NYAME AKUMA

No. 20 June, 1982

Newsletter of the Society of Africanist Archaeologists in America.

Edited by Nicholas David and issued from the Department of Archaeology, The University of Calgary, Calgary, Alberta, T2N 1N4, Canada. Editorial and Administrative Assistants: Scott McEachern and Peter Francis.

Michael Bisson, Secretary of SAAAM, reports below on the exciting, enjoyable and well-attended meeting held at Berkeley from May 6th to 8th, 1982. This intercalated Editor will therefore confine his remarks to matters that concern Nyame Akuma directly.

Professor Peter Shinnie, Nyame Akuma's 'onlie begetter' and editor over eleven years and nineteen issues has now passed on his editorial responsibilities. Our membership extended by acclamation a well-deserved tribute to him and to Mrs. Ama Shinnie, who has contributed so much and so generously on the production side. They will be pleased to hear that at a meeting of the Society for Archaeological Sciences, Nyame Akuma was singled out as a model newletter. We all wish Peter and Ama the very best in what can only in the most administrative of senses be called his 'retirement', and look forward to reading in these pages of the progress of his Daboya project in Northern Ghana.

The future of Nyame Akuma, while not as we go to press yet signed and sealed, also appears assured. Dr. David Lubell has been invited by SAAAM to take over as Editor and has indicated his willingness to serve. He expects to have made the necessary arrangments with the University of Alberta in time to produce No. 21 later this year. (Until further notice, however, all correspondence should continue to be directed to Calgary.) As one of the few archaeologists from the Anglophone world--to which Western Canada if not the Confederation undoubtedly belongs--to have worked extensively in l'Afrique francophone, David is in an excellent position to maintain the continued and essential participation of our French-speaking colleagues. We wish him every success.

Will those readers who subscribe in US dollars please note that Sheryl Miller has now taken over from John Bower the responsibility for collecting (in the intransitive mood) your subscriptions. Her address is to be found inside the front cover. Those who subscribe in £ sterling through Stephen Green should be warned that changes in exchange rates are likely to force an increase in their subscriptions. Indeed it will be hard to escape a general increase, but that, I am glad to say, will be the unpleasant responsibility of the Editor-elect.

Lastly, I should like to thank all those who responded to our request for news. However dedicated the Editor and Editorial Assistants, Nyame Akuma can be nothing without an active and contributing Readership.

Nicholas David

SOCIETY FOR AFRICANIST ARCHAEOLOGISTS IN AMERICA

Berkeley Conference

A business meeting of the Society was held on the second day of the recent meetings in Berkeley. The delegates unanimously passed a vote of thanks to Professor Peter Shinnie, founder of Nyame Akuma, and his wife Ama Shinnie. Professor Shinnie, who edited and produced the first nineteen issues and was a driving force behind the development of the Society is now retiring. His efforts on behalf of all africanist archaeologists are greatly appreciated.

A second vote of thanks was passed to Glyn Isaac, Desmond Clark and the many other staff and students of the Department of Anthropology at Berkeley whose efforts made this year's conference a complete success.

The three items on the meeting's formal agenda were: the future of Nyame Akuma, nominations for the Steering Committee, and offers of venue for the next meetings. After some discussion, it was decided that David Lubell of the University of Alberta will become editor beginning with No. 21. Professor Lubell stated that he is investigating a number of ways of reducing production and mailing costs so that subscription rates can be maintained at their present levels.

Newly nominated members of the Steering Committee are Sheryl Miller and Peter Schmidt, with Michael Bisson continuing from the previous Committee. As editor of Nyame Akuma, David Lubell will also serve as an ex-officio member. Thanks were expressed to John Bower and Maxine Kleindienst for their service on the Committee for the past five years.

The venue and date of the next Society meeting is presently being negotiated by the Steering Committee. The two possibilities are Athens, Georgia, and Ames, Iowa. We hope to announce the place and at least tentative dates in Nyame Akuma No. 22.

Finally, the membership unanimously expressed their regrets at the recent death of Kenneth Oakley.

Michael S. Bisson
McGill University.

Program for the 1982 SAAAM meetings in Berkeley

The program for the 1982 SAAAM meetings began with a lithic usewear workshop given by Nick Toth (U.C. Berkeley) with the assistance of Kathy Schick (U.C. Berkeley).

Papers were given as follows:-

Stone Age

Glen Cole (Field Museum, Chicago). Raw material distribution at Isimila.

John W.K. Harris (U. of W., Milw.). Early stone artifacts from Hadar.

Nick Toth (U.C. Berkeley). Stone technology of early hominids at Koobi Fora: a holistic approach.

Henry Bunn (U.C. Berkeley). Aspects of bone assemblages from Early Stone Age sites in East Africa.

Pamela Willoughby (U.C.L.A.). Spheroids and battered stones.

Nic David (Calgary). Why bother to stude LSA vein quartz components?

Sheryl Miller (Pitzer College, Claremont). Recent work at Lukenya Hill, Kenya: site GvJm 46

Francis Musonda (U.C. Berkeley). A regional study of the LSA in Zambia: preliminary report.

David Lubell (U. of Alberta). Capsien typique et Capsien supérieur: is there really a difference?

Kathy Schick (U.C. Berkeley). Man vs. Nature: experimental studies of archaeological site contexts.

Quest for Fire

John W.K. Harris (U. of W., Milw.). Evidence from Chesowanja.

J. Desmond Clark (U.C. Berkeley). Evidence from the Middle Awash.

Iron Age

Merrick Posnansky (U.C.L.A.). Archaeology, town walls and urban origins in West Africa in the light of excavations at Notse, Togo.

Emmanuel Agorsah (U.C.L.A.). Social identity and settlement organisation.

B.K. Swartz (Ball State U.). Archaeological investigations in Northern Togo.

Francois Kense (Calgary). Terracotta figurine art from northern Ghana.

Candice Goucher (U.C.L.A.). The iron industry of Bassar, Togo.

S. Terry Childs (Boston U.). Irong Age ceramic technology in the Kagera region, N.W. Tanzania.

Peter Schmidt (Boston U.). Aspects of Irong Age studies in N.W. Tanzania: evidence of social and economic complexity.

C. DeCorse. Archaeology in north-eastern Sierra Leone.

Palaeoenvironments

Dan Livingstone (Duke U.). CEGAL - Climate, evolution and geodynamics of ancient lakes in Africa.

Landscape archaeology, settlement patterns and spatial analysis

Garth Sampson (S.M.U.). The spatial archaeology of the Zeekoe Valley San.

Glynn Isaac (U.C. Berkeley) & John W.K. Harris (U. of W., Milw.). Small is informative.

Ellen Kroll (U.C. Berkeley). Aspects of the spatial archaeology of early sites.

Michael Bisson (McGill). Prehistoric settlement patterns, Lwano, Zambia.

Anthony Marks (S.M.U.). Recent work in the Butana, Sudan--a regional study.

Pastoralism, subsistence and ecology

Diane Gifford (U.C. Santa Cruz). Early patterns of livestock use in East Africa.

John Bower (Iowa State U.). Origins of diversity in East African pastoralism.

Mark Lynch (U. of Santa Clara). Rock art and socio-political boundaries among East African pastoralists.

Jeanne Sept (U.C. Berkeley). Plants and early hominids: an archaeologist in search of her roots.

Ann Stahl (U.C. Berkeley). The role of fire in human dietary selection.

Ann B.L. Stemler (DeAnza College, CA). (Title not to hand).

OTHER

MEETINGS AND CONFERENCES

Fourth International Conference for Meroitic Studies

The 4th conference was held at Humboldt University, Berlin, G.D.R., at the invitation of Prof. Dr. F. Hintze, then head of the Institute of Egyptology and Sudan Archaeology - Meroitic Studies, from November 24 to 29, 1980. Sixty-seven scholars and students from 15 countries attended the conference, and a further 14 sent in 20 contributions.

As usual for ICMS conferences, the keynote papers had been agreed on at the preceeding meeting. These were:

1. Meroitic social stratification, by Prof. Dr. A.M. Abdalla, Riyad-Khartoum.
2. Meroitic religion, by Dr. N.B. Millet, Toronto.
3. Meroitic chronology, by Dr. R.J. Bradley, Calgary and Cambridge.
4. Meroitic architecture, by Prof. W.Y. Adams, Lexington, Ky.

These papers were distributed between March and May, 1980, and 30 colleagues sent in their comments. For the newly inaugurated working group Recent Research and New Discoveries, headed by Prof. P.L. Shinnie, Calgary, 26 scholars sent in reports on excavations and other research. These numerous contributions show clearly the increasing interest in Meroitic research. The topics were well-chosen. Although problems of Meroitic religion and architecture had been discussed at the 2nd ICMS (1973) in Paris, the vivid and partly controversial discussions proved that new treatment of these subjects with quite different approaches was necessary and useful.

The importance of the working group Recent Research and New Discoveries is reflected in the great number of reports. Excavation reports were given on Qasr Ibrim (Adams), Meroe (Shinnie and Bradley), Napata (Donadoni), Emir Abdallah (Fernandez), Sedeinga (Leclant), el Kadada (Geus and Lenoble), and on the Czechoslovak excavations in Nubia (Vachala). Special objects and new finds were treated by Danneskiold-Samsoe (the Augustus head from Meroe), Hagg (on a new Axumite inscription from Meroe), Hainsworth (new Meroitic texts from Qasr Ibrim), Scholz (on the Atricia relief in Rome, with a reply by Vlach), Vlach (on the Meroitic-Hellenistic sculpture from the so-called Royal Baths at Meroe), and by Yellin (on an astronomical text from Pyr. Beg. S. 503). Topics of wider range were presented by Cervicek (on the chronology of rock drawings), Harting (classification of offering tables from Karanog), K.H. Priese (place-names in the middle Nile Valley) and Vila (on Meroitic inhumation habits). Hainsworth and Leclant gave a report on the present state of REM and Hinkel presented his method of using a shaduf when rebuilding a pyramid. Strouhal's report on social stratification at the Wadi Qitna Cemetery reached the conference only post festum. Hofman

discussed problems of Meroitic Studies and Ethnoarchaeology, while Török refered to Old Discoveries and the Future of Meroitic Studies.

Two papers marginal to the field of Meroitic Studies were presented, one by Kobishtshanov on 'Agriculture and economic-cultural types in Medieval Nubia', and the other by Spaulding on a 'Demystification of the Funj'.

The proceedings of the 4th ICMS will be published under the title Meroitistische Forschungen 1980 as volume 7 of the series Meroitica, edited by the Institute of Egyptology and Sudan Archaeology - Meroitic Studies.

Prof. S. Donadoni invited the audience to Rome for the Fifth ICMS, which will be organized in spring 1984. The program is as follows:

1. Ethnoarchaeology in the field of Meroitic studies, by B.G. Trigger, Montreal.
2. Application of mathematical methods in Meroitic studies, by S. Daniels, O.U./U.K. and F. Hintze, Berlin/G.D.R.
3. Linguistic and philological problems, by R. Thelwall Ulster.
4. Meroe and external relations, by L. Török, Budapest.

There will be three working groups: Napatan-Meroitic relations (A.M. Abdalla, Riyad-Khartoum), Meroitic art (L. Török in connection with his keynote paper), and Recent research and new discoveries (P.L. Shinnie, Calgary). J. Leclant, Paris, will prepare a 'Unified report on archaeological activities in the Sudan'.

Third Colloquium of the West African Archaeological Association

(The editor has prepared the following account from information kindly supplied by Cyr Descamps.)

The Third Colloquium was held at Dakar from 8 - 12 December, 1981. There were 56 participants from seven West African, one other African and two European countries. These included seven from the Ivory Coast and nine from Mauritania.

The following papers (and others not listed on the program) were delivered:

N. Nzewunwa,	Reflections on West African Archaeology
Y. Fall,	Les catégories extrinsèques dans la problèmatique archéologique en Afrique Noire
A. Lebeuf,	La recherche archéologique en Afrique centrale: projet de coordination
G. Metinhque,	La recherche archéologique au Bénin
J. Rivallain,	Ethnoarchéologie et civilisation lagunaire de l'Afrique occidentale
A. Smith,	Ethnoarchaeology and pastoralism in the west Sahel

A. Diop,	Une datation de l'Acheuléen en Afrique de l'Ouest: implications méthodologiques
C. Barbey,	Nouvelles observations sur la stratigraphie de l'Atérien
R. Vernet,	Le site néolithique de Khatt Lemaiteg (Mauritanie occidentale)
S. Amblard,	Architecture et matériel lithique des villages du Dhar Tichitt
M. Bathily,	L'industrie osseuse du Dhar Tichitt
B. Saison,	Azougui, premières fouilles profondes
S. Robert,	Recherches sur les monuments réligieux musulmans des sites archéologiques mauritaniens: les mosquées de Tegdaoust et de Koumbi Saleh
D. Robert,	Chaleix, flames à huile importées découvertes à Tegdaoust: premier essai de classification
S. Berthier,	Fouille d'une maison d'habitation du quartier de la grande mosquée de Koumbi Saleh
M. Raimbault,	Les tumulus du plateau de Ntondomo, près de Diarrabugu (cercle de Kulikoro, Mali)

The following officers were elected at a general meeting held on the 10th of December 1981.

Président	Jean Baptiste Kiethega Secrétaire Général de la Recherche Scientifique Dépt d'Histoire de l'Université de Ouagadougou B.P. 4278 OUAGADOUGOU (Haute-Volta)
Vice-Présidents	Jiyd Ould Aboi Directeur de l'Institut Mauritanien de Recherche Scientifique B.P. 196 NOUAKCHOTT (Mauritanie)
	Nwanna Nzewunwa Dept. of Archaeology, University of Port-Harcourt PORT-HARCOURT (Nigeria)
Secrétaire	Massamba Lame Dépt de Préhistoire-Protohistoire IFAN B/P/ 206 DAKAR (Sénégal)
Secrétaire-adjoint	Mouhamedou Bathily Ecole Normale Supérieur B.P. 396 NOUAKCHOTT (Mauritanie)
Trésorier	Adama Diop Dépt d'Histoire Université de Dakar DAKAR-FANN (Sénégal)

Responsable Publication — Abi Derefaka
Dept of Archaeology, University of Ibadan
IBADAN (Nigeria)

Rédacteur en Chef — Bassey Andah
Dept of Archaeology, University of Ibadan
IBADAN (Nigeria)

Membres élus — Marie-Amy Mbow
Cité Claudel Bat B2 ch. 119
Cité Universitaire
DAKAR-FANN (Sénégal)

Klena Sanogo
Directeur de l'Institut des Sciences Humaines
B.P. 159 BAMAKO (Mali)

African Studies Association (USA) Meetings

At the ASA meetings to be held in Washington, D.C. from November 4 - 7 1982, Roderick J. McIntosh will chair a session tentatively titled "Complex Societies of West Africa: their archaeology and early history." For further information write to Dr. McIntosh at the Dept. of Anthropology, Rice University, Houston, Texas, 77001, USA.

9th Pan African Congess on Prehistory and Related Studies

Dr. Ekpo Eyo was recently in Calgary on the track of the Nok terracotta allegedly illegally imported into Canada and now in the hands of the R.C.M.P. pending a trial scheduled for October. He informed the Editor that various difficulties had forced a postponement of the Pan-African Congress to Easter, 1983. A circular giving the exact dates will be sent to all members in the very near future. This will also include information about the tours, one to southeastern, one to southwestern and one to northern and central Nigeria, that will follow the meetings.

Colleagues who have not received the previous notices and who wish to attend the 9th PAC should write requesting information to:-

Dr. Ekpo Eyo, Director-General
National Commission for Museums and Monuments
P.M.B. 12556
Onikan
Lagos
Nigeria

Meeting of Africanist archaeologists in the U.K.

The African Studies Centre of the University of Cambridge (Director: A.T. Grove) hosted a meeting on the 7th and 8th of May, 1982.

After an introductory session devoted to general news, reports on conferences, forthcoming events, etc., there were a number of short reports on recent excavations, surveys and field visits. These included:-

Tripolitania (G. Barker); Qasr Ibrim, Egyptian Nubia (J. Alexander); Chesowanja, Kenya (J. Gowlett); Namibian Palaeolithic (M. Shackley); Shanga Swahili town (M. Horton); Calabar terracottas (V.I. Ekpo); central Nigerian hilltowns (R. Blench); Dawu, Ghana (J. Sutton); Daboya, Ghana (P. Shinnie); Jenne, Mali (R. & S. McIntosh).

Presentations, followed by discussion, were also given on the following topics:-

I. Hodder	The Material and the Social in Africa: Symbols in Action
K. Ray	Material assemblages and material culture in African Archaeology
W.Y. Adams	Ceramic distributions and social interactions in early Nubia
K. Ray	Some temporal and material features of Hausa political culture
P. Lane	Settlements as the Dogonised use of space
L. Donley	Three centuries of Swahili symbolic house codes
K. Nicklin	Cross River Bronzes: cire-perdue copper alloy castings of S.E. Nigeria
R. Blench	The implications for the archaeology of West-Central Africa of recent advances in Ethnobotany and Ethnomusicology
A. Mawson	Community, change, and the use of space amongst the Agar Dinka
N. Adams	Socio-cultural implications of the Qasr Ibrim Textiles
H. Moore	Marakwet ethnoarchaeology
M. Alexander	Material collections as the archaeology of colonialism
L. Pole	Technology and Oral Tradition: iron-working in the Togo Hills.

ALGERIA

Zbigniew Szafrański writes that:

Prof. Andrzej Wierciński is planning a multidisciplinary expedition under the auspices of the Department of Historical Anthropology, Warsaw University, to investigate stone structures in the Awiet region. Scientific investigation of these monuments, which seem to be connected with 'megalithic' ideas, has scarcely begun. The expedition is expected to throw light on the dating and significance of the V-shape and key-hole types. Fieldwork will include excavation, on site study of human skeletal remains and an ethnographic survey of the beliefs of the present day inhabitants concerning the structures.

Radiocarbon - Offers?

The British Institute in Eastern Africa has a complete set of the Journal Radiocarbon which it wishes to sell. It runs from Volume I (1959) to Volume 23 (1981). Offers in the region of $1400 will be acceptable for the complete set. We are not prepared to sell individual volumes.

CAMEROON

BELGIAN ARCHAEOLOGICAL PROJECT IN CAMEROON
(July-August 1981 fieldwork)

by

Pierre de Maret

Following some initial prospection and an excavation carried out in 1980 (cf. *Nyame Akuma* No. 17), a new archaeological mission took place in July-August 1981. The latter was financed by the Cassel Foundation of Brussels Free University, by the Committee for Belgian Excavations in Central Africa and by the Belgian Foundation for Anthropological Research. Fieldwork was carried out with the cooperation of the Center for Anthropological Research and the Social Sciences Institute of the General Delegation for Scientific and Technical Research of the United Republic of Cameroon, as well as with Mr. J.M. Essomba of the University of Cameroon.

In order to allow young Cameroonese researchers to be exposed to archaeological research in their country, the main excavation which took place in Obobogo in the south-west suburbs of Yaounde was used as a training site. The participants were : Mr. Raymond Assombang (London University), Miss C. Atangana (University of Paris I), Mr. C. Digara (University of Paris X), Mr. M. Elouga (University of Yaounde), and Mr. C. Mbida Mindzié (University of Brussels).

The entire mission was devoted to excavating the site of Obobogo which had been surveyed the previous year. The preliminary analysis of material found during this first excavation had revealed two distinct periods :

1) One sparse occupation from the Late Stone Age, characterized by a microlithic industry of quartz. Some charcoal from a hearth associated with these artifacts found between 90-100 cm deep was dated at the end of the fifth millenium b.c. (Hv-10581 : 6020 ± 505 b.p.). These results coincide perfectly with dates obtained for similar industries in neighboring countries.
2) Far more important, the 1980 survey highlighted a thick occupation layer. In this layer was the beginning of several shafts. Partial excavation of these structures yielded numerous richly decorated potsherds, fragments of grindstones and grooved stones, pieces of palm nuts and charcoal. In trench A, charcoal taken from a level of 40-50 cm. deep was dated at the end of the second century (Hv-10580 : 2055 ± 70 b.p.) whereas charcoal found in the same trench but at a level of 130-140 cm. deep was dated at the very beginning of the first millenium b.c. (Hv-10582 : 2900 ± 110 b.p.). These results agree with those obtained from charcoal taken from the top of another trench, (trench B, 40-50 cm. deep) dated at the end of the second millenium b.c. (Hv-10583 : 3070 ± 95 b.p.). The more recent date was rejected as the sample was probably contaminated by modern disturbances. On the other hand, the coincidence between the two older dates confirms that this phase of occupation goes back as far as 1000 years before present.

In view of the above results, the 1981 mission was devoted to excavating this important site. The large shaft of trench B was excavated by means of three new trenches, B2, B3 and B4. In the northeast corner of B3, a new shaft appeared and was partially emptied. A trench D was opened between A and B, allowing a new shaft to be emptied down to 220 cm. deep. As in the previous year, the shafts yielded numerous decorated potsherds. Thus far, it has been possible to reconstruct several flat-based pots. Grooved and grinding stones were also collected as well as a small completely polished stone adze and several fragments of polished axes. Charcoal analysis is in progress, thus far only forest species have been determined. Numerous edible nuts of *Elaeis guineensis* (palm tree) and *Canarium Schweinfurthii* were also collected. Judging from the dispersion of the remains, the village covered an area of approximately 2,500 square meters. The concentration of the deposits indicates a permanent occupation over several years. The technology is clearly of the neolithic type, there is so far no direct proof of cultivation although the palm tree must have been domesticated or was in the process of being so.

The excavations of Obobogo indicate for the first time that at the turn of the second to the first millenium b.c., the northwest part of the tropical forest was already inhabited by sedentary people who used polished tools and pottery and who practiced vegeculture, if not agriculture. This clearly calls for a re-evaluation of the complete LSA-EIA sequence in Central Africa. The affinities between the Obobogo Industry and the Kintampo Industry in Ghana must also be stressed.

Apart from fieldwork at Obobogo, a week was spent with Mr. Assombang visiting sites of the northwest province tested in 1980, as Mr. Assombang plans to do a doctoral thesis on the archaeology of this region.

During the excavations at Obobogo, other surveys were being carried out in the area. Further South, in the forest just to the right of the church at Akono a concentration of microlithis quartz was found in an erosion gully. There were no archaeological vestiges uncovered at the famous Akok Bekoe shelter. Following the work at Obobogo, a new site of ancient pottery was found in Mimboman in the suburbs east of Yaounde. It will be excavated in the coming years.

GHANA

14th-15th Century Syrio-Egyptian Brassware in Ghana

Located in the Brong Ahafo and Ashanti Regions of Ghana are a number of Arabic inscribed brass bowls and basins. Once objects of great beauty, they now lie in varying stages of deterioration. The vessels are of late medieval Middle Eastern manufacture. They are today maintained by Akan owners as sacred objects. The presence of these objects in central Ghana raises a number of interesting questions. How did the vessels arrive among the Akan? When and why were they imported? How and why were they assimilated into Akan society as sacred objects? And, what influences have they had on the evolution of Akan culture? Answers to these questions would undoubtedly enhance our understanding of early Akan contacts with the Western Sudan as well as provide us with new insights into the nature of the assimilative process among the Akan.

Several years ago I became interested in the historical and cultural problems posed by these Arabic inscribed vessels and selected their study as a dissertation topic. These vessels and the traditions with which they are associated were the focus of art historical research carried out in Ghana and Europe during 1979-80. (1) The following is a brief summary of the information collected in the field and some of the conclusions drawn from its analysis.

There are numerous references to these Arabic inscribed vessels found in both published and unpublished descriptions of Ashanti and Brong Ahafo. The earliest reference dates from the late nineteenth century. In 1886 the Swiss missionary Friedrich Ramseyer published an account of his journey to Salaga (performed in March-April 1884) in which he mentions examining a large brass basin at Atebubu (Brong Ahafo). (2) This same basin attracted the attention of several late nineteenth-century and early twentieth-century visitors to Atebubu. (3)

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(1) Financial support for this research was provided by the U.S. Office of Education (Dept. of H.E.W.), Social Science Research Council and Samuel H. Kress Foundation.

(2) F. Ramseyer, "Eine Reise im Norden von Asante and im Osten vom Volta, von Okwawu nach Bron, Krakye un Boëm", Mitteilungen der Geographischen Gesellschaft (für Thüringen) zu Jena, IV:3 (1886), p. 79.

(3) In 1890: George E. Ferguson in P.R.O. C.O. 96/215 (1890); published in K. Arhin (ed.), The Papers of George Ekem Ferguson (Leiden, 1974), p. 10. In 1894: Colonel F.C. Scott, "Staff Diary and General Report on Expedition to Atebubu, 24th March 1894", Correspondence respecting the Affairs of Ashanti in P.R.O. C.O. 879/39 (no. 458), p. 133. In 1917: L. Boyle, Diary of a Colonial Officer's Wife (Oxford, 1968), pp. 113-14. In 1910s: R.S. Rattray, Ashanti (Oxford, 1923), p. 315. In 1933: R.E. Walker, "A Short History of the Atebubus", Ghana National Archives (Kumasi), File D.358; published in K. Arhin (ed.), Ashanti and the Northeast (Legon, 1970), p. 30.

All noted its "exotic" appearance. Some speculated as to its origins. It was not until 1922 that another vessel, the large basin at Nsoko (Brong Ahafo) was documented by Capt. R.S. Rattray. (4) These two basins are in fact the best known of the group. (5) Several other sites, including Adoi (Brong Ahafo), Amoaman (Ashanti), Ejisu (Ashanti), Kranka (Brong Ahafo), Maaso (Brong Ahafo), Nkoranza (Brong Ahafo), Nsuta (Brong Ahafo) and Timponem (Brong Ahafo), have appeared in the literature. However, inquiries made at each of these villages resulted in the documentation of only four other Arabic inscribed vessels. (6) Another two vessels, a basin and waisted bowl, were examined at the village of Nsoko. (7) The two remaining vessels are a bowl in the small village of Timponem in Tekyiman state and a badly damaged basin found at the Asante village of Amoaman. It is also likely that a seventh Arabic inscribed vessel is maintained in Nkoranza. Oral traditions were collected for two additional vessels that have disappeared from their respective villages. A basin that was located in the important Asante town of Ejisu was apparently stolen in the early 1960s. The Bron village of Kranka had a large brass vessel that supposedly "sunk into the earth" long ago. In sum, six Arabic inscribed brass bowls and basins were documented. All, except the basin at Amoaman, are located in the Brong Ahafo Region.

The inscriptions on these vessels allow for fairly accurate attributions. All are Syrio-Egyptian manufactures. With the exception of the waisted bowl at Nsoko, all were made in the middle or second half of the fourteenth century. The Nsoko bowl dates from the mid-fifteenth century. They may, in other words, be described as Mamluk brassware.

Over time, the traditions relating to the origins of the vessels evolved into historical myths associated with ancient ancestors, often the founders of the state. Specific information about how and when the vessels actually arrived in central Ghana is no longer included in these traditions. It is, however, feasible to postulate from an analysis of current oral traditions and the contexts in which the vessels operate, that the bowls and basins were imported as ritual objects

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(4) Rattray, Ashanti, pp. 314-15.

(5) Photographs of the Nsoko basin have been published in Rattray, Ashanti, fig. 137; R.A. Bravmann, Open Frontiers: The Mobility of Art in Black Africa (Oxford, 1973), p. 13; and most recently in P. Garlake, The Kingdoms of Africa (Oxford, 1978), p. 120. The Atebubu basin has not been published.

(6) European brass vessels serve as the focus of important rituals in a number of these villages (i.e., Maaso).

(7) The basin is part of the stool property of Nsoko's Queenmother. The waisted bowl is included in a group of brass objects called Nkuruwa (i.e., "cups") that belongs to the Nsoko traditional state. This waisted bowl is briefly discussed and reproduced in Bravmann, Open Frontiers, p. 13.

associated with Islam. It is important to point out that with the exception of Amoaman, the villages of Nsoko, Atebubu and Timponem each maintain strong historical traditions of having been involved in trade with the North and/or Muslims. (8) It is likely then that these vessels were carried across the Sahara and Western Sudan by Muslim traders (i.e., the Dyula) who used them for performing ritual ablutions and when the bowls and basins were no longer of any use to their Muslim owners they were sold or given to the Bron (i.e., non-Muslim Akan). Having observed their function as ritual objects among these Muslim traders, the Akan integrated the vessels into their own religious system. It is impossible to know exactly when the vessels were first imported into central Ghana. However, if we follow the line of argument posited above, it would be fairly safe to suggest that they have been in Ghana for at least three or four hundred years.

There is little doubt that many other vessels similar to the six examined in situ were imported and have since perished -- perhaps having been reworked into other brass objects by local artisans. In 1967, Roy Sieber identified some of the stylistic affinities certain Islamic bowls, basins and boxes have with the Akan cast vessels called kuduo. (9) My examination of several hundred kuduo and Islamic brass vessels in European, American and Ghanaian museum and private collections has confirmed that imported brass items from the Middle East served as prototypes for the earliest Akan kuduo forms. Several other problems relating to the impact of these vessels upon Akan culture were persued. There is a good possibility, for instance, that the importation of brassware from the North was related to the introduction of cire perdue casting technology in the Akan area. (10) It is also likely that imported Mamluk vessels were among the first brass objects present in central

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(8) In the case of Amoaman, it is probable that the basin was acquired as a spoil of war from one of the northern Akan states. It is likely that the lost Ejisu basin was also acquired in this manner.

(9) R. Sieber, "Islamic Characteristics in Akan Metalwork", paper presented at the Tenth Annual African Studies Association Meeting, New York, 1967 (mimeographed).

(10) Tim Garrard has recently suggested that the introduction of this casting technology was intimately associated with the early (i.e., late fourteenth - early fifteenth century) Mande trade [that brought Mamluk brassware into the Bron region of central Ghana]; "Akan Metal Arts", African Arts, XIII:I (1979), p. 41. It is not possible to develop the argument within the framework of this short note. I would, however, just like to add that it was possibly the Lorho, a people whose presence in the Cercle de Bonduku (Ivory Coast) dates back (according to one authority) to the fourteenth or fifteenth century, who introduced lost wax casting to the Akan. One may find support for this theory in the literature on Mande and Senufo brass-casting; see A. Glaze, Art and Death in a Senufo Village (Bloomington, 1981), pp. 34-40; Y. Person, "Un cas de diffusion, les forgerons de Samori et la fonte à la cire perdue", Revue Français d'Histoire d'Outre-Mer, LIV (1967), pp. 219-26.

Ghana. Anyone familiar with the culture history of this region is aware of the important role copper and its alloys have played in the aesthetic, economic and religious traditions of the Akan. The Arabic inscribed bowls and basins as the "original ancestors" provided the initial stimulus for several important Akan institutions.

The relative antiquity of the bowls and basins and the living traditions surrounding them make this group of objects unique and of interest not only to art historians but to archaeologists and historians as well. The issues dealt with in this note will be considered at length in the dissertation that will be completed and available from University Microfilm within the next year. In the meantime, further questions and requests for additional information may be addressed to me at the following address.

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Dr. F.B. Duah, an Assistant Keeper of the Museums & Monuments Board, has returned from India after 3½ years study at the Department of African Studies, University of Delhi, India. His thesis was entitled African cultural heritage & problems of museums & monuments in Sub-Saharan Africa - Ghana case study.

KENYA

Excavations in the Kapthurin Formation

F. Van Noten, Tervuren

Excavations in the Kapthurin Formation (West Baringo) organized by the Leakey family in 1966, had shown the excellent potential of this area. In 1980 a preliminary survey had again shown the immense richness of this region.

In June 1981 we tested four sites, three near the top of the Formation (A, B and C) and one near the base (D). The excavations at the A-site were directed by Jo Gysels, at the B-site by P.-L. van Berg, at the C-site by J. Kimengech and myself, and at the D-site by W. Van Neer. Sites A and B are located on the edge of the plateau partly covered by the Bedded Tuff on the northern side of the Bartekero river. Site C was situated to the south of the Kapthurin river, more precisely on the south bank of one of its unnamed tributaries. Site D is near the lowest part of the Formation.

Numerous soil-samples for dating, geomorphological and palynological analysis were taken from the Bedded Tuff and from the archaeological layers.

The A-site

At the A-locality a series of places had yielded promising evidence for a test-excavation. A trial trench was put in where the erosion showed clear evidence of a prehistoric occupation level situated at 1.2 to 1.5 m below the top of the Bedded Tuff. This tuff had previously been dated at 0.23 m.y. The removal of the tuff layer was not much of a problem. Even if the first square meters did not show a high artifact concentration, the in situ character of the industry soon became obvious, as the uppermost artifacts showed up right under the Bedded Tuff. This made its very careful removal essential. The artifacts were associated with a layer containing numerous calcite nodules. The first 6 to 8 cms produced few artifacts, the real concentration starting below. Here, we excavated numerous lithic artifacts as well as many bone fragments and some 25 pieces of ostrich eggshell.

The horizontal distribution of artifacts guided the successive expansions of the excavated area. In total, 24 square meters were fully and 16 only partly excavated. In all 1666 objects were collected and labelled. These included relatively few tools, but large quantities of waste material (cores, flakes and blades), together with very small bone fragments and ostrich eggshell fragments, indicated that we were dealing with a living site.

Four different types of stone were used. Among the bones, large as well as small bovids were recognized. The in situ aspect of the assemblage is obvious and emphasizes the archaeological value of this site. Its undisturbed aspect will make research approaches like refitting and microwear highly rewarding.

The "locally pumicious" Bedded Tuff consisted here of two layers (buff-green) separated by a thin whitish horizon.

The B-site

The area of this site is limited just as site A, to the south by the scarp of the Bartekero, to the west by a tributary of the river, and to the west by an erosion network. There was no tuff to be seen at this spot. It looks as if it had been washed away long ago, leaving a surface covered with volcanic materials (pebbles and gravel) associated with numerous lava and a few chert artifacts, possibly belonging to different occupation periods. Some fragments of fossilized bone and Neolithic potsherds have been found at a short distance away. This heterogeneous series appears to be the result of surface erosion.

After a series of fruitless trial trenches, we found a small area where an archaeological horizon was still capped by a sterile layer. In square E6 there were sixteen lava artifacts of which three could be fitted together, ensuring that at least part of the industry might well be in situ. In all 28 m^2 were excavated. Four levels were observed.

- Surface: buff colored humic soil containing very fine gravel.
- Homogeneous fine gravel, locally hardened at the base and containing small lenses of fine gravel. Its thickness varies from 10 cm to the west, to 35 cm to the east.
- A layer containing gravel (5 to 15 cm, some blocks up to 30 cm thick) in a sandy matrix. It contains the main part of the prehistoric industry. This archaeological layer has an average thickness of 3 to 5 cm. To the west it rests on a layer of larger pebbles of fluviatile origin and slopes gently eastwards.
- The fourth layer exhibits white calcareous concretions in a sandy matrix similar to that of the second layer.

The industry consists of up to 1000 artifacts (phonolite); some were made of chert. Only 3 small bone fragments were found. The artifacts were mainly flakes, blades, and cores with few tools and retouched flakes. Some were fresh, others weathered to differing extents. The refitting of several series of blades and flakes showed that stone knapping had been done on the spot, suggesting that prehistoric man used the pebble layer as a source of raw material. The assemblage contains very few diagnostic specimens. Some flakes probably result from the preparation of a bifacial tool.

The C-site

At this spot, a test grid was laid out near an erosion slope on which many beautiful Late Acheulean artifacts appeared to have eroded out from one or more occupation horizons. The test excavations did not reveal clear and distinct archaeological horizons. The artifacts

seemed to come from undefined or diffuse layers which could not be traced back to separate units. It now appears as if this site was an occupation area close to the border of a lake. Another explanation would be a succession of erosion facies laid down prior to the deposit of the Bedded Tuff. We rather think that the site is to be seen as the result of gradual and occasional covering of a number of undefined artifact scatters, in one case showing a workshop character. This horizon could however not be correlated with others situated above and below.

The D-site

This site consisted of a small test pit in the green clays, located at a spot where many fossil bone fragments occurred. However, no bone was discovered below the topsoil. This indicated that the soil layer found on the surface and containing the fossils must have come from a higher horizon.

Generally speaking, the industry found at the sites A, B and C confirm the presence of a rich, very evolved Acheulean with a high frequency of Levallois technique, nice blades and extremely fine handaxes and cleavers. In Europe this would be termed Mousterian of Acheulean tradition. Further excavations planned for 1982 will concentrate on site A.

The excavations were organized by the Belgian Centre for Excavation in Africa and the Belgian N.S.F. in collaboration with the National Museums of Kenya. We thank in particular Mr. R. Leakey for inviting us to undertake this project and for his assistance.

Preliminary Results of Archaeological and Paleoenvironmental Research in Northern Kenya

Daniel Stiles, Maison des Sciences de l'Homme, Paris, France

This report presents preliminary results of a research project in northern Kenya involving an investigation of the interrelationships between a changing climate and environment and changes in human demography, economy, and culture. The project has been funded by the Ford Foundation and the Kenya National Council for Science and Technology. Support of Kenyan students in the field was assisted by a Baldwin Fellowship from the L.S.B. Leakey Foundation. A total of six research field trips have been made to the East Turkana/Chalbi area between August 1979 and August 1981 (Nyame Akuma 17 and 18). I report here only on the archaeological and paleoenvironmental results.

Archaeology

Five sites have been excavated in the area of North Horr (Fig. 1), all of them located in sand dunes. The first two were excavated by D.W. Phillipson (1977,1979) in 1974 and named by him North Horr I and II. I have used the SASE System and the sites have been designated GcJm 1 and 2. I reexcavated GcJm 2 and excavated GcJm 3-5 in 1979, assisted by Mr. John Ogolla.

Dating - GcJm 1: 4405±130 b.p., 3330±130 b.p. (Maggs 1977).
GcJm 2: 1525±155 b.p., 748±140 b.p. (Maggs 1977).
GcJm 3: 1150±110 b.p.

The latter date was made on charcoal taken from the bottom of a hearth at 95 cm below the surface. Bone was recovered from GcJm 4 and 5, but since it was found diffusely scattered throughout the sediments it was thought unwise to use it for dating purposes.

Economy - Animal bone was in a highly comminuted and weathered state rendering identification difficult.
GcJm 1- No reported domestic animals.
GcJm 2- Definite ovicaprid in spit 1 (0-20 cms), possible cow and ovicaprid below.
GcJm 3- Possible cow in spit 2.
GcJm 4- Possible cow in spit 4, definite cow on surface. Definite ovicaprid in spit 2.
GcJm 5- No identified domestic animal remains.

The above suggests that herding was part of the subsistence base of the North Horr inhabitants. To mitigate the poor quality of faunal remains it is hoped in the future to collect much larger samples of bone. A few large bovids, zebra and gazelle were also identified, but the numbers were too few to make valid percentage calculations. No evidence of fish or other aquatic life was found. Mr. John Kimengitch of the National Museum kindly made the analysis.

Cultural material - Mr. John Ogolla has presented an analysis of the North Horr material as a B.A. dissertation in Archaeology at the University of Nairobi. He also included in the study Phillipson's North Horr sites and a sample from Barthelme's (1977) East Turkana sites (GaJi 4 and FwJj 5). One of the most striking features of the North Horr assemblages is the great variety of ceramic decorative motifs seen at each site. I believe this to be indicative of the mixing of remains from more than one occupation period in the unconsolidated sand deposits of the dunes. This conclusion is supported by the fact that the dates are separated by 1075 years at GcJm 1 and 777 years at GcJm 2.

Similarities discerned between the assemblages are:
1) GcJm 1, 2, and 3 and FwJj 5 (Ileret) - A technique of applying short, oblique incisions in linear fashion resulting in design motifs that can be herring bone, parallel lines, or lines intersecting at a right or slightly acute angle.
2) GcJm 3 and 5 and FwJj 5 - A very distinct design motif consisting of an incised line parallel with the rim with incised oblique crosshatching immediately below the line.
3) GcJm 1 and GaJi 4 - Small punctates arranged in parallel lines.
4) GcJm 1 and 3 and GaJi 4 - Internal scoring (the so-called Nderit Ware of Barthelme (1977)).

5) GcJm 1, 2, 4, and 5 and FwJj 5 - Stone vessels, all surface finds.

There were many sherds that displayed distinct features of rim and decoration attributes and paste texture that were unique. Much work remains to be done before ceramic traditions can be defined for East Turkana and a culture historic sequence constructed. Larger ceramic assemblages are needed and sites that represent unambiguous single occupation periods must be located, excavated, and dated. The above results are only preliminary and a more detailed study of the current collections is envisaged.

Ten stone cairns were excavated at Kokurmatakore hill (originally reported as Kalacha Bule) near the village of Kalacha (Fig. 1). The site complex has been designated as GdJn. Nine of the ten stone structures contained human burials. The following two tables summarize the results:

Table 1.

GdJn	Cairn Type	Lab. No.	Date	Age	Sex
1	Platform	GX-7395	Too small	Adult	? (fragments)
2	Platform	GX-7396A	960±190 b.p.	Adult	?
3	Ring	GX-7420A	585±115 b.p.	20-24	Male
4	Small mound	GX-7421A	3460±155 b.p.	35-50	Male
5	Ring	GX-7423A	125±120 b.p.	18-25	Male
6	Ring (attached to 3)	GX-7422A	510±115 b.p.	16-20	Male
7	Platform			Adult	Female
8	Small mound			-	- (Empty)
9	Small mound			?	? (fragments)
10	Ring			Adult	Male

Samples from cairns GdJn 7, 9 and 10 will be sent for C-14 dating if funds become available. A preliminary skeletal study was conducted by Ms. Lynne Schepartz of the University of Michigan. A more detailed discussion of the research can be found in Stiles and Munro-Hay (in press).

Table 2.

GdJn:	2	3	4	5	6	7	9	10
Body position	F	B	F	F	F	F	F	B
Side	R	R	L	R	R	L	R	R
Head pointing	N	ENE	SE	NE	E	NE	W?	N
Face pointing	W	NW	SW	W	N	SE	S?	W
Tooth evulsion	No	M_{-4}	No	M_{-2}	M_{-4}	No	?	M^{-6}_{-4}
Stone pillow	No	?	No	Yes	Yes	No	No	Yes

F- flexed
B- legs bent, body straight
R- right side
L- left side

M^{-}_{-} number of central upper teeth missing / number of central lower teeth missing

Full argumentation will be presented elsewhere, but the C-14 dates, historical linguistics, and burial data suggest the following:

1) Cairns GdJn 3, 5, 6, and 10 belong to the same cultural group. They date from about the 14th century up to recent times. The mixture of Eastern Cushitic (stone ring burials) and Nilotic (incisor evulsion) traits suggests an Eastern Cushitic population who had close contacts with Nilotes. The best candidate is the Rendille. It appears that

a transformation of the custom of lower incisor evulsion from four to two teeth took place between the 15th and 19th centuries A.D. The Rendille today remove the two lower central incisors, as seen in GdJn 5. No occupation sites in the region have been dated this late.

2) Cairns GdJn 1, 2, and 7 almost certainly belong to the same cultural group, and one different from the ring group. The three platform cairns on Kokurmatakore are the only ones of this type yet seen in northern Kenya, in spite of widespread survey. GdJn 2 was dated to about the 10th century A.D. and is thus broadly contemporaneous with GcJm 2 and 3 of North Horr. The most likely people to have constructed the cairns and lived in North Horr were early Oromo-speakers, possibly ancestors of the cattle herding Wardai of Boran and Gabbra traditions.

3) It is not known if the two mound cairns, GdJn 4 and 9, belong to the same cultural group. Not enough bone of 9 remained to compare to 4, 9 remains undated, and mound cairns are a very common style and were probably used by more than one cultural group. GdJn 4 was probably built by Southern Cushitic-speaking pastoralists. The association of a stone vessel and obsidian artifacts with the mound and goat bones found within the mound stones resembles mounds found further south in Kenya and assigned to the Pastoral Neolithic Industrial Complex. Dating and cultural material also suggest that there are cultural relationships between GdJn 4, GcJm 1 at North Horr, FwJj 5 (dated to 4000±140 b.p.) at Ileret, and the Unit 1 burials at Lowasera (Phillipson 1977a). The above suggestions will be used as working hypotheses in future research and are not intended as final conclusions.

An analysis of the ethnoarchaeological research, i.e. the material culture inventory of the Gabbra and excavation of their abandoned settlements, has revealed that almost nothing of traditional Gabbra culture would remain in the archaeological record. The Gabbra and other camel pastoralists usually move camp more often than cattle pastoralists because they live in a less productive environment. Pottery is relatively fragile and cumbersome and is thus not suited to a nomadic way of life. Prehistoric camel pastoralists may not have needed cooking vessels since tea and maize meal were not then available in the region, there might not have been agriculturalists nearby with whom to trade for grain, and milk, blood, and meat do not have to be boiled. If early camel pastoralists did not use pottery, that would help to explain why no early camel pastoralist sites have yet been found. The sites are of very low archaeological visibility, and the people may be those buried in the ring style burials.

Paleoenvironmental Reconstruction

The results of the pollen analysis of the pits dug into the Chalbi paleolake flats near North Horr (marked in Fig. 1), conducted by Ms. Annie Vincens of the CNRS palynological laboratory in Marseille, indicate that Podocarpus forests on nearby mountains were significantly larger in the past and that palm groves around North Horr were more developed than today (Table 3, Stiles and Vincens n.d.). Prevailing winds would indicate

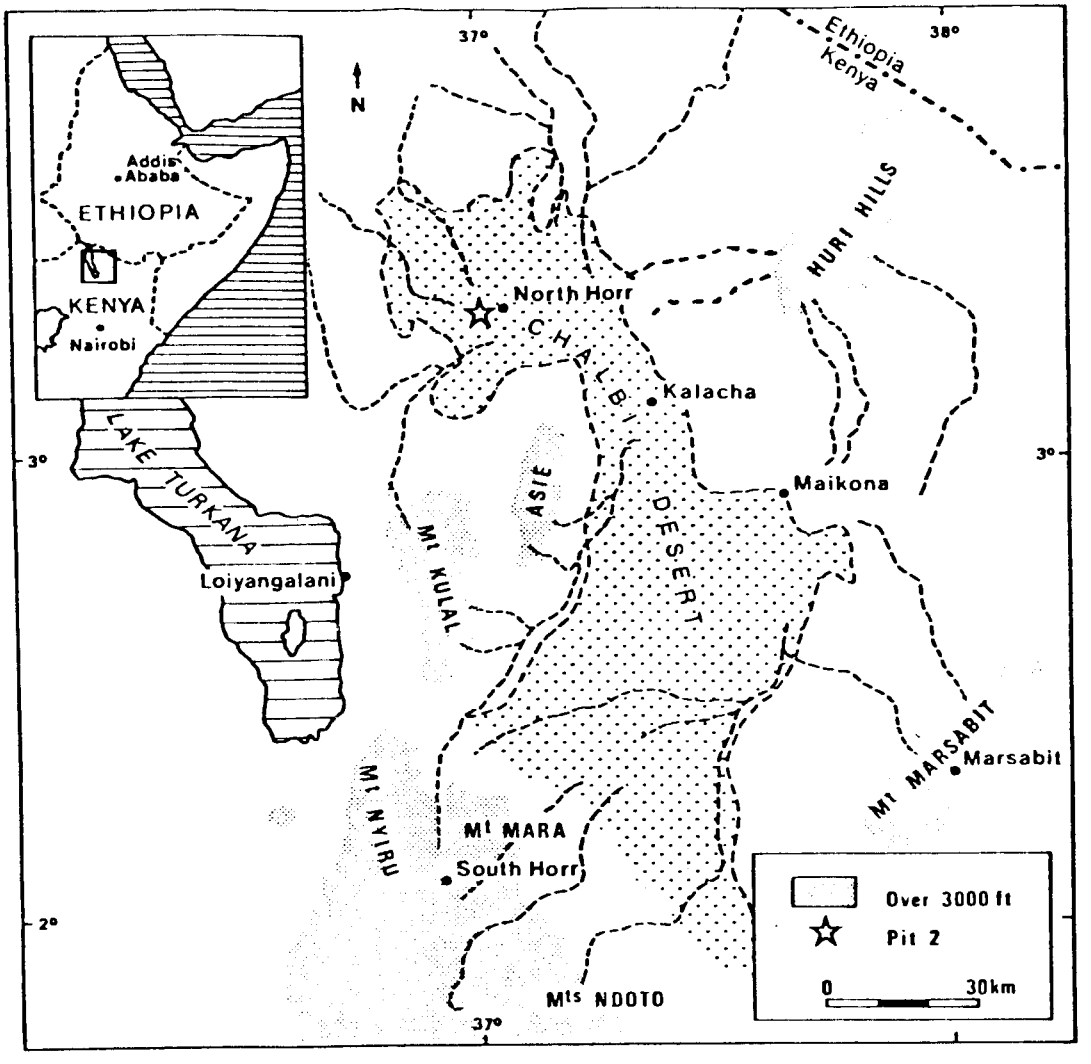

Fig. 1

Table 3.

Taxa Type	Recent S_7	%	S_8	Holocene 120 cm	%	160 cm
Highland Forest	1.4		3.1	41.7		64.7
Palm	0.0		0.4	1.7		5.0
Sub-desertic scrub	46.1		37.8	0.8		0.5
Cosmopolitan	49.9		56.7	55.0		27.9
Pteridophyte spores	0.6		0.0	0.8		2.0
Indeterminate	1.8		1.9	0.0		0.0
Total pollens	501		259	201		240
Diversity of Taxa	33		28	6		6

that the Podcarpus pollen came from Marsabit or the Huri Hills, neither of which have Podocarpus today (Synott 1979). The Huri Hills is called Bada Huri in Borana, meaning 'Forest Hills', and oral traditions indicate that forests once existed there. Today forests are

limited to east-facing canyons and the rest of the hills are kept a grassland by firing by the pastoralists. If the Podocarpus did originate from the Huris and Marsabit, the period of deposition might correlate with a similar extension of Podocarpus forests seen about 500 km to the north around Lake Abiyata and dated to between 6500 and 4800 B.P. (Lezine 1981). It is not certain whether Podocarpus exists today on Mt. Kulal (Synott 1979), but if it did in the past it could have been a source for some or all of the pollens found at North Horr. Podocarpus is seen on Mt. Nyiru and the Ndotos today, a minimum of 120 km south of North Horr. Wind and drainage patterns make it unlikely that the forest pollens originated there.

A tree branch in the form of powder was uncovered at a depth of about 80 cm in GdJn 3 at Kokurmatakore in sediments of hard, dark brown silty clay containing numerous calcium carbonate pebble concretions. This horizon indicates that the Chalbi lake at that time extended this far, a distance of about 5 km from the present shoreline. The wood powder has been C-14 dated to 1110±155 b.p., or about the 9th century A.D., indicating a humid period as recently as that. Water has not covered the area since at least 585±115 b.p., the date of the GdJn 3 stone ring. The stratigraphy in GdJn 3 indicates that permanent water conditions prevailed for a short time after the deposition of the tree branch (10 cm of sediments).

Between about 30 and 70 cm depth the sediments are a dark brown, fine-grained silt with clay pockets and numerous dense lenses of calcified root casts. The shell of a fresh water gastropod was found at 45 cm. This seems to indicate a rapidly fluctuating lake margin environment, sometimes flooded and at other times dry. This swampy environment persisted until perhaps as late as the 12th century, based on a calculated average sedimentation rate of 1 cm every 6.5 years between 1110 and 585 b.p. (525 years, 80 cm of deposits). This would be consistent with a picture of increasing dessication in the region eventually prompting autochthonous pastoralists to adopt camels (the Rendille ?) and also invitingthe immigration of camel pastoralists from the northeast to occupy the lowland grazing areas no longer optimal for cattle.

Above the lake margin sediments are found soft, brown sandy silts containing an occasional lava pebble, a combination of colluvial and aeolian deposits indicative of a semi-arid environment not unlike that of the present time. This reconstruction is consistent with the results of work conducted by Butzer (1974) in the Omo delta north of Lake Turkana, by Gasse et. al.(1979) in the Ethiopian rift valley lakes, and by Rognon (1974) in the Awash valley in Ethiopia. The process of cattle pastoralists adopting camels in the face of deteriorating environmental conditions can be seen today among the Samburu north of the Uaso Nyiro river and the Pokot and Njemps in the Baringo valley of Kenya.

If funds are forthcoming this research project will be continued in the summer of 1982.

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Archaeological survey of Bungoma District: preliminary report

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The purpose of this survey was to determine the nature and quantity of archaeological sites in the District. Previous work had tended to be rather sporadic and on a very small scale, and was therefore, the first systematic archaeological work to be undertaken.

Since the aim of the research was to document sites over a very large area, about 3074 km^2, a sampling strategy had to be employed. The sampling procedure involved putting grid squares over the map of the entire district and then randomly selecting areas to be walked. In the first leg of the survey four grid squares were walked. Since each grid represents an area of 100 km^2 on the ground, the total area covered was 400 km^2.

Casual observations in the past had indicated that most of the sites would be either caves or rock shelters. Thus hills and rock outcrops in the sampled areas constituted a particular target. In addition to these types of features, road cuttings, erosion gullies, and river valleys were also searched. In all 49 sites were found and recorded. All but two were either caves or rock shelters. The exceptions are open sites in imbedded river sediments on R. Sirare. These two sites have a typical MSA lithic technology. On the other hand, nearly all the caves and rock shelters appear to be of a late Iron Age. A few LSA sites also appear to be represented.

All the sites located were recorded in a systematic manner using standardized forms drawn up for the purpose. The first thing was to plot the sites on 1:50,000 topographical maps and then give them a six-figure grid-reference using map co-ordinates. Each site was then given a local name and a SASES number in accordance with the

system designed by Nelson. The functional type of the site and its cultural identity, as well as its location in terms of stratigraphy and the surroundings, were also recorded.

Whereas all the sites were recorded in a uniform manner, methods of surface collection varied with circumstances. In some cases only diagnostic material was collected, but in others both diagnostic and non-diagnostic material. Faunal remains were in general, left undisturbed.

Most of the artifacts collected in the survey consist of ceramic finds, mainly pottery. Nearly all the potsherds appear to have come from necked vessels. Some of the rims of these necked vessels have ledges, indicating that they most probably had lids. A bowl and a gourd-shaped vessel also appear to be represented. The decoration invariably includes roulette impressions made with a plaited cord. Twisted cord impressions are also represented. In some case impressions made with a plaited roulette combine with punctations or with carved roulette impressions.

The second main group of the finds consists of stone artifacts. Some of these belong to the MSA whilst others appear to be LSA. The MSA artifacts consist of typical Levallois cores as well as MSA points. On the other hand, the LSA artifacts are dominated by various types of microlith.

This survey has revealed that it is possible to reconstruct the culture history of Bungoma District from at least the MSA to fairly recent times. Although most of the sites located so far appear to be situated in hills and rock outcrops, a more systematic search of the river courses is likely to reveal more open sites. In general, the archaeological survey ignored nineteenth century walled villages as these are being covered in the ethnoarchaeological aspect of the survey.

MALI

Recherches archéologiques conduites au Mali en 1981

M. Raimbault

Importante mission des MacIntosh sur le vaste tertre de Jenné-Jeno (dans le Delta intérieur du Niger) au cours du premier semestre 1981, pour préciser la chronologie des dépôts d'occupation et les intéressantes données économiques reconnues en 1977 sur ce site qui apparaît désormais comme une des premières cités d'Afrique occidentale. Le début de la campagne coïncida avec la tenue à Jenné (l'actuelle) d'un premier Séminaire culturel sur cette ville, joyau de l'architecture soudanienne, organisé par la Direction du Patrimoine du Mali. Ouvert largement à la population, il permit de sensibiliser celle-ci aux questions d'Histoire et Archéologie.

Brève mission à la fin de juin 1981 sur la nécropole protohistorique du plateau de Ntondomo, en aval de Kulikoro, en collaboration étroite avec l'Institut des Sciences Humaines de Bamako. Fouille fine d'un 4e tumulus à cercle de pierres et tombe médiane apparente qui donna l'occasion de prélever le premier témoin matériel en place, dans le remplissage de la fosse, sous forme d'une pointe de flèche en métal. Pas le moindre ossement.

IIIe et IVe mission pluridisciplinaire dans le Sahara malien, sous la direction de Mme Petit-Maire, maître de recherches au C.N.R.S. - Laboratoire de Géologie du Quaternaire, Marseille, du 20 février au 16 mars et du 3 au 30 novembre 1981. Etude sur les paléolacs du NW du Mali (entre les 19° et 22° N) et les oscillations climatiques au cours du Quaternaire récent, avec un volet de Paléoanthropologie et Préhistoire. Deux périodes lacustres (9 000 - 6 500 B.P. et 5 000 - 4 000 B.P. environ) avec remontée des faunes et flores furent mises en valeur. La première a laissé des sites exceptionnels, surtout dans les dépressions du Foum el Alba, avec un matériel à la lisière de l'Epipaléolithique et du Néolithique, riche en grattoirs et longues pointes.

THE 1981 FIELD SEASON AT JENNE-JENO: PRELIMINARY RESULTS

Roderick J. McIntosh
Susan Keech McIntosh
Rice University, Houston, Texas

From January to July 1981, we conducted a second field season of excavation and survey in and around Jenne-jeno, Mali. Our goal was to expand and refine current knowledge, based on our 1977 research, of site chronology and regional urban development. We were able to increase considerably the scope of the excavations over the four 3 x 3 m test pits sunk in 1977, thanks to the generous funding of the National Science Foundation. Three graduate assistants accompanied us and served as site supervisors. (Although the research program originally called for six field assistants, three American and three Malian, no Malian students could be found to fill these positions, owing to the closure of the Ecole Normale Supèrieure in Bamako during the 1980-81 academic year).

Five excavation units were opened on Jenne-jeno in 1981: four of these (labelled CTR, ALS, HK, and WFL on Map 1) measured 3 x 3 m or 2 x 2 m; the fifth was a large exposure (LX) 10 x 6 m in size which was divided into two parts (LXN and LXS) separated by a 50 cm wide baulk. Additionally, a section was cut across an exposure of the city wall on the northern edge of the mound (NWS). Two sites other than Jenne-jeno were also excavated: we sunk 2 x 2 m test pits at Hambarketolo, a site lying adjacent to Jenne-jeno on the north and connected to it by an earthen causeway, and Kaniana, a large (41 ha) but shallow mound neighboring Jenne on the northwest.

An important goal of the excavations was to cross-check and refine the 1977 ceramic sequence for Jenne-jeno (described in McIntosh and McIntosh 1980). Although the analysis of all the computer-coded rim sherds has yet to be completed, calculation of relative frequencies of time-sensitive attributes on excavated body sherds was undertaken before leaving the field in 1981. This permitted us to arrange the excavated levels in tentative chronological order and to identify temporal relationships among the various excavation units. These postulated relationships functioned as hypotheses to be confirmed or refuted by the results of radiocarbon dating. At present, 17 rediocarbon dates have been completed for the 1981 excavations (see Table 1), bringing to 26 the total number of determinations available from Jenne-jeno and neighboring sites.

Overall, the chronology of occupation at Jenne-jeno outlined on the basis of the 1977 research has been emphatically confirmed and also refined in significant ways. The lowest levels, containing what we have identified as Phase I pottery, consistently date to the second and third centuries BC (RL-1619, 1620, 1622 in Table 1; a date of 210±180 BC was obtained in 1977). At this time, the occupation of Jenne-jeno was apparently limited to the small central area covered by units MND 1, MND 2 and

TABLE 1

List of 1981 Season Radiocarbon Determinations

LAB NUMBER	UNCORRECTED DATE BP.	MASCA CORRECTED AD/BC DATE
Jenne-jeno, LX-N:		
RL-1616	550±100	AD 1360± 70
RL-1617	790±100	AD 1160±100
RL-1618	1300±110	AD 690±120
RL-1621	1910±110	AD 30±130
RL-1619	2050±120	160±220 BC
RL-1620	2060±110	170±220 BC
RL-1622	2090±120	180±220 BC
Jenne-jeno, CTR:		
RL-1571	1060±110	AD 910±120
RL-1575	1310±120	AD 690±130
RL-1573	1590±110	AD 390±140
RL-1576	1790±120	AD 190±130
RL-1574	1860±120	AD 110±110
Jenne-jeno, ALS:		
RL-1578	1310±110	AD 690±120
RL-1581	1800±120	AD 180±120
Hambarketolo:		
RL-1577	1220±110	AD 750±130
RL-1580	1750±100	AD 230±120
Kaniana:		
RL-1579	1210±110	AD 770±120

LX (Map 1). Remains of burnt daub from pole-and-daub huts have been recovered from these earliest levels.

By AD 250, Jenne-jeno had expanded to cover a minimum of 12 hectares, as evidenced by deposition at that time in ALS (RL-1581) and CTR (RL-1574, 1576). Hambarketolo was also occupied by this point (RL-1580). According to the combined results of radiocarbon dating and the refined pottery chronology, the period from AD 300-800 marked the floruit of Jenne-jeno. By the end of this period, Jenne-jeno and Hambarketolo had attained their maximum areal extent of 41 hectares, and a 3.3 m wide city wall of cylindrical mud brick encircles Jenne-jeno over a circuit of almost two kilometers.

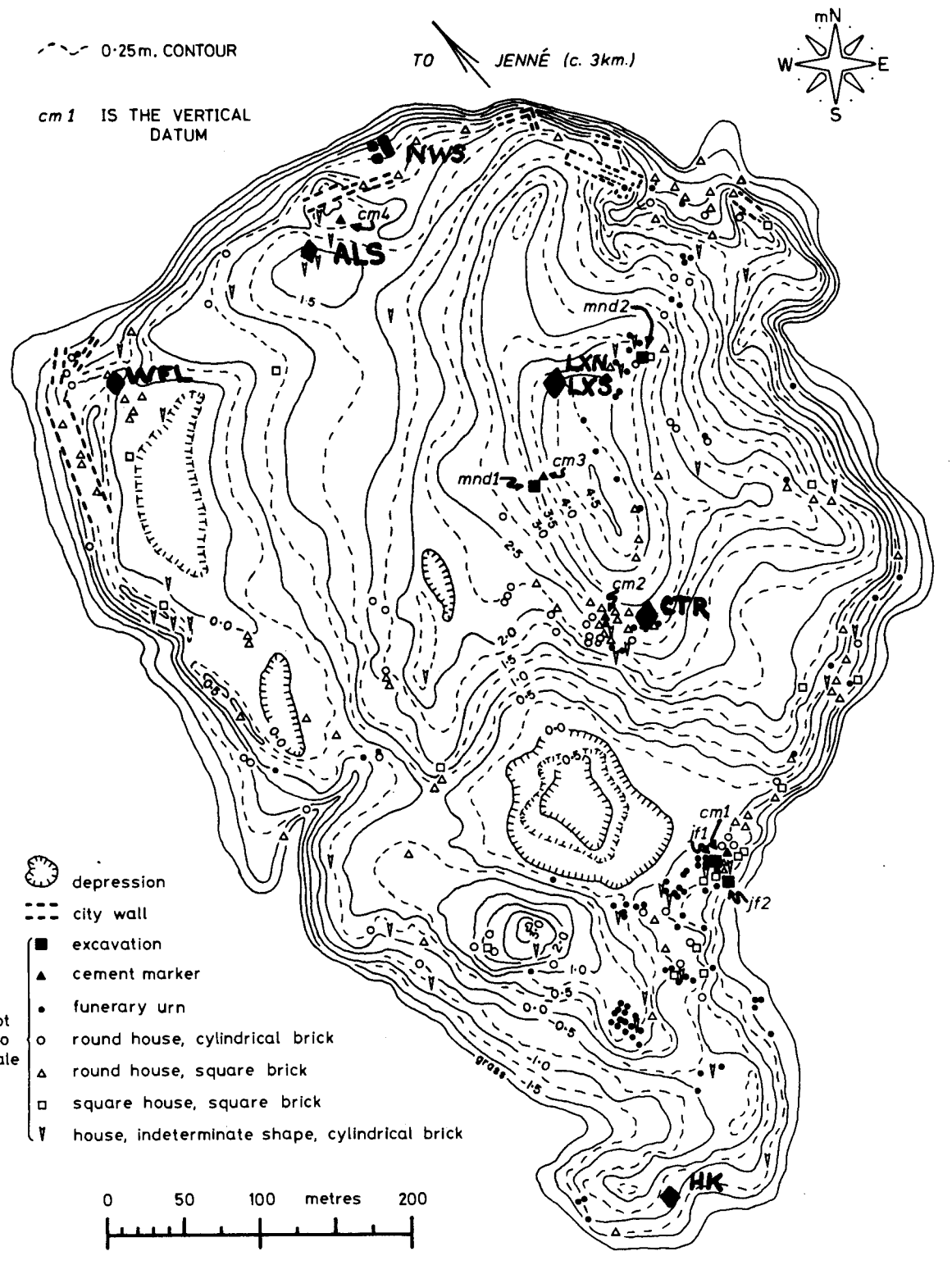
Jenne-jeno declined slowly after c.AD 1000. Hambraketolo and Kaniana are both abandoned at this time. Settlement on Jenne-jeno contracted to cover only the central-northeast quarter of the mound (the area of LX, MND 1 and MND 2). It may be significant that this decline corresponds with the appearance of the first evidence of contact with Islamic North Africa: glass beads, spindle whorls, and the introduction of rectilinear house plans. Abandonment of Jenne-jeno was completed by AD 1400, as indicated by the date of AD 1360±70 (RL-1616) from the deposits in the most recent house in LX.

The excavations sought additionally to provide detailed information on the subsistence economy through time and the the development of regional and long-distance trade. The abundant faunal and floral remains recovered are currently being analysed by K. Cruz-Uribe (under the direction of R.Klein), J. Scheuring, and Professor J. Harlan. Samples of iron and the various forms of slag found even in the earliest levels at Jenne-jeno are in the hands of Professor Tylecote, who is analysing them to determine if ore was imported and then smelted at the site, or if Jenne-jeno smiths worked imported bloomery iron. We have suggested (McIntosh and McIntosh 1981) that from an early regional trade in iron and stone, trade networks grew to embrace distant Saharan sources of salt and copper by the fifth century AD, as well as savanna-forest gold sources. Although historians have remained skeptical of this last possibility, preferring to see the gold trade into the Inland Niger Delta as a very late, post-conversion phenomenon, evidence that gold was reaching Jenne-jeno by AD 800 presented itself in 1981 in the form of a gold earring recovered from deposits beneath the city wall. These deposits contained pottery of a type produced before AD 800.

In 1977 we conducted site survey and a geomorphological study of an area of Jenne-jeno's hinterland measuring 1100 km^2. We identified 404 sites and surface-collected a sample of these, but conclusions about regional development were limited by the crudeness of our dating techniques. The 1981 season featured an improved methodology, including: Test excavations at Hambarketolo and Kaniana, whose pottery sequences agree precisely with that at Jenne-jeno as verified by independent radiocarbon dates; and a research focus on the region within a four-kilometer radius (of the Jenne mosque). This allowed us to select for surface collection and recording a 50% sample of the 65 sites within that radius. As in 1977, we used a randomized sampling technique to select sites for observation.

JENNÉ-JENO, MALI

1977



1981 Units Indicated by Solid Triangles

The 1981 survey supported several of the tentative conclusions from the 1977 season. The great majority of the sites near Jenne-jeno were abandoned between AD 1000 and 1400. To judge from Hambarketolo, many of these near-hinterland sites were founded soon after Jenne-jeno. By concentrating on the near-hinterland, we were able to say more about a trend noticed in 1977, namely that a stable, first millennium AD settlement pattern of sites dispersed throughout the best rice-growing land ended early in the second millennium with an implosion of population around modern Jenne. We have not yet begun the final analysis of the 1981 survey data, but we expect that these hold the answer to why settlement patterns were substantially altered at about the time of Jenne-jeno's abandonment. Analysis will also shed light on the clustering problem. Why does settlement in the region tend to have clustered in groups of small sites separated by only a short stretch of floodplain? From preliminary analyses of surface collections of pottery, these do not appear to represent sequential habitations; functional or ethnic alternatives will be explored.

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NIGERIA

1981 Excavations at Koroama, Yenagoa Local Government Area, RIVERS STATE: a preliminary report

Abi A. Derefaka, University of Ibadan, and Dr. Nwanna Nzewunwa, University of Port Harcourt

Koroama (5° 02'N, 6° 18'E) is an inhabited settlement of the Gbaran who live along what is now known as Taylor Creek in the Central Niger Delta. It is the second site to be excavated in the fresh-water delta (see Nyame Akuma No. 18, pp. 23-25). Two types of open site were identified and excavated at Koroama. One is an industrial or factory site, while the other is a midden site. During reconnaissance in March 1981, it was partly the existence of industrial sites, which tied in with oral traditions collected earlier, that led to the choice of Koroama as the next place for excavations. The second type of site was identified when we were conducted to a place where digging ('for mud to wall a house') had exposed an impressive array of artifacts.

Excavations

The authors, assisted by students in post-primary institutions and teachers (all indigenes of Koroama), worked at Koroama from 28th August to 8th September, 1981.

Local weather conditions (rainy season) and limited resources were the major factors that guided our decision to sample the two mounds chosen by test-pitting. Accordingly, two test pits (2m. x 2m. each) were sunk on each mound.

On Mound I (the industrial site) the two test pits were located on the western slope of the half that river erosion had left of the original mound, with Pit 1 nearer the apex. Pit 2 was one meter away but aligned west of Pit 1 such that the 1 m. 'baulk' could have been taken down to join the two pits if necessary. We obtained a clear picture of the natural and cultural stratigraphy. The mound had resulted from successive pottery-firing activities.

On Mound II (the midden site) Pit 1 was marked out south-east of Mr. Orumokumo's new mud-walled house in the area undisturbed by the builders. Pit 2 was marked out to the north-east of Pit 1 but parallel to it and in the undisturbed area east of the new house and nearer the Taylor Creek water front.

Whereas Mound I provides some record of the nature of a now almost extinct indigenous ceramic industry, Mound II provides a record of a seemingly ceramic (local) phase and European contact phases. The major finds from Mound I are potsherds (about 30,000). Other finds include

bones (to be identified), locally made smoking pipes, and burnt palm nuts. The most numerous class of finds from Mound II is pottery but there is also a lot (compared to Mound I) of bone (fish and mammalian). Snail shells, some iron implements, gun flints, European factory-made smoking pipes, fragments of J.J.W. Peters gin bottles, glass beads, porcelain pieces, cowries, and palm nuts were also recovered.

Soil and charcoal samples were collected for laboratory analysis. Analysis of all the material recovered from the excavation is in progress. A more detailed report will follow.

The excavations were sponsored by the University of Ibadan, and major equipment was provided by the School of Humanities, University of Port Harcourt. Our gratitude also goes to Chief B.P. Saiyou, the head of Koroama, his deputy, Chief I.B. Kwokwo, their council and the people of Koroama for their hospitality, interest, and permission to excavate on their land.

Prospecting the 3000 BP barrier: Borno 1981

by

Graham Connah

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University of New England, Australia)

and

Joseph Jemkur

(Centre for Nigerian Cultural Studies,
Ahmadu Bello University, Nigeria)

The book Three thousand years in Africa, written by one of us (G.C.) and published by Cambridge University Press in 1981, attempted to explain the relationship of Man and his environment in the Lake Chad region of Nigeria over the last 3000 years. In that book there was some discussion of the virtual lack of archaeological evidence in that area of Borno State, Nigeria, prior to about 3000 years ago. On pages 82-3 an hypothesis was advanced concerning the prehistory of the area prior to this apparent time barrier. Briefly, it was suggested that hunter-gatherers must have been exploiting the margins of Lake Chad from an early date and that the most likely strategy of such groups, during the periods of climatic stress which are known to have existed from time to time, would have been to retreat into the Mandara Mountains and the adjacent uplands to the south of Lake Chad. In addition it was suggested that food production, involving both cereal cultivation and pastoralism, must have developed or been adopted in the Lake Chad area at some time prior to 3000 years ago. A number of ways were suggested for testing this hypothesis and in particular the potential importance of the northern end of the Mandara Mountains and the adjacent parts of the Bama Ridge was mentioned.

In January and February 1981 occurred an opportunity to conduct archaeological fieldwork in this very area. The writers spent 25 days in Borno of which 15 days were devoted to a search for archaeological sites in the area shown in Figures 2 and 3. Most of our efforts were concentrated on the rectangle bounded by the roads from Ngurosoye to Dar-el-Jamal to Kirawa to Pulka to Ngurosoye (Figure 3) but the flanks of the northern end of the Mandara Mountains were also examined and one journey was made (on foot) into the heart of the Mountains themselves. The fieldwork was organized from the Centre for Nigerian Cultural Studies, at Ahmadu Bello University, Zaria. The Centre provided a vehicle and driver, field equipment, a technical officer (Mr. Mathias Opuana) and funding for the project. One of us (J.J.), from that Centre, did all the preparatory work and collaborated with the other (G.C.) in the direction of the actual fieldwork.

The fieldwork was conducted as a straightforward search for sites, with arbitrarily organized surface collection and a small test excavation of one of the newly discovered sites. Sites were located in two ways: 1) Surface searches were conducted at random spots but particularly along incised stream and river beds and on selected areas of the Bama Ridge. 2) Local knowledge was used by talking (through an interpreter) to farmers and others in most of the modern settlements shown in Figure 3. Of the two methods,

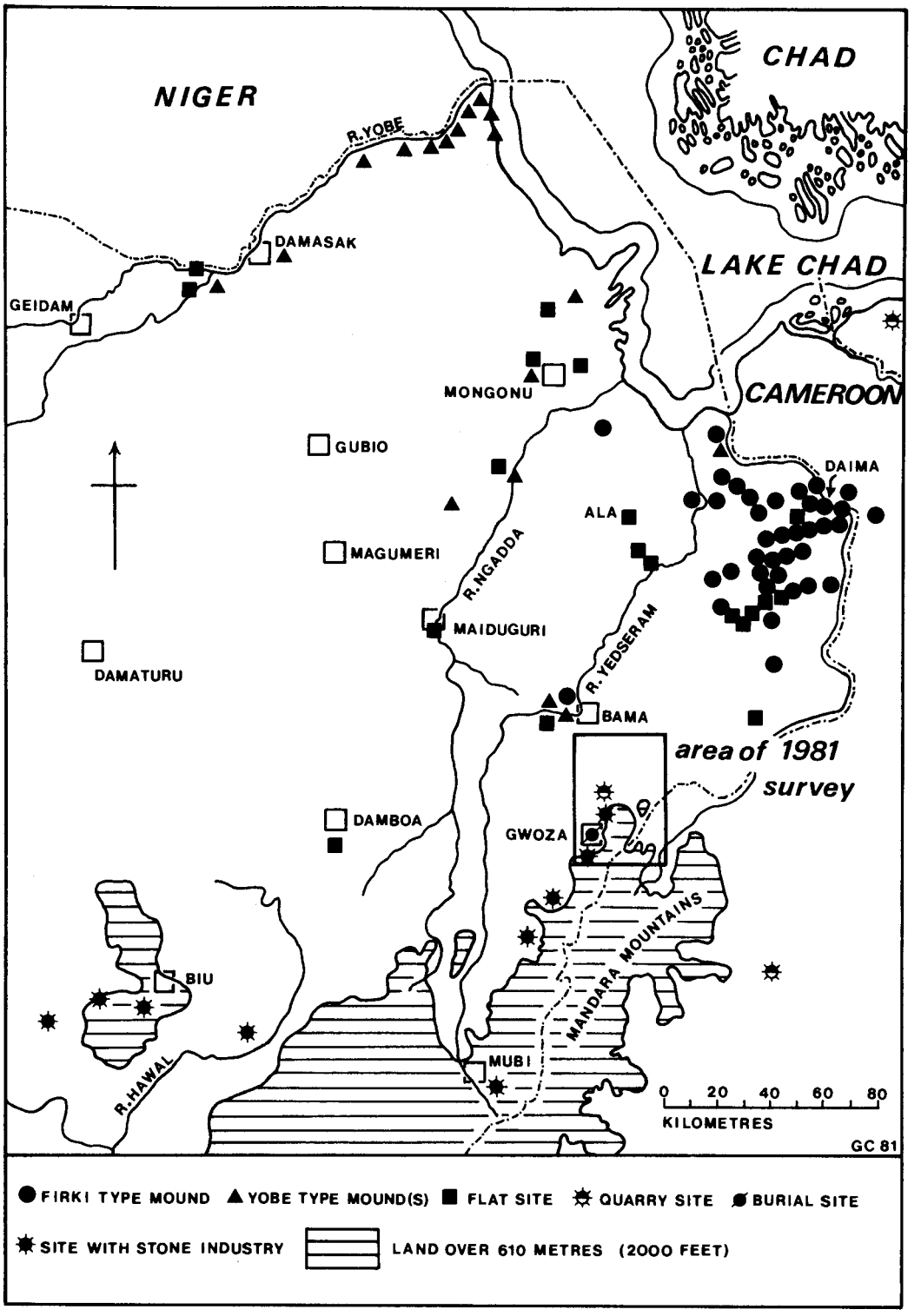

Figure 1 : Archaeological sites in the Lake Chad region of Nigeria, as known prior to 1981. Based on Connah (1981: 46). The only addition is Ala, a newly discovered site outside of the area of the 1981 survey, which is not discussed in this paper.

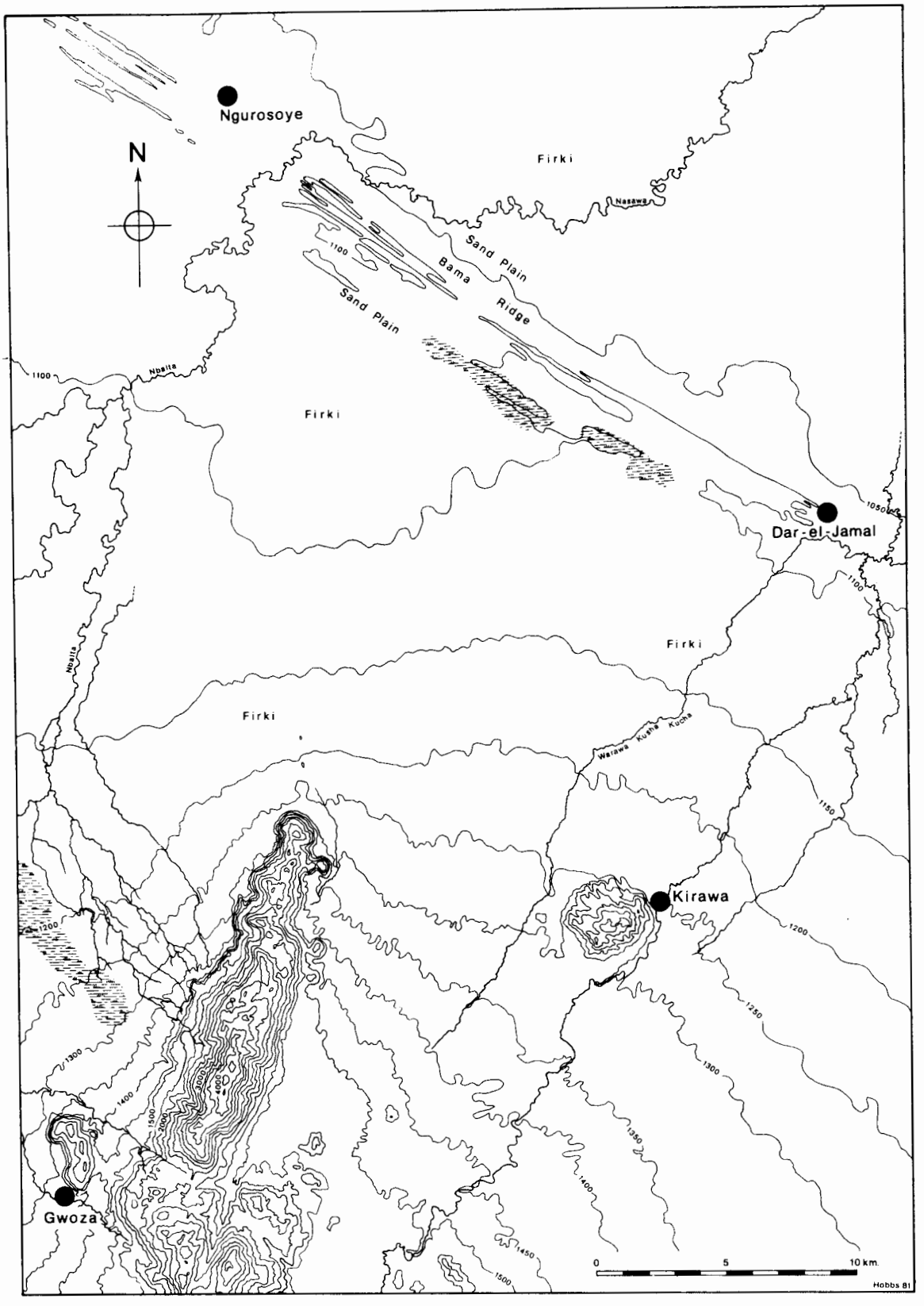

Figure 2 : Physiographic map of the 1981 survey area. Based on Nigeria 1:50,000 Gwoza NW, NE, SW, SE (Sheet 114), Edition 1. Contours are at 50 feet intervals. Note the areas liable to flooding south of the Bama Ridge.

the second produced the greater number of sites but most of these were settlement mounds that probably all dated to within the last 3000 years. In contrast, the first method produced fewer sites but amongst them was the only site with a convincing stone artefact industry (B117: see Figure 3). It seems that local information tended to lead us to the later more obvious sites and that to discover more of the earlier sites would require a far more intensive search, over a more limited area but extended over a greater time.

The Bama Ridge is thought to mark the shoreline of a formerly larger Lake Chad during the period between about 12,000 and about 7000 years ago (Connah 1981: 21-2). Between the Ridge and the abruptly rising Mandara Mountains, which are mainly of granite, lies a plain that Bawden (1972: Map 2) mapped as a pediment of schist, gneiss and migmatite with some Older Granite. The area selected for the 1981 fieldwork was deliberately chosen because this apparent relationship of mountains, pediment and old shoreline seemed to offer a particularly good chance of testing the hypothesis concerning the prehistory of the Lake Chad region prior to 3000 years ago. Figure 1 shows the relationship of the 1981 survey area to the distribution of sites known prior to this new work. As shown in Figure 2, however, the 1981 work produced some surprises concerning the environment of the area. It was found that south of the Bama Ridge, which consists of coarse sands and is flanked on each side by sandy plains, lies an extensive area of firki comparable with the archaeologically known areas to the north-east (Figure 1). As the contours in Figure 2 show, there is a slight fall in the level of the area, from south to north, a fall of about 150-200 feet (46-61 metres) over a distance of about 20 kilometres. Nevertheless, the area is substantially one of firki clay plains, although with local sand admixture and with rather more Acacia scrub than is found on the more open firki plains further to the north-east, where the majority of the Borno settlement mounds previously known are situated. In short, although we are not geomorphologists, we would suggest that Bawden's map is incorrect in its detailed representation, if not in its basic interpretation. The expected pediment appears to be largely masked by lacustrine or lagoonal deposits formed only during the last 5000 to 7000 years and available for human settlement only during the last 3000 years (Connah 1981: 22).

Thus, instead of finding a stony pediment on which lay early sites with stone industries, we found a stoneless firki plain with settlement mounds (some of them very large) comparable in type and date with those further north-east of which Daima is the best known. This in itself is an important discovery because it had not been appreciated previously just how far south mounds of this type were located. As Figure 3 shows, we now know of mounds of Daima type situated on the plains at the very foot of the Mandara Mountains (B118, B119, B123). One of these, B119, known locally as Gagava Nawayanda Amthe, was test excavated over a period of two and a half days. The section through the occupation deposits shown in Figure 4 confirms the similarity of the mound to other firki type settlement mounds such as Daima. Wood charcoal scattered throughout Spit 4 has given a radiocarbon date of 1110 ± 70 BP (Beta 3510) and wood charcoal scattered throughout Spit 2 has given a radiocarbon date of 1240 ± 80 BP (Beta-3917). In spite of the apparent inversion of these dates, they lie within one standard error of one another and a t-test (critical value of t at $t.05$) indicates that there is no significant difference between the two dates

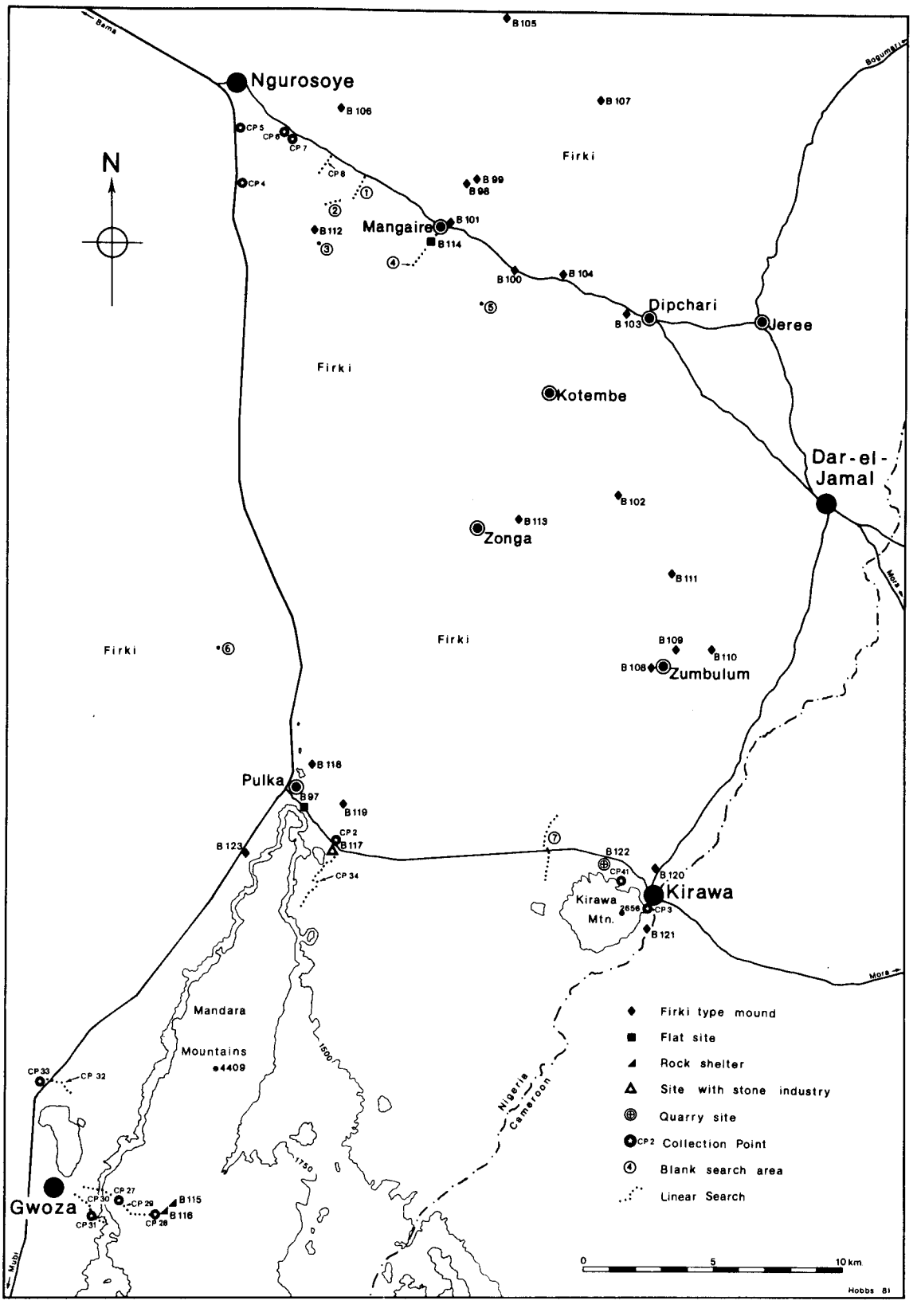

Figure 3 : Archaeological sites discovered during the 1981 survey. Collection Points and the more significant of other localities examined are also shown, as are modern settlements and roads. Basis of map as Figure 2. It proved impossible to penetrate the area immediately to the west and south of Zonga.

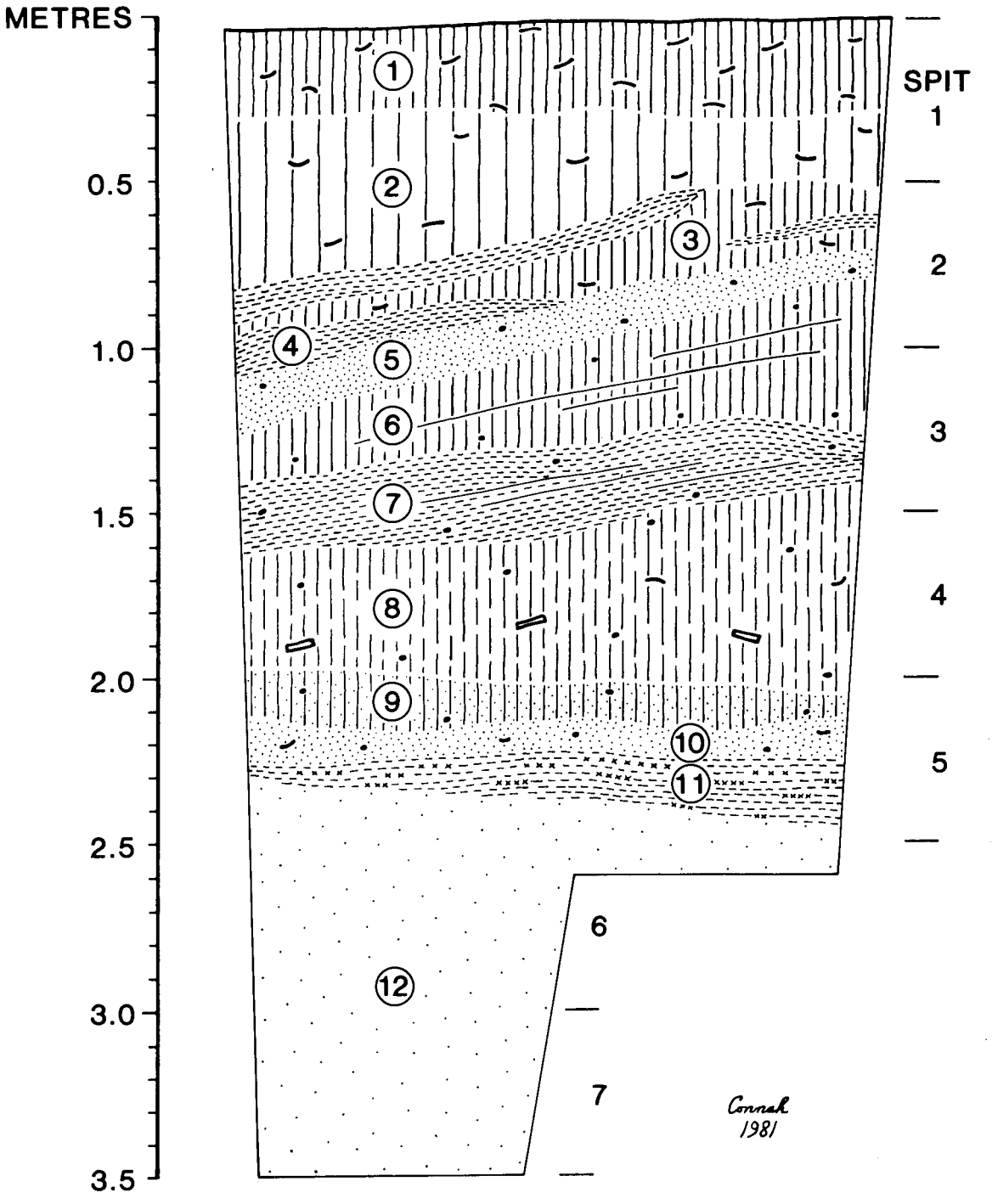

Figure 4 : East section of test excavation at Gagava Nawayanda Amthe (B119). Stratigraphy as follows: 1: Brown/grey sand and gravel, with sherds (cultivated soil). 2: Grey sand and gravel, with sherds. 3: Brown/grey sand and gravel, fewer sherds. 4: Pale grey lenses. 5: Black/brown earth, flecked with charcoal. 6: Brown/grey sand and gravel, flecked with charcoal, some fine banding. 7: Pale grey sand and fine gravel, flecked with charcoal, some fine banding. 8: Brown/grey sand and gravel, flecked with charcoal, sherds and bones; jumbled material. 9: Brown sand and gravel, flecked with charcoal. 10: Black/brown earth, flecked with charcoal and sherds. 11: Pale grey ashy sand and fine gravel. 12: Light brown sandy fine gravel, probably merging into natural below limits of excavation.

(Thomas 1979: 206-8). The best interpretation of these dates is that they indicate that the deposits of Spits 2-4 inclusive were probably forming during the second half of the 1st millennium AD. No sample material suitable for radiocarbon dating was avilable from the lowest parts of the deposits excavated. Excavation was discontinued at a depth of 3.50 metres and the deposits beneath sounded with a trowel to 3.70 metres but in the time available it was not possible to confirm whether the natural deposits beneath the mound had been reached. It seems probable, however, that the mound is about 4.0 metres high.

A cursory analysis of the decoration and form of the pottery excavated from Gagava Nawayanda Amthe suggests a time-span somewhere within the Daima sequence, although there are some differences in the pottery that may represent either regional variation in style or difference of time. The excavated cutting, which was put into the highest part of the mound, produced no objects of metal nor any metal slag, although three fragments of what may have been crucibles were recovered. On the other hand, although pieces of stone were moderately common in the deposits, particularly quartz and granite, there were virtually none that showed clear evidence of a flaked stone industry. Nevertheless, the butt-end of a stone axe was found in a disturbance hole in the surface of the mound, although the fragment showed signs of later reuse. An economy comparable with that of Daima was suggested by the presence of grindstone fragments and grinder/pounders within the deposits and by the presence of animal bone fragments throughout the deposits, amongst which were identified (from Spits 1-4 inclusive) 7 cow teeth and 13 teeth of sheep or goat. However, there were some marked differences in the material culture of this site compared with that of Daima.

The overall impression gained from the test excavation at Gagava Nawayanda Amthe, and from the comparable surface collections from other firki type mounds discovered in the 1981 survey, is that these settlement mounds belonged to mixed farmers who were exploiting this area within the last 3000 years.

During the 1981 fieldwork we examined a total of 56 localities, made surface collections at 42 of them (referred to as 'Collection Points' in Figure 3) and accepted 27 of these 42 as being of sufficient significance to be listed as distinct archaeological sites. These sites were allocated the numbers B97 to B123, continuing the Borno site numbers used previously (Connah 1981: 47) and are shown accordingly in Figure 3. Of these 27 sites, 21 are firki type settlement mounds comparable with Gagava Nawayanda Amthe. Apart from these mounds, which occur on the plains north of the Bama Ridge as well as to the south, there are six other sites of significance. Two of them are flat sites. Of these, B97 comprises an extensive scatter of sherds and other cultural material at the foot of the Mandara Mountains and is probably of 2nd millennium AD date. B114, however, is possibly of a slightly earlier date and is the only definite site located on top of the Bama Ridge proper. It consists of a thin scatter of sherds in disturbed earth from a group of ground-squirrel holes. Another site (B122) is a quarry site in granite on the northern side of Kirawa Mountain, that was probably used for producing grindstones at some time in the last 3000 years. Finally, there are three potentially early sites. Two of these (B115 and B116) are rock shelters in granite at Guduf Bubaya-Gawa, nearly 3000 feet

(900 metres) up the Mandara Mountains, and both of these are strongly associated in the local traditions with Buhé, a legendary hero-figure who introduced iron-working into the Mountains. Both of these rock shelters contain deposits and the surface of those deposits indicates that the shelters have indeed been used for iron-working. Although it is possible that pre-iron deposits either never existed or have been subsequently disturbed, excavation at these sites might at least give an early date for iron-working in the Mountains. Certainly, the existence of these rock shelters with floor deposits suggests that the Mountains should be carefully searched for more such sites.

The remaining site, of the 27 which were recognized during the 1981 survey, seems to be the only definite example of what we were really looking for. B117 consists of a concentration of quartz artefacts on the surface of a flat cultivated field. Surface collection at this site produced 25 primary flakes; 2 primary flakes with secondary working; 2 cores; 6 pieces of flaking waste; 1 piece with percussion wear. All except one item (of chalcedony) are of white quartz and they are mostly fresh, not rolled. From CP2, which for practical purposes can be considered as part of site B117, came 1 core and 1 piece of flaking waste. Site B117 is not the same as site B61 found by Robert Soper in 1964 (Connah 1981: 80) but it is similarly situated on an erosion surface near the foot of the Mountains. As will be seen from Figure 3, collections along incised stream and river beds at CP29, CP30/CP31, CP32/CP33 and CP34 failed to reveal any other certain sites with stone industries, although scattered stone artefacts were recovered from most of these places. Nevertheless, these searches covered parts of only four watercourses and between Gwoza on the west of the Mountains and a point east of it on the eastern side of the Mountains there are at least 25 such watercourses shown on the appropriate 1:50,000 survey maps.

In conclusion, the hypothesis concerning human settlement in this part of Nigeria prior to 3000 years ago is neither supported nor invalidated by the newly discovered sites although it receives some support from the B117 stone industry site. The means of testing that hypothesis has, however, been considerably narrowed. There can be little or no expectation of sites earlier than 3000 BP on the firki that stretches from the Bama Ridge almost to the base of the Mandara Mountains. The search for earlier sites, when it is resumed, must be concentrated more closely: 1) On the Bama Ridge proper. 2) On the deposits immediately adjacent to the base of the Mandara Mountains. 3) On potential rock shelters amongst granite boulders on the Mountains themselves. Our impression of the Bama Ridge is that there could be a lengthy search before it yields anything. As an old Lake Chad shoreline there must surely have been fishing-hunting-gathering settlements along it at an early date but the problem is how to find them, for no exposures have yet been found on the Ridge. Also, some of the most likely cultural evidence in this stoneless area would probably break down quickly, once eroded onto the surface, even if it had survived previously in the deposits. Sand from B114 gave a pH reading of 5.54 when tested later in Zaria, so that it is possible that bone and shell, for instance, may not have survived in the Bama Ridge deposits. In our opinion, it would be better to concentrate fieldwork effort on the Mandara Mountains and on the deposits at their base.

Acknowledgements. We have to acknowledge the help of the Centre for Nigerian Cultural Studies, Ahmadu Bello University, Zaria; the University of New England, Armidale, Australia; the Borno State Government; the Bama Local Government; the Gwoza Local Government; and the Borno State Arts Council. We specifically acknowledge the personal help given by Alhaji Abba Tor, Commissioner for Home Affairs, Information and Culture in the Borno State Government; Alhaji Bukar Magu, Permanent Secretary for Home Affairs, Information and Culture in the Borno State Government; Mr. M.D. Lawan, Cultural Officer, Ministry of Home Affairs, Information and Culture in the Borno State Government; Ali Kellu Biu, Acting Deputy Director of the Borno State Arts Council; and Dr. Sa'ad Abubakr, formerly Head of the Department of History, University of Maiduguri. The whole fieldwork project was made possible by the interest of Dr. Mahdi Adamu, formerly Director of the Centre for Nigerian Cultural Studies at Ahmadu Bello University and now Professor and Head of the Department of History in that University. We would also particularly like to acknowledge help in the field from Alamin Bello, headmaster at Bama, and Ishaka Zadva, headmaster at Pulka, who acted as guides and interpreters during different parts of the survey, which covered an area where at least 5 different languages were spoken. Finally, we are endebted to Ahmadu Adamu, who drove the vehicle and kept us alive; Mathias Opuana, who did so much of the hard work on the sites and on their material; Nan and Bob Wedderburn, whose hospitable Maiduguri house we were so grateful to see on a number of occasions; and Douglas Hobbs and Wendy Chappell of the Department of Prehistory and Archaeology, University of New England, who, respectively, drew Figures 2 and 3 and typed this paper.

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African Archaeology at the University of California, Los Angeles

Merrick Posnansky, Professor of History and Anthropology at UCLA has sent the following list of graduate students who are presently undertaking research for higher degrees on topics of archaeological interest in the departments of Anthropology, Art, History and the Archaeology Program

Emmanuel K. Agorsah (Archaeology Program): an ethnoarchaeological study of a Nchumuru village in the Volta Region of Ghana

Marla Berns (Art): a study of ceramic history and ceramic differentiation in the Gongola Basin, Nigeria

Barbara Blackmun (Art): is studying the figurated ivory tusks from Benin, Nigeria

Philip L.F. de Barros (Anthropology): iron working and site-settlement relationships in the Bassar area of Togo

Christopher de Corse (Archaeology Program): the late Stone Age and the ethno-ethnoarchaeology of hunters in Sierra Leone

Timothy Garrard (History): brass casting among the Fra Fra in northern Ghana

Candice Goucher (History): historical process in West African iron technology: an ecological model, working mainly in Ghana and Togo

Charles McNutt (Archaeology Program): the later Stone Age and agricultural transition in the western Sahel and desert in Senegal

Frances Muir (Archaeology Program): later Pleistocene hominids

Henry Mutoro (Archaeology Program): relationships between urban and rural communities on the Kenya coast -- an ethnoarchaeological approach

Pamela Willoughby (Anthropology): spheroids and battered stones in the Early and Middle Stone Age

In addition, the following two graduate students from Africa are undertaking research with fellowships from the L.S.B. Leakey Foundation:

Dovi Kuevi, Togo
Ahmed Dualeh Jama, Somalia

SOMALIA

Archaeological survey in Southern Somalia

Margherita Mussi, Istituto di Paletnologia, Via Palestro 63, 00185 Roma

In March 1982, a preliminary archaeological survey was carried out in Southern Somalia by the Istituto di Paletnologia of Rome University. The survey was sponsored by the Italian Ministry of Foreign Affairs, and by the Somali Academy of Sciences and Arts, with the backing of the Somali Ministry of Higher Education and Culture.

Most of the research was done in the middle Juba Valley, where large dams are planned for the next future, and where extensive areas will be flooded. Previous archaeological investigations in the area were restricted to a few surface collections.

In this first stage, the valley was examined in two places: near Luuq and north of Baardheere. In both areas palaeolithic implements were frequently found on the surface. They can be referred to the M.S.A. and to the L.S.A.

Two different types of presumed funerary monuments were also noticed: simple earth mounds covered with stones and dry stone mounds with a central depression, possibly related to a collapsed timber structure. The first type of monument was found both near Luuq and near Baardheere, the second near Baardheere. The latter type is also known in Northern Somalia, near Hargeisa, Sheikh, Erigavo, Mait (S. Jönsson pers. comm.). Excavating them in different areas, it is hoped to throw some light on the later prehistoric populations of the Horn, and possibly on the origin of the Somali people.

More investigations are planned within the year in the Bur region, particularly around Dinsor and Bur Hakaba, and at Baidoa.

SOUTH AFRICA

Pastoralist Archaeology in the Cape Province

Andrew B. Smith, Dept. of Archaeology, University of Cape Town

A long-term project on prehistoric pastoralism in the Cape has been expanded to include an ethno-archaeological study of surviving Nama-speaking herders along the Orange River. Initial contact was made with these fast-disappearing peoples on the edge of the Richtersveld in November, 1981, and several abandoned camps were mapped. In collaboration with a Social Anthropologist and a Botanist it is hoped to gain information on seasonal land-use of the riparian vegetation, as well as other ethno-botanical data.

An excavation of an early pastoralist camp in a known historical area is scheduled for later in the year to try to work out a methodology for recognising pastoralist sites in the Cape. The intriguing question of when cattle were first introduced to the Khoi of the Cape is still open. It is hoped this excavation will offer some clues.

SUDAN

Butana Archaeological Project: 1981 Field Season

A. Marks, SMU, Abbas M. Ali, U. of Khartoum, T.R. Hays, NTSU,
Yousef Elamin, U. of Khartoum

The first field season of the Butana Archaeological Project took place from December 21, 1981 through February 21, 1982. The project is a cooperative endeavour between the Department of Archaeology, University of Khartoum (Drs. Abbas Mohammed Ali and Yousef Elamin), the Institute of Applied Sciences, North Texas State University (Dr. T.R. Hays), and the Department of Anthropology, Southern Methodist University (Dr. Anthony Marks). Funding for the project was supplied mainly through a two year National Science Foundation grant to SMU but additional, valuable support was supplied by the University of Khartoum. The license for field work was given to Dr. T.R. Hays by the Sudan Antiquities Service. All the co-principal investigators participated in the field work, as did two post-graduates from the University of Khartoum and two graduate students from SMU. In addition, NTSU supplied a laboratory director.

The overall goal of the Butana Archaeological Project is to elucidate the role played through time, by the huge grasslands of the Butana, either as a barrier to or as a conduit for culture contact between the Nile Valley and the trans-Atbara region of the eastern sahel. This is a long term project; the specific goals of the first two seasons are systematically to locate sites on both the eastern and western fringes of the Butana and to acquire as complete a temporal sequence for each area as possible. In addition, plans were made to acquire sufficiently large artifactual samples to permit an initial description of each major archaeological manifestation in each area and to acquire sufficient datable materials so that each could be placed firmly into an absolute sequence.

To a large extent, these goals are well on their way to being fulfilled; the first field season was extremely successful in spite of the normal problems involved in any first field season of an international project. Work on the western fringe of the Butana centered around the site of Shaqadud, some 50 km east of the Nile at Wad Ben Naga. The site, consisting of a huge midden and a cave both within the same small box canyon, was discovered and briefly published by Dr. Hans Otto some 20 years ago but no serious work had been carried out. Surface scatter indicated a wide range of pre-Meroitic occupation of both areas. Test excavations were conducted in both the midden and the cave with spectacular results.

The midden contains up to 2.5 m of stratified cultural deposits. The upper 40 cm contain a post-Shaheinab Neolithic. From about 40 cm to 70 cm there appears to be a Shaheinab-like occupation lacking the typical adzes and gouges of that site. Below about 70 cm there is a range of Early Khartoum-like material, although true solid wavy-line pottery is rare. On the other hand, dotted wavy line pottery is quite common. In addition, the whole midden produced a moderate amount of fauna and much carbonized macrofloral material. Samples are still too small to define fully the various diachronic changes and even the range of cultural material at any given level but excavations next season will remedy this problem. Three radiocarbon dates will shortly become available for the midden, and, by the end of next season, reasonable charcoal samples should be available for every 5 cm.

Excavations in the cave produced the greatest surprise. Dr. Otto had put a small cut there and his results suggested a depth of no more than ca. 60 cm. Our trench hit bedrock at about 3.5 m. The total stratigraphic sequence contained cultural materials, including stone artifacts, pottery, faunal remains, and floral samples. The whole section was full of charcoal and numerous dates are expected shortly. The pottery, however, indicates that the sequence, at least the top 3 m, contains post-Shaheinab materials. It is possible, therefore, that the cave will provide a continuous cultural sequence from just pre-Meroitic back in time to, perhaps, an A-Group type assemblage in the bottom half meter. If so, combined with the midden, we will have obtained an almost complete stratigraphic sequence from the very early ceramic occupation almost to Meroitic. The one weak point may well be the lowest levels of the cave which were poor in cultural material and which may equate with the just post-Shaheinab, Kadada and A-Group-like materials along the central Nile.

This possible gap at Shaqadud is filled, perhaps, by a nearby site, S17, which is rich in pottery, but lacks organic materials. It is one of the 20 other sites located in the area just around and north of Shaqadud. These sites include both small, low density occurrences of possibly late (but still pre-Meroitic) occupations and large in situ open sites of Neolithic and even earlier type. All, however, contain ceramics. Not a single pre-ceramic site was located. In fact, not a single artifact is attributable to any pre-ceramic period.

Work in the Atbara area centered on both sides of the Atbara River just north of the town of Khasm el Girba. In a relatively brief period, a total of 59 sites were recorded in detail, including a number discovered by the pioneering survey carried out in 1966. This survey was of only limited value and considerable effort was expended in working out its anomalies. The earliest occupation appears to be early Acheulean and is associated with fluvial deposits. Localities are present in numbers but true sites appear rare, although some were originally reported.

There is no evidence for MSA occupation. It now appears that this is due to an absence of appropriate sediments along the Atbara. Aside from the Acheulean, the oldest occupation appears to be, perhaps, early Holocene. Five sites located are characterized by a fine blade technology, thick crescent-like tools, small endscrapers, and truncated blades of various types. These sites are associated with swamp deposits and are full of the bones of both large and small animals, including much fish. Radiocarbon samples were obtained and at least one date is forthcoming. It

is unlikely to be very early since at least one of these sites has in situ grinding stones. A few other pre-ceramic sites were located (all on the west side of the Atbara, as are those described above). Tools are rare and all show a poor flake technology, quite distinct from the blade technology of the first group.

The earliest ceramic-bearing sites are close to the Atbara and contain ceramics not identical but similar to Early Khartoum; that is, with wavy-line or dotted wavy line impressed decoration and unburnished. All the evidence indicates that decoration only occurs as thick bands around the upper portion of the vessels. This pottery is associated with another form with multiple rows of knobs and no other decoration. This latter type is known from the northern Gash Delta through the work of R. Fattovich. Other artifacts include grinding stones, a few elongated lunates and, otherwise, very few well-made tools. Faunal material is abundant and includes much fish, shell, pig, and a number of small mammals. While no macro-botanical material was found, good charcoal samples were taken.

In spite of the pioneering survey and two radiocarbon dates then obtained, it is only intuition which permits ordering of the other sites. It now seems as if the trans-Atbara (and the few 100 m of the west bank) contains a very long lasting cultural tradition characterized by the presence of wiped pottery in great numbers, very large sites (up to 150,000 sq. m in area), and a rich chipped stone industry. The difficulty lies in the decorated pottery where no two sites so far tested appear to contain the same assemblage. The earliest, perhaps, contains pottery similar to Early Khartoum (of the type noted above) and is located some 15 km into the steppe east of the Atbara. The latest, perhaps, is adjacent to the Atbara, is about 100,000 sq. m in area and is characterized by decorated pottery not unlike that from the upper portion of the cave at Shaqadud - incised straight lines, herring bone, fingernail punctate, etc. In between, there are numerous other combinations and only more extensive excavations will resolve the temporal sequence.

There appear, as well, to be other groups of sites. One, very numerous, is characterized by a fiber tempered reddish slip ware associated with a poor stone industry. It may well be late but is clearly prehistoric. On the west side of the Atbara there are some very large sites (100,000 to 200,000 sq. m) which have very shallow deposits but good preservation of pottery and even bone. It is likely that these are truly late but, since so little is know of Atbara culture history, all need careful study.

It is still too soon to propose even preliminary organization of the trans-Atbara and Atbara sites. However, it is already clear that the presence of very large sites in considerable number is not related to the Atbara River per se, since they extend eastward all the way to Kassala and, probably, quite far beyond onto the Eritrean steppe. The work of R. Fattovich, combined with ours, indicates the presence of a huge culture area unrelated to the Nile and, perhaps, one which was considerably more developed than contemporaneous occupations along the central Nile. Since dating is as yet lacking, nothing more definite may be said. However, we encountered no obvious Meroitic materials either along the Atbara or to the east. It is obvious that considerably

more work is needed in the area, including large transect surveys and large scale excavations (the larger sites appear to be culturally stratified but within the same tradition). Another season should define the problems more clearly but it will take years of work to elucidate the nature and development of this new tradition.

B.I.E.A. excavations at Soba, Winter 1981-2

Charles Daniels

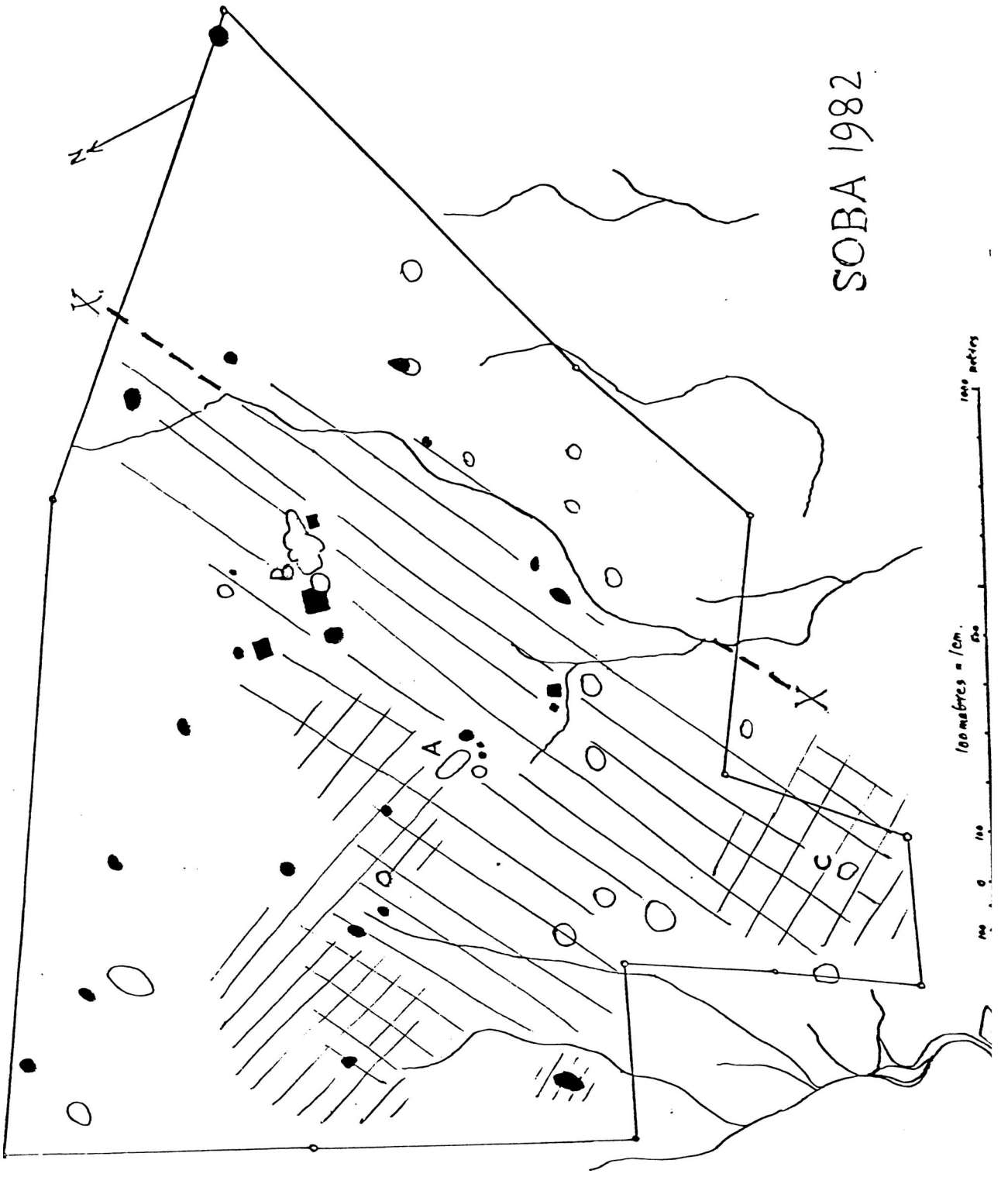
The capital of the Christian Nubian kingdom of Alwa is taken by most people to lie at Soba, some 15 miles south of Khartoum on the east bank of the Blue Nile. An area of nearly 700 acres is now owned by the Sudanese National Museum/Antiquities Service, but is gradually being encroached upon by houses and cultivation and damaged by vehicles. Apart from the excavation of two mounds by Professor and Mrs. Shinnie in the early 1950's no systematic work has been carried out on the site.

From late December 1981 till the end of February 1982 the British Institute in Eastern Africa had an expedition in the field carrying out the first season of what it is hoped will be a short campaign of work attempting to define the extent of the remains and produce new information about their date. A full survey of the area, much changed over the last 30 years, is also being carried out. This season's work consisted of trial trenching to locate the extent of buildings and/or occupation and a start to the detailed physical survey.

The results, to date, show that a broad band of over 300 acres in extent, stretching from the Church across to Mound B and almost to the northern limit of the site, had at some time or other contained buildings. While many of these were likely to have been of a late date, considerable amounts of early pottery were found in the vicinity of the Church, to the north and north-west of Mound A, and at a large mound in the north-western corner of the site: in total, probably an area of c. 100 acres. In the opinion of Dr. Stefan Jakobielski (who visited Soba on his way to the Polish excavations at Dongola) some of this pottery was of the seventh century in date, and some possibly earlier. It is hoped to take the dating further as the result of additional work.

Most of the structures had been mud-brick buildings, akin to those found in Mounds A and B by Shinnie. Several mounds, however, contained large amounts of red-brick debris. On investigation, in 9 cases either the remains of considerable red-brick foundations were uncovered, or robber trenches from which sizeable walls had been removed. On this basis 27 mounds and red-brick spreads were interpreted as the robbed remains of buildings, some of which had been of considerable size (40 x 75 m in one case). Hard external mortar facings were found together with softer interior plaster fragments, some of which had been painted.

The remains of at least a dozen skeletons were found. While some were fragmentary or scattered at least half were buried in deep graves, usually oriented west/east and dug through the debris of destroyed or demolished buildings, both mud-brick. These were left in situ.


SOBA 1982
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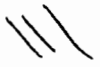
KEY (Soba 1982)

Area of mud-brick buildings/structures found by excavation. Mostly later date buildings.



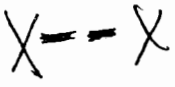
Area of early pottery types (as understood to date), found by excavation and surface sherding.

Gravel mounds, usually the remains of mud-brick -buildings.

Red brick mounds or spreads which seem most likely to have been buildings.

Shinnie excavations

Church mound



Effective limit of study (little work carried out S. and E. of this line).

Antiquities Service boundary posts outlining the protected area of the site.

Dry water courses.

Thanks are due to many people, especially Mr. and Mrs. Clive Smith, Mr. C. Haywood, the Director General of Antiquities and his staff, Sayed Hassan el Kurdi, Sayed Medawi Ahmed Mohamet Hamit, the Head of the Department of Surveying, University of Khartoum and last, but by no means least, Sayed Reda el Din Mukhtar, who worked with the expedition during the six weeks of actual excavation.

Dongola Reach Survey

N.B. Millet, Royal Ontario Museum

The Royal Ontario Museum's Dongola Reach Survey, in the Northern Province of the Democratic Republic of the Sudan, was regrettably again frustrated by shortages, particularly of petrol, in that country. Despite the utmost in cooperation from the Sudanese Antiquities Department, it was not possible to organise the requisite supplies in time, and the mission had to be aborted, as it was also in 1980.

Helmut Ziegert writes that:

A first paper on preliminary results of his work at Abu Hugar and Singa (Blue Nile province), entitled 'Abu Hugar palaeolithic site', was given at the Xth International Congress on Pre- and Pro-history (Mexico City, Oct. 1981).

Publications are in preparation on fieldwork carried out Jebel Abu Tartur in 1977 and in Wadi Quena in 1979. Surveys and excavations of palaeolithic sites in the Eastern Sahara (Southern Egypt) and in Darfur province (Sudan) are planned for 1982.

Dr. Ziegert's new address is:

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EXCAVATIONS BY THE ARCHAEOLOGICAL MISSION OF THE UNIVERSITY OF GENEVA TO THE SUDAN

Season 1981 - 1982

For several years, the Archaeological Mission of the University of Geneva to the Sudan has continued its work in the ancient town of Kerma. Around the western deffufa, which should now be considered as a temple, have appeared the remains of a group of buildings, indicating the presence of several places of worship and their annexes. This season, the excavation of a series of large rooms constructed using baked bricks has confirmed to us the importance of the religious centre. The existence of these constructions was already known from the work of G.-A. Reisner, who uncovered the structures between 1913 and 1916, but their function was not established and the chronology of the buildings remained uncertain.

In the sector situated to the south-west of the deffufa, we have discovered one of the principal doors of the quarter reserved for the priests. There was an enclosure, formed by the walls of annexes or by a surrounding wall, from which one entered a hall of great dimensions. This was an entrance hall, giving access to various groups of buildings, and also to the deffufa. A close examination has shown that the buildings constructed using baked bricks are more ancient than we previously thought, since at least three phases of construction can be detected. The bricks used for the first stage of these constructions are very regularly baked, and it seems that this was not accidental - that a novel technique for the period was used. A chapel has also been found, and is reasonably well preserved. We have uncovered its principal chamber, which contains the stone foundations of three supporting columns. The floor, made from dried bricks, was covered with a layer of dried mud, and then painted with red ochre. A long corridor was present on the northern side of the chamber, whereas an entrance hall and an annexe were in front of its southern entrance. Other religious buildings were later built on the same site, and we have noted that the baked bricks were often re-used, and that, for the last of the buildings, the walls were faced and filled with small and very irregular fragments of bricks.

This religious group of buildings can be placed between 1750 and 1500 BC, whereas the constructions discovered a little to the south are no doubt part of the first buildings of the town, erected several centuries previously. Around a large depression, some tens of post-holes have been located. They form circular structures, which can be interpreted as huts. A large abundance of potsherds, and the extensive changes to the structures, indicate a long period of occupation.

Our study of the most ancient tombs of the eastern cemetery of Kerma has much progressed. It has been possible, due to the exceptional state of preservation of several tombs, to make some useful observations concerning the anthropological characteristics of the ancient Nubians. In general, the cemetery was developed from the north towards the south, but numerous exceptions can be made. Indeed, we have noted that certain series of tombs are arranged around what was certainly a more important burial. Later, the evolution of the cemetery appears much more complex; and is made more difficult to follow because of the diversity of the funeral customs and the variety of the archaeological material. The four diggings carried out this season have shown us once again the richness of the cultures of Kerma during the third millenium BC.

Some tombs have been uncovered almost intact. In one, a young bowman of 17 years was found, under a large covering made from cattle hide. When we removed the covering, the body appeared in a semi-contracted position, and wrapped in a cloth shroud. The hair-style of the deceased, in the form of long curls wrapped around the skull, is reminiscent of the representation of the Nubians in Egyptian iconography. A pendant of mother-of-pearl was found on the neck, whilst several beads decorated the belt, which supported a loin-cloth of soft leather. Two pairs of sandals completed the clothing. In front of the body, two bows were placed, together with some reed arrows, which had been partially destroyed during a superficial looting of the tomb. A bundle of ostrich feathers was found at the extremity of one of the bows, and might have been a decoration for this bow. The presence of an upturned bowl behind the body indicates without doubt a moment during the funeral ceremony when a meal was shared with the deceased. As in all the tombs excavated this year, the body had been placed on a large blanket, underneath which there was a large mat.

In another tomb, and near to the body, a red-haired dog was found so well-preserved that we were able to distinguish the noose, with its slip knot, which was used to strangle the animal at the moment when its master was placed in the tomb. The vertebrae of the dog were crushed during this operation.

A more ancient tomb was remarkable for its superstructure of black stones, arranged in four concentric circles. White pebbles completed the small tumulus, around which pots had been upturned during the funeral ceremony. At the bottom of a narrow shaft, and underneath a skin, the deceased had been placed on his back, with the legs folded. He wore two wooden earrings and a necklace of faïence beads enhanced by an alabaster pendant. Two wooden rings were worn on the index finger. He was wrapped in leather clothing, decorated in two places by a string of beads sewn onto the leather. Near the feet of the body, a small sack was found, containing two flint tools and a bone awl.

To the south of a large tumulus of Middle Kerma (about 1800 - 1750 BC), 500 cattle skulls have been discovered; these animals were probably sacrificed during the burial of an important person. The find has enabled us to study the bones of the cattle of Kerma.

The Nubian culture of Kerma developed over a period of about a millenium. The extensive findings made on the site of Kerma during the two months of excavations this year add to our reconstruction of this culture; a reconstruction which little by little is producing an unsuspected image of the vitality of the Nubian civilisation.

Charles Bonnet

TANZANIA

Reconnaissance in coastal Tanzania

Neville Chittick, Director, British Institute in Eastern Africa

A reconnaissance survey was made by the Director, Neville Chittick, of certain coastal areas of Tanzania not, it seems, previously examined by any archaeologist. The most important of these was Mtambwe Kuu (great, or old, Mtambwe) on the island of Pemba. The site lies on a small peninsula with a central ridge, across the harbour from the town of Wete. The vast quantities of potsherds are (where an identification is possible) to be assigned to the eleventh to thirteenth centuries; they include fragments of Northern Sung celadons of high quality. Only two of the sherds (one being of Sasanian-Islamic ware) might be of the tenth century, being of types found at Manda in strata of the period before the appearance of sgraffiato wares; but they could be of the early eleventh. There is a total lack of wares (e.g. black-on-yellow) dating from after c.1300, until the site was reoccupied by the predecessors of the inhabitants of the present little village around 1800. The town should almost certainly be identified with the town called by Yaqut MTNBY in his Geographical Dictionary, the date of which - it was completed in 1224 AD - agrees very well with the finds. Mtanby (as we may plausibly vocalize it) was, according to Yaqut, one of two cities on Jazirat al-Khadra, the name of Pemba in Arabic. The other was MKNBLU; as suggested long ago, the obvious identification for this Mkanbalu is Mkumbuu, the town site on the tip of a peninsula north of the bay of Chake Chake on the same island, and this town (or the name at least) must surely be the same as Qanbalu which Mas'udi presents as the main centre in eastern Africa in the early tenth century. However, the lack of evidence of any occupation there before the thirteenth century made the identification doubtful. Mtambwe Kuu seemed the only other possible site but the present finds do not support this. We must regard it as most likely that Mkumbuu is the place. That extensive site, more overgrown and more eroded by the sea than Mtambwe, may well conceal evidence of earlier occupation.

A further visit was paid to the site of Uuguja Ukuu on Zanzibar Island. The local pottery there can now be identified as being of around the tenth century (Manda Period I) confirming the early date previously inferred and the ubiquity of that pottery. This site is distinguished by having no later occupation.

The Zanzibar authorities were most helpful in facilitating this work, and their assistance is gratefully acknowledged.

It is thought by many, including the author, that the most likely site of the port of Rhapta, which figures in Greek records of the early centuries AD, is in the Rufiji Delta (8°S). There are a number of small

inhabited islands in this huge area of mangroves. In the course of a reconnaissance by canoe, Salale, Kilwani, Saninga, Kiomboni and Simba Uranga islands were examined, and also the peninsula of Nyamsati. No remains of interest were found at these places, which comprise most of the dry land in the northern part of the delta (the most promising part from the point of view of accessibility from the ocean). Persistent enquiries indicated that there was nothing in the way of potsherds or structures on the one or two remaining inhabitable islands. Plentiful evidence of massive erosion in some places, and build-up of mud-banks in others, was obtained, and it remains possible that all traces of Rhapta have been washed away or buried.

RECENT PUBLICATIONS AND THESES

The Editor has included only those publications which might otherwise escape the notice of the readership.

Palaeoecology of Africa

Eds. : J.A. Coetzee & E.M. van Zinderen Bakker
Publ. : A.A. Balkema, P.O. Box 1675, 3000 B.R. Rotterdam, Holland, or A.A. Balkema, 99 Main Str. Salem NH03079, USA.

Volume 13 was issued at the end of 1981.

It contains 17 articles on:
- -Palaeoclimatic reconstructions and interpretations of Africa for the last 20,000 years,
- -contributions on the following lakes: Turkana, Chad, Bosumtwi, Besaka, Bogoria, Malawi and on deep drillin in African lakes,
- -the Late Holocene of the S.W. Sahara, and
- -contributions on Ethiopia, the Olorgesailie Formation, Amboseli, Aïr, the Atlantic Sahara, a marine invasion of Senegal, palynology of Nigeria and Senegal, and on body size and extinction.

The volume also contains book reviews and announcements, a long list of new literature and an up-to-date address list of African Quaternarists.
290 pp. 1 colour plate.

Volume 14 will appear early in 1982.
Content:
- -relict distribution patterns of aquatic animals in the Sahara as evidence for Late Pleistocene climates.
- -Glaciological history of Mt. Kenya,
- -Holocene marine sea level at Gabon,
- -Palynology of South Africa,
- -Lake level changes in the Ziway-Shala basin,
- -A Late Pleistocene wet phase in northern intertropical Africa,
- -The Koobi Fora Formation, N. Kenya,
- -Spatial management of Hominids at Olduwai,
- -Palynology of Mt. Kenya.

200 pp.

Volume 15 will appear in the middle of 1982.
Content:
- -25 papers presented at the 6th biennial conference of the South African Society of Quaternary Research, held at Pretoria, 26-29 May 1981.

250 pp.

Price per volume Hfl.55/Dollars US $27.50/£12.00

MALEY, J. 1981. Etudes palynologiques dans le bassin du Tchad et Paléoclimatologie de l'Afrique nord-tropicale de 30000 ans à l'époque actuelle. Travaux et Documents de l'ORSTOM,n°129,586 p., fig. et tabl. (Office de la Recherche Scientifique et Technique Outre-Mer, 70 Route d'Aulnay, 93140, France).

Après avoir étudié les conditions actuelles de la sédimentation pollinique, l'auteur entreprend l'analyse pollinique de divers sédiments du bassin du Tchad compris entre le dernier millénaire et environ 30000 ans.

Une vaste synthèse de données géologiques et paléoécologiques de la zone nord-tropicale africaine est ensuite effectuée (du Sénégal au Nil et du Sahra central à la zone tropicale humide). Un chapitre particulier concerne l'evolution climatique au cours du dernier millénaire où il est fait largement usage des données historiques.

Grâce à ces données paléoécologiques et en se basant étroitement sur la climatologie dynamique actuelle, une reconstituion des mécanismes climatiques est tentée.

THILMANS, G., C. DESCAMPS & B. KHAYAT, 1982. Protohistoire du Sénégal, Vol. 1, Les sites mégalithiques. Mémoire IFAN, 91 (160 pages, 105 figures).

The interdepartmental team of Pre-Protohistory and Physical Anthropology of IFAN (Dakar) has carried out, in the course of the last decade, research and excavations at the various protohistoric sites in Sénégal. The results of these efforts are presented in a book entitled Protohistoire du Sénégal. This book consists of three volumes, the first of which, assigned to megalithic monuments, has just been published. The second, on the sites along the River Sénégal is in print. The third book, still in preparation, will focus on the shell mounds of the Saloum Delta.

A megalithic area of 33,000 km^2 in the center of Sénégal stretches from Kaolack to Tambacounda and encompasses approximately 2,000 sites. This area ranks as one of the most important concentrations of megalithic sites in Africa. The IFAN team has excavated nine megalithic monuments of the various known types, the ages of which range from 176 BC to 1520 AD (radiocarbon dates). Some contain only a small number of human remains, whereas others may have as many as 59 individuals.

Particular attention has been devoted to the positions of the human remains which have been established in spite of the difficulties resulting from the piling of bodies in a limited space. Ornaments, weapons, funerary pottery have been uncovered. A historical account brings together the results of previous excavations.

Orders to be addressed to G. Thilmans, IFAN, B.P. 206, Dakar,(Senegal). Unit Price: CFA 4000 (FF 80.00), including postage. Payment can be made by check payable to BICIS, 2 Avenue Roume, Dakar, Account No. 9520.613920. 09 or by UNESCO coupons (bonds).

GRÉBÉNART, D. 1981. Vues générales sur les débuts de la métallurgie du cuivre et du fer autour d'Agades (République du Niger). Commission XVI: Origine de la métallurgie, pp. 34-58. X Congrès International des Sciences Préhistoriques et Protohistoriques, Mexico (octobre, 1981).

GRÉBÉNART, D. 1981. Fabrication du cuivre pendant le second millénaire avant J.-C. autour d'Agades (Niger). Différents types de fourneaux. Commission XVI: Origine de la métallurgie, pp. 59-94. X Cong. I.S.P.P., Mexico (octobre, 1981).

PEISACH, M., L. JACOBSON, G.J. BOULLE, D. GIHWALA & L.G. UNDERHILL, 1982. Multivariate analysis of trace elements determined in archaeological materials and its use for characterization. Journal of Radioanalytical Chemistry 69: in press.

PEISACH, M. et. al. , 1982. PIXE analysis of archaeological material and the use of multivariate analysis for characterization. Nuclear Instruments and Methods. 193: in press.

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ZARROUG, M. 1982. The Kingdom of Alwa: the state of the question. M.A. dissertation, University of Calgary.

Professor Mauny reminds us that:

Since 1980, the Centre de Recherches Africaines, 9 Rue Malher, 75004 Paris, has been publishing a Bulletin d'Information Inter-universitaire, and since 1981, the Cahiers du Centre de Recherches Africaines.

AUDECAM, 100 Rue de l'Université, 75007 Paris, has also produced a special number of its Recherche, Pedagogie et Culture, no. 55, sept.-déc. 1981, 132 pp., which is specially devoted to 'L'archéologie en Afrique' and carries the latest news.

Information on work in the Sahara and Niger can also be obtained from the Laboratoire d'Anthropologie et de Préhistoire de l'Université de Provence (Prof. G. Camps, Directeur), 29 Avenue Robert Schuman, 13621 Aix en Provence.

'To be more efficient, write in French' !

And ... just off the presses:-

Francis Van Noten, 1982. The Archaeology of Central Africa (with contributions by D. Cahen, P. de Maret, J. Moeyersons and E. Roche). Graz (Austria): Akademische Druck-u. Verlagsanstalt.

(No price given, but their address for those interested is:

Auerspergasse 12
POB 598
A-8011 Graz, Austria)

Archaeology in Ghana 2

The Editor recently received Archaeology in Ghana 2, the Newsletter of the Department of Archaeology of the University of Ghana, covering the years 1980-1981. Professor J.E.G. Sutton is the editor of this useful compendium. A slip inserted into the volume states, 'We shall appreciate it if you can send us offprints and other publications in exchange for Archaeology in Ghana.' Those interested should write to the Head, Department of Archaeology, University of Ghana, P.O. Box 3, Legon, Ghana.