# Archaeology and History in Iron Age Settlements in the Congo Basin

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#### **Abstract**

Currently, the north-western Congo Basin — a crucial region as far as the so-called 'Bantu expansion' is concerned — represents almost a white spot on the archaeological map of central Africa. This paper aims at providing the outline of a settlement history of the region. It is based on a survey of 123 sites along the rivers Ubangi, Lua, Sangha, Ngoko and Likwala-aux-Herbes (Democratic Republic of the Congo, Republic of the Congo, Cameroon and Central African Republic) carried out in 1985 and 1987 by a team of archaeologists under the direction of Manfred Eggert. An analysis of the ceramics encountered in this region is part of my ongoing PhD thesis, which is supervised by Hans-Peter Wotzka at the University of Cologne. The currently drawn sequence of pottery style groups reaches back to the first settling of the rainforest by sedentary populations in the second half of the first millennium BC. The research area is of special importance in that it represents a north to south transect from the savannas north of Bangui in the Central African Republic into the heart of the rainforest, to south of Mbandaka in the Democratic Republic of the Congo. For the first time partial polishing of sherd sections has been used to provide detailed insight into fabric variability of Iron Age pottery from the Congo Basin. Through this, an underlying, deeply rooted marker of the different pottery groups in the Congo Basin seems to emerge.

## Résumé

Actuellement, le nord-ouest du bassin du Congo – une région cruciale lorsque ce que l'on appelle « l'expansion bantoue » est concernée – représente presque une tache blanche sur la carte archéologique d'Afrique centrale. Le présent article vise à fournir les grandes lignes d'une histoire du peuplement de la région. Il est basé sur une recherche sur environ 120 sites le long des fleuves Oubangui, Sangha, Ngoko et Likwala-aux-Herbes (République Démocratique du Congo, République du Congo, Cameroun et Centrafrique) réalisée en 1985 et 1987 par une équipe d'archéologues, sous la direction de Manfred Eggert. Une analyse des céramiques découvertes dans cette région fait partie de ma thèse de doctorat en cours sous la supervision de Hans-Peter Wotzka, à l'Université de Cologne. La séquence actuellement établi des groupes de styles de poterie remonte à

la première colonisation de la forêt tropicale humide par des populations sédentaires dans la seconde moitié du premier millénaire avant JC. La zone de recherche est d'une importance particulière en ce qu'elle représente un transect Nord-Sud depuis les savanes au nord de Bangui en République centrafricaine, jusqu'au cœur de la forêt tropicale au sud de Mbandaka, en République Démocratique du Congo. Cet article présentera non seulement un aperçu général de certains grands groupes de céramique dans la zone de recherche mais contribuera aussi à apporter de nouvelles données sur la distribution de la poterie décorée à la roulette. De plus, il sera démontré que l'introduction de ce type particulier de décoration peut difficilement être considérée comme un changement fondamental, mais s'inscrit plutôt comme une évolution fondée sur des groupes et des formes de céramiques plus anciennes, comme dans la région des grands lacs d'Afrique orientale. Pour la première fois, le polissage partiel de petites sections a été utilisé pour fournir un aperçu détaillé dans la variabilité de fabrication de la poterie de l'âge du fer du bassin du Congo. Grâce à ceci, un marqueur profondément enraciné des différents groupes de poterie dans le bassin du Congo semble émerger.

#### Introduction

From 1977 to 1987, the River Reconnaissance Project, directed by Manfred Eggert, focused on the archaeology of the Congo Basin (Eggert 1983, 1984a, 1993, 1996). Within its framework, extensive boat surveys were performed. In 1991, Hans-Peter Wotzka submitted his PhD thesis summarising this project's discoveries in the inner Congo Basin; the study was published in 1995 (Wotzka 1995). Wotzka was able to reconstruct the settlement history of all explored tributaries under the bend of the Congo River. The resulting sequence of pottery style groups spans the last two-anda-half millennia. He concluded that the first settlers did not penetrate the entire study area at once. The process of settlement might best be described as multiple successive waves of upriver expansion that continued at least into the sixteenth century AD. Its initial phase is represented by the oldest pottery style group found in the inner Congo Basin so far: the Imbonga pottery. Two of the main results Wotzka achieved in his thesis are that 'the explored parts of the Inner Congo Basin constitute a remarkably self-containing ceramic sphere in the course of the last 2 400 years' and that 'all pottery styles [that were encountered] could be traced back to the Imbonga group' (Wotzka 1995: 290).

For a number of reasons, the finds from those surveys covering the north-western Congo Basin have never been conclusively analysed up to now. Only two initial reports were published by Eggert. The first dealt with the survey along the rivers Ubangi and Lua in 1985 (Eggert 1987), while the second presented preliminary results of the survey along the rivers Sangha, Ngoko and Likwala-aux-Herbes in 1987 (Eggert 1992). Additionally, a short description on the pottery from both areas was included in a

well-known paper concerning the archaeology in the equatorial rainforest in general (Eggert 1993).

The main task of my PhD thesis is the analysis of the material which was discovered during the field campaigns of 1985 and 1987. The study area covers the north-western margin of the Congo Basin, extending more than 700 km from north to south and about 500 km from east to west (figure 6.1). It stretches from the savanna regions north of Bangui (Central African Republic) right into the heart of the rainforest, close to the town of Mbandaka (Democratic Republic of the Congo). The analysis is based upon the findings from 123 sites along the rivers Ubangi and Lua, Likwala-aux-Herbes, Sangha and Ngoko, as well as on the connecting stretch of the Congo itself. One-third of this body of material originates from excavations conducted at five different sites, while the bulk was collected during surveys.

# The north-western Congo Basin

The initial phase of the settlement history of the inner Congo Basin is represented by the Imbonga pottery (Wotzka 1995: 59–68; figure 6.2). The most characteristic vessel forms are pots with round bellies, pronounced shoulders and profiled rims, as well as wide-mouthed bowls. The specific decoration pattern of Imbonga pottery comprises rocker-stamping on the lower half of the vessel, often combined with horizontal

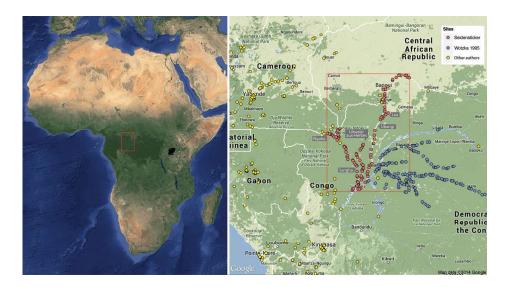


Figure 6.1 Location of the study area (red rectangle) and mapping of the sites incorporated in this study (red dots), and known sites in adjacent regions. Source: D. Seidensticker, mapping using Kahle & Wickham (2013)

grooves and incised or plastic ornamentation of the shoulder region. Imbonga pottery dates between 400 and 200 cal BC, and was found within a restricted area of roughly 280 x 220 km along the lower reaches of the rivers Lulonga, Ikelemba and Ruki-Momboyo (Wotzka 1995: 545, map 2; figure 6.2). Its origins are currently unknown and, to the west of the Congo River, Imbonga pottery was only found at two sites on the lower reaches of the Sangha River, namely Mitula and Mobaka (Eggert 1993: 319, figure 16.14; figure 6.2). Both findings were radiocarbon-dated into the fifth to second century BC (Eggert 1993: 314, table 16.6: KI-2894, KI-2895) and are therefore contemporaneous to the sites of the Imbonga group known from the inner Congo Basin.

Apart from these finds, the oldest well-documented pottery style groups of the north-western Congo Basin are quite different. The earliest style group in the south-western part, along the rivers Sangha and Likwala-aux-Herbes, is the so-called Pikunda-Munda pottery (figure 6.2). It is mainly characterised by its wide-mouthed bowls with approximately parallel sides, flared rims and round bases (Eggert 1993: 311–314). While rocker-stamp decoration is occasionally present, the general ornament scheme is based on linear elements produced by means of incision and grooving.

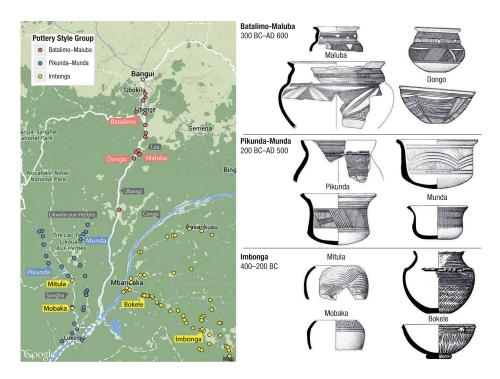


Figure 6.2 Mapping of known sites and representative pottery of the oldest known pottery style groups in the Congo Basin. Source: D. Seidensticker, mapping using Kahle & Wickham (2013)

In the northern part, to the south of the Ubangi bend, the regional sequence starts with the Batalimo-Maluba group (figure 6.2). It is named partially after the pottery that was excavated by Roger de Bayle des Hermens in Batalimo on the Lobaye River in 1968 (de Bayle des Hermens 1975). The same pottery type was also encountered in an excavation by Manfred Eggert in Maluba on the Lua River in 1985. The main forms are well-structured globular pots and wide-mouthed bowls, while the decoration scheme consists of alternating horizontal and vertical zones of elaborate cross-hatching, impression motifs as well as incised and grooved lines (Eggert 1993: 306–308).

## Fabrics and partial polishing of sherd sections

For the first time partial polishing of sherd sections has been used to provide detailed insight into fabric variability of Iron Age pottery from the Congo Basin. The polishing was done using a Wirtz TE 200 grinding machine with a 40  $\mu$ m diamond grinding wheel. The sections were then scanned at a resolution of 1200 dpi using a customary Epson GT-15000 flatbed scanner. Theoretically this resolution would correspond to a resolved length of 21,2  $\mu$ m. While the scanner in use is theoretically capable of producing images at higher resolution, a resolution above 1200 dpi did not prove to be suitable as it did not add further characteristics to the resulting image. The definition of fabrics followed the principles best described by Hans-Åke Nordström (1972) and the recent implementation by Heiko Riemer (2011).

So far, only a small sample of around 20 polished sections from the inner Congo Basin exists. They all show a distinct and homogeneous type of fabric: mostly white burning clays that contain virtually no admixtures (figure 6.3). Variation is only observed due to the effects of the firing; more precisely, how profoundly the oxidation reaches into the sherd, and how clear the boundary between the core and the oxidised outer zone is. Based on several observations of pottery production and firing at the village of Ikenge on the Ruki River from 1977 to 1983 (Eggert & Kanimba Misago 1980; Wotzka 1991), this was expected for the present pottery (figure 6.3, Ikenge-Group). However, the small sample out of the known pottery groups of the inner Congo Basin showed that they follow a common scheme, which could be traced back as far as to the Imbonga pottery. Currently, a larger sample of polished sections is to be analysed from the material Wotzka excavated at a site near Mbandaka in 2012. The aforementioned oldest pottery group in the south-western part of the study area, the Pikunda-Munda pottery, together with some other groups along the Sangha and Likwala-aux-Herbes, relates to this technical tradition of the inner Congo Basin. Based on their fabrics, the pottery of those groups cannot be distinguished from those further to the east, across the Congo River.

Two additional fabrics were observed along the Sangha. One, which is characteristic for the Bobusa group, showed grog admixture (figure 6.3). The pottery of this

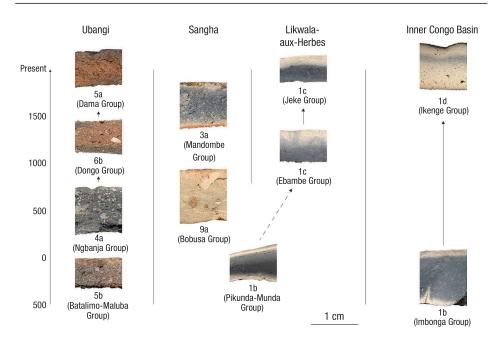


Figure 6.3 Generalised diagram of the regional distinctions in pottery fabrics (bold) through time.

The shown fabrics are largely representative for the pottery style groups (in brackets).

Source: D. Seidensticker

group is found only in the extreme south of the study area, along the lower reaches of the Sangha River and at its mouth into the Congo River. Unfortunately, based on currently available data, no reliable statement about the age of this pottery can be made. The closest comparisons for the stylistic characteristics – as well as for the fabrics – are finds from the Pool Malebo area, at sites like Gombe Point (Cahen 1976: 585–587, figure 7) or Île des Mimosas (Eggert 1984b: 279–280, figures 8–9) and the Loango Coast (Denbow 2014: 118–119). The second fabric, related to the Mandombe style group, contains substantial amounts of fine sands and organics, but is rather different from those fabrics that were observed along the Ubangi. This pottery might be connected to a breach in the settlement history of the region. This issue will be discussed in more detail below, within the small case study on the introduction of roulette decoration in the Sangha/Ngoko region.

In terms of its fabrics, Batalimo-Maluba pottery is quite different when compared to both Imbonga and Pikunda-Munda pottery. All ceramics found along the rivers Ubangi and Lua showed a distinct family of different fabrics (figure 6.3). They contain large quantities of non-plastic particles, like heterogeneous sand with quartz and laterite.

It is uncertain which fractions of these particles belong to the clay that was used and what was intentionally added as temper. Nevertheless, they illustrate the distinct way that pottery was produced in the northern part of the study area, which is different from that practised in the southern half, as well as in the inner Congo Basin. The observed fabrics show distinct regional varieties, which span in cases across large time spans. They represent the first steps of several distinct pottery production traditions present in the study area.

A comparative analysis of pottery production techniques, specifically roughing-out or primary shaping techniques, is unfortunately still pending. Recent analyses following these approaches showed great potential for unravelling additional knowledge concerning the identification of ancient pottery traditions (Huysecom 1994; Mayor et al. 2005; Livingstone Smith 2007a; Lindahl & Pikirayi 2010; Livingstone Smith & Visseyrias 2010), and in which pottery is seen as a 'media allowing for an interface between the past and the present' (Gosselain & Livingstone Smith 2013 : 125). While those studies rely on partially preserved or entire vessels, the body of pottery encountered by Eggert during his surveys comprised less than 25 % sherds larger than 120 by 120 mm.¹ Entire vessels or vessel fragments, pieces where at least the entire profile from rim to base was preserved, were only represented by 3 %. Because of that and to provide a systematic approach, the study of fabrics was preferred over the analysis of pottery technology thus far. Due to the lack of financial support for the project, the use of X-ray radiography, as applied successfully by Alexandre Livingstone Smith and Aline Visseyrias (2010), was not possible.

However, an integration of such approaches into the study is planned for the near future.

# Case study: the introduction of roulette decoration in the Sangha/Ngoko region

A critical point in the settlement history of the north-western Congo Basin, apart from questions concerning the first settlement by pottery producing people, relates to the way in which roulette decoration was introduced. This distinct manner of decorating pots can easily be identified in the material. In 2007, Livingstone Smith published a study of the spread of roulette decoration. The oldest relics of this distinct type of pottery decoration are known from West Africa around 4000 BP (Livingstone Smith 2007b: 189). It then spread through the northern Sahel, as far west as Senegal and into the Great Lakes region of East Africa. Several earlier studies have identified the expansion of various types of roulette decoration as watershed events connected with the spread of distinct linguistic groups. For instance, carved roulette was considered a material marker of Adamaoua Ubangian language history (David & Vidal 1977). By analysing language shifts and roulette decoration in the Uele region of the Democratic Republic of the Congo and the naming of objects related to pottery production and

roulette decoration in the Kagera region of Tanzania, Mary McMaster (2005) makes a case against diffusion as the leading mechanism for the introduction of roulette decoration. Based on available radiocarbon dates for the introduction of cord-roulette in the latter region, a simple introduction through migration seems rather unlikely as well (McMaster 2005: 63). Nevertheless, McMaster sees roulette decoration as a watershed event in the regional settlement history. On the other hand, Ceri Ashley was able to determine a transitional pottery group between Urewe, the oldest style group in the intra-lacustrine regions of East Africa, and cord-roulette decorated pottery (Ashley 2010). She demonstrated a process of transition in the ceramics, since a less accomplished version of Urewe ceramics was replaced by several further non-roulette decorated variants around the tenth century AD (Reid 2013: 890–891). This pottery led to a group labelled Entebbe which features twisted string roulette as well as broad incisions. It is dated into the first half of the second millennium AD and was finally replaced by the typical range of roulette decorated ceramics.

Concerning the north-western Congo Basin, so far the single well-dated ceramic evidence in the Sangha/Ngoko region comes from the excavation of two pits at Pikunda on the Sangha River. A younger pit reached down 1 m below the surface (figure 6.4, A). It contained a distinctly homogeneous pottery that was labelled Mandombe and is characterised by globular pots with short necks and grooved rims (figure 6.5, 12–16). Its decoration scheme is based on diagonal grooves or comb impressions on the upper half of

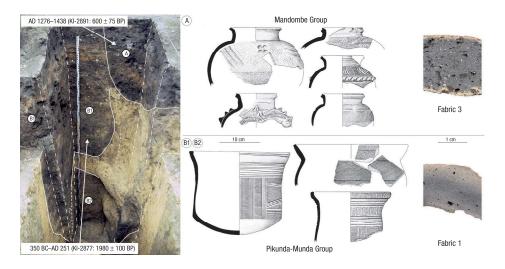


Figure 6.4 Feature PIK 87/1 at Pikunda on the Sangha River (left) with highlighted sampling points of the two radiocarbon datings (KI-2877, KI-2890). A representative selection of vessels (centre) as well as the respective fabrics (right) illustrate the disparity of the pottery from each part of the feature.

Source: D. Seidensticker

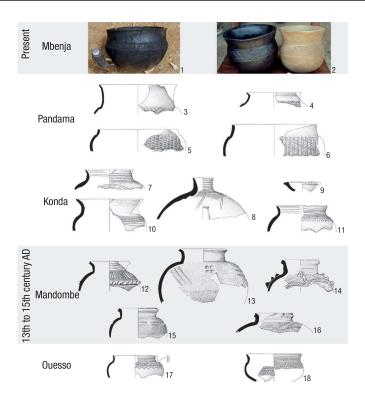


Figure 6.5 Pottery from various localities on the upper Sangha and the Ngoko River mentioned in the text. Source: D. Seidensticker

the belly, while the lower half was often roughened up using a clay slip. Additionally, this pottery shows a variety of *appliqués*, including knobs and ridges. One radiocarbon sample dates this distinct pottery to between the thirteenth and fifteenth centuries AD. As mentioned earlier, polished sections of this type of pottery showed that it must be distinguished quite clearly from the Pikunda-Munda pottery that occurred in both of the distinct stratigraphic horizons – labelled B1 and B2 – of the older pit (figure 6.4). This much deeper shaft-like pit reached down to around 3 m below the surface and pit A cut partially into it. Pit B was dated to between the fourth century BC and the third century AD by a second radiocarbon sample.

Besides the Mandombe pottery just described, several related ceramic groups could be identified within the corpus of surface finds from the Sangha and Ngoko region that might be younger than the Pikunda-Munda group as well. While the Mandombe pottery (figure 6.5, 12–16) is well dated thanks to the excavation at Pikunda, and another pottery labelled Mbenja was observed as being in use in 1987 (figure 6.5, 1), the chronological position of the other groups is hypothetical. However, all contemporary vessels

observed on both the upper Sangha and the Ngoko showed carved roulette decoration. On the other hand, an especially distinct pottery group, labelled Pandama (figure 6.5, 3–6), combines knotted strip roulettes with broad incisions. Another pottery group, labelled Konda (figure 6.5, 7–11), shows for all but two specimens no roulette decoration. Despite their ornamental differences, all these groups share a number of morphological features, including globular pots with round bases as the major vessel type.

Although it should be noted that very few specimens were collected and well-dated excavations were limited to the site of Pikunda, the results of this case study indicate that the introduction of roulette decoration in the Sangha/Ngoko region was not a radical and seemingly instant transformation. Currently, the only break in settlement history in the north-western Congo Basin is situated somewhere between the Pikunda-Munda pottery, which is ornamental and technically related to the inner Congo Basin, and the Mandombe pottery, which shows no signs of roulette decoration and no relation to earlier pottery in the study area. Roulette decoration was rather introduced within an existing system of pottery groups in the upper Sangha region after the duration of Mandombe pottery (figure 6.5). I therefore refrain from associating this ornamental innovation with profound demographic change, such as population replacement.

## **Preliminary conclusions**

Some definitive conclusions may be drawn from these preliminary studies. First and foremost, the aforementioned oldest pottery groups in the north-western Congo Basin, Pikunda-Munda and Batalimo-Maluba, are basically contemporaneous. Both groups date to a period from around the third or second century BC to the fourth or fifth century AD. Therefore, they are at least 100 to 200 years younger than the Imbonga pottery in the inner Congo Basin. The Pikunda-Munda group does not constitute a distinct pottery tradition. Its characteristics more or less vanished in the Sangha region around 500 AD and a potential connection with younger groups in the Likwala-aux-Herbes region, namely the Ebambe and Jeke groups, is rather vague. On the Sangha River a distinct pottery tradition, which consists of the Ouesso, Mandombe, Konda, Pandama and Mbenja groups, emerges between the tenth and thirteenth centuries AD. Along the Ubangi River, the Batalimo-Maluba group seems to have been the starting point of a distinct regional development that reaches into present times. However, because my work on the pottery from the Ubangi is not yet complete, these results should be considered tentative for the time being. The roots of the two oldest pottery groups, Pikunda-Munda and Batalimo-Maluba, remain unknown. The enigma of origins adheres to the Imbonga group as well.

The cultural significance of the fabric analysis is founded on several observations: firstly, the small sample of sherds from the inner Congo Basin showed exactly the same family of fabrics throughout the last 2 500 years. Thus, it might be stated that the

technical aspects of the clay preparation did not change since the first settlement of the area. In contrast, this picture varies when one leaves the inner Congo Basin. Especially at the site of Pikunda at the Sangha River, a distinct process of change is observable (figure 6.4). While the earlier Pikunda-Munda pottery shows similar fabrics as the pottery in the inner Congo Basin, the later Mandombe pottery comprises a family of distinct and different fabrics. If one assumes that the same sources of clay were used, then an additional temper must have been applied deliberately. The other possibility might be that other clay sources were used to produce the Mandombe pottery. Since within both style groups the observed fabrics are reasonably homogeneous, these possibilities suggest at least a planned and deliberate preparation of the raw materials used. Thus the observed change in fabrics points towards a change in primary clay preparation and therefore pottery production techniques. In addition to that, preliminary distribution maps of the individual fabrics suggest that some encompass distinct areas.

Furthermore, the oldest radiocarbon-dated remains of iron production in the region are connected to the Pikunda-Munda group, namely two furnaces in Munda along the Likwala-aux-Herbes River. The introduction of iron metallurgy therefore dates into a timeframe from the second century BC to the fifth century AD. These dates are currently the oldest known from the region. While in the inner Congo Basin the first traces of iron metallurgy date into the tenth to fourteenth century AD (Wotzka 1995: 288), the oldest remnants of iron metallurgy to the north, from Sabélé (Central African Republic), date into the thirteenth to fifteenth century AD (Lanfranchi *et al.* 1998: 45).

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## Note

The recording of sherd fragmentation followed the system of Bernard Clist (2004/2005: 89).

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