

## References

### ANCIAUX DE FAVEAUX 1984

E. Anciaux de Faveaux & P. de Maret, *Premieres datations pour la fonte du cuivre au Shaba (Zaire)*. [Bulletin de la Société royale belge d'Anthropologie et de Préhistoire](#) **95** (1984), 5–20.

### BISSON 1975

Michael S. Bisson, *Copper currency in central Africa, The archaeological evidence*. [World Archaeology](#) **6** (1975), 276–292.

A pervasive character of central African material culture is the dichotomy between the use of iron as a utilitarian metal and copper as an ornamental metal. This separation of roles was taken for granted by most early visitors to the area and receives mention in only a few cases. Fortunately, this characteristic is also evident in the trait lists compiled on many African cultures during the past hundred years. In virtually all recorded cases, subsistence tools such as hoes, axes or knives were fabricated from iron, while decorative items like bracelets, anklets, rings and collars as well as ceremonial axes and hoes were made of iron or copper, often the latter. There are no known cases where copper has been used to make heavy duty cutting tools and, aside from razors and bullets, no incidences of copper serving on an equal basis with iron as a metal for non-ceremonial, utilitarian artefacts. Instead, copper was preferred as an ornamental metal over iron in most African tribes with the exception of some East African pastoralists.

An outgrowth of the 'substantivist' approach is the distinction drawn between 'general purpose money' and 'special purpose money'. General purpose money or currency serves all of the functions of the currency used in developed market economies. It is defined as 'a means of exchange, a mode of payment, a standard of value' and a method of storing wealth. Special purpose money serves some, but not all, of the functions of general purpose money and is usually restricted to specific spheres of the economy.

The pattern of copper use described above is duplicated in archaeological sites throughout central and southern Africa. The following is a summary of the chronology, distribution, and variety of copper artefacts recovered from Iron Age habitation sites in these areas. It will conclude with a discussion of two sites, Ingombe Ilede and Sanga, in which general purpose currency may be present.

### BISSON 1997

Michael S. Bisson, *Copper Metallurgy, Copper in African Prehistory*. In: JOSEPH O. VOGEL (Hrsg.), *Encyclopedia of Precolonial Africa, Archaeology, History, Languages, Cultures, and Environments*. ([Walnut Creek 1997](#)), 125–132.

### BISSON 2000

Michael S. Bisson, *Precolonial Copper Metallurgy, Sociopolitical Context*. In: JOSEPH O. VOGEL (Hrsg.), *Ancient African Metallurgy, The Sociocultural Context*. ([Walnut Creek 2000](#)), 83–145.

## CHIRIKURE 2013

Shadreck Chirikure, *The Archaeology of African Metalworking*. In: PETER MITCHELL & PAUL LANE (Hrsg.), *The Oxford Handbook of African Archaeology*. (Oxford 2013), 131–143.

Metalworking encompasses both the reductive smelting of ores to produce metal and its refining and forging to create usable objects. The advent of this process is one of the most significant technological progressions in human history. The origin of metallurgy debate still rages without any solution or middle ground in sight. More importantly, numerous insightful studies have focused on the sociological and physico-chemical aspects of past metalworking activities, with modern research tending increasingly to consider these together while integrating fieldwork-based studies and laboratory investigations within the same continuum of research. Ethnographies still have an important role in interpretation, alongside the techniques of the physical sciences and their ability to provide information on what was happening inside furnaces and forges. With more data, researchers will be better placed to resolve highly contentious issues surrounding the origins and innovations in the African metallurgical record.

Keywords: African metallurgical record | metallurgical activities | ethnography | furnaces

## CLIST 2015

Bernard Clist, Els Cranshof, Toon De Herdt, Roger Kidebua, Igor Matonda, Alphonse Nkanza Lutayi, Blair Zaid & Koen Bostoen, *Le projet KongoKing: Les prospections et fouilles menées en 2015 dans la province du Kongo Central (République Démocratique du Congo)*. Nyame Akuma **84** (2015), 128–141.

## DENBOW 1988

J. Denbow, A. Manima Moubouha & N. Sanviti, *Archaeological excavations along the Loango coast, Congo*. *NSI: Liaison Bulletin of the Bantu area archaeologists* **3** (1988), 37–42.

## DENBOW 1990

James Denbow, *Congo to Kalahari, Data and hypotheses about the political economy of the western stream of the Early Iron Age*. *African Archaeological Review* **8** (1990), 139–176.

This paper provides a preliminary account of archaeological research on sites of early pottery-using people in the coastal region of the Congo Republic. The results obtained are compared with observations from Botswana and used to amplify archaeological and linguistic data relevant to the transformations in social and productive forces that occurred across the western part of sub-equatorial Africa during the period when food production, metallurgy and long-distance trade were established. Particular attention is paid to evidence for developing economic and social relations between indigenous foragers and immigrant food producers.

## DENBOW 2014

James Denbow, *The Archaeology and Ethnography of Central Africa*. (Cambridge 2014).

FORESTA 1990

H. de Foresta, D. Schwartz, R. Dechamps & R. Lanfranchi, *Un premier site de métallurgie de l'Age du Fer Ancien (2110 bp) dans le Mayombe congolais et ses implications sur la dynamique*. [NSI: Liaison Bulletin of the Bantu area archaeologists](#) **7** (1990), 10–12.

HERBERT 1984

Eugenia Herbert, *Red Gold of Africa, Copper in precolonial history and culture*. ([Madison 1984](#)).

MAPUNDA 2013

Bertram Mapunda, *The Appearance and Development of Metallurgy South of the Sahara*. In: PETER MITCHELL & PAUL LANE (Hrsg.), *The Oxford Handbook of African Archaeology*. ([Oxford 2013](#)), 615–626.

Africanist archaeometallurgists have conveniently divided Africa into two sub-regions when discussing the continent's metallurgical history: north of the Sahara Desert, including the Mediterranean littoral, the Lower Nile Valley, and the Red Sea coast; and south of the Sahara (sub-Saharan Africa), including West, East, Central, and southern Africa. This division reflects the fact that the metallurgical history of the two sub-regions differs. This article begins with a theoretical review of the origins of metallurgy as a background on which the sub-Saharan case is anchored. Its main body is further split in two: the appearance of metallurgy in the region and its subsequent development. The discussion suggests that studying the origins of other technologies, such as basketry, textiles, and pottery may also help shed light on those of metallurgy itself.

Keywords: Africanist archaeometallurgists | metallurgical origins | sub-Saharan Africa | pottery | metallurgy

DE MARET 1977

Pierre de Maret, *Sanga: New Excavations, More Data, and Some Related Problems*. [Journal of African History](#) **18** (1977), 321–337.

DE MARET 1981

Pierre de Maret, *L'Evolution Monetaire du Shaba Central Entre le 7e et le 18e Siecle*. [African Economic History](#) **10** (1981), 117–149.

DE MARET 1985A

Pierre de Maret, *Fouilles Archeologiques dans la Vallee du Haut-Lualaba, Zaire, II Sanga et Katongo, 1974*. *Sciences Humaines* 120 ([Tervuren 1985](#)).

DE MARET 1985B

Pierre de Maret, *Recent Archaeological Research and Dates From Central Africa*. [Journal of African History](#) **26** (1985), 129–148.

DE MARET 1992A

Pierre de Maret, *Fouilles Archeologiques dans la Vallee du Haut-Lualaba, Zaire, III Kamilamba, Kikulu et Malemba-Nkulu, 1975, Textes*. *Sciences Humaines* 131 ([Tervuren 1992](#)).

DE MARET 1992B

Pierre de Maret, *Fouilles Archeologiques dans la Vallee du Haut-Lualaba, Zaire, III Kamilamba, Kikulu et Malemba-Nkulu, 1975, Planches*. Sciences Humaines 131 (Tervuren 1992).

DE MARET 1995

Pierre de Maret, *Histoires de croisettes*. In: LUC DE HEUSCH (Hrsg.), *Objets – signes d’Afrique*. Annales sciences humaines 145 (Tervuren 1995), 133–145.

DE MARET 2013

Pierre de Maret, *Recent Farming Communities and States in the Congo Basin and its Environs*. In: PETER MITCHELL & PAUL LANE (Hrsg.), *The Oxford Handbook of African Archaeology*. (Oxford 2013), 875–886.

Over 500 different ethno-linguistic groups live today in the Congo Basin and its periphery. Almost all are farmers, and, except in the northeast, all speak Bantu languages. The very centre of the Congo Basin is one of the few areas in this vast region to have received systematic archaeological research. There, in the middle of the rainforest, systematic survey of the Congo River and its tributaries has identified more than 190 localities with six pottery traditions recognised over a 2,500-year sequence. This article examines the Atlantic coast and lower Congo River, the Upemba Depression, and Zambia and Malawi.

Keywords: Zambia | Malawi | Upemba Depression | Congo River | Bantu languages

NIKIS 2013

Nicolas Nikis, Pierre de Maret, Raymond Lanfranchi, Julienne Nsania, Jean-Paul Goma, Bernard Clist & Koen Bostoen, *Projet KongoKing. Prospections en République du Congo (Brazzaville), Le cuivre et l’origine des anciens royaumes Kongo et Teke*. Nyame Akuma 80 (2013), 32–42.

Les résultats de cette mission sont prometteurs. Les prospections et les sondages confirment la présence importante de vestiges de métallurgie du cuivre dans la région de Mindouli. Leur étude va permettre d’y associer des groupes céramiques de différentes époques dont certains relèvent les circuits commerciaux qui reliaient cette zone de gisement de cuivre à d’autres régions. Un premier examen de ces groupes montre déjà une certaine homogénéité et la suite de leur analyse devrait permettre d’élaborer une première séquence céramique pour cette région de la République du Congo. Il sera alors possible de la relier avec ce qui était déjà connu en RDC et ce que les recherches en cours de l’équipe KongoKing étendent et enrichissent (Clist et al. 2013).

Les prochaines missions permettront non seulement d’approfondir les recherches autour de Mindouli, mais également de les étendre aux autres zones cuprifères de Boko-Songho ou de Renéville.

De même, les contacts noués à Mbé et les prospections aux alentours sont de bon augure pour des recherches plus poussées. Celles-ci devraient nous permettre d’obtenir des informations archéologiques sur cette zone des plateaux Bateke et de compléter la tradition orale pour reconstituer l’histoire du royaume Teke et ses liens éventuels avec le royaume Kongo.

## NIKIS 2014

Nicolas Nikis, *La métallurgie du cuivre en Afrique centrale, Résultats préliminaires des recherches archéologiques en République du Congo*. In: *First Young Researchers Overseas' Day 16 December 2014, Brussels, Belgium, Royal Academy of Overseas Sciences*. ([Unpublished 2014](#)).

Le cuivre, en raison notamment de la rareté de ses gisements, fut un métal prisé dans de nombreuses régions d'Afrique et le contrôle de ses sources fut un enjeu pour beaucoup d'entités politiques au fil du temps. Concernant le Niari-Djoué, les sources écrites mentionnent dès le 16e s. l'exploitation du minerai par le royaume Kongo et ses voisins mais c'est seulement au 19e s. que les zones de production et la fabrication du métal ont fait l'objet de descriptions précises.

Malgré l'importance de ce métal, peu de recherches archéologiques ont été menées jusqu'à ce jour. Seules quelques fouilles ponctuelles ont été réalisées dans les années 1980 sur des sites cuprifères dans la région de Mindouli, datant la production entre le 12e et le 16e s. Depuis 2013, dans le cadre de ma thèse de doctorat sur la métallurgie du cuivre en Afrique Centrale, deux missions de prospections et de fouilles archéologiques ont été réalisées aux alentours de Mindouli et de Boko-Songho, localités qui ont connu une exploitation pré-coloniale du cuivre. Les premiers résultats permettent d'ores et déjà de déceler plusieurs phases au niveau micro-régional, ainsi que des différences probables au sein du processus métallurgique.

Keywords: Archéologie | Cuivre | Métallurgie | République du Congo | Royaume Kongo

## NIKIS 2015

Nicolas Nikis & Thierry de Putter, *Recherches géo-archéologiques dans les zones cuprifères du bassin du Niari en République du Congo*. [Nyame Akuma 84 \(2015\), 142–153](#).

Archaeological fieldwork has been conducted since three years around the copper deposits of the Niari Basin, in the Republic of the Congo. In the 2015 fieldwork season, a geological survey has focused on the formation of the copper(lead-zinc) deposits, and on the accessibility of the carbonate ore used to produce copper. Preliminary results suggest that the mineralogy of the exploited deposits influenced the procurement strategy and the ore processing. The archaeological survey confirms that most geological showings have been exploited in the precolonial period, at Boko-Songho, Mfouati and Mindouli. In the latter area, three main production periods have been identified, ranging from the 13th to the 19th centuries AD. Early copper production peaks might coincide with the rise of local kingdoms (e.g. Kongo Kingdom).

## PINÇON 1991

Bruno Pinçon, *L'archéologie du royaume Teke*. In: RAYMOND LANFRANCHI (Hrsg.), *Aux origines de l'Afrique centrale*. ([Libreville 1991](#)), 243–252.

## SWAN 2007

Lorraine M. Swan, *Economic and ideological roles of copper ingots in prehistoric Zimbabwe*. [Antiquity 81 \(2007\), 999–1012](#).

As well as being modes of supplying metal, cross-shaped copper ingots in Zimbabwe are shown to be emblems of currency and status. The author dates them to the first half of the second millennium AD and connects the appearance of ingots to increased social stratification.

Keywords: Zimbabwe | middle ages | copper | ingots | social structure

VANSINA 1973

Jan Vansina, *The Tio kingdom of the Middle Congo, 1880–1892*. ([London, New York 1973](#)).