Democratic Republic of the Congo

The BantuFirst Project: 2018 Fieldwork Report from the Kinshasa, Kwango, Kwilu and Mai-Ndombe Provinces of the Democratic Republic of the Congo

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Introduction

The first archaeological fieldwork campaign of the Bantu-First research project (www.bantufirst.ugent.be) was carried out from June to August 2018 in Kinshasa Province, as well as Kwango, Kwilu and Mai-Ndombe Provinces, the three of which formed the single province of Bandundu until 2016. BantuFirst is an interdisciplinary five-year research program funded by the European Research Council (ERC Consolidator's Grant no. 724275) under the European Union's Horizon 2020 research and innovation program. The project's archaeological research focuses on remains of the earliest sedentary and pottery producing communities at the southern margins of the Central African rainforest, where linguists have situated the homeland of the West-Coastal branch of the Bantu language family (Bostoen et al. 2015; Grollemund et al. 2015). Although the western part of the Bateke plateau in the Republic of Congo did undergo some archaeological research (Pinçon 1984; Kouyoumontzakis et al. 1985; Lanfranchi and Pinçon 1988; Pinçon 1990, 1991a; 1991b; Dupré and Pinçon 1997), the former Bandundu Province, which lies immediately to the east, has received little attention from archaeologists (for some rare exceptions see Cornelissen and Livingstone Smith 2015: 11).

History of research

The earliest publication of archaeological finds in the former province of Bandundu (DRC) describes some objects, mostly bifacial points, uncovered during construction in the vicinity of Bandundu town, then called Banningville (Creppe 1935-1936). A letter from 1913, now archived at the Heritage Service of the Royal Museum for Central Africa (RMCA) in Tervuren, reports findings of lithic material at an old Catholic missionary station at Wombali, situated in the Kwango/Kwilu confluence area opposite the town of Bandundu. In 1952 Maurice Bequaert conducted fieldwork in the Kwango region, during which he discovered and studied multiple archaeological sites, most notably Dinga Kitu (formerly Dinga St. Pierre) (Bequaert 1955; Miller 1988: 130-131) and Mukila located in the southern margins of the Bateke plateau (Bequaert 1956a-b). In Mukila, situated on a small hilltop roughly 120 meters above the Wamba River some 250 km east of Kinshasa (Figure 1), Bequaert unearthed both lithics and pottery, but did not provide a detailed account of the stratigraphy and context in which they were found. He published a general outline of his fieldwork, noting excavation of five trenches in and around Mukila, but only gave

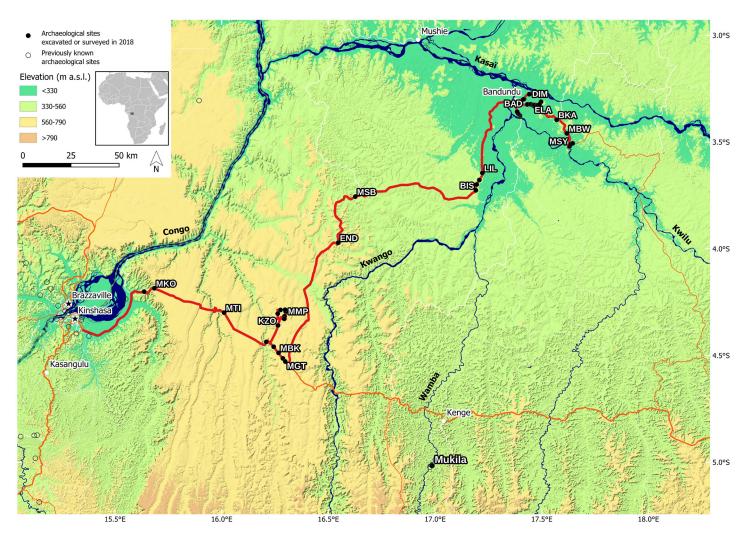


Figure 1: Map of the study area indicating surveyed sites (black dots) and roads (red thick line).

details on one, located near the local school (Bequaert 1956b: 35-37). This trench, 11 x 13 m at the surface, was subdivided into multiple squares and stepped down to reach a depth of almost seven meters. Bequaert referred to the individual squares (ibid.) but never published a general plan of them. Excavation records archived at the RMCA include several photographs and sketches, one of which roughly depicts the school's trench structure. Bequaert's field notes are not precise enough to establish a direct association between the excavation and the small volume of pottery and lithics finds, also stored at the RMCA's Heritage Service. At Mukambo, another hilltop close to Mukila, Bequaert (1955, 1962) also found pottery; part of this assemblage is thought to be from the 17th -18th century AD (Pierot 1987: 226-234; Clist et al. 2018, 260-261). In 1984 Pierre de Maret and Bernard Clist conducted exca-

vations at Mashita Mbanza, a site known since the 1930s situated 68 km south of Kikwit in southern Kwilu Province (de Maret and Clist 1985). Pierot (1987) provides an analysis of their finds in his unpublished MA dissertation. In sum, at the start of the BantuFirst project, no published archaeological remains could be securely linked to the earliest sedentary and pottery-producing communities in the environs of the former Bandundu Province.

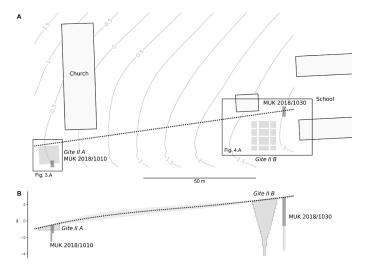
Objectives of the 2018 fieldwork

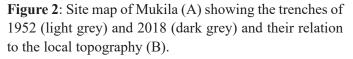
From June to August 2018 fieldwork was carried out in the Kinshasa, Kwango, Kwilu and Mai-Ndombe Provinces. Initial excavations focused on the site of Mukila (Kwango Province), ca. 25 kilometres south of the provincial capital Kenge (Figure 1). Later surveys of dirt roads and ad-

jacent villages between Kinshasa and Bandundu assessed the visibility of archaeological remains in the landscape, to identify the possible types of sites to be encountered and to establish contacts with local authorities and communities in this logistically challenging and under-researched region.

Mukila

We decided to start fieldwork at Mukila due to reports of both lithics and pottery. We identified the locations of Bequaert's 1952 trenches *Gite II A* and *Gite II B* (Figure 2) via careful examination of fieldwork archives and interviews with local people. Bequaert's field notes showed one trench southwest of the church and another southwest of an ancient school building. We then conducted two excavations. Our first test trench probed Bequaert's *Gite II A*, southwest of the church (MUK 2018/1010/5), and we added several corings within the area around the church. We relocated *Gite II B* near the surviving school buildings, cored the premises systematically for archaeological indicators, and opened a second trench (MUK 2018/1030/10) near but not adjacent to Bequaert's old excavation (Figure 2 A).





Mukila Church (MUK 2018/1010/5)

Southwest of Mukila's church, a semi-regular depression was visible near the estimated location of *Gite II A*. We removed vegetation to determine the exact shape of the structure (Figure 3 A), which was remarkably regular in comparison to surrounding present-day charcoal kilns. We

observed a small depression, around 10-20 cm lower than the surface, that extended several meters around a modern kiln. Unlike other depressions, it was aligned almost exactly north-south; ramps 30-40 cm wide reaching towards the center were especially visible in the eastern and southern parts. Comparing the area to Bequaert's field notes and drawings, we inferred that these ramps were the remains of narrow walkways that separated the different squares of his Gite II A. After thoroughly documenting the modern surface, including photos for a 3D SfM model, we opened a 3 x 1.5 m trench (MUK 2018/1010/5), cutting partially into the southeast segment of Bequaert's excavation (Figure 3 A). The northern part of the new trench intersected one of the still-visible walkways and exposed both the backfilled parts of Gite II A and the supposedly undisturbed archaeological layers immediately south of it. In this way, we could evaluate possible differences in the distribution of finds inside and outside of Bequaert's excavation.

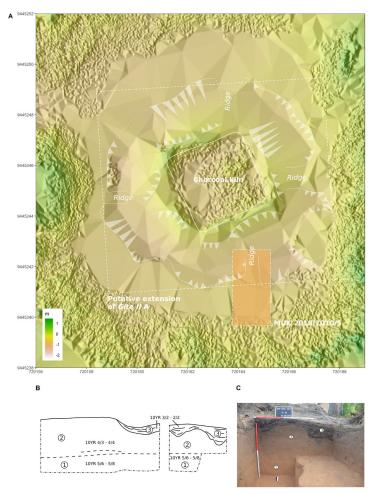


Figure 3: Digital surface model of the Mukila Church site, showing the remains of *Gite II A* and the position of the new trench MUK 2018/1010/5 (A) as well as the western and northern profiles of trench MUK 2018/1010/5 (B-C).

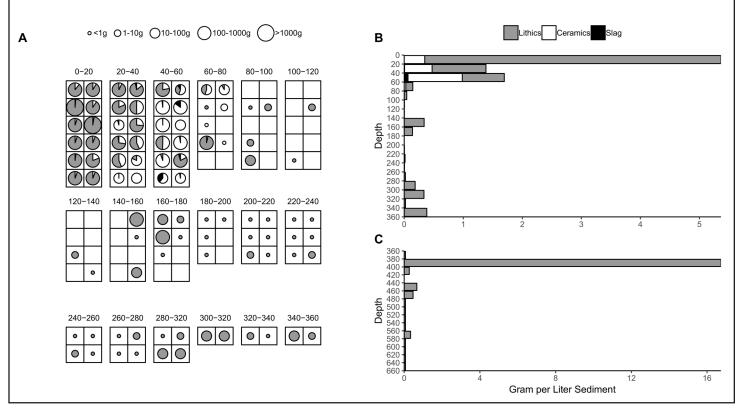


Figure 4: Horizontal (A) and vertical distribution of finds (weight per liter sediment excavated) within trench MUK 2018/1030/10 (B) as well as vertical distribution of finds within the two Edelman cores from squares 1a-b (C). Depth in centimetres below surface.

The eastern half of the trench was excavated to 0.7 m below surface, while the excavation by the more promising western profile reached 1.4 m below surface. The northern profile showed remains of a highly eroded footbridge (Figure 3 B-C). The former shallow digging event only reached a maximum of 0.4 m below surface. A distinct change in sediment colour was evident ~1 m below surface: sands changed from yellowish brown sands to almost completely yellow. The deposits of MUK 2018/1010/5 - loose sand with scant clay and features encountered - could clearly be interpreted as remains of Bequaert's old excavation Gite II A. The density of finds declined rapidly in both parts > 50 cm below surface, with no finds recorded below ~1 m. Hence, this could not be the old trench of nearly 7 m in depth reported by Bequaert.

Mukila École (MUK 2018/1030/10)

Photographs of Bequaert's 1952 fieldwork included six single shots forming a panorama. With the help of those images and interviews of locals, we determined the angle

from which the photos had been taken and accurately retraced the position of Gite II B. The site revealed no depression or other indications for an old trench. Today, latrines cover its location. We assume that this 1952 excavation was refilled immediately due to use of the school grounds. As in the area around the church, we conducted extensive surveys using a 3 m Edelman corer before placing a new trench (MUK 2018/1030/10) northeast of Gite II B. Bequaert's panorama showed that backdirt had been placed adjacent to his trench except in the corners. We therefore positioned the new trench as close as possible to Bequaert's, but sufficiently distant to avoid excavating his backfill (Figure 4 A). MUK 2018/1030/10 covered a surface of 1.5 x 4.5 m and was excavated to a depth of 3.6 m. Although we considered it to be a test trench, we still dry-sieved all sediments for small finds. The excavation was conducted in 75 x 75 cm squares and in spits of 20 cm. For reasons of safety and practicability, at 60cm (three-spit) intervals, the two southernmost squares of the excavated area were stopped so they could be used as steps (Figure 4 B). We excavated a total of 126 squares, but the maximum depth of 3.6 m was only obtained in a

1.5 x 0.75 m area adjacent to the northern profile. There, within the deepest two squares, we extended the sequence by coring further down another three meters, attaining final depths of 6.6 m below surface. The profile and the sediment extracted during the coring were systematically sampled for paleoenvironmental remains. The profile itself revealed no visible stratigraphic markers and had no distinguishable archaeological horizons or layers. The soil is made up of a slightly clayish, yellow sand all the way down.

As there were no visible layers within the profile, all analyses are based on the different amounts of finds within each unit and artificial horizon. The sequence we encountered consists of an upper part that reaches down to a maximum of 60 cm below surface and contains an admixture of pottery and lithics (Figure 4 C-D). During the excavation and sieving we encountered a substantial amount of lithics, including flakes and chips, within the upper spits. Detailed analysis of these lithics will give an idea of the degree of post-depositional admixture and possible presence of modern construction rubble in these spits. Pottery was only found until 80 centimetres below surface and it was most abundant within the third spit (40-60 cm; Figure 4 C). Horizontally, ceramics were concentrated in the south-eastern quadrants of the trench (Figure 4 B). Several distinct fabrics, possibly pointing at different regions of origins, could be observed. Iron slag was only found in very small quantities between 40 cm and 60 cm below surface.

The excavation revealed at least two lithic concentrations within the undisturbed sequence, separated by nearly sterile layers (Figure 4 C). A first concentration was situated between 160–180 cm, and the second 300-360 cm below surface. Within these spits, finds were not evenly distributed but clustered in certain quadrants.

At the bottom of the trench, at 3.6 meters, a small bifacial point was unearthed. Additional core extensions detected lithics all the way to 6.6 meters below surface. The highest density of lithics in comparison to soil volume came from around 380-400 cm below surface (Figure 4 D). With respect to lithic raw material we observed a considerable diversity between different parts of the excavated area. The upper strata yielded lithics from a indurated, homogeneously coloured silcrete, while lithics from the lower assemblages were made of material very heterogeneous in colour.

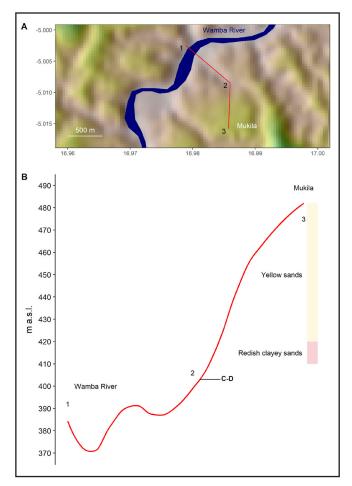


Figure 5. Survey area in relation to site (A) and terrain topography (B) northwards of Mukila and towards the Wamba river. Raw material outcrop boulders were encountered close to a small stream in a valley north of the site.

The raw material of both types of excavated lithics appears visibly similar to local polymorphic silcretes that were also used in the construction of colonial buildings. A survey confirmed that the raw material used in both the ancient tools and the modern buildings occurs locally (Figure 5). To further distinguish raw materials of the excavated lithics, geomorphological and geochemical analysis is necessary.

Surveying Bandundu Ville and its surroundings

We conducted the first-ever detailed survey along the roads from Kinshasa to Mongata, Masia Mbio and Bandundu town, a 400 km-long stretch in between the Congo and Kwango Rivers (Figure 1). In total, we surveyed around eleven hectares in 62 distinct areas, the majority of which is currently used as plots for agriculture. While surveying the surroundings of Bandundu Ville, we could identify fields suitable for foot survey every few hundred meters. One area distinctly rich in pottery finds included specimens of various stylistic and technological origins. The predominant types of potsherds, presumably of local provenance, have various types of inverted rims. More detailed analysis will be needed to further clarify the chrono-typology of the region's ceramics.

East of Bandundu Ville we located a large borrow pit of roughly 5000 square meters (BAD 2018/1000/13). Numerous stone tools were scattered all over base of the pit and visible in its profiles. A variety of semi-finished but elaborately flaked bifacial points, large amounts of flakes and many chips were visible, sometimes forming small concentrations. Within the three to four-meter-high profiles, especially on the northern side of the pit, lithics were found in situ at almost 45 distinct locations. The assemblage from the walls of this borrow pit contains flakes, tools and possibly a grinding stone. Near a concentration of bifacial points on the bottom of the borrow pit, we extracted a column of nine soil samples from the profile, each counting roughly ten litres.

By examining satellite images, we identified a second borrow pit of more than 2500 square meters (ELA 2018/1000/4). This yielded an even larger quantity of stone tools, both from the base of the pit (especially smaller flakes), and from in situ finds in its walls. Next to several semi-finished bifacial points, large amounts of flakes, chips and some potsherds were scattered on the pits' basal surface. We extracted a column of soil samples for flotation from a roughly four-meter-tall profile. Column sampling revealed a densely packed layer of flakes, all produced from the same raw material, extending through an area ~50 cm in width and two to four cm thick. Due to dry season conditions, the clay-rich hardbaked sediments complicated the retrieval of finds. The variables sizes of the flakes and their dense concentration point towards a single knapping event, whose debris was possibly washed into a small channel. Given the impact angle of the flakes and their shapes, they may have originated from the production of a bifacial point, similar to the ones uncovered in both borrow pits.

On the roads back to Kinshasa from Bandundu, we encountered and surveyed nine additional borrow pits. None of those yielded anything comparable to Bandundu and most of them did not have any finds at all. We faced a similar lack of finds north of Mbankana, within the terrains of a former agro-forest project near Mampu, where we surveyed large areas of agricultural plots without getting any tangible results.

Conclusions

The initial fieldwork within the Kinshasa, Kwango, Kwilu and Mai-Ndombe provinces yielded rich archaeological sites that are worth further exploring. Parts of this under-researched region show huge potential for the region's Late Pleistocene and Holocene archaeology. The sequence of Mukila not only spans these epochs but also yielded rich paleoenvironmental samples for further study of climate history south of the rainforest. In Mukila, the occurrence of stone artefacts and ceramics was also properly contextualized for the first time, which will contribute to a better understanding of the final stages of the Late Stone Age.

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