

■ CAMEROON

Preliminary report on the excavations at Bagofit and Mampang, East Province, Cameroon

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Abstract

This preliminary report deals with archaeological fieldwork undertaken by the University of Tübingen from end of November 2008 through mid-March 2009 in eastern Cameroon. Excavations were conducted at the sites of Bagofit and Mampang, both situated near Abong Mbang. While at Mampang an occupation layer and some pit features were excavated, Bagofit provided an iron production site with three bowl furnaces and several pits. Dating to the first centuries AD, the furnaces belong to one of the earliest iron production sites of the region.

Introduction

One of the main questions in Central African archaeology is related to the settlement of the rain forest during the first millennium BC. To date research has focused on the inner Congo basin (Eggert 1992; Eggert 1987), the central and coastal parts of Gabon (Assoko Ndong 2002; Clist 2006) and central Cameroon (Essomba 1992; de Maret 1996; Mbida Mindzie 2002), while the rain forest of southern and eastern Cameroon remained mostly unexplored. Since 2004, the *Deutsche Forschungsgemeinschaft* (German Research Foundation) has been funding an interdisciplinary team of archaeologists, archaeobotanists and geographers from the universities of Tübingen and Frankfurt to explore the relationship of cultural and environmental change in West

and Central Africa. In this context, the archaeologists from the University of Tübingen focus on the settling of the rain forest of southern and eastern Cameroon. Over several field seasons between 2004 and 2008, archaeological excavations and archaeobotanical investigations were carried out in the southern part of the country, while the forest-savanna-region of east Cameroon was only surveyed briefly (Eggert et al. 2006: Figure 1; Höhn et al. 2007; Kahlheber et al. in press; Meister 2007; Meister und Eggert 2008). There, archaeological reconnaissance concentrated in the area of Moloundou and Yokadouma in 1997 and 2005 (Eggert 2002; Meister 2007), and in the environs of Bertoua in 2007. In 2008 we prospected parts of the newly constructed roads from Ayos to Abong Mbang and from there to Doumé. On this occasion the sites of Bagofit and Mampang, which are situated near Abong Mbang, were discovered. Both sites were excavated during the last field season from December 2008 to March 2009.

Bagofit

The site of Bagofit (site designation 'BGF 08' and 'BGF 09') is situated approximately 15 kilometers west of Abong Mbang (Figure 1). During the survey in January 2008, our team discovered several archaeological structures. In creating a road embankment, heavy machinery had cut through several pits and other features, thereby exposing ceramics and other anthropogenic remains as well as charcoal. Also, the cross-section of a bowl furnace (BGF 08/6) was visible (Figure 2). Returning to the site in December 2008, we found several of the archaeological features destroyed by further road works.

In the course of our 2008/2009 excavation, covering an area of approximately six square meters, the aforementioned furnace as well as two more bowl furnaces (BGF 08/6, BGF 08/23, BGF 09/5) were investigated (Figure 3). In addition, we excavated a pit containing remains of iron reduction (BGF 08/22) such as slag and *tuyère* fragments. Some hundred meters to the north and to the south respectively, two more pits (BGF 08/8, BGF 08/17) were located. Unfortunately, they yielded little archaeological material. Nonetheless, we were able to extract some potsherds and charcoal.

Most of the pots already restored have flat bases, very few exhibited a foot. The rims are mostly

Figure 1: Map of southern and eastern Cameroon with sites and survey routes mentioned in the text: (1) Bagofit (2) Mampang (3) Bwambé-Sommet (4) Abang Minko'o (5) Akonétye (6) Nkpwala-Esse.

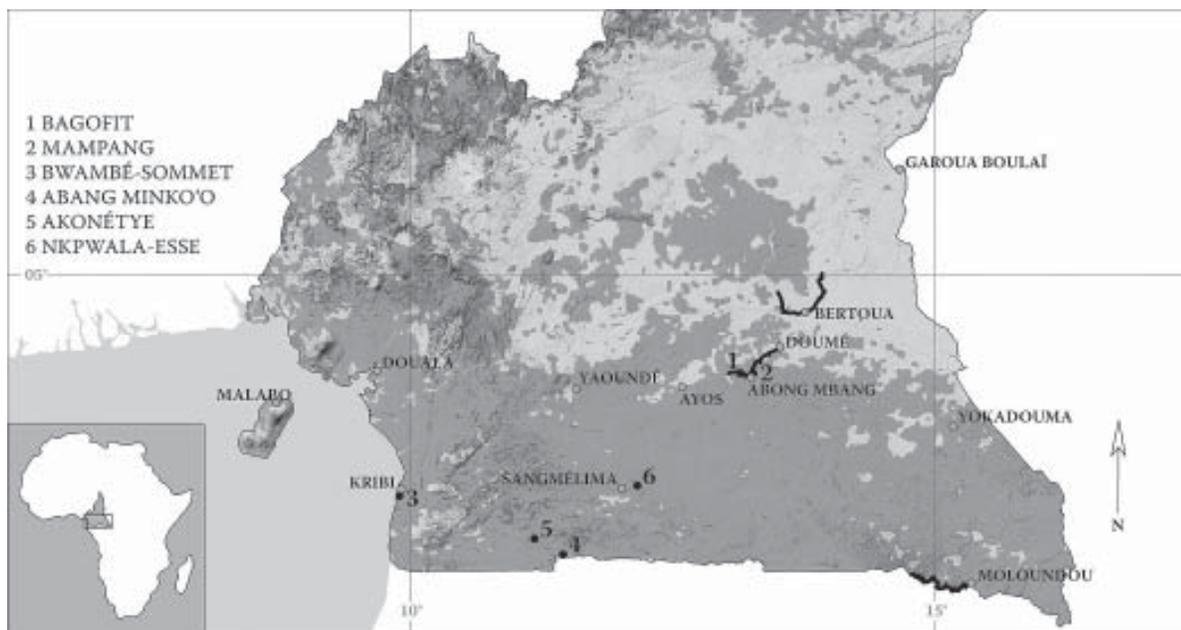


Figure 2: Bowl furnace BGF 08/6 in the road embankment at Bagofit

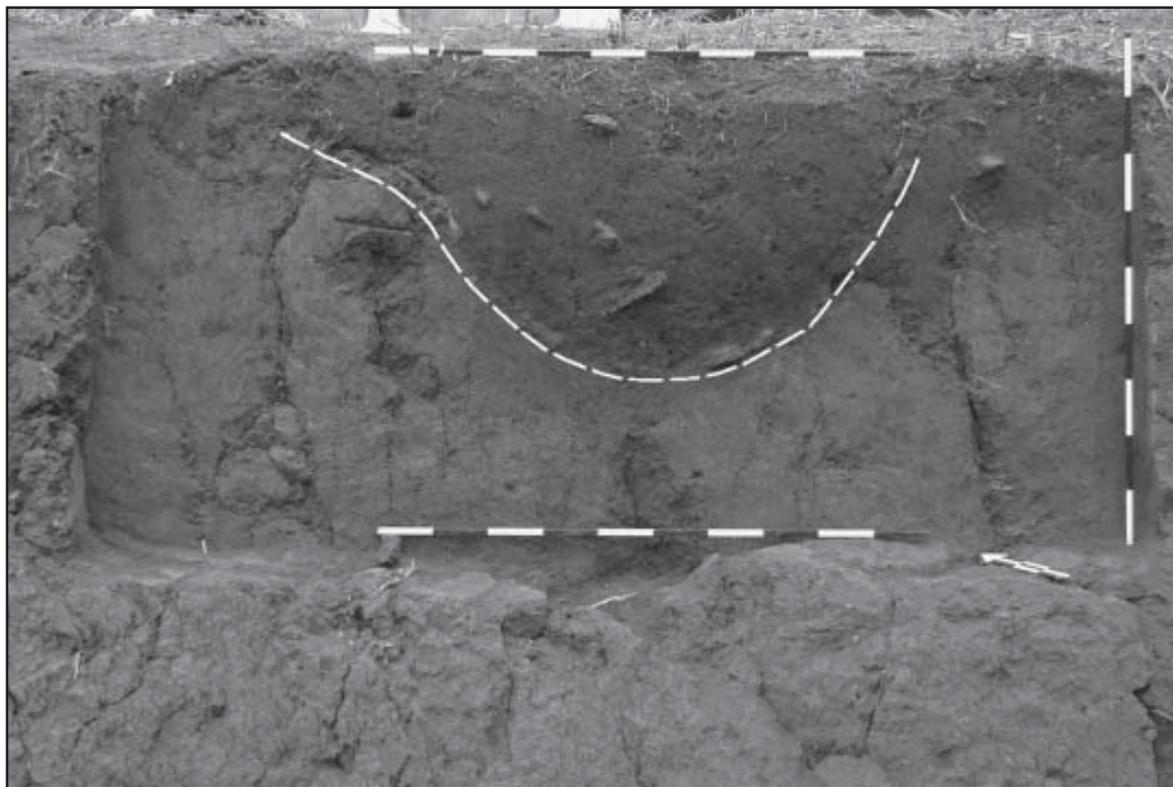
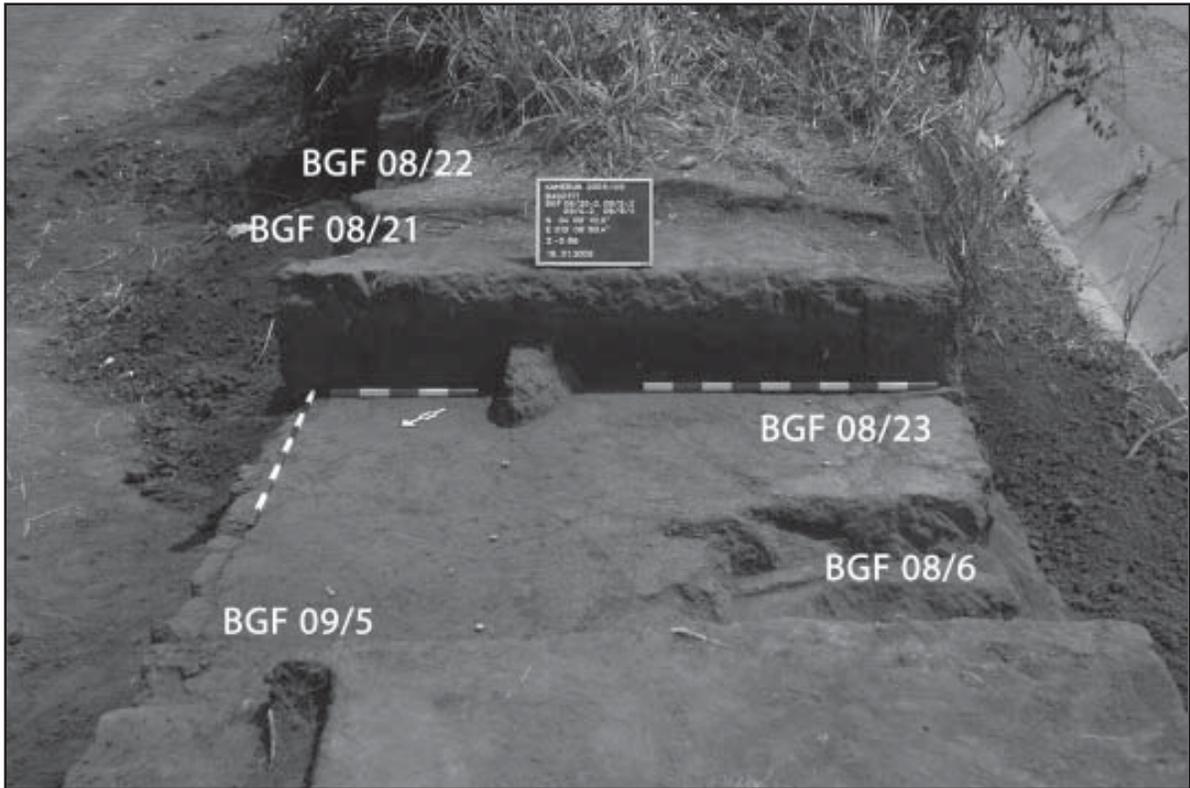


Figure 3: BGF 08/6 and surrounding features



short and everted, some of them ending in a pronounced lip. The pottery from Bagofit is mainly decorated by incisions which consist of bundles of circumferential grooves and hanging concentric semi-circles as well as triangles and lozenges composed of parallel diagonal lines.

Sediment samples were taken in order to investigate phytolithic and macrobotanical residues. The chemical composition and taphonomic details of these samples will be studied by pedologists and micromorphologists. Hopefully, the results will help us to understand the environmental conditions prevalent at the time when the sites were inhabited. Also, we hope that archaeobotanical, and especially phytolithic analysis, will provide evidence as to the subsistence base of the Early Iron Age settlers of this region. Charcoal was not only collected for radiocarbon dating, but also for archaeobotanical analysis. The charred plant residues associated with the furnaces will give us information about what species were used as fuel.

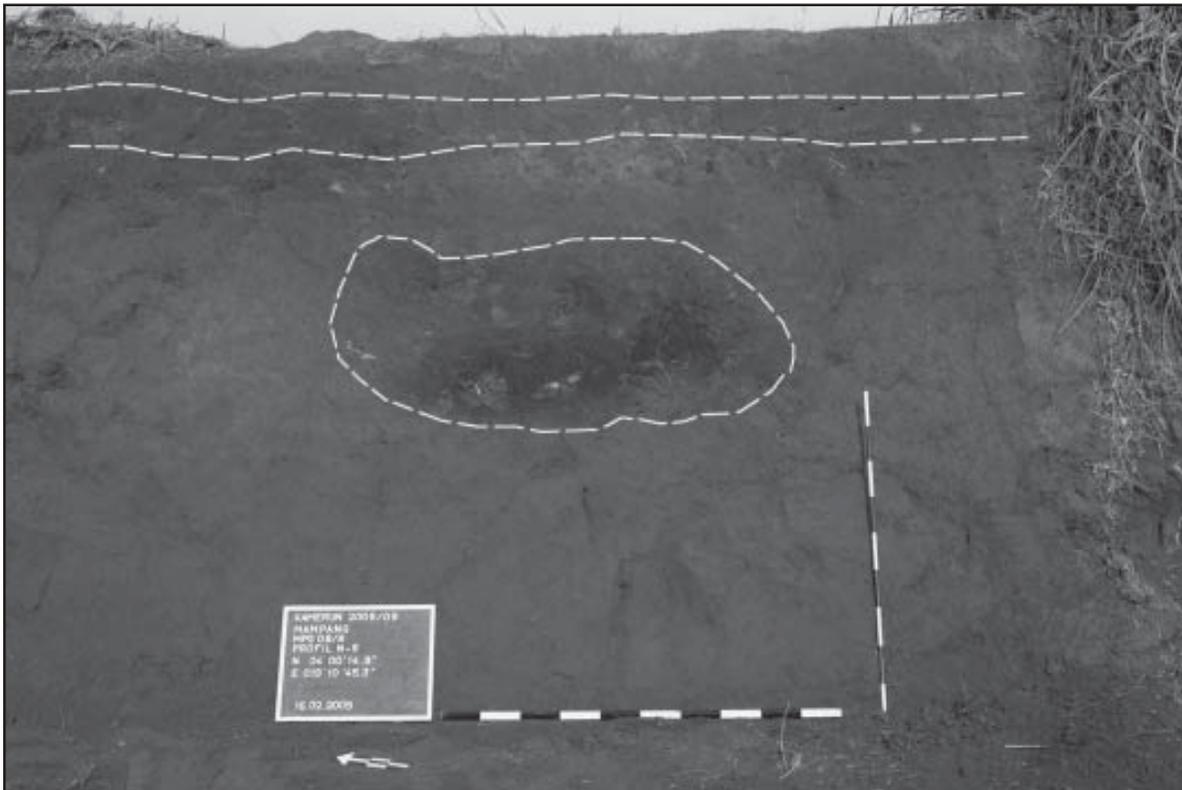
So far the radiocarbon dates from charcoal samples taken during the reconnaissance in January 2008

are quite heterogeneous (Table 1). A sample extracted from the furnace BGF 08/6 provided an age of 1923 ± 39 BP (Erl-12253).² A pit (BGF 08/9) situated some 200 m from the iron reduction site was dated to 2559 ± 40 BP (Erl-12254). A third feature (BGF 08/1), destroyed during further road construction, provided a date of 268 ± 39 BP (Erl-12252).

Mampang

The second site investigated during the field campaign 2008/2009 is situated near the village of Mampang (site designation 'MPG 08' and 'MPG 09'), about two kilometers north of Abong Mbang (Figure 1). Stretching over more than a hundred meters, a continuous level of potsherds, probably an occupation layer was visible in the embankments on both sides of the road. Sometimes a dark sediment, charcoal and pottery fragments beneath this layer indicated pit features (Figure 4). During a three week season at Mampang in early 2009 four features were excavated. While two of them are interpreted as pits, a third one is part of the settlement layer. The fourth

Figure 4: Mampang: Section of the road embankment displaying the occupation layer (MPG 08/6) and a pit feature (MPG 08/8) beneath.



feature turned out to be an accumulation of animal burrows which traversed the occupation layer. All of the features provided an abundance of ceramics as well as slag, *tuyère* fragments and macrobotanical remains.

The pottery from Mampang seems to be quite uniform. The vessels are globular and display flat bases, clearly pronounced shoulders and short necks. Rims are short and everted, ending in pronounced lips. The decorations are mostly placed on the shoulder and vary from hanging concentric semicircles to bundles of circumferential grooves. Soil and phytolith samples were collected for future analysis.

In the course of the survey of January 2008, several charcoal samples had been taken in order to date some of the features. Two samples collected from the aforementioned occupation layer (MPG 08/6) and one of the pits (MPG 08/8) provided identical dates of 1761 ± 36 BP (Erl-12257 and Erl-12258; Table 1). Some further samples have not been analyzed yet.

Summary and Discussion

As far as the pottery of Bagofit and Mampang is concerned, a number of similarities are obvious. Ongoing restoration work and analyses of form and decoration will demonstrate the degree of stylistic conformity. Moreover, it has to be stressed that the ceramics from both Bagofit and Mampang strongly resemble those from other sites of eastern Cameroon, which were discovered by Asombang and colleagues (2003), between Bertoua and Garoua Boulai.

As has been stated above, analysis of the samples from pits at Mampang and Bagofit will hopefully provide evidence on the local environment and subsistence base of the second half of the first millennium BC and the first half of the first millennium AD. At the roughly contemporaneous sites of Bwambé-Sommet, Abang Minko'o and Akonétye, excavated by our team in southern Cameroon, plants such as pearl millet (*Pennisetum glaucum*) and the Bambara groundnut (*Vigna subterranea*) have been found (Eggert et al. 2006).

Table 1: New radiocarbon dates from East Cameroon. All samples from Bagofit, Mampang and Nkpwala-Esse have been AMS-dated by the laboratory of Erlangen-Nürnberg University and calibrated with IntCal04.

Site	Feature	Material	Lab. No.	Date bp	Cal. Age (2 sigma)	Structure
Bagofit	BGF 08/1	charcoal	Erl-12252	268 ± 39	AD 1488 - 1602 (45,5%)	pit
					AD 1609 - 1671 (39,0%)	
					AD 1778 - 1799 (8,7%)	
					AD 1943 - 1950 (1,5%)	
					AD 1766 - 1770 (0,4%)	
Bagofit	BGF 08/6	charcoal	Erl-12253	1923 ± 39	BC 1 -AD 173 (91,5%)	furnace
					AD 191 - 211 (2,4%)	
					BC 21 - 12 (1,1%)	
					BC 36 - 32 (0,4%)	
					AD 1674 - 1677 (0,3%)	
Bagofit	BGF 08/9	charcoal	Erl-12254	2559 ± 40	BC 808 - 730 (46,9%)	pit
					BC 652 - 543 (33,2%)	
					BC 692 - 660 (15,3%)	
Mampang	MPG 08/6	charcoal	Erl-12257	1761 ± 38	AD 208 - 383 (85,8%)	occupation layer
					AD 138 - 195 (9,6 %)	
Mampang	MPG 08/8	charred fruit/seed	Erl-12258	1761 ± 38	AD 208 - 383 (85,8%)	pit
Nkpwala-Esse	NKP 08/4	charcoal	Erl-12263	1933 ± 39	BC 41 - AD 136 (94,6%)	pit
					AD 196 AD - 206 (0,8%)	
Nkpwala-Esse	NKP 08/6	charcoal	Erl-12261	1905 ± 39	AD 20 - 218 (95,4%)	furnace
Nkpwala-Esse	NKP 08/8	charcoal	Erl-12262	1953 ± 38	BC 4 - AD 125 (85,0%)	furnace
					BC 40 - 9 (10,4%)	
Nkpwala-Esse	NKP 08/10	charcoal	Erl-12259	1886 ± 38	AD 52 - 229 (94,5%)	pit
					AD 31 - 36 (0,9%)	
Nkpwala-Esse	NKP 08/10	charred fruit/seed	Erl-12260	1896 ± 38	AD 47 - 222 (92,0%)	pit
					AD 26 - 41 (3,4 %)	

With its three bowl furnaces and several pits containing residues of iron production the site of Bagofit is of special interest. Up to now, direct evidence of early iron production is rare in the rain forest area of Cameroon. At most sites early metallurgy is indicated by iron slag and, occasionally, *tuyère* fragments, while reduction furnaces are very rare (but see Elouga 2000 / 2001; Essomba 1998; Lavachery et al. 2005; Meyer and Eggert 2008). Similar finds had already been made in Nkpwala-Esse (site designation 'NKP 08') near Sangmélina in the South Province of Cameroon in 2007 (Meyer and Eggert 2008: Figure 1). The site provided four bowl furnaces, two of which were excavated in 2008 (NKP 08/6 and NKP 08/8). Some 20 meters from the furnaces, a pit (NKP 08/10) was excavated which yielded a large amount of iron slag, ceramics, *tuyère* fragments and charcoal as well as an iron ring and axe (Meyer and Eggert 2008). Radiocarbon dating of charcoal from Nkpwala-Esse yielded determinations within the time bracket of the first and second century AD. Thus, this site seems to be roughly contemporaneous to the furnace BGF 08/6 of Bagofit (Table 1).

We are optimistic that the analysis of the furnaces of Bagofit and Nkpwala-Esse as well as their associated material including slag, laterite, blowpipes and charcoal will yield valuable information on early iron reduction techniques in Cameroon. So far the results constitute some of the first proof of early iron production as well as Early Iron Age settlement in this region (but see Asombang et al. 2003).

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(Footnotes)

- 1 For a brief overview see Meister and Eggert 2008.
- 2 All samples from Bagofit, Mampang and Nkpwala-Esse have been AMS-dated by the laboratory of the University of Erlangen-Nürnberg (Erl) and calibrated with IntCal04.