division du Patrimoine Culturel, for practical assistance in Gao.

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■ **SOUTH AFRICA**

**Late Pleistocene Hunter-Gatherers in Lesotho: Report on Fieldwork at Sehonghong Rockshelter, July to September 1992**

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**Introduction**

In southern Africa the period 12,000-40,000 BP is associated with a major change in stone-tool working techniques from a Middle (MSA) to a Later Stone Age (LSA) technology and contains the first evidence for rock art, the development of personal ornaments and the making of bone tools. The degree to which these changes are comparable to those associated with the Middle/Upper Palaeolithic transition in western Eurasia is unclear, and there is considerable debate whether anatomically modern hominids in much older MSA contexts at Border Cave and Klasies River Mouth have a behavioural repertoire identical to that of modern populations (Binford 1984, Deacon 1989, Klein 1989). Even if this was so, Deacon (1972) and others have argued that the settlement pattern, diet, and social organization of late

Pleistocene hunter-gatherers were structured quite differently from those of their Holocene successors, at least partly as a response to the very different environmental circumstances of the Last Glaciation.

Investigation of late Pleistocene hunter-gatherer adaptations in southern Africa has, however, often been incidental to research programs focused primarily on the Holocene. Practical considerations, such as extensive overlying Holocene deposits and the low density of late Pleistocene sites or of sites occupied at more than one phase within the 12,000 to 40,000 BP period help explain why this has occurred. Nevertheless, research by Carter (1978) in eastern Lesotho has produced two sites (Melikane and Sehonghong) with long stratigraphic sequences and good organic preservation that can inform on this period. Furthermore, research in neighbouring parts of South Africa (Kaplan 1990, Opperman and Heydenrych 1990, Wadley and Vogel 1991) holds out the possibility of a regional study examining late Pleistocene adaptations along an ecological transect across the Maluti and Drakensberg Mountains and into adjacent lowland areas.

Sehonghong rock-shelter lies in south-eastern Lesotho (Fig. 1) and was first excavated in 1971 by P. Carter (Carter 1978, Carter et al. 1988). Occupied by San hunter-gatherers until 1872, some of the paintings on its walls were interpreted at that time by a San guide (Orpen 1874). Carter's excavation demonstrated the site's potential for understanding southern African prehistory by showing that it has deposits with good organic preservation of both Holocene and late Pleistocene age extending back beyond 32,000 BP. However, because the 1971 excavation was carried out in 10 cm thick spits that partly cross-cut the natural stratigraphy of the deposit and because various new analytical techniques (e.g., charcoal identification) have been developed since then, further investigation of the site is warranted.

Specific issues to be addressed in our re-excavation of Sehonghong were the accurate definition of the age, associations and stratigraphic context of the artefact assemblages present, and the recovery of

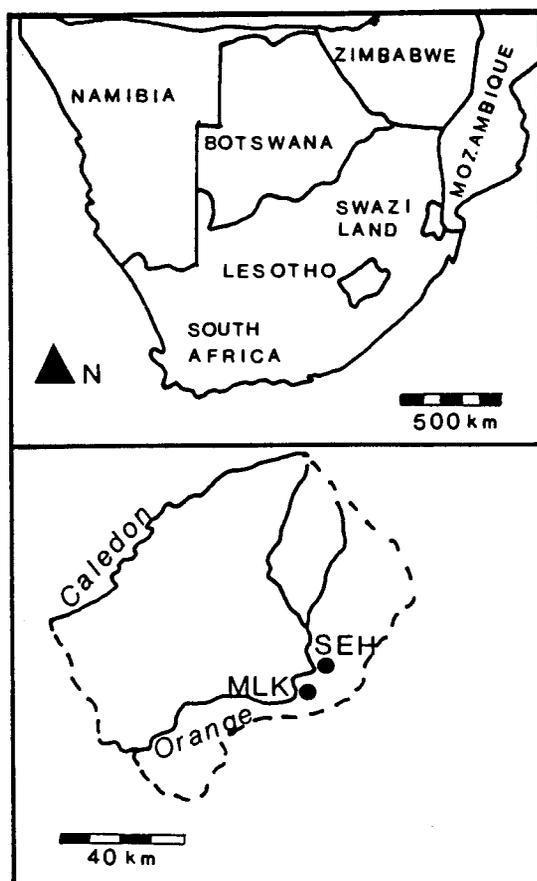


Fig. 1. The Site.

stratified sequences of large mammal, microfaunal, pollen, charcoal, and sediment samples to establish the nature and extent of palaeoenvironmental change over the last 32,000 years. A principal research goal is the investigation of differences in site use and subsistence through the late Pleistocene and between late Pleistocene and Holocene occupations, including contrasts between Holocene occupations pre- and post-dating contact with Iron Age people in Natal. Subsequent work will involve excavation at other sites to reassess models of resource exploitation proposed by Carter (1978) for glacial and interglacial situations.

### Excavation

Excavation took place between July 12 and September 3, 1992 and involved the removal of approximately 12.5 m<sup>3</sup> of deposit

from a 2 m wide trench extending towards the dripline from the rear wall of the shelter. Despite a complicated stratigraphy, we were able to remove the deposit stratigraphically and the 161 units recognized have been provisionally grouped into ten layers (Fig. 2). All of the soil was dry-sieved through a 1.5 mm wide mesh and all finds (except for bulk plant samples) were sorted on site.

### Stratigraphy and Cultural Associations

The deposit is capped by a Dung Crust (DC), which includes some grey ash towards its base and much plant material. This reflects use of the site since 1872 as an occasional livestock kraal by Basotho residents of the area. Below this, Carter's Layer IX combined a series of stratigraphic units spanning the last 20,000 years. We have provisionally divided this into nine layers in our excavation. The topmost of these (Grey Ash with Pottery [GAP]) produced a late Holocene artefact assemblage with comparatively large numbers of formal tools, mostly scrapers. Backed microliths seem to be rare and ceramics are present. This layer has a 14-C date of 1,400 ± 50 BP in Carter's excavation (Carter et al. 1988). Underlying it, but preserved only in the rear of our excavation, is a layer termed Grey White Ash (GWA), which contains a classic Wilton assemblage and with which a previously obtained date of 6,870 ± 60 BP (Carter et al. 1988) may be associated. Below this are two early Holocene assemblages, the youngest of which comes from units designated Ashy Loams with Plants (ALP) and the older from units grouped together as Sandy Ash (SA). These occurrences fall within the Oakhurst Complex and parallel observations from western Lesotho (Mitchell and Vogel 1992) in that the material from ALP has large numbers of relatively high scrapers with adze-like lateral retouch, while that from SA is almost entirely lacking in formal tools. All these Holocene assemblages are dominated by crypto-crystalline silicas (CCS) and the vast majority of the beads and worked bone found in our excavation come from these layers.

A thin layer labelled Beige Ash above Rockfall (BARF) is the youngest of four

layers which, from the Robberg artefacts present in them, probably date to between 12,000 and 13,200 bp (Carter et al. 1988). This is above the Rockfall (RF) layer, which represents a significant episode of roof collapse not previously noted at the site. Below this are layers termed Red Brown Loam (RBL) and Carbonaceous Loams Below Rockfall (CLBRF, not shown in Fig. 2). The lithic assemblages from these layers are all characterized by large numbers of unmodified bladelets and bladelet cores made in CCS and by an extreme rarity of formal tools, other than a few retouched artefacts resembling the naturally backed knives discussed by Parkington (1984). Beads are few, but a comparatively large worked bone sample was recovered. Macroplant preservation is good in all four layers, but particularly so in RF and RBL.

Units equivalent to the bottom of Carter's Layer IX form our BAS (Brown Ashy Sand) layer, and are likely to have a date of ± 20,000 BP (Carter et al. 1988). The BAS assemblage probably represents an early expression of the LSA microlithic tradition, but without the heavy bladelet emphasis seen in the Robberg. Below this layer, we grouped the units which we excavated into the same layers as those identified by Carter et al. (1988). The youngest of them, equivalent to their Layer VIII, has been termed Orange Sand (OS) and is a largely sterile, sandy spall horizon. This rests on top of a series of occupation units interstratified with further, larger sterile units termed Mottled Orange Sand (MOS), equivalent to what had previously been called Layer VII. Carter's Layer VI, which includes the uppermost of the two rockfall horizons that he identified, we have termed Rockfall with Sand (RFS). We cleaned down between the rocks in this layer, but left the rocks themselves in place to avoid damaging the underlying levels. Dates from Carter's excavations suggest that this rockfall dates to c. 32,000 BP. The artefact assemblages from OS, MOS and RFS appear to be transitional between MSA and LSA technologies, differing markedly in raw material, flake size, flaking technique, and artefact typology from the rest of the sequence that we excavated.

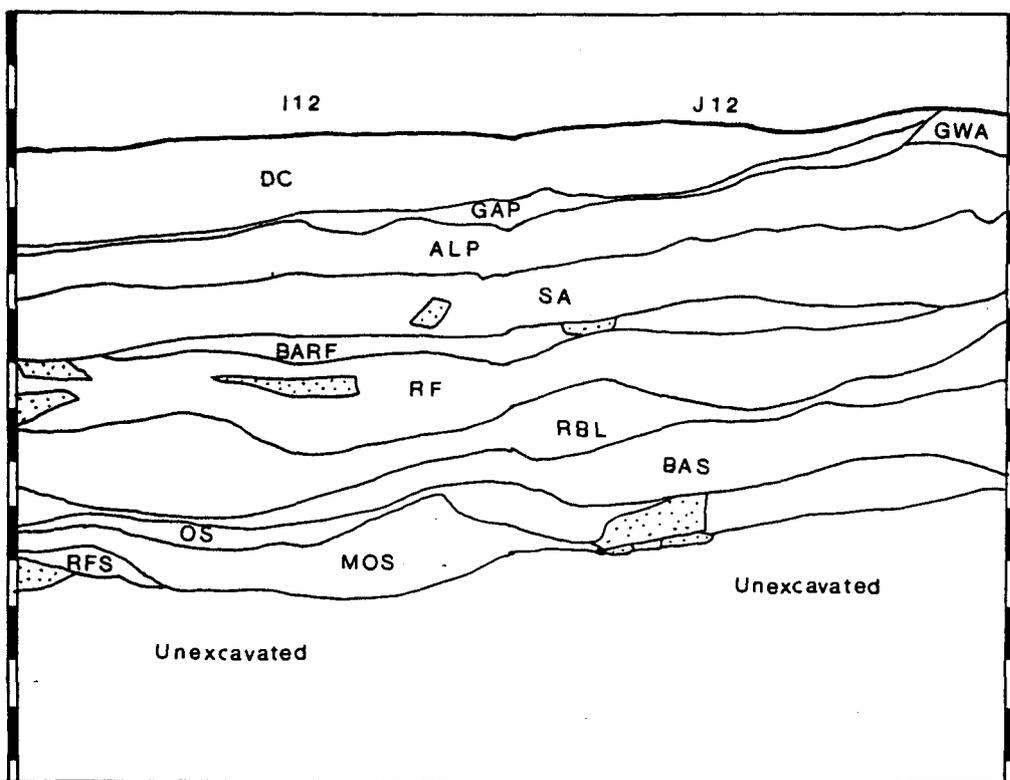


Fig. 2. Sehonghong—Partial section of north wall.

**Faunal Remains**

Faunal preservation was good throughout the sequence excavated, although bone is in noticeably poorer condition in the BAS, OS, MOS, and RFS layers (c. 20,000–32,000 BP). Cut marks were clearly apparent on some bones. Fish remains were found throughout the sequence, but are most common in the Holocene part of the deposit. The microfaunal sample recovered, although small because of a lack of suitable roosting places for owls within the shelter, should prove large enough for study. Molluscs were few, but include a few marine/estuarine species as well as edible freshwater mussels, and several hundred worm or termite casts found in the Robberg and BAS layers were retained for identification. Several

coprolites, believed to be human in origin, should provide direct information on the diet of the shelter's prehistoric inhabitants

**Plant Remains**

That Sehonghong is sufficiently dry to preserve carbonized and uncarbonized macroplant remains was known from Carter's previous excavation of the site, but it was expected that this would largely be a feature of the late Holocene part of the deposit. In fact, excellent plant preservation was a characteristic of much of the remainder of the sequence, notably the Robberg layers and the near-basal MOS layer. It is also clear that well-preserved macroplants occur below the rocks in the RFS rockfall, with an age of at least

32,000 BP. Most of the plants observed during excavation consist of grass, presumably from grass bedding, with twig, bark, and wood fragments also present. Carbonized seeds form a further category and detailed study of so-far unsorted bulk samples may establish the presence of a range of edible geophytes. With few exceptions (Beaumont 1978, Opperman and Heydenrych 1990), macroplant preservation is not found in pre-12,000 BP contexts in southern Africa and the samples from Sehonghong therefore have great potential for both palaeoenvironmental and palaeodietary research. Their study will be complemented by that of the charcoal and pollen samples taken during excavation, as well as by stable isotope analyses of animal bone that will build on earlier work by Vogel (1983).

### Paintings and Painted Spalls

The rear wall of the shelter is rich in paintings with several hundred identifiable images present. These paintings have been fully recorded by Vinnicombe (1976) and subsequently in 1985 by the ARAL Project of Smits (1983). Most were also photographed during our stay at the site, allowing a comparison of their condition to be made. Unfortunately, uncontrolled access to the site and the lack of funds available for site preservation in Lesotho make it impossible to prevent continuing damage to these paintings by herdboys' graffiti. Some thirty painted spalls were recovered during excavation, the vast majority from the topmost units of the late Holocene layers. Although none bear identifiable images, it is likely that all derive from paintings originally present on the shelter wall, and dating of associated charcoal will provide some guide to the antiquity of mural painting at this site. In particular, we hope to be able to demonstrate that this will substantially exceed the arrival in surrounding parts of South Africa of Iron Age people within the last two millennia, as it has been argued that rock painting may have been one of a number of responses to the stress created by this and comparable situations (cf. Parkington et al. 1987).

### Field Survey

In a short period of field survey we located a further 23 archaeological sites in an already intensively surveyed area. This is unlikely to exhaust the number of sites still to be discovered, and emphasizes the richness of the archaeological record of this part of southern Africa. This is particularly important as planned expansion of the Lesotho Highlands Water Project calls for flooding of the Orange River gorge early in the next century and will destroy some sites, while damaging others (Mitchell 1992).

Sites discovered include rock-shelters with paintings and/or LSA artefacts, open air artefact scatters of both LSA and MSA date and quarried exposures of cryptocrystalline silicas. Of particular interest are a rich MSA site about 1 km downstream from Sehonghong, which probably represents a collapsed shelter, and a stratified multi-occupation open air site on the banks of the Orange River, in which both bone and charcoal are preserved. The latter is especially important as open sites with organic remains are rare, and excavation here can be expected to inform on how people used this site and organized themselves spatially within much tighter chronological bounds than can be generated at rock-shelter sites. Integration of observations from sites such as this, as well as from smaller rock-shelters, will be vital to refining our understanding of hunter-gatherer adaptations to the montane environment of the Lesotho highlands as research proceeds.

### Acknowledgements

Permission to carry out fieldwork in Lesotho and to export finds for study abroad was given by the Chairman of the Protection and Preservation Commission, Mrs. N. Khitsane, for whose help and cooperation I am grateful. I also thank the chiefs of Sehonghong and Khomo-ea-Mollo for permission to camp and work at the site.

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■ **TANZANIA**

**Further Paleoanthropological Research in the Manonga Valley of North-Central Tanzania**

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Preliminary investigations by the Wembere-Manonga Paleontological Expedition (WMPE), during the summer of 1990, indicated that the largely unexplored Manonga Valley in north-central Tanzania (see Figs. 1, 2) had tremendous potential for long-term paleontological and archaeological research (Harrison 1991, Harrison et al. in press, Harrison and Verniers in press). Further exploration of the Manonga Valley by WMPE during July and August of 1992 has confirmed this potential, and, in fact, the extensive lake basin, with its fossil-rich sediments, probably dating back to the late Miocene or early Pliocene (c. 5-6 Ma), can now be considered one of the most promising paleontological research areas in eastern Africa. It is of especial importance for investigations into human origins. The possible recovery of fossil hominid remains from sites estimated to be 5-6 million years in age—a time period from which few hominid specimens are currently known, but inferred by many paleoanthropologists

to be that during which the hominid lineage may have differentiated from the basal African hominoid stock—would have a profound impact on interpretations of the phylogeny and paleobiology of the earliest hominids. In addition, the recovery of a sizeable fauna from later Neogene sediments might contribute valuable new clues to help explain the ecological factors underlying the differentiation, habitat preference, and geographic distribution of the earliest hominids.

The specific objectives of the 1992 expedition were: (1) to further assess the nature of the geological context of the major fossil localities, and to continue mapping at both the local and regional levels; (2) to continue to prospect for new paleontological and archaeological localities; and (3) to obtain more secure estimates of the age ranges of the fossil bearing sediments. This paper presents a preliminary account of the major findings of the expedition, with respect to these three areas of research.

**The Geological Context**

Towards the end of the Miocene, warping of the basement complex, associated with regional rifting, produced a shallow, but extensive lake basin in the Manonga region (Stockley 1929; Williams and Eades 1939). The lake appears to have covered an area in excess of 10,000 km<sup>2</sup> (which today would rank it as the sixth largest lake in Africa). A number of Precambrian outcrops remained sufficiently elevated to form a complex of low-lying islands. A reconstruction of the possible extent of the lake, and the major exposures of the lacustrine sediments are illustrated in Fig. 3. During the late Miocene and early Pliocene, fine calcareous lake sediments were deposited, and these have yielded abundant fossils (Harrison 1991, Harrison et al. in press, Harrison and Verniers in press). The lacustrine sediments are unconformably overlain by a series of fluvial deposits, presumably laid down by a major river system that cut through the Manonga Valley subsequent to the draining of the depression. It would seem that with the formation of the Eyasi trough, Lake Manonga drained towards the northeast, thereby initiating the development of the

present-day Wembere-Manonga drainage system (Williams and Eades 1939, Williams 1939, Grantham et al. 1945). Like the lake beds, the fluvial deposits have also yielded fossil mammals that are estimated to be late Miocene to early Pliocene in age. Since the mid-Pliocene, erosion of the underlying sediments has been active. A broad, shallow valley, about 10–20 km wide has been cut in an east-west direction through the depression by the action of the Manonga River. The Neogene lacustrine and fluvial sediments are overlain in places by quite extensive layers of undifferentiated alluvial sands and *mbuga* clays that have been accumulated since the Late Pleistocene (Williams and Eades 1939). Unfortunately, tuffs and other volcanogenic materials are absent from the sedimentary sequence, so radiometric age determinations cannot be obtained.

A total area of 75 km<sup>2</sup> was prospected during the 1992 season, compared with only 15 km<sup>2</sup> in 1990. However, this still represents less than 5% of the estimated extent of the potentially fossiliferous sediments in the Manonga basin (see Fig. 3). In addition to collecting at ten of the eleven previously recorded localities in the Manonga Valley (the 1992 expedition did not visit Mwambiti 2), further exploration and intensive prospecting resulted in the discovery of 18 new fossil localities (Table 1). The expedition succeeded in recovering over two thousand identifiable fossil mammals, as well as representative collections of fossil reptiles, fish and invertebrates. Major new collections of fossils were obtained at established sites, such as those at Tinde and Kiloleli (Harrison 1991; Harrison et al in press; Harrison and Verniers in press). In addition, significant collections were made at a number of newly discovered sites, including those at Shoshamagai, Inolelo, Mwambiti, Ngofila, Beredi South, Nyawa and Ipembe. These new sites are briefly reviewed below.

### Shoshamagai and Inolelo

Several sites in the vicinity of Shoshamagai Hill, about 2 km south of Kiloleli village, have yielded fossils (Fig. 2). At Shoshamagai 2 and Inolelo 1–3 a rich

concentration of well-preserved fossils was found in sediments situated low in the local stratigraphic sequence. The fossils are associated with the thick laterite layer of the Ibole Formation, which forms an extensive and highly visible marker bed throughout the Manonga Valley. This horizon is situated stratigraphically below the series of lake beds that comprise the Wembere-Manonga Formation, which also includes the fossil beds at Tinde and Kiloleli. The discovery of fossils in the Ibole Formation at Shoshamagai and Inolelo is of major significance, because they represent the oldest known specimens from the Manonga Valley. Although the Ibole Formation lies stratigraphically below the Manonga-Wembere Formation, the close correspondence in the mammalian faunas between the two stratigraphic units suggests that the time interval represented is a relatively short one, with no major break in sedimentation between the two units. Based on comparisons with the faunas from other East African sites, the Ibole Formation, like that of the overlying Manonga-Wembere Formation, is estimated to be late Miocene or early Pliocene in age (c. 5–6 Ma).

### Mwambiti

The expedition renewed prospecting along a 11 km arc of cliffs, south of the Manonga River, that runs from Tinde to Mwambiti point (Fig. 2). In 1990, two fossil sites, Mwambiti 1 and 2, were discovered on the northwestern and eastern flanks of Mwambiti point respectively. The fauna and the stratigraphic evidence supports the suggestion that the main fossil horizon at these sites is the lateral equivalent of the fossil bed at Tinde. In 1992, a widened search of the general area led to the discovery of two new sites, Mwambiti 3 and 4. They are both located just southwest of Mwambiti point. The fossils from these new sites were found on the surface of the valley floor, having eroded out of the laterite layer that makes up the Ibole Formation. The faunal and lithological evidence indicates that the horizon represents the lateral equivalent of the fossil-rich red bed at Shoshamagai 2 and Inolelo.

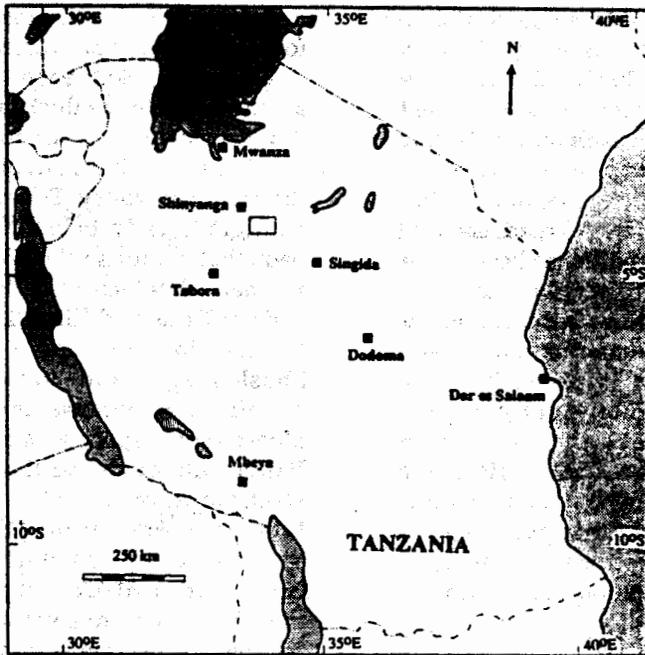


Fig. 1. Map of Tanzania showing the location of the research area (see Fig. 2 for detail of inset).

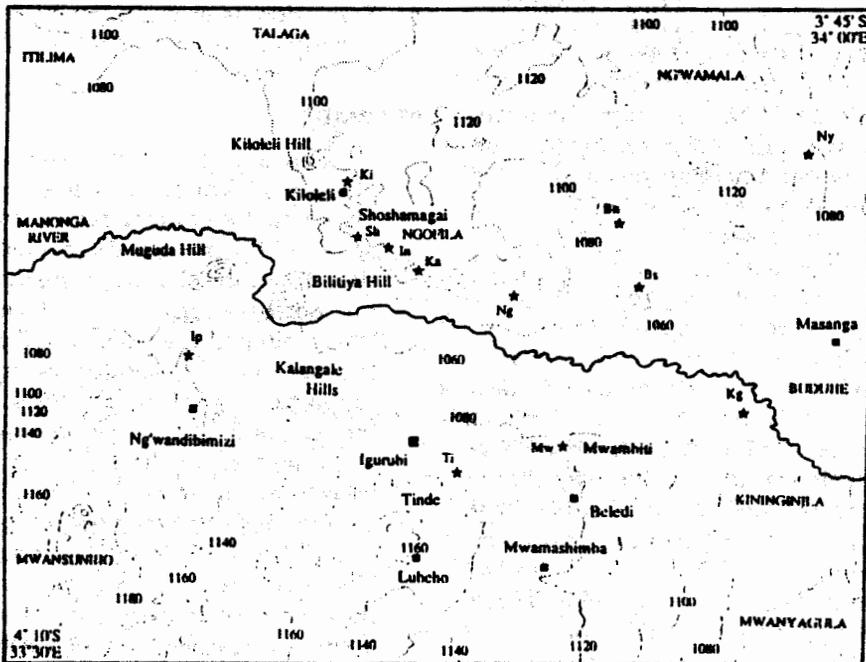
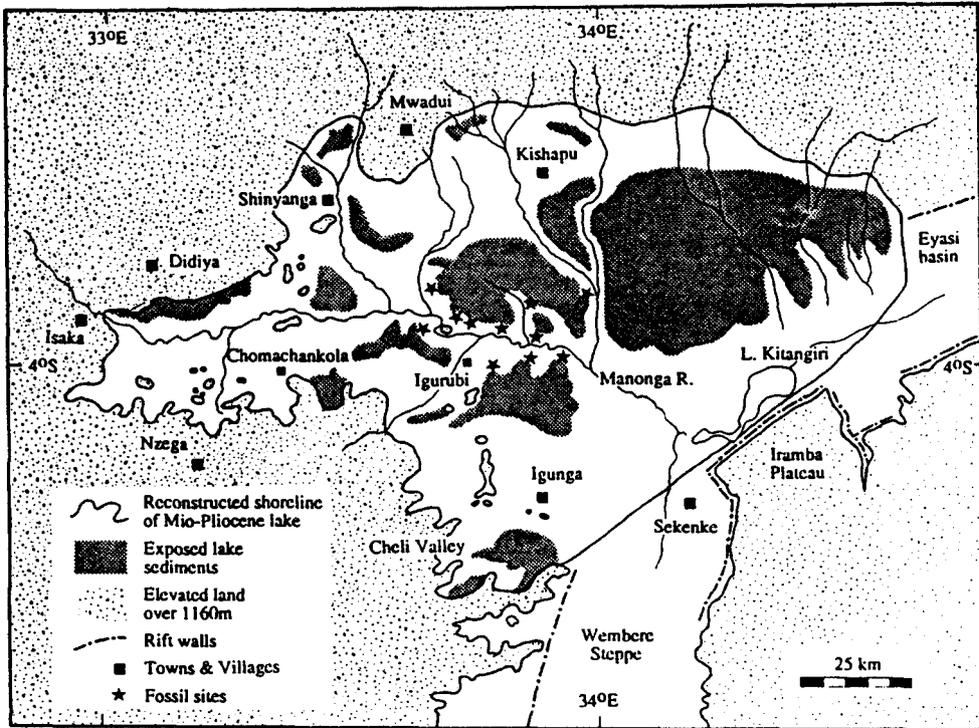


Fig. 2. Topographic map of main research area showing the location of the key groups of fossil localities. Abbreviations are as follows: Bn, Beredi North; Bs, Beredi South; In, Inolele; Ip, Ipembe; Ka, Kalitu; Ki, Kiloleli; Mw, Mwambiti; Ng, Ngofila; Ny, Nyawa; Sh, Shoshamagai; Ti, Tinde.



**Fig. 3. Reconstruction of the extent of the lake in the Manonga Basin during the late Miocene and early Pliocene.**

**Ngofila**

Ngofila is the easternmost continuation of the line of cliffs on the northern side of the Manonga Valley, that extends from Shoshamagai in the west to the Nhuliku Valley in the east (Fig. 2). Of the five localities known in the area, Ngofila 2 is the most productive. Fossils were recovered from several different layers. A number of darkly stained and heavily mineralized fossils were collected at the base of the series of clays that are lithologically and stratigraphically equivalent to those at Tinde and Kiloleli. Directly above this layer is an orange-brown pebbly mudstone densely packed with large gastropods. These sediments, and the overlying series of alternating mudstones and calcareous clays,

represent an important transition in the depositional environment in the Manonga Valley from a lacustrine setting to a fluvial one. It probably documents the draining of Lake Manonga into the Eyasi trough, and the initiation of the modern-day Manonga River drainage system. This series of fluvial beds will eventually be designated as a new stratigraphic unit within the Wembere-Manonga Formation (see Table 2). The fossil vertebrates recovered from the fluvial series suggests that the community is basically the same as that from the underlying lacustrine series, indicating that the time period covered is a relatively narrow one.

On a narrow ledge close to the top of the cliff at Ngofila 2 the expedition recovered a large number of poorly mineralized bones

**Table 1. List of fossil localities in the Manonga Valley.**

Name of Locality	SASES No.	Coordinates	Year of Discovery
Tinde West	Hi Ix/1	4°02'S 33°46'E	1929
Tinde East	Hi Ix/2	4°02'S 33°46'E	1929
Mwambiti 1	Hi Ix/3	4°01'S 33°50'E	1990
Mwambiti 2	Hi Ix/4	4°01'S 33°50'E	1990
Mwambiti 3	Hi Ix/5	4°02'S 33°47'E	1992
Mwambiti 4	Hi Ix/6	4°02'S 33°47'E	1992
Kiloleli 1	Hh Iw/1	3°51'S 33°42'E	1990
Kiloleli 2	Hh Iw/2	3°52'S 33°43'E	1930s
Kiloleli 3	Hh Iw/3	3°52'S 33°42'E	1990
Kiloleli 4	Hh Iw/4	3°52'S 33°42'E	1990
Shoshamagai 1	Hh Iw/5	3°53'S 33°42'E	1990
Shoshamagai 2	Hh Iw/6	3°53'S 33°42'E	1990
Ipembe	Hh Iw/7	3°56'S 33°37'E	1992
Inolelo 1	Hh Iw/8	3°53'S 33°43'E	1992
Inolelo 2	Hh Iw/9	3°54'S 33°44'E	1992
Inolelo 3	Hh Iw/10	3°54'S 33°44'E	1992
Kalitu	Hh Iw/11	3°54'S 33°45'E	1992
Ngofila 1	Hh Ix/1	3°55'S 33°47'E	1992
Ngofila 2	Hh Ix/2	3°55'S 33°49'E	1992
Ngofila 3	Hh Ix/3	3°55'S 33°49'E	1992
Ngofila 4	Hh Ix/4	3°54'S 33°49'E	1992
Ngofila 5	Hh Ix/5	3°53'S 33°49'E	1992
Beredi North	Hh Ix/6	3°53'S 33°51'E	1992
Beredi South 1	Hh Ix/7	3°55'S 33°52'E	1992
Beredi South 2	Hh Ix/8	3°55'S 33°52'E	1992
Beredi South 3	Hh Ix/9	3°56'S 33°52'E	1992
Beredi South 4	Hh Ix/10	3°55'S 33°53'E	1992
Nyawa	Hh Ix/11	3°50'S 33°58'E	1959
Kininginila	Hh Ix/12	3°59'S 33°56'E	1992

and teeth, creamy white in colour, with a yellowish adhering matrix. These bones are almost certainly late Pleistocene or Holocene in age. All of the bones were surface finds, and their source of origin could not be located. Some of the bones exhibit clear signs of human activity in the form of butchering marks, but unfortunately no stone tools were found in association.

### Beredi South

Beredi South is a low plateau, located 6 km southeast of the village of Beredi and 11 km east of Ngofila (Fig. 2). The southern and western margins of the plateau end at steep cliffs, which delimit the northern and eastern flanks of the Manonga Valley and Nhuliku Valley respectively. The cliffs have been subdivided geographically into four separate fossil localities, Beredi South 1-4. At both Beredi South 1 and 3, rich concentrations of fossils were discovered washing out of a thick series of clays and mudstones. These fluvial beds occur high up in the stratigraphic sequence, and appear to be the lateral equivalent of the fossil-bearing beds at Ngofila.

### Nyawa

The locality of Nyawa was first recorded by Kleindienst and Haldemann in 1959. WMPE made a brief visit to the area in 1992, and collected further fossils. The site, located close to Nyawa Village, 12 km northeast of Beredi, is the most easterly of the localities so far recorded in the Manonga basin (Fig. 2). The main exposures at Nyawa are found along a line of low cliffs that border the western flanks of the Tungu Valley, close to the confluence of the Tungu and Mangu rivers. The fossils appear to be eroding out of a single horizon, a hard band of white powdery calcareous clay intercalated within a swelling clay layer. On lithological grounds it would seem to be equivalent to the Mwambiti Member of the Wembere-Manonga Formation, which is also exposed at Beredi South 4 and at Mwambiti 1. Just to the north of the main exposures at Nyawa, a dense scatter of mammal bones was discovered in association with small quartzite artifacts. The bones and stone tools

are in the process of being washed out of a thin layer of *mbuga* clay which covers much of the surrounding area. The animal remains consist primarily of isolated teeth and bones of a large species of bovid and an equid. This site represents the richest archaeological concentration so far located in the Manonga Valley.

### Ipembe

The site of Ipembe, located 2 km southwest of the village of Ipembe and 13 km northwest of Igurubi, consists of a low plateau, about 10 m high (Fig. 2). The fossils, which were found scattered along the entire length of the eastern flank of the Ipembe plateau, are derived from sediments stratigraphically equivalent to the swelling clay series at Kiloleli and Tinde. Some lightly mineralized bones, white in colour with a chalky texture, were found washing down the northern promontory at Ipembe. These included a parietal fragment of a modern human skull, found in association with a thin scatter of microlithic quartzite tools. These were presumably derived from the superficial sediments and soils on top of the cliff, and are much younger than the heavily mineralized bones derived from the underlying lake sediments.

### Biostratigraphy and Biochronology

By integrating the preliminary results from investigations of the geology and faunas, it is possible to draw some tentative conclusions about the biostratigraphy and the biochronology of the sediments in the Manonga basin. Based on stratigraphic evidence alone, it is possible to group all of the fossil localities in the Manonga Valley into four main units. Although the faunas obtained from each of these units were not necessarily collected from precisely the same horizon, they are undoubtedly stratigraphically closely associated, and can therefore be considered to be contemporaneous. The oldest fossil-bearing stratigraphic unit in the Manonga Valley is the Ibole Formation, which is succeeded in turn by the Mwambiti Member, the Tinde/Kiloleli Members, and an unnamed

A preliminary comparison of the faunas from the four stratigraphic units suggests that there is no major difference between them in terms of their overall taxonomic composition, and that all of the fossil sites can be considered to be broadly contemporaneous. Significant differences can be identified in the actual structure of the vertebrate communities at different localities, even within a single stratigraphic unit (cf. the faunas at Tinde and Kiloleli), however, these almost certainly reflect facies or palaeoecological differences, rather than major temporal differences.

Unfortunately, because of the lack of volcanic rocks in the Manonga Valley, it is not possible to correlate the stratigraphic units to an absolute time scale. At present, the only means of estimating the age of the sediments is through faunal correlation, by which comparison is made with other sites in East Africa that have been dated by radiometric methods. Preliminary work on the faunas suggests that the age of the localities is not younger than Pliocene in age, and comparisons of the mammals with

those from specific East African sites shows that the fauna bears a close resemblance to that from Lothagam in northern Kenya (Patterson et al. 1970, Smart 1976, Behrensmeyer 1976). This would indicate that the sediments in the Manonga Valley are late Miocene to earliest Pliocene in age (c. 5–6 Ma).

A diverse fauna has also been recovered from the *mbuga* clays, which often form a fairly thick layer of superficial deposits covering the Neogene sediments. The mammals all belong to extant species, clearly pointing to a late Pleistocene or Holocene age. Most importantly, the fauna contains a single fragment of a human skull, and bones of mammals that show evidence of human activity in association with stone tools. It is hoped that with further prospecting in the Manonga Valley, additional archaeological occurrences will be discovered. A preliminary correlation of the major stratigraphic units and their relationship to the individual fossil localities is presented in Table 2.

**Table 2. Preliminary correlation of the major stratigraphic units and fossil localities in the Manonga Valley.**

Estimated Age	Stratigraphic Unit		Key Fossil Localities
Late Pleistocene-Holocene	Mbuga Clay		Ngofila 2, Nyawa, Ipembe
Late Miocene- Early Pliocene	Wembere- Manonga Formation	Unnamed Member	Ngofila 2-4, Beredi South 1
		Tinde/Kiloleli Member	Tinde East and West, Kiloleli 1-4, Shoshamagai 1-2, Mwambiti 1-2, Ngofila 1-5, Ipembe
		Mwambiti Member	Beredi South 4, Mwambiti 1, Nyawa
	Ibole Formation		Shoshamagai 2, Inolelo 1-3, Mwambiti 3-4

**Conclusions**

Two seasons of exploration have shown that the Manonga Valley is now one of the most promising new paleoanthropological research areas in East Africa, with tremendous potential for future long-term paleontological and archaeological research. The late Miocene to early Pliocene age of the sediments, in conjunction with their paleontological productivity, makes the sites in the Manonga Valley of especial importance for investigations into human origins. However, the extensive lake basin is still largely unexplored, and a long-term program of systematic prospecting, surveying and mapping is needed. Plans are already underway to organize a third field season during the summer of 1994.

**Acknowledgements**

Numerous individuals and institutions contributed to the success of the 1992 field season. In particular, I would like to thank Eric Baker, William Bongo, Eric Delson, Sarah Donelson, Bereket Haileab, Eugene Harris, Clifford Jolly, Christine Kiyembe, John Krigbaum, Amandus Kweka, Michael Mbago, Charles Msuya, Varsha Pilbrow, Charles Sanaane, Bill Sanders, Kathlyn Stewart, Simon Waane, and the staff of the National Museums of Tanzania in Dar es Salaam. I am also grateful to the Tanzanian Commission for Science and Technology and the Unit of Antiquities for permission to conduct research in Tanzania. This project was supported by grants from the National Science Foundation (DBS 9120882), the National Geographic Society, the L. S. B. Leakey Foundation and the Boise Fund.

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■ UGANDA

**Masaka Hill Revisited**

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neighboring kingdoms of Bunyoro and Nkore throughout the precolonial era. No archaeological excavations have ever been conducted at the site, which lies on the flat top of the hill. Lanning (1954) produced a sketch map of the site showing an earthen rampart about six feet across enclosing a circular area about 180 feet in diameter. A second concentric rampart branched off from the main enclosure on the west. There were six named openings ("gates") in the ramparts. Local residents were able to tell Lanning about the ceremonies that occurred at the site and about some of the artifacts stored and used there, including a royal drum (*Rusama*) stolen from the shrine during the religious strife of the late nineteenth century. Various artifacts given to Lanning or collected by him at the site are stored in the Uganda Museum in Kampala.

Renewed interest in Masaka Hill has been provoked by Peter Schmidt (1990) who challenged the widely accepted notion that the Bigo site was the capital of a Cwezi kingdom. He has drawn attention to those few sites, including Masaka Hill, where a link to the Bacwezi seems indisputable. Inspired by research further south in Buhaya (Schmidt 1978), he has also argued for a connection between power and ironworking at Masaka Hill (Schmidt pers. comm.). Thus, archaeological investigation of Masaka Hill merits high priority. However, no archaeologist or historian, to the best of our knowledge, has visited the site in the last thirty years. Kamuhangire's new observations are, therefore, of particular interest.

**Introduction (Peter Robertshaw)**

Masaka Hill is located on the north bank of the Katonga River in western Uganda, about 15 miles northwest of the site of Ntusi and 11 miles upstream from the Bigo earthworks. An ancient center of worship described by Eric Lanning (1954), Masaka Hill figures prominently in oral traditions, being linked with the Cwezi hero Wamala and subsequently serving as the spiritual center of the Bwera region which was able to assert its autonomy from the larger

**Masaka Hill—1991  
 (Ephraim Kamuhangire)**

Since E. C. Lanning visited and made a survey of Masaka Hill in 1952, a lot of changes have taken place there. The site is no longer an active centre of worship of the Bacwezi cult. The traces of the enclosure with specific gates are marked by a few old fig trees which are arranged in a semi-circle; and accessibility to the site became impossible for a number of reasons. In the first place, the whole region surrounding the site was infested with tsetse flies which forced the pastoralist communities to

migrate. As a result the region was deserted and turned into a wilderness which eventually became the Katonga Game Reserve. Access to Masaka Hill across the Katonga river from Lubaale Railway station became possible ten years ago when Rwandese refugees from Mbarara District were resettled in the Game Reserve in Kyaka county, Kabarole District. Additionally, Masaka Hill used to be accessible from Kabamba, opposite Nkongwe railway station, but when government established a military barracks there, it became difficult to use the route north of the Katonga.

Given the commanding view of the Masaka ridge, at least 20 km north across the Kyaka-Mubende plainland, it is possible that the hill formed one of the capital sites of a pastoralist polity of the Bacwezi. It might have become a ritual centre after the fall of the Bacwezi. The pottery finds that I collected from the ridge were analysed and found to be similar to those of Bigo bya Mugenyi, Mubende Hill, and Ntusi, and it is therefore equally possible that these sites were occupied during the same period by related peoples. It has been suggested that the site formed one of Omuchwezi Wamala's capitals as Mubende Hill was that of Ndahura, these being two rulers of the Bacwezi dynasty. As at Ntusi and other sites such as Muinaina, the northeastern part of the ridge pointing into the confluence of the Katonga and Mukekemya rivers is called *Obwegoromororo*, which is supposed to have marked the path through which the Bacwezi passed as they were leaving (disappearing from) the region.

On 13 August, 1991, I had the opportunity to visit and survey Masaka Hill, which is to the northeast of Lubale railway station across the Katonga river. When we had crossed the river, we met a young herdsman who was grazing cattle in the lower flats near the Katonga swamp. He gave us a few details about the site. Masaka Hill is composed of a series of three hilltops namely the "small" Masaka (4,100 ft.), "big" Masaka, and the Bigabiro (both 4,200 ft.) high. We started our survey on the "small" Masaka. We came across scattered pottery sherds, some with red paint, and signs of past settlements as there were large patches

of circular features covered by a particular grass, *Cynodon dactylon*, which is characteristic of abandoned homesteads in this region (Williamson and Payne 1968).

The hilltop which the young man informed us was the "big" Masaka is stony and there are no signs of past settlement. However, we came across a nearly complete broken pot which was buried in the ground along the path-way between the "big" Masaka and the Bigabiro. I collected a few sherds which Jeremy Meredith analysed (see below). It is the Bigabiro hilltop where evidence of past settlement is clear. The whole hill is not presently occupied and the nearest homestead is about 2 km across the valley to the north. So, apart from the two herdsman and one herds girl whom we met, there were no other people who could offer assistance to us.

On top of Bigabiro hill there is a cluster of big and old fig trees—seven in all, except those which are symbiotically growing on other trees nearby. Five of the seven trees are arranged in a semi-circle facing eastwards, which is suggestive of the main homestead. The other two trees are each a distance away from the main cluster. Inside the main cluster of trees are bushes which also characterise old settlements. Above all the whole area/site of about 1 sq. km is covered by *Cynodon dactylon* grass.

One of the big trees in the cluster fell down but it did not dry up. Instead, its roots have buttressed each other and are intertwined in a stepped-up form. If Masaka Hill was a ritual center, it is under this very tree that there are signs of offertories. We found here a rotten calabash or gourd and half a pot but they were relatively recent. It seems the site was last visited by supplicants about 30 years ago because, unlike Mubende Hill shrine, the place is highly overgrown and there are no visible footpaths to the shrine apart from cattle tracks.

There are also grinding and sharpening stones within the enclosure of the main cluster of trees. One noticeable feature around the main cluster of trees is what appears to have been a trench. It is silted up but it seems to have been about 8 m wide. There are also circular features with low mounds covered by *Cynodon dactylon* grass

which suggest foundations of houses. One such feature is behind the fallen tree 30 m to the west where we found a big heap of iron slag. There are also pottery sherds all over the site.

Masaka Hill is about 4 km long and its eastern end known as *Obwegoromoro* ("the place of disappearance by the Bacwezi") points steeply into the Katonga swamp. It also has a steep slope on the south, but it commands a clear view of the hills of Njalwe and Makome villages across the Katonga swamp east of Lubale railway station. Most importantly, it commands the whole expanse of the plainland, about 20 km away, to the north and east, which perhaps explains its historical importance as a "capital/ritual?" site.

### Pottery (Jeremy Meredith)

Six sherds were collected by Kamuhangire at Masaka Hill, three of which belong to the same vessel. Of the other three, one is part of a rim, and the other two are body sherds. All exhibit roulette decoration, either twisted-string roulette (TGR) or knotted-strip roulette (KPR) (Soper, 1985). The various sherds are as follows:

1-3. Three sherds all belonging to the same vessel. The fabric is a hard, sandy buff-coloured paste with a dark grey core. All the sherds are very highly abraded, which would remove any surface finish they might have had, and the roulette decoration is obscured. The sherds come from a vessel with an everted neck and a thickened, rolled-over rim. Roulette decoration, possibly TGR, is visible on the exterior of the neck.

4. A rim sherd with a hard, pale cream-coloured fabric with a dark grey core. The fabric is tempered with pieces of crushed pottery (grog) and occasional pieces of quartz. This sherd appears to be part of a thickened, rolled rim. KPR decoration on the exterior surface of the rim is covered by several dabs of red slip or paint.

5. A body sherd with fabric similar to the previous sherd. The internal surface is slipped red and the exterior has KPR decoration. The curvature of this sherd

suggests it comes from the neck of the vessel.

6. A body sherd with a hard, dark grey fabric tempered with grog and occasional pieces of quartz. TGR decoration covers half the external surface of the sherd. The entire external surface appears to be covered by a slightly micaceous slip.

All the sherds exhibit characteristics of later Iron Age pottery of the Great Lakes region and show similarities to pottery from the surrounding sites of Bigo, Ntusi, and Mubende, which have pottery with KPR, TGR, and red slip decoration. Sherd number 4, with its thickened, rolled-over rim and roulette decoration, closely resembles sherds found at Ntusi, while the red dabs on the exterior of this sherd are similar to those noted on sherds at both Ntusi and Mubende Hill. The vessel represented by sherds 1 to 3 is more unusual, but it may be similar to the large necked jars with everted, thickened rims recovered from Mubende Hill (Lanning 1953).

Apart from indicating some broad similarities with pottery from other major later Iron Age sites, little can be said about the relationships between the Masaka Hill pottery assemblage and those from other sites in the region because of the small size of the sample. However, the Masaka Hill pottery does show affinities to the pottery from Mubende Hill and Ntusi.

### Conclusion

Kamuhangire's recent visit to Masaka Hill has served to confirm the integrity and importance of this site, which clearly warrants detailed archaeological investigation. Opportunities may also exist in the region for historical research. While the nearby army base may provide some protection, there is always a danger that the site may be cultivated. It would be prudent to gazette Masaka Hill as a national monument and install caretakers, not only to protect its archaeological integrity but also to ensure its conservation as a very important element of the cultural heritage of all Ugandans.

**Acknowledgements**

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Shona villages. Since then, the city has grown to become one of the largest in southern Africa. The burials described here have been identified during building operations and have been reported to the museum since the 1950s. These relics, which have been viewed as "standing in the way of development," have been destroyed. A few sites, however, were fortunately examined professionally before they were demolished. This paper focuses on the results of recent excavations at the Budiriro burial.

In 1960, eight burials were known in Harare, and rescue excavations had been conducted at four of the burials. Today a total of 74 burials are known to the National Archaeological Survey; of these eight have been excavated.

**The Budiriro Burial Excavations**

Budiriro was let by the municipality for high density residential development in 1985. The particular site of this burial (Site Number 1730 DD 208) is Stand Number 1014, grid reference TR 8195 2090 (1:50,000 map 1730 D4).

Human bones were discovered during excavations of a foundation trench for the house. The builders mistook the bones for those of a dog and continued digging until the reality of their findings was revealed when they hit a skull. Digging stopped, especially as there was a frightening story circulating that a vengeful ghost of a white former owner of the estate was terrorising residents in the suburb.

I was alerted of the findings by a report which appeared in the daily paper, the Herald, on 20 April. In our preliminary work we wanted to ascertain that the burial was an ancient burial outside the jurisdiction of the police or otherwise. Thus an inquiry was made into the recent history of the farm.

Budiriro (which means development in Shona) was a commercial farm (Willowvale Farm) from 1913. Since then it has changed hands and has been subdivided a number of times. The late Morton Jaffrey owned one of the subdivisions (Patrenda Farm) from 1946 to 1974, indeed the longest ownership. This part was sold to the municipality in 1985 for

■ **ZIMBABWE**

**The Budiriro Burial Excavations, Harare, May-June 1990**

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**Introduction**

Harare, the capital of Zimbabwe, was founded in 1890 on what was a scatter of

the Budiriro residential development. We asked Sir Morton Jaffrey's son about the farm. He said he knew every part of the estate and where people resident on the farm were buried, but he was not aware of this burial.

The site map (Fig. 1) shows the position of the burial. The rectangular foundation trench of the house was laid with the longer sides running approximately east-west. The burial was exposed on the western wall of the western trench. A trench 2 m EW and 1.5 m SN was marked over the remains of the burial. The stratigraphy of the burial site is shown in Fig. 2.

The skeletal remains were found with the head at 67 cm below the original ground surface. The base of the pelvis and leg joints were 108 cm below the ground. The excavations progressed in artificial levels 20 m deep until the shoulder blade was uncovered. The skeleton was in an advanced state of decomposition. It was decided to excavate the rest en bloc since the clay was

wet. This we succeeded in doing but the block disintegrated due to shrinkage two days later in the museum.

The head was above the rest of the body. Next to appear were the shoulder blades, and on this level and around the skeleton was a scatter of 47 shell beads, quite obviously necklace beads. The spinal column had contracted into a bow apparently partly due the fact that it was laid in a contracted sitting position and also due to sinking during decomposition.

The bones which had already been disturbed by the builders were as follows:

Limb bones: one part of the left tibia, 2 incomplete femora, 6 other unidentified limb pieces.

Teeth: 3 incisors, 3 canines, 2 pre-molars, 7 molars, 3 molars attached to mandible.

Mandible: right ramus, left ramus, and part of the right mandible with 3 molars embedded.

Skull: 3 fragments of the skull.

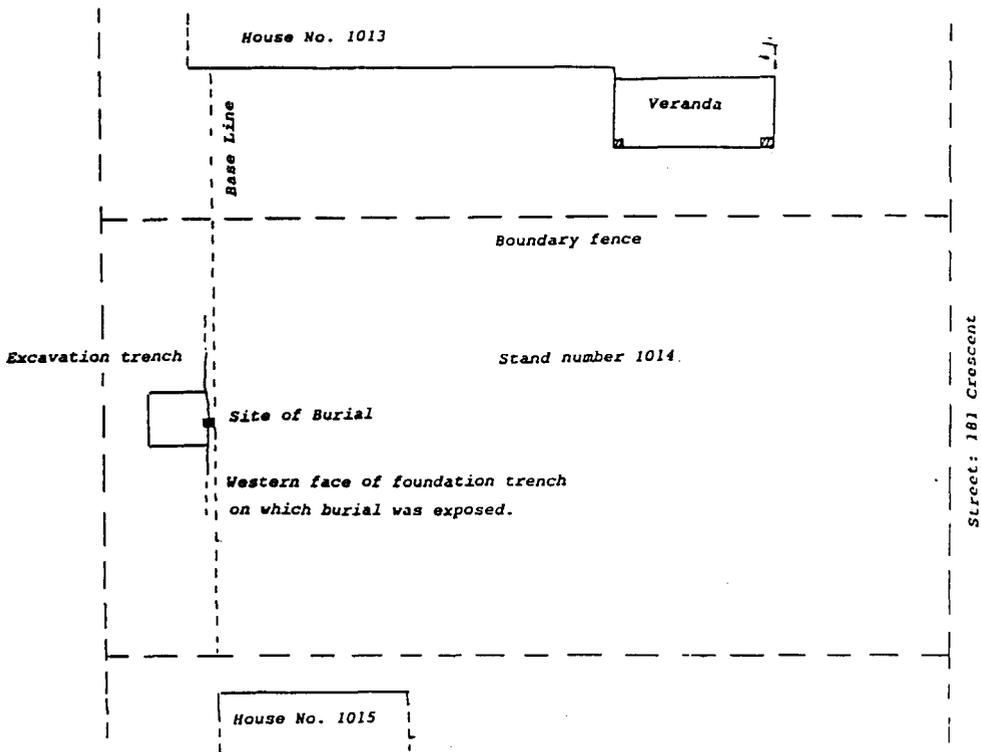


Fig. 1. Stand Number 1014, Budiriro, showing the site of the burial.

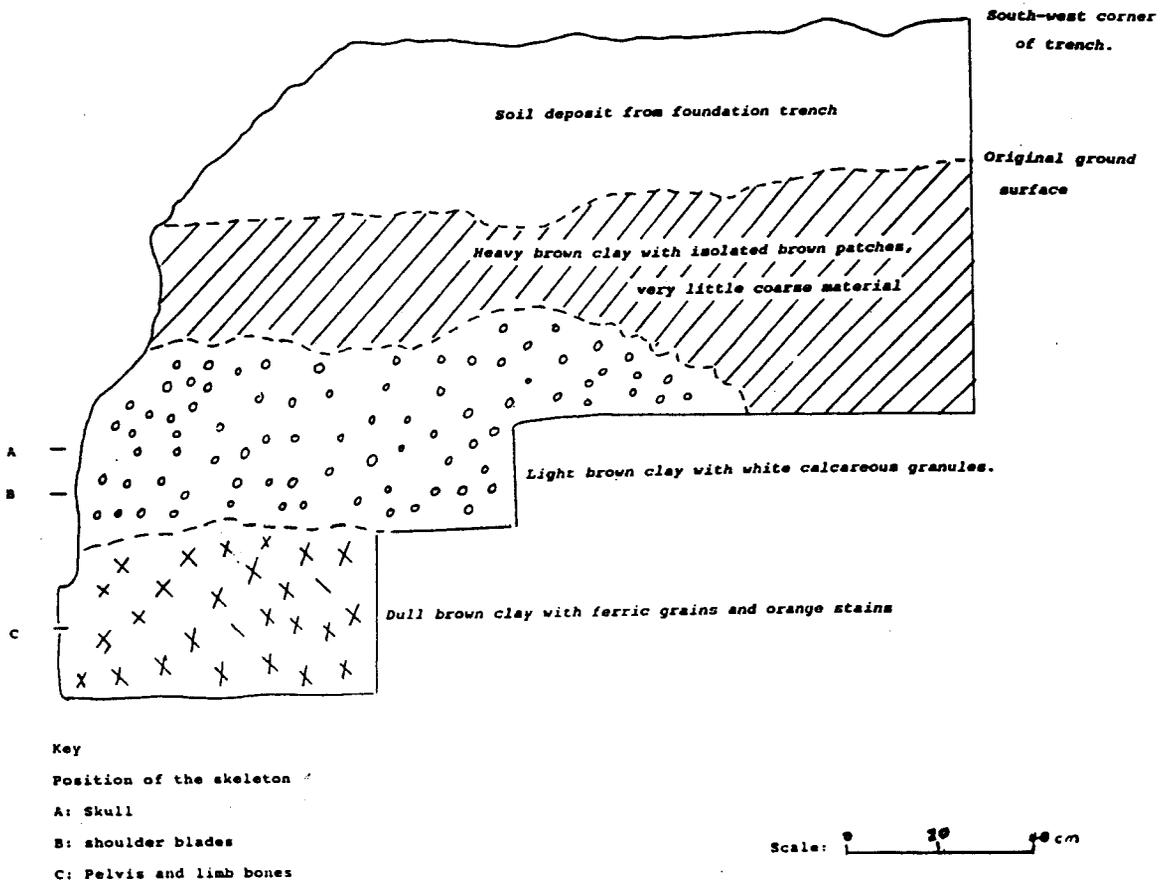


Fig. 2. Section of the southern (north facing) wall of the trench.

In spite of the fact that part of the burial had been disturbed, it was clear that the body was laid in a contracted position, facing south-east. The sitting posture has been encountered at Iron Age burials. EIA Sinoia burials from Naba and Lanlorry were in sitting positions, as were the EIA Maxton burials from Mazvikadei dam. At least some of the skeletons from the eleventh century Later Iron Age Musengezi tradition burials at Monk's Kop were sitting surrounded by posts (Crawford 1967). As shall be seen later this burial shares a common situation (vlei in open country) with some LIA Harare tradition burials.

**Discussion**

Information about burials in the Harare area (Fig. 3) has been made available through rescue excavations to pre-empt destruction of archaeological evidence rather than to preserve the burials. A majority of the known burials are concentrated in the most built-up area of Harare showing that their high frequency in this area is likely to be a function of the intensity of building activity rather than reflecting the actual distribution. Within the built up area there do not appear to be any distinct clusters, but there are different types of situations preferred as burial grounds (Table 3). Six burials are located in rock-shelters or overhangs (5 on Rocky Farm: 1731 CC 175-179), 4 burials on top of a ridge (e.g., Avondale Ridge: 1731 CC 16), and another 4 at or near the foot of a hill (e.g., Harare Kopje: 1731 CC 31 and Mount Hampden: 1730 DB 4). The burials situated on ridges are in ironstone country while the rock-shelter sites are of granite. Some burials are also situated on level ground in open country sometimes near an anthill (Graniteside: 1731 CC 3) or on the edge of a vlei or stream (Coronation Park II: 1731 CC 2 and Welston Farm: 1731 CA 117; see Table 3).

A majority of the burial grounds were cemeteries where a number of individuals were laid in separate interments (Table 2). It is not possible to ascertain whether the corpses belong to a single funeral. The assumption is usually that a burial site was repeatedly used as deaths occurred in the village.

Only three single burials are known in this area: Welston Farm, Warren Park (1730 DD 203), and Budiro (173C DD 208). There apparently is no immediate relationship between these graves in terms of their situation and contents as can be seen in Table 1. But the former two belong to the same tradition, Harare, while the status of the latter is not known.

Most of the burials were reported when much of the overlying soil had been removed. It has therefore been difficult in these cases to determine the shape of the grave. At Harare Kopje and Graniteside, shafts were found to be oval in shape often widening at the base. In one case at Harare Kopje the walls of the grave were lined with stones.

Preservation of skeletons was bad in most areas, rendering impossible the determination of burial posture. However, in a few cases the corpses were laid in an extreme flexed (foetal) position with knees drawn up to the chin and hands near the face (Whitty 1958, Goodall 1962: 319). The orientation of the body varies but has generally been observed to be northwest as at Graniteside, Harare Kopje, and Mt. Hampden (Whitty 1960, Garlake 1967).

Table 1 summarizes the range of funerary goods. The items can generally be divided into two types, ornamental and utilitarian goods. Ornamental objects include glass beads in a variety of colours, shell beads, necklaces, bracelets, bangles, anklets, and beads of iron and copper, in a number of cases apparently in positions that one would find them when the person was alive. No gold ornaments have been found.

All pots buried with the corpses had previously been used apparently as household utensils. It is probable that the soot discolouration was a result of treatment in preparation for the burial ritual. The number of pots in each burial range from one up to 22 with the largest caches found at Graniteside and Marlborough (1731 CC 30); see Table 2. If the pots contained any food no traces have been detected. In the Welston burial there is evidence, though indirect, that some pots contained something at the time of burial as the soil had apparently

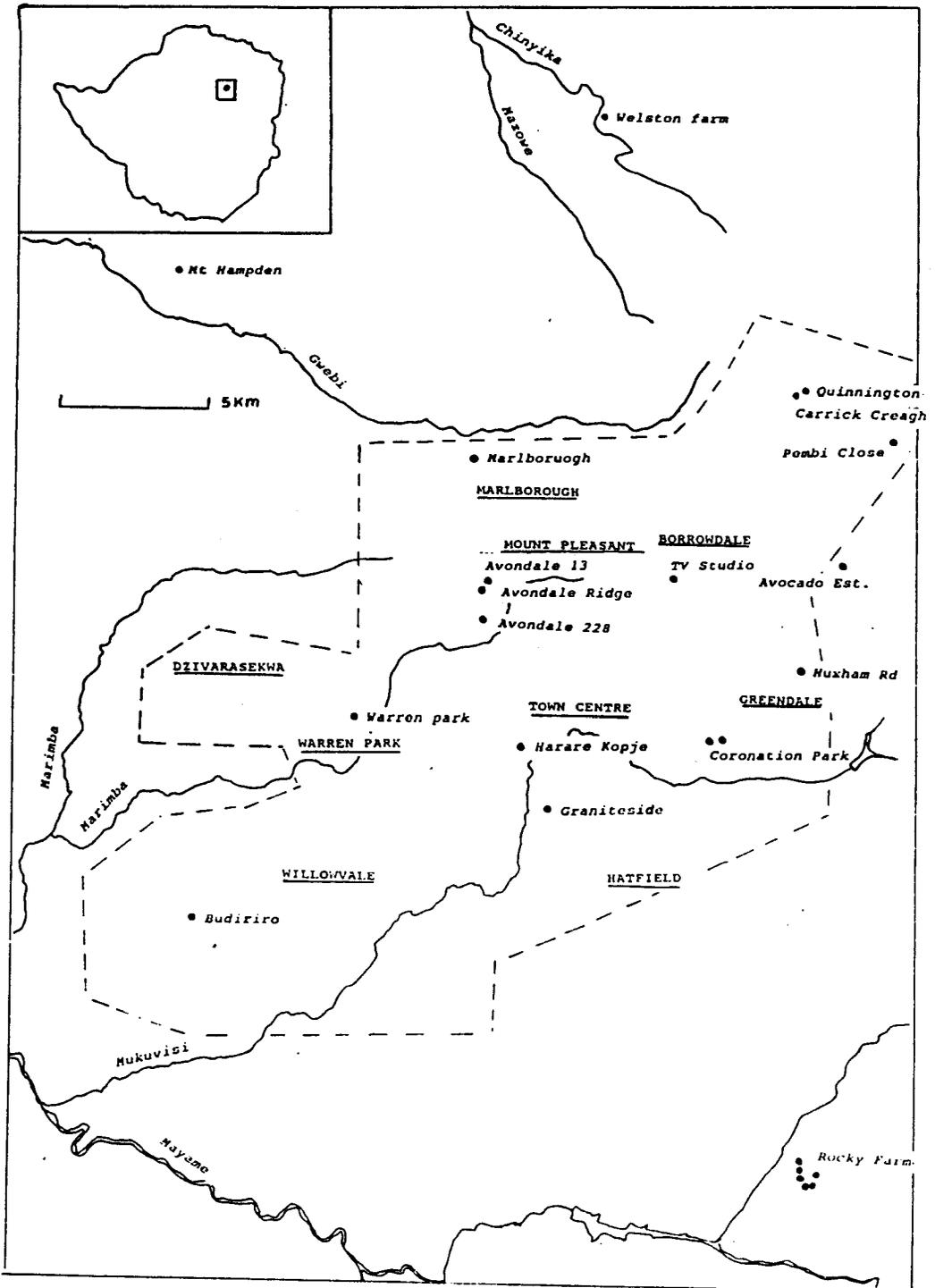


Fig. 3. Burial sites.

Table 1.

Site	Trad	Pots	Fe Orn	Cu Orn	Shell Beads	Imported Beads
Coronation Park	EIA Cor					
Mt. Hampden	Har	+	+	+		+
Bardwell Kopje	Har	+				
Carrick Creagh	Har	+				
Quinnington	Har	+				
Welston farm	Har	+	+			
Pembi Close	Har	+	+			
Coronation Park	Har	+	+	+		
Graniteside	Har	+	+		+	
TV Studio	Har	+				
Avondale	Har	+				
Avondale Ridge	Har	+				
Marlborough	Har	+	+			
Harare Kopje	Har	+	+			+
Davidson's	Har	+				
Avocado Est.	Har	+				
Rocky Farm	Har	+				
Avondale S P	Har	+				
Huxham Rd.	Har	+				
Ameva Ranch	Har	+			+	+
Warren park	Har	+				
Budiriro	?				+	

Table 2<sup>1</sup>.

Site	Number of Vessels in Grave
Welston	21
Harare Kopje, 3 burials	8-10 each
Mount Hampden, Burial 1	10
Marlborough, Burial A	15
Burial B	4
Burial C	9
Burial D	8
Burial E	11
Burial F	13
Burial G	5
Graniteside	2 categories: (1) 5-6 (2) up to 22

<sup>1</sup>Adapted from Tagart, 1988: 8.

sunken into the pot to fill the place of material which had decayed.

The available chronological information is derived from ceramic typology and radiocarbon determination. The majority of the burials in the Harare area belong to the LIA Harare tradition. A recent survey (Sinamai 1990: 33) shows that 53% of Harare pottery, as it is now called, is undecorated. Harare pottery is primarily known from the burial material while a few village sites have been located. There was a residential site 200 m away from the Welston burial (1731 CC 118) although ceramic comparison has been inhibited by the fact that potsherds found at the latter site are undiagnostic. Quinnington (1731 CA 6) was reported as an "open village" with Harare burials. Croborough Farm (1730 DD 78) has been confirmed to be a Harare residential site.

Radiocarbon dates have been obtained at the following sites.

Graniteside: (GRN-2341) A.D. 1270 ± 60, (Y-722) A.D. 1280 ± 100;

Carrick Creagh: (Pta -965) A.D. 1125 ± 451

Weston Farm: (Uppsala, Sweden) A.D. 1106 ± 175

Castle Kopje: (Uppsala/ Sweden) A.D. 1470 ± 40, A.D. 1280 ± 50, A.D. 1270 ± 70

These radiocarbon dates point to a time period from the twelfth century to the fifteenth century.

Only one burial ground (1731 CC 2) is dated to the eighth-century EIA Coronation phase. This too was a cemetery of which five burials had been removed by a construction company before the museums intervened to salvage a child burial.

The Harare burials are broadly contemporaneous with the Musengezi tradition found to the north of Harare. Only one Musengezi burial, the Monk's Kop Ossuary, has been excavated so far. This single multiple burial about 70 km north-west of Harare had bones representing at least 71 individuals accompanied by 106 complete pots and hundreds of sherds in a single cave interment. Most Musengezi graves are situated in caves, rock crevices and shelters. No open sites have been reported so far. The pottery is frequently decorated and the burial material compares

**Table 3.**

Site	Single (-) or multiple (+)	Locality
Mt. Hampden	+	Ant hill near foot of hill
Bardwell Kopje	+	Small shelter on a hill
Carrick Creagh	+	On edge of iron ridge
Quinnington	+	On edge of iron ridge
Pembi Close	+	?
Welston farm	-	On edge of stream
Coronation Park	+	On edge of vlei
TV Studio	?	Near a hill
Avondale Ridge	+	On top of iron ridge
Avondale	-	On top of iron ridge
Avocado Est.	?	Highest point on plot
Rocky farm	?	Five sites under boulder or in shelter
Rocky Farm	+	Level ground among kopjes
Enondo B	+	Level ground
Marlborough	+	Level ground
Harare Kopje	+	Level ground near hill
Graniteside	+	Open level ground near termite mound
Huxham Rd.	-	Level ground near boulders
Warren park	-	At foot of hill
Budiriro	-	Level ground, seasonally water logged

well with pottery found at numerous residential sites in the area. Similar items of adornment are found in Musengezi burials.

The suggestion still lingers that the dead were probably itinerant traders, strangers who were buried with their goods (Whitty 1960). Oral traditions and early documents can be used to isolate nineteenth-century villages in the Harare area. In fact Beach (1990) has essentially done this. Once these have been recorded other occupation sites may be considered for the earlier traditions.

**Conclusions**

The Budiriro burial is likely to be an Iron Age burial but its exact place in the chronological sequence of the Iron Age remains unknown. The absence of pottery in this burial precludes simple comparative investigation using the pottery of the Harare and other earlier traditions. As we have seen, the body appears to have been seated, in contrast with the lying-on-the-side position of Harare burials, although the fact that it is a single, isolated burial is shared by the Welston Farm burial.

**Acknowledgements**

Lorraine Adams (Queen Victoria Museum) besides participating in the excavations, conducted research into the history of Budiriro prior to the residential property development. I am most thankful for her assistance. Paul Mupira, also from Queen Victoria Museum, participated in the excavations.

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## BOOK REVIEW

**Lebeuf, Jean-Paul, and Immo Kirsch, Johannes H. 1989. *Oura, Ville Perdue (Tchad)*. Paris: Editions Recherche sur les Civilisations; 100 pp. 135 Francs.**

*Peter L. Shinnie  
Department of Archaeology  
University of Calgary  
Calgary, Alberta  
Canada T2N 1N4*

The site of Oura (usually Wara in English) is one of a number of elaborate complexes of brick buildings scattered through Darfur and Wadai and reaching west as far as the region of Lake Chad. Built as the residence, and therefore the administrative capital, of the Sultans of Wadai, it has been visited on several occasions by travellers who have left descriptions from the first by Omer Suleiman al-Tunisi in 1810, a North African traveller who wrote a famous travel book in Arabic best known from the French translation "*Voyage au Ouday*" published in 1851, to the authors of the present publication. This includes the writer of this review who accompanied G. Balfour-Paul, who wrote a description (reference given in the publication), on a visit on 20 May 1953 and published the best plan of the site prior to that now published.

The authors of the present work visited the site on different occasions—Lebeuf in 1960 and 1963—as a result of his second visit we have the good plans made by Michael Dufour who accompanied him. The coauthor, Immo Kirsch, visited in 1983 and made further plans and studied construction methods and the symbolism thought to be reflected in the layout of the complex.

The group of buildings are claimed in local tradition to have been built by the first sultan of Wadai, Add al Karim Yamé, in about 1640, but detailed examination suggests that the complex was built over a number of years starting at the time of Add al Karim and continuing until Sultan Sabun II, who reigned from 1803 to 1813 and was the ruler who received al-Tunisi in 1810. The buildings were abandoned in 1850 but are still in a good state of preservation, being now in a remote and sparsely inhabited area, though at the time of construction they lay on an important trade route from Egypt to Tripoli. The troubles that have beset Chad in recent years seem not to have caused damage, though they have inhibited planned restoration and archaeological work at the site.

The present publication is a useful and workmanlike account of Wara and is a combination of observations made by the two authors on their several visits—it seems that they never visited the site together. Their work gives us a detailed and coherent description of the site with plans, ground photographs, and air photographs so that a study can be made and the complex of buildings compared with others in the area. None of the others, such as Ain Fara, Shoba, or Uri have been studied in this detail, although there is some information about all of them and of the group of possibly related Kanuri structures such as Garoumelé and Birni Gazargamo further to the west.

Some small-scale excavations were carried out in 1963 with rather meagre results, but a collection of not very diagnostic potsherds (a few are illustrated) were found. These were, except for a few examples now in the Musée de l'Homme in Paris, deposited in the Musée National Tchadien at Ndjamena, where they were "sciemment pillé" as the authors say.



## PUBLICATIONS

### Items for Review

The following books have been received for review.

*Technology of Knapped Stone* (1992). Marie-Louise Inizan, Hélène Roche and Jacques Tixier. CREP, Préhistoire de la Pierre Taillée, Tome 3.

*An African Commitment: Papers in Honour of Peter Lewis Shinnie* (1992). Judy Sterner and Nicholas David (eds.). University of Calgary Press.

Still available for review are *Racines Bantu/Bantu Roots* and *The Skeletons of Contact*; see *Nyame Akuma* 38. If interested in reviewing any of the above publications, please write to the editor of *Nyame Akuma* for a review copy.

### New Journals

*Southern African Archaeology*. This is a new journal presenting articles on current research projects, site reports, rock art panels, rescue excavations, and contract projects to the archaeological community and to the public. Students in particular are encouraged to submit short reports on projects and theses for publication. Hitherto much of this material has been unavailable to the majority of archaeologists. *Southern African Field Archaeology* also publishes general information on archaeological matters such as reports on workshops and conferences of interest to a wide range of researchers in a number of disciplines.

Forthcoming articles in 1993 include:

C. G. Sampson, "European and Oriental ceramics from rock shelters in the upper Seacow valley."

D. Miller, D. Morris, and G. Evans, "Metallurgical analysis of two artefacts from a burial at De Hoop, Kimberley district."

L. Webley, "Archaeological investigations at the battlefield of Rorke's Drift, northern Natal."

A. Manhire, "A report on the excavations at Faraoskop rock shelter in the Graafwater district of the south-western Cape."

I. Plug, "The macrofaunal and molluscan remains from Tloutle, a Later Stone Age site in Lesotho."

*Southern African Field Archaeology* is published twice yearly in April and September. Subscription rates are as follows: R25,00 per year for individuals and R40,00 for institutions. Outside of southern Africa US\$25 for individuals and US\$30 for institutions. Back copies of Volume 1 Nos. 1 and 2 printed in 1992 are now available. Please make cheques and postal orders payable to Albany Museum.

Further details are available from:

The Editors  
Southern African Field Archaeology  
Albany Museum  
Somerset Street  
Grahamstown 6140  
South Africa

*Nigerian Heritage: Journal of the National Commission for Museums and Monuments*. This journal is published annually, beginning in 1992, and deals with any aspect of Nigerian material and non-material culture, including articles on archaeology, ethnography, natural history, linguistics, and religion. Annual subscription rates are N50 for individuals and N60 for institutions in Nigeria; \$25 for individuals and \$40 for institutions overseas. Inquiries should be addressed to:

The Editor  
*Nigerian Heritage*  
National Museum  
PMB 12556  
Onikan, Lagos  
Nigeria

A review copy of Volume 1 (1992) is available and can be requested from the editor of *Nyame Akuma*.

### Also Noted

Announcements have been received of the following publications that may be of interest to readers of *Nyame Akuma*:

*Col. Robert Jacob Gordon's Notes on the Khoikhoi 1779-80.* A. B. Smith and R. H. Pfeiffer. 1992. Annals of the South African Cultural History Museum, Vol. 5 (1). Box 645, 8000 Cape Town, South Africa.

*The Khoikhoi at the Cape of Good Hope: Seventeenth-Century Drawings in the South African Library.* A. B. Smith (ed.). 1992. South African Library, Box 496, 8000 Cape Town, South Africa.

*Pastoralism in Africa: Origins and Development Ecology.* A. B. Smith. 1992. Hurst & Co. (U.K.), Ohio University Press (U.S.A.), Witwatersrand University Press (South Africa).



## MEETINGS

### Association Ouest Africaine d'Archeologie (A.O.A.A.)

VI<sup>e</sup> Colloque de L'A.O.A.A.

*Archéologie et sauvegarde du patrimoine*

28 mars au 02 avril 1994  
République du Bénin

L'Association Ouest Africaine d'Archéologie organise du lundi 28 mars au samedi 02 avril 1994 son VI<sup>e</sup> colloque, à Cotonou, en République du Bénin. Le thème

retenu pour ce colloque est «Archéologie et sauvegarde du patrimoine.»

Après avoir procédé à un bilan des recherches et de la coopération scientifique en matière d'archéologie, ces dix dernières années, notre association se propose de faire le point des mesures prises et des problèmes encore non résolus dans la nécessaire sauvegarde du patrimoine culturel et naturel en Afrique en général et plus particulièrement dans sa partie occidentale. A cette occasion, l'A.O.A.A./W.A.A.A. voudrait favoriser un large échange d'expériences entre les professionnels de l'étude et de la gestion du patrimoine d'une part et d'autre part entre ces derniers et les décideurs politiques et économiques de la (sous-) région singulièrement dans le cadre de la Communauté Economique des États de l'Afrique de l'Ouest (C.E.D.E.A.O.).

Par ailleurs au cours de cette rencontre, se tiendra une Assemblée Générale extraordinaire de l'Association qui décidera d'une éventuelle transformation en une Organisation Non Gouvernementale de professionnels de l'archéologie.

### Conditions de Participation

Les personnes souhaitant participer à ce colloque sont priées de retourner le bulletin de pré-inscription avant le 15 septembre 1993 au plus tard à l'adresse suivante:

VI<sup>e</sup> colloque de l'A.O.A.A./W.A.A.A.  
Département d'Histoire et  
d'Archéologie  
B.P. 526 COTONOU  
(République du Bénin)

Pour toute information complémentaire sur le VI<sup>e</sup> colloque de l'A.O.A.A./W.A.A.A. s'adresser à:

M. Alexis B. A. ADANDE  
B.P. 1057  
PORTO-NOVO  
(République du Bénin)  
Tél. (229) 21 43 63  
Fax (229) 21 25 25

Les participants qui souhaitent proposer une communication sont priés de joindre au bulletin de pré-inscription un résumé dactylographié (30 lignes maximum) précisant le titre.

**Participants**

Membres réguliers de l'A.O.A.A./ W.A.A.A. (ayant payé leur cotisation).

Archéologues, historiens de l'art, conservateurs, enseignants, chercheurs, responsables d'agence de tourisme, cadres et agents des eaux et forêts, des services des T.P., de l'environnement, de l'habitat, de l'urbanisme, etc.

Représentants d'association de développement ou d'organisations nationales, régionales et internationales intéressées.

**Droits d'Inscription**

Les droits d'inscription sont payables par chèques ou mandats postaux, d'un montant de 10.000 F CFA (ou 200 FF) s'ils sont réglés *avant le 15 septembre 1993*.

Pour les étudiants, ils ne sont que de 3.000 F CFA (ou 60 FF). Après le 15 septembre, les droits d'inscription s'élèveront à 15.000 F CFA (ou 300 FF).

Les chèques sont à adresser à l'ordre du:  
VI<sup>e</sup> colloque de l'A.O.A.A./ W.A.A.A.

Tout membre régulier de l'Association est exempté des droits d'inscription au colloque, *s'il respecte la date limite du 15 septembre 1993*.

Le Bureau Exécutif provisoire se réserve le droit de prendre en charge, dans la limite des moyens financiers disponibles, des chercheurs de l'Ouest africain dont la communication aura été retenue par le Comité scientifique du colloque.

**Cadre du Colloque et de l'Assemblée Générale**

Le VI<sup>e</sup> colloque de l'A.O.A.A./ W.A.A.A. et son Assemblée Générale extraordinaire se dérouleront dans les locaux de l'Université Nationale du Bénin, à Cotonou.

Les prochaines circulaires préciseront les modalités de transport et d'hébergement ainsi que le programme du colloque.

**British Institute in Eastern Africa**

*"The Growth of Farming Communities in Africa from the Equator Southward"*

4-8 July 1994  
Cambridge, England

**Conference Theme and Arrangements**

The Conference is to focus on Bantu Africa and its borderlands and on the period known generally as the Early Iron Age. For this purpose it has to consider the preceding situation, that of the first millennium BC, and in the other direction the emergence of later Iron Age societies in equatorial and southern Africa towards the end of the first millennium AD.

The treatment of the subject should be multidisciplinary. Although some topics and techniques may need discussion by specialist groups (ecologists, linguists, archaeologists, or cultural anthropologists), it is not intended to break the conference into a series of disciplinary seminars with parallel timetabling through the week. It is hoped, rather, to arrange the proceedings so that most of the sessions will be plenary, and participants will be asked to bear this in mind when preparing papers and in presenting them. In the case of research details that require technical language or tabulations, a suitable summary or introductory statement of aims and results would be appropriate.

It is foreseen that many of the presentations, both on the historical and archaeological side and on the cultural and linguistic one, will be regionally focussed. At this stage three broad regions are recognised within the conference's geographical cover:

**Western equatorial forests** (Zaire basin and its peripheries as far as Mount Cameroun)—early Iron Age and pre-Iron Age developments to be considered.

**Interlacustrine region** (Kivu to Lake Victoria basin) importance of early iron, distinctive ceramic industries and agriculture; the nature and significance of environmental change between 1,000 BC and AD 1,000.

**South-central and southern Africa**—Early Iron Age here a derivative from last or a more original complex?: questions of “Eastern” and “Western” streams, as either linguistic or archaeological entities.

While acknowledging that parts of the conference will concern themselves with these and other regional issues, it would undermine the purpose to divide the conference formally into separate geographical conclaves. Rather, regional specialists in whatever discipline will be invited to project their materials to the conference as a whole.

Both within and across the boundaries of the broad regions noted, there are a number of subjects requiring expert discussion:

**Agricultural and food systems:** to include indigenous foods of forests and savannas; domestication, adaptation and diversification of food-plants; and the role of livestock in (and before?) the early part of the Iron Age. This subject needs ecological, agronomic, archaeological and linguistic perspectives.

**Iron production, technology and consumption:** radiation and early variability of both techniques and manufactures; diachronic treatment needed. The role (and the language) of iron in the early Bantu world to be addressed from different disciplines.

**Ceramic and other diagnostic cultural traditions:** pre-Iron Age and early iron Age, as well as mid-Iron Age regional changes. Technical and social-cultural treatment needed, as well as attention to regional variation and chronology. Is pottery (and its

classification) merely a convenient archaeological tool? Or does it have broader cultural significance?

**Other industries, specialisations, exchanges**—salt, cattle, etc.—before the middle of the Iron Age: Was EIA culture and economy “simple”? Can and should we talk of “mixed farming”?

**Settlement patterns, social systems** (including descent and other principles): Can one identify (from comparative ethnological, linguistic, or archaeological evidence) “pan-Bantu” or regional Bantu traditions? How do such cultural-historical enquiries illustrate the other themes?

**Communications** (and physical barriers); river systems, lakes and the two coasts of the sub-continent; methods of travel and transport—and their relevance to questions of population expansion and contact as well as that of cultural and language change.

It is not envisaged devoting a section of the conference specifically to methodological issues, since these cannot be divorced from their subject contexts. It will nevertheless be necessary at the appropriate places to consider research methods, as well as classification systems (linguistic, anthropological, and archaeological) and dating techniques (notably the use of radiocarbon and interpretation of results, deductions from lexico-statistics, etc). If it be felt that some of these methods and their conceptual backgrounds need working-party discussions during the conference week, this will be considered if time allows and suggestions are received well in advance.

Since summaries (as well as papers of not more than *ten pages* received on time) will be precirculated, those presenting papers at the conference will be expected to speak to them (with illustrations if desired) in the time allotted, not to read them.

Although it is envisaged that the larger proportion of the presentations will be in English, those participants who prefer to write their papers and speak to them in

French should feel perfectly free to do so in this international Africanist Conference. Half-page summaries in the other language would be helpful.

For the Proceedings of the Conference, which the Institute intends to have edited and published as promptly as practicable after the conference, the same bilingual principle will apply.

**Registration and Schedule**

Intending participants are asked to contact the Secretary, African Studies Centre, Free School Lane, Cambridge, CB2 3RQ UK (Tel: 0223-334396; Fax: 0223-334748) for registration documents and information on fees and accommodations.

Titles or subjects of proposed papers should be offered as early as possible, and by December 1993 at latest.

Abstracts, and papers of up to ten pages intended for precirculation, should be received in Cambridge by 1 March 1994.

A final circular with the conference programme and precirculated material will be sent to all registered participants in late April/May 1994.

**Forum for African Archaeology and Cultural Heritage**

*"State of the Pre-protohistorical Research in Africa"*

18-19 September 1992  
Rome, Italy

On 18 and 19 September 1992, a seminar was held in Rome, based on the theme "State of the Pre-protohistorical Research in Africa." Among the participants were N. Petit-Maire, D. Johanson, F. Hassan, J. D. Clark, F. Wendorf, P. de Maret, and B. Chiarelli. The seminar was organised by Barbara Barich, member of the Department

of Historical and Archaeological Sciences of the University of Rome "La Sapienza," in collaboration with Maria Casini, member of the same department.

The two days of work produced important results for scholars of archaeology and related scientific fields (anthropology, geology, ethnology, linguistics) pertaining to African studies. The concluding document, presented by Prof. Fred Wendorf, recommended the foundation of a *Forum for African Archaeology and Cultural Heritage* based in Rome. One of the main aims of the *Forum* is the promotion of research in African archaeology. Moreover, the *Forum* will facilitate training personnel, assist in organising archaeological programs, promote the conservation of the cultural heritage, and coordinate relations between archaeology and development projects. Overall, the *Forum* will promote the exchange, gathering, and circulation of information.

The *Forum* is made up of two interrelated parts. The permanent structure consists of the office of the Permanent Secretary and the Executive Committee, the latter having eleven members, including the P.S. The periodic structure of the *Forum* is to be represented by international meetings/workshops that will be held at regular intervals every four years. The first is foreseen for Autumn 1994. Themes would represent a new viewpoint of African archaeology, with strong emphasis put on social roles assumed in the various countries where work is done.

The Ministry of the University and Research and the Ministry of Foreign Affairs have provided official sponsorship. Over 30 scholars belonging to foreign and Italian institutions participated, representing a vast range of historical-anthropological, archaeological, and geological African-oriented disciplines. Besides Italy, the following countries were represented: Belgium, Egypt, Ethiopia, France, Germany, Poland, Senegal, United States, South Africa, Sweden, and Zambia.

The necessity of establishing a *Forum* as an area of encounter and exchange for those dedicated to historical-anthropological and naturalist studies in the African realm was

emphasized by all of those participating in the initiative. But it was also emphasized that the *Forum* fully respects the existence of established bodies, such as the *PanAfrican Association of Prehistory and Related Studies*, whose activities the *Forum* will seek to complement.

and natural); sustainability and other topics. In addition to symposia and group discussion sessions, participants will also visit experimental field stations and enset farms as part of a three-day field trip.

To receive further announcements or information, please contact:

**In Ethiopia**

Dr. Tsedeke Abate  
 Institute of Agricultural Research  
 P.O. Box 2003  
 Addis Ababa, Ethiopia  
 TEL: 251-1-612633/41  
 FAX: 251-1-611222  
 TELEX: 21749 IAR ET

**Outside Ethiopia**

Drs. Steven Brandt and Clifton Hiebsch  
 University of Florida  
 Department of Anthropology  
 1350 Turlington Hall  
 Gainesville, FL 32611 U.S.A.  
 TEL: 904/392-4736  
 FAX: 904/392-6929  
 E-MAIL: archorn@nervm.bitnet  
 TELEX: 568757

**International Workshop  
 on Enset**

13-20 December 1993  
 Addis Ababa, Ethiopia

The Ethiopian Institute of Agricultural Research, Addis Ababa University and the University of Florida's Departments of Anthropology and Agronomy are organizing an international workshop on the enset (*Ensete ventricosum*) agricultural complex of Ethiopia. The goals of the workshop are (1) to bring together for the first time Ethiopian and other researchers from international, national, and nongovernmental organizations involved or interested in enset agriculture; (2) to determine the current state of knowledge on enset; (3) to increase the Ethiopian and international public's awareness of the importance of enset-based agriculture in Ethiopia; (4) to ascertain whether or not an interdisciplinary plan for research on enset-based farming systems has the potential of improving Ethiopia's food security needs; and (5) if so, to devise an interdisciplinary plan of action for applied and basic research.

Participants are invited to present and/or hear papers that address issues relating enset to agronomy; anthropology; archaeology; biodiversity; botany; climatology; commercialization; conservation; development and planning; ecology; economics; entomology, family relief, and food security; forestry; gender; geography; health; history; indigenous technical knowledge; land tenure; language; law; livestock; nutrition; marketing; paleoecology; pathology; refugees and resettlement; resource management (cultural

**PanAfrican Association of  
 Prehistory and  
 Related Studies**

Early September 1995  
 Harare, Zimbabwe

The University of Zimbabwe History Department and the National Museums and Monuments of Zimbabwe are pleased to announce that they will jointly host the 10th Congress of the Pan African Association of Prehistory and Related Studies. The last Congress was held in Jos, Nigeria, 10 years ago.

The Congress will be held over five days at the University of Zimbabwe in early September 1995. The actual dates will be given in the second announcement.

Below is a provisional list of the proposed academic themes:

- Quaternary Geology
- Hominid Evolution
- Palaeoenvironmental Studies
- The African Stone Age
- The African Iron Age
- Early African Food Production
- Spatial Analysis
- Interpretation of Cultural Change
- The Development of Complexity
- Ethnoarchaeology
- Information Technology and Archaeology
- Cultural Resource Management

Suggestions of additional themes are welcome.

**Registration**

Ordinary	US \$100
Student	50
Accompanying Person	50

The registration fee, payable after circulation of the second announcement, entitles members to full participation in the congress and to a discount on the eventual cost of the published proceedings.

If you wish to attend the congress and to receive the second announcement, contact Professor Gilbert Pwiti, History Department (PAA), University of Zimbabwe, P.O. Box MP167, Mount Pleasant, Harare, Zimbabwe for registration documents. Further details will then be sent to you around the middle of 1994.

**General Information**

**Travel.** Zimbabwe's capital, Harare, has flights to and from many destinations in Africa and Europe. Travel to Zimbabwe should therefore present no problems.

**Accommodation.** Principal accommodation will be in single rooms in Student Halls of residence at the University of Zimbabwe. Full board (breakfast, lunch, dinner) will cost approximately US \$50 per day. Hotel accommodation will be arranged on request. At current rates, hotels range from US \$20 to US \$60 (bed and breakfast). Please indicate your preference on the registration form.

**Post Congress Tours.** Zimbabwe has a rich archaeological heritage with monuments such as Great Zimbabwe, rock art in the Matopos, and agricultural terraces and related features in the Nyanga district. It is planned to arrange tours to these monuments, as well as to sites and museums in neighbouring countries like Botswana and Zambia.

**Academic Sessions.** The Congress academic sessions will take place at the University of Zimbabwe in lecturer halls/theatres equipped with audiovisual equipment. There will be no more than two parallel sessions on any one day. This should encourage fuller participation at sessions. Details of theme/session organisers will be sent to participants with the third and final announcement. Papers can be presented in either English or French.

**Funding.** Funding for the Congress is expected to come from donor agencies to whom approaches are being made. It is hoped that it will be possible to assist some participants from the African continent with travel and other costs.

**SAfA 12th  
Biennial Conference**

*April 28-May 1, 1994*

*Indiana University  
Bloomington, IN  
U.S.A.*

The next biennial conference of SAfA will be held in the Indiana Memorial Union, Indiana University, Bloomington, Indiana, from April 28 (to attend first session, arrive by April 27) to May 1, 1994. We will be sending a mailing out in the fall with a call for papers, the registration materials, and preliminary information concerning the meetings. For the convenience of SAfA members and of some colleagues who may not presently be members of SAfA, we are printing here the registration forms so that they may be photocopied and sent in to the

conference organizers. PLEASE DO NOT TEAR OUT OR REMOVE THESE FROM THIS ISSUE OF NYAME AKUMA; PHOTOCOPY ONLY PLEASE.

**Bursaries for African Graduate Students**

Thanks to the generosity of the L. S. B. Leakey Foundation, we are pleased to announce that there are some funds available for travel bursaries for African nationals presently studying archaeology at the graduate level at universities in North America. Preference will be given to students in doctoral programs and those presenting a paper, etc., but all interested African students should apply in writing to the President of the Society, Kathy Schick, at her address on the application form. Please include your name, home country, university, degree being sought, year in graduate program, and whether you have submitted a paper or research report. Bursaries will be applied against economy, advance-purchase domestic airfares from the student's university town to Indianapolis (limit to be set later) and up to \$75 for cost of accommodation at the SAfA meeting. Students are encouraged to seek any supplementary funds necessary from their university.

Applicants are expected to register for the meeting and to pay the registration fee. Student bursary applications must be received no later than January 31, 1994.

**Required Forms**

The "Application for Symposia, Papers, Etc." should be sent in by the January deadlines (Jan. 7 for symposia, Jan. 21 for papers, etc.) by those wishing to make a presentation at the meeting.

Papers should represent substantial research results, analysis, or synthesis (15 minutes); research reports should be given for more preliminary research results or announcements (10 minutes).

All attending must register. Please send a "Meeting Registration Form" along with the registration fee (and the fee for the banquet if you desire to partake).

The "Housing Registration Form" should be sent in by people requiring lodging. Room blocks will be held until March 27, 1994. To hold rooms for late arrival, please give credit card number.

**Housing**

Register early for housing to obtain your choice. Room blocks in the Union building, where the meetings will be held, will be reserved until March 27, 1994. If you desire to stay in the Hampton Inn (or if the Union was full when you applied for housing), a shuttle will be available to transport participants to and from the meetings. The Eigenmann Hall graduate student dormitory is within easy walking distance from the Indiana Memorial Union. These are single rooms with telephone, linen, and towels. Toilet and bathing facilities are shared.

**Airport**

Indianapolis International Airport is the closest airport for flights from most destinations. If a travel agent arranges to route you to the Bloomington airport, be sure they route you to Bloomington, Indiana—do not fly to Bloomington, Illinois! Transport arrangements from the airport will be announced in a later mailing to SAfA members and conference registrants.

**Society for American Archaeology/  
Paleoanthropology Society Meeting**

For members and participants from overseas, you may wish to know that the meetings of the Society for American Archaeology and the Paleoanthropology Society will be held in Anaheim, California, during the week prior to the SAfA meetings. You may wish to make travel arrangements to include both meeting venues in your travel plans.

**Symposia Organizers**

Collect all abstracts (with the "Application for Symposia, Papers, etc.") from all participants and send together by the January 7 deadline. Please make sure that all participants register by this deadline as well.





