

■ EQUATORIAL GUINEA

A New Approach to the Middle Stone Age from Continental Equatorial Guinea: A Preliminary Fieldwork Report

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Introduction

As starting activity for the Uoro Rift-Wele River Project, a 20-day exploratory trip to Equatorial Guinea was made in May 2014. During this time, the existing agreement between UNAM and the National University of Equatorial Guinea was renewed, a

provisional exploration permit from the National Institute for Forest Development (INDEFOR) was obtained, and an exploration survey was made in the Niefang region at the Uoro Rift. In these few weeks, eight new surface sites with diagnostic archaeological materials from the Middle Stone Age (MSA) were reported, and several large-format tools not previously described in existing publications were identified, extending the typological variability range of the local MSA, including artifacts from the Sangoan-Lupemban period. The results show that the present institutional and geographic conditions are ideal for a long-term archaeological project in Equatorial Guinea.

Background

Equatorial Guinea's prehistoric and archaeological past has remained one of the less-known periods in Africa. Before 1968, Ph.D. J. Martinez Santa-Olalla, Gonzalez and Hernandez, Panyella and Sabater, and Martin del Molino (Mercader and Marti 1999) undertook a series of explorations and excavations at Malabo on Bioko Island. The continental part of the country, however, has been little studied, except for some limited surface research made by Perramon and Clist at the coastal areas, and a small excursion along the Mbini River (Mercader and Marti 1999). Recently, a salvage archaeological project at an airport under construction has revealed an ancient cemetery from the Early Iron Age (AD 410-640) on Mandji Island, probably the earliest cemetery in this part of the African continent (Ayan *et al.* 2011).

The most extensive archaeological research project on the continental territory to date was coordinated by Mercader and Marti from June to October, 1998. The survey was limited to the Monte Alen National Park and its adjacent territory in the Centro-Sur continental province within the administrative divisions of Niefang and Evinayong. During this work season a total of 72 locations were reported: 20 rock shelters, and 52 open-air sites, evidencing human occupation in the Late Stone Age (LSA). Such abundance of data shows, however,

that the Centro-Sur Province is particularly rich in Middle Stone Age (MSA) sites which could be dated back as far as >35,000 years (Mercader and Martí 1999, 2002). Sites this old are little known within the Central African forest belt, thus their importance for the study of the first anatomically modern human (AMH) occupations in Central Africa.

Study Area

The Republic of Equatorial Guinea is located between Gabon and Cameroon. It comprises the islands of Bioko, Annabón, and Corisco, and the mainland region of continental Equatorial Guinea (previously Rio Muni), which is divided into four administrative provinces: Centro-Sur, Kie-Ntem, Litoral and Wele Nzas (Figure 1).

The study area is located in the Centro-Sur Province, which is bordered to the north by Cameroon, to the west by the Litoral Province, to the northeast by Kié-Ntem, to the southeast by Wele Nzas, and to the south by Gabon. Its provincial capital is Evinayong.

Geologically, continental Equatorial Guinea is part of the Congo Craton at the Atlantic Passive Margin, between the basins of Douala and Gabon. Its morphology is composed of a low coastal strip, and a high inland peneplain. Three basic lithological formations have been identified: an eastern granite core; a peripheral metamorphic band constituted by gneiss with diorites and gabbros; and a Meso-Cenozoic sedimentary coastal strip (Martinez-Torres and Riaza 1996).

The Centro-Sur Province includes a large intracratonic basin called by Martinez-Torres and Riaza (1996) the “Uoro Rift”, though other sources have called it the “Benito Rift” (we have preferred “Uoro Rift”, since it is more attuned to the local toponymy).

Together with the large east-west half-graben systems, the Uoro Rift is the most characteristic morphological feature of continental Equatorial

Guinea. It is a tectonic basin 90km long and 14km wide with a clear NE-SW alignment. It runs from the Muni River estuary in the SW to the rift flank escarpments on the NE. Since there are no recent associated deposits, it is hard to set the limits to the north. But observations suggest its continuance into the Ntem Complex of Cameroon. The rift deposits have always been of a fluvial detritic nature, with a large contribution of lateritic materials, and volcanoclastic materials to a lesser extent. Some dikes and volcanic cones (not yet analyzed) have also been detected (Martinez-Torres and Riaza 1996).

The Wele River is the largest fresh waterway in the continental territory. It runs along the bottom of the Uoro Rift from northeast to southwest. A relief analysis made with the Digital Elevation Model (DEM) used for this project revealed a series of terraces and depressions that run from the highest ground west of the river to its current location on the east. Geomorphology and the tracing of faults on a geologic map (Martinez-Torres and Riaza 1996) suggest that for the last thousands of years the basin of the river has moved eastwards, due mainly to erosive processes, but also to tectonic movements related to the evolution of the rift. Such processes have changed the slope of the terrain, pushing the watercourse to the east.

If the evolution model is correct, the sedimentary deposits on the west margin of the Uoro Rift may well be the oldest deposits as they rise over the margin of the river from the current basin 275m above sea level to the highest peaks of this geologic formation to the west 854m above sea level.

Location and Description of Sites

In the clear days, when surveys were possible in the continental territory of Equatorial Guinea, we established our base in the city of Niefang on the Wele River at the center of the Rift, next to Monte Alen National Park.

From here, two survey strategies were used. The first one consisted of a surface survey

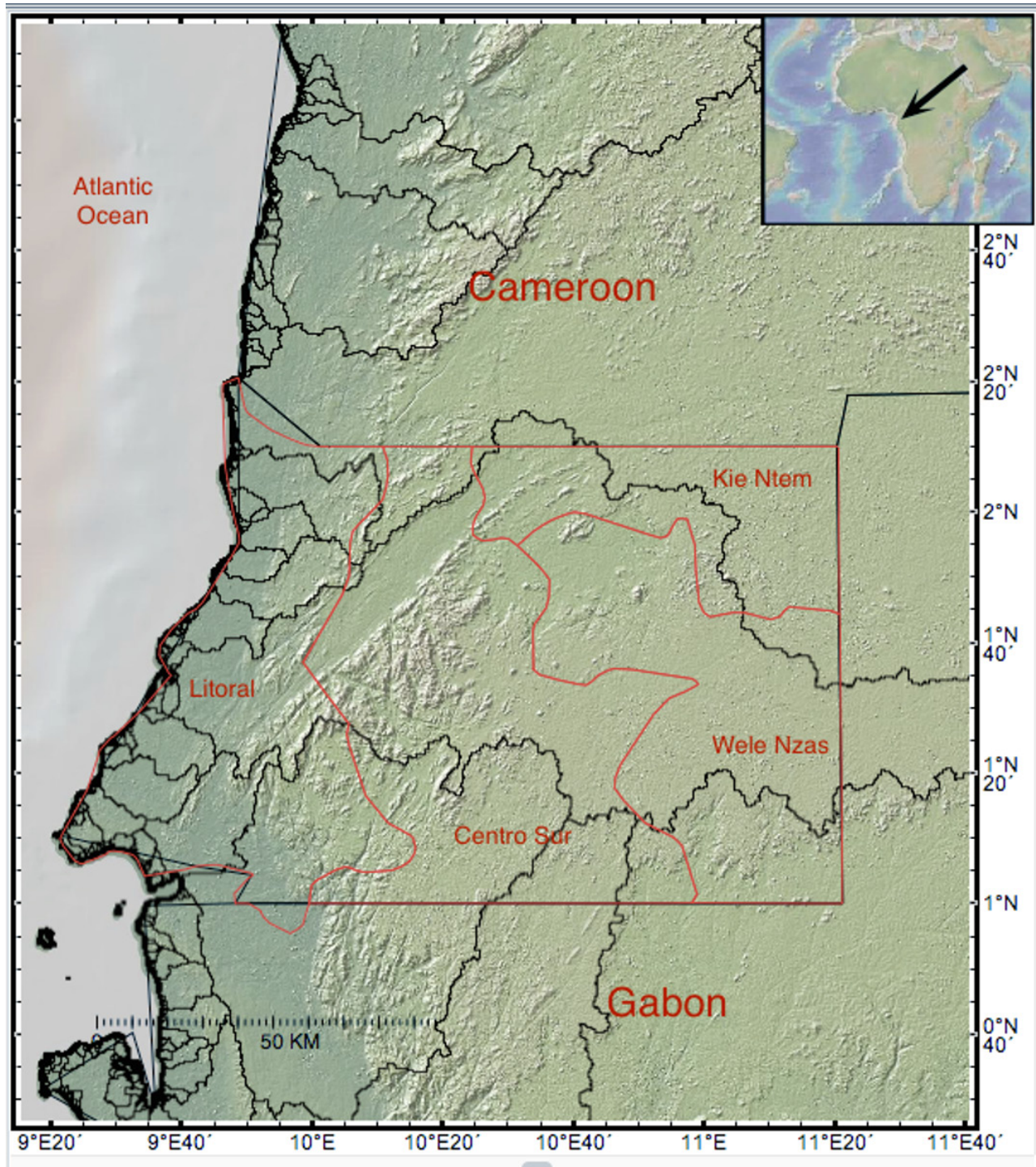


Figure 1: Map of the continental Region of Equatorial Guinea (generated in <http://www.geomapp.org>, Ryan et al. 2009).

on an old dirt road that goes from Niefang to Bata across the major town of Mosumu. Along this road, Mercader and Marti reported a large number of sites containing Middle Stone Age lithic materials. At the town of Mosumu, they carried out extensive excavations that provided stratigraphic data on the archaeological deposits, which constitute a valuable reference for further research (Mercader and Marti 1999, 2002; Mercader *et al.* 2002). Consequently, we had the chance to visit the archaeological site of Mosumu, look at the stratigraphy in some of the cuts, and interview the local people for archaeological materials. The archaeological materials exposed in open air cuts were also reported, though some of them may certainly correspond to archaeological sites originally identified by Mercader and Marti (1999).

The second strategy was based on surveys along trails, roads and highways that were opened after Mercader and Marti's intervention, and therefore were not previously reported. This allowed a significant increase of the area with the potential for archaeological fieldwork in the following years. Consequently, continuous stops were made along the road to inspect sediment cuts, which are abundant and well preserved due to the infrastructure and roads that are being built in Equatorial Guinea. Similarly, stops were made for short foot expeditions through open fields, where the vegetation has been removed, and sediment cuts have been exposed as part of the forest exploitation and extraction activities, or as material banks for roads and highways. It is worth noting that in tropical ecosystems, either primary or secondary forests, or in farming plots, such open fields constitute a unique possibility to detect the presence of archaeological materials in the open air.

Thus, the roads surrounding Monte Alen National Park were surveyed to the east down to the entrance of the park. In spite of watching several sediment cuts and open fields along this route, no convincing archaeological materials were found. These surveys, however, gave us a better idea of the geology and geomorphology of the region (Figure 2).

In addition, a survey to the north and northwest was carried out on the western margin of the Uoro Rift, from Niefang to Mongo, Añosoc, Acoc Onvang and Alosa in the north, then turning southeast to Ncomeca, and back southeast to Niefang via Nkimi (Figure 2). Along this route a couple of sites with diagnostic MSA lithic materials were reported (sites III and IV, Figure 2). Finally, a last survey was made along the new highway that connects Bata to Niefang. The highway runs parallel to the old dirt road that goes from Niefang to Bata across Mosumu, and the paved road that follows the same route across Mongo to the north. Consequently, the sites where lithic materials were found on the highway embankments are located more or less parallel to the sites reported by Mercader and Marti (1999) along the Mosumu road, and this season by ourselves; except that the sites on the highway embankments are tens of meters higher than the sites on the Mosumu road with respect to the basin of the Wele River. For this reason, we think that they are on an upper terrace, which is probably older than the terrace where the town of Mosumu is now. Figure 3 shows a profile of the Digital Elevation Model that represents the lower (Mosumu) and upper (new highway) terraces where archaeological materials were reported during this prospection campaign.

Archaeological Materials

Several lithic artifacts were collected during the field work either from surface or exposed at the sediment cuts in each reported site. When the artifacts were found *in situ*, digital photos were taken, their UTM position was recorded using a GPS, and the strata were described in a field notebook. In order to avoid any alteration to the composition of sites, a minimum amount of materials was collected in view of systematic excavations in the near future.

A brief description of some diagnostic materials and a preliminary comparison with previous findings in the region and other parts of Central Africa are presented below.

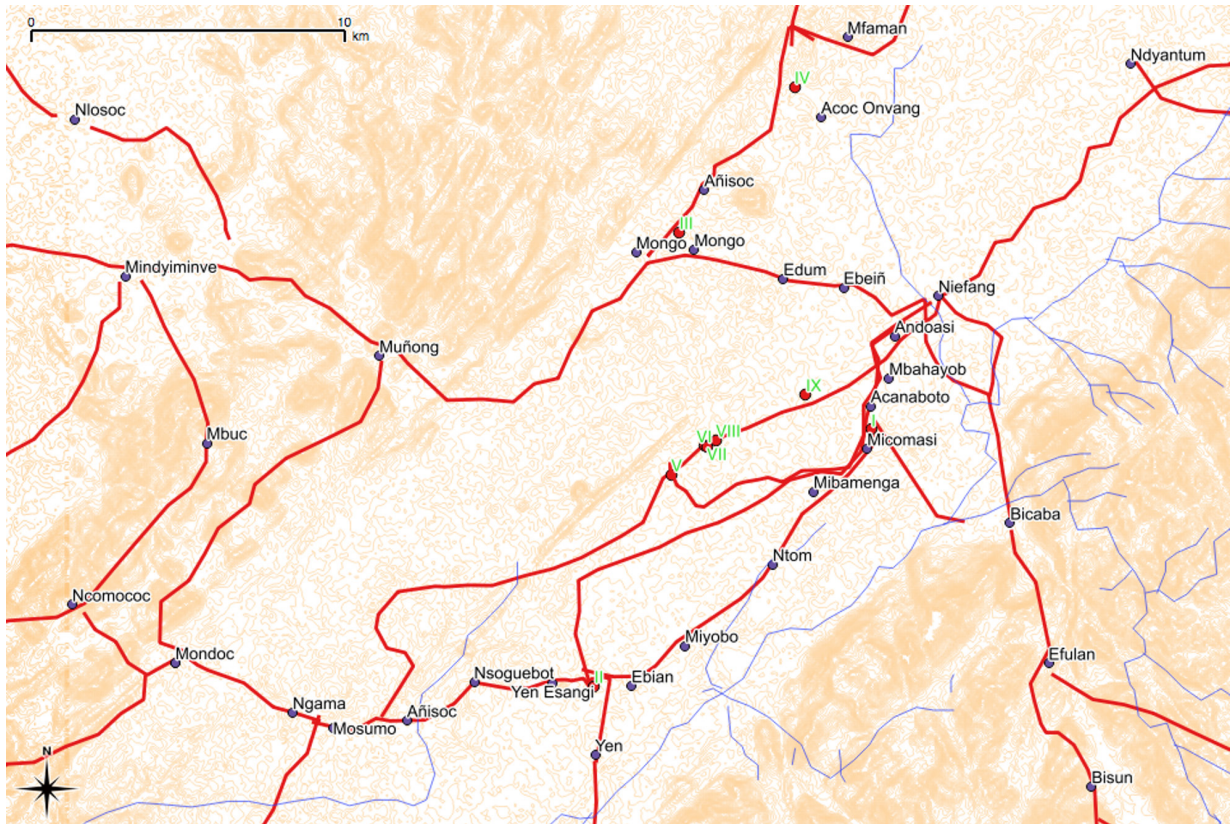


Figure 2: Location of the study area and sites mentioned in the text.

Emphasizing 20.0 times.

Relieve al Oeste del Rio Wele

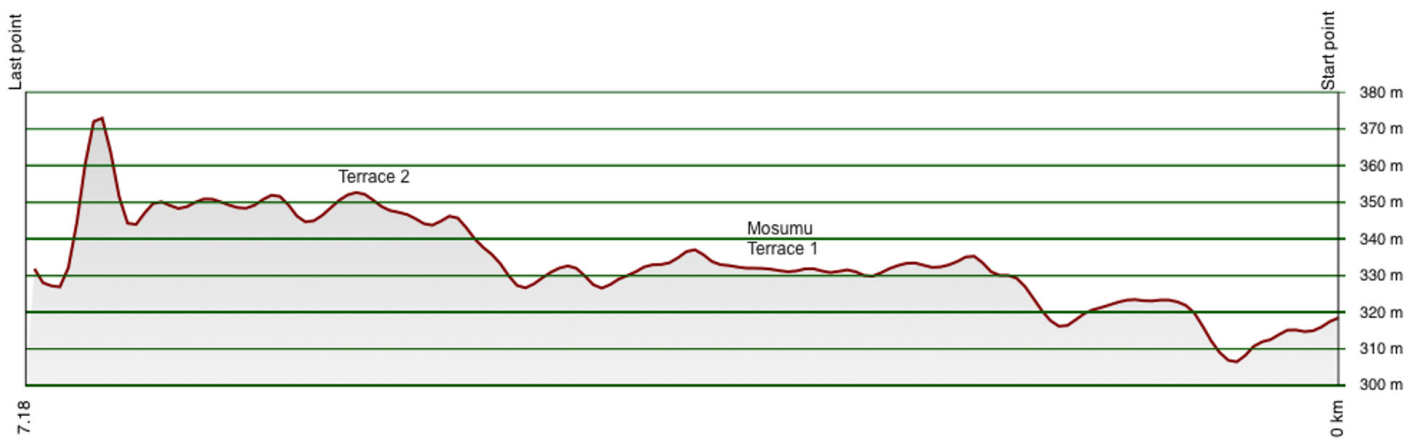


Figure 3: Profile of the fluvial terraces in the Wele River, Model from Digital Elevation Model (DEM) of the NASA satellite orthophoto.

Site I. Site I is located on the dirt road that runs between Niefang and Mosumu, on the route previously surveyed by Mercader and Marti (1999, 2002). Here only a circular flake on quartzite was reported, with previous centripetal-patterned extraction marks on the dorsal surface, probably from a polyhedral core. It was not collected.

Site II. Site II is also on the route surveyed by Mercader and Marti (1999). This site is located in an open field used for the extraction of building materials (dirt for road leveling) at 302m asl (Figure 2). At the straight edges created by the excavator, several flakes from the preparation of cores and reduction of bifacials were found, as well as polyhedral cores, and centripetally extracted cores of quartzite and silex (Figure 4).

In general terms, these artifacts are very similar to those described by Mercader and Marti for the MSA layer in Mosumu (Mercader and Marti 1999).

Site III. Site III is located in the outskirts of the town of Añisoc, 343m asl (Figure 2). Only some non-diagnostic flakes and small-format cores were found at sediment cuts. Also a 4.5cm long semicircular quartz scraper was reported (Figure 5), similar to some scrapers described by Mercader and Marti (1999).

Site IV. Site IV is located near the town of Mfaman, on the western margin of the Uoro Rift. It is the most distant site from the Wele River, and also the highest site at 358m asl. Here, some non-diagnostic flakes were found at the cuts on surface, as well as a 10cm long quartzite scraper with straight margins and a convex distal edge (Figure 6), similar to those reported by MacCalman and Viereck (1967: 42).

Site V. Site V is located on the recently built highway that goes from Bata to Niefang, north of the Niefang-Mosumu dirt road (Figure 2). It is a road cut on the slope where flakes, and small-format polyhedral and centripetally extracted cores of quartzite and silex can be seen (Figure 6), similar to those reported by Mercader and Marti (1999) for the

site of Mosumu.

Site VI. It is an isolated flat almond-shaped bifacial point with convex margins and base, retouched by direct percussion, probably with a soft percussor, on quartzite. It is almost 11cm long and 7cm wide (Figure 7). The spear point was found on the surface, on the highway embankment at 316m asl, so its precise origin cannot be determined (Figure 2); even if its sharp edges, and uneroded surface suggest that it could not have been rolled over a long distance from its original position. No artifacts with this morphology have been reported for Equatorial Guinea, in spite of their similarity to the so-called MSA points from East Africa (as defined in Yellen *et al.* 2005: 46 and illustration 4 in Figure 11, Appendix C of the same article). Its size and shape are significantly different from the bifacial points reported in the Mosumu excavation (Mercader and Marti 1999).

Site VII. On the opposite side of the Bata-Niefang highway, at 320m asl, an isolated slightly asymmetric lanceolate bifacial projectile point, 4.5cm long and 2.3cm wide, on quartzite, was found on the surface (Figure 8). This point is similar to the points reported in Mosumu by Mercader and Marti (1999) and Marti (1999). It is a worn out artifact that seems to have been rolled over a long distance, so its precise origin cannot be determined.

Site VIII. About 150m to the northeast of Site VII, a large-format bifacial tool (the largest in the collection) was found partially exposed from the sediments on the edge of the highway at 318m asl. It is a quartzite core-axe shaped artifact, 22cm long and 12cm wide, made by direct percussion with a soft percussor on a large-format flake. One of its margins is straight, while the opposite margin is convex. The distal end has a tranchet edge which indicates that it may have been used as a lateral or distal cutting tool (Figure 9). There are no references to this sort of tool in Central Africa MSA, yet its size and manufacturing technique are comparable to the several bifacial core-axes reported in Gabon, Angola, Cameroon and the Democratic Republic of Congo (Clark 1970: 113, fig. 23-2; Clist 1989: 68;



Figure 4: Quartzite Cores, from site II.



Figure 5: Quartz scraper from Site III.



Figure 6: Quartzite scraper from Site IV.



Figure 7: Bifacial point from Site VI.



Figure 8: Bifacial projectile point from Site VII.



Figure 9: Large-format bifacial tool from Site VIII.

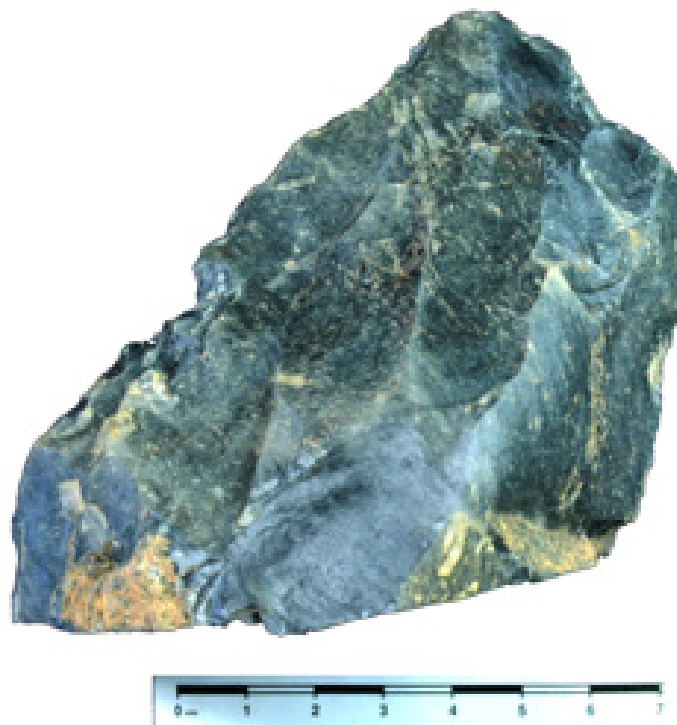


Figure 10: Core-tool from Site IX

Leakey 1949: 56-60; Livingstone Smith *et al.* 2007: 29), generally affiliated to the Lupemban-Sangoan industry in the region.

Site IX. Along the same highway, a large-format tool was found on the surface, 1200m to the northeast toward Niefang. It is a bifacially flaked core tool or “peak” with a wide flat platform on the proximal portion of the flake. The edges have been sharpened by direct percussion with a hard percussor, and it exhibits possible traces of use as a contusive cutting tool (Figure 10). In spite of being out of context, its edges are still sharp, and it doesn’t show marks of erosion or dragging nor formation of surface patina. Consequently, it may well come from a place near the site where it was found. Its morphology is similar to other “core-tool” artifacts from the Central African MSA Sangoan-Lupemban tradition (e.g., Clark 1970: 170, fig. 23-6 and 7).

Preliminary Interpretation

This short survey in the Niefang region confirms the presence of MSA archaeological deposits along the Niefang to Mosumu road, usually related to the so-called “stone-lines”, as previously noted by Mercader (Mercader *et al.* 2002). Indeed, some of the sites in this report may as well correspond to sites reported by Mercader and Marti (1999). Despite the development of infrastructure in the region, such as the construction of new roads, some of these sites are in good state of conservation, thus allowing for future excavations in the area. The general features of the recorded lithic artifacts are basically the same as those previously reported (Mercader and Marti 1999, 2002; Mercader *et al.* 2002).

On the other hand, by extending the survey area to the north, a difference of many tens of meters above the contour line of the town of Mosumu was identified, probably an old fluvial terrace on which several lithic artifacts and tools were found, some of them similar to those reported at Mosumu. Other findings, however, were significantly different, mostly large-format tools on large flakes or detached from cores: peaks, almond-shaped bifacials, core-

axes, and massif scrapers. A survey to the north and northeast also revealed similar tools on the western margin of the Uoro Rift.

This assemblage of tools extends the technical repertoire previously known for the region, and suggests, given its morphology and relief location, earlier occupations related to the Central African MSA Sangoan-Lupemban tradition than those reported in Mosumu.

Though still limited, these findings fully justify the development of further fieldwork in the Niefang region, mainly on the western margin of the Uoro Rift where, in addition to the open field sites, it is possible to find rock shelters with a better preserved stratigraphic record, and a better referenced paleo-environmental and spatial relation of artifacts. Consequently, this is the work to be done in the next years within the scope of the Uoro Rift-Wele River Project.

Acknowledgements

This preliminary survey would not have been possible without the human and logistics support provided by don Carlos Nze Nsuga and Maximiliano Fero Meñe from the National University of Equatorial Guinea (UNGE), the National Institute for Forest Development and Management of the Protected Areas System (INDEFOR), and its Director, Fidel Esono Mba, the Museum of National History of Madrid-CSIC, Mauricio Velayos and Francisco Cabezas from the Royal Botanic Garden of Madrid, Spain, and the Institute of Anthropological Investigations of the National Autonomous University of Mexico. We also want to thank don Eduardo Eyimo Ngom, Delegate of Niefang, Higinio Ondó Eyene, President of the Council of Mosumu, Francisco Obama from INDEFOR, Paloma Ferrer (PADIB), and María Grande (Ecotono Foundation) for their support. Part of the travel expenses is included in the development of the CGL2012-36682 project (Government of Spain).

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