

■ BÉNIN

Excavations at Tin Tin Kanza (TTK), Northern Bénin

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Abstract

Excavations on a large settlement mound nearby the small village of Tin Tin, Republic of Bénin, close to the Niger River, were carried out over two weeks in January-February 2013. Preliminary results are reported here from a 2x1m test pit, 'Trench II', located on the lower half of the mound. This excavation was extremely revealing in terms both of structures and artefacts: it included several floor surfaces, wall stumps, and stratigraphy, as well as fragmented ceramics and iron artefacts. The purpose of this paper is to place Tin Tin Kanza in the published record given the threat posed to it by development activities in the area with the hope that work will take place in the near future at this important site.

Introduction

Excavations at Tin Tin Kanza were undertaken in the context of the European Research Council-funded 'Crossroads of Empires' project led by Anne Haour¹. The project overall seeks to make a first inventory of archaeological sites in this part of the Niger Valley and, ultimately, to yield an

archaeological and ethnographic map for the area, focusing on past craft productions. In this sense the 2013 fieldwork was very much in continuity with the 2011 and 2012 seasons (Haour *et al.* 2011; Nixon and Haour 2012) but it also placed a much greater emphasis on regional test pitting. The overall aim was to achieve a wide picture of the historic landscape along the Niger River between Pékinga in the west of Benin and Birnin Lafiya in the east, a distance of some 60km (Figure 1). This objective was reached by conducting a series of test pit excavations in areas highlighted for their archaeological potential during survey in previous seasons.

Tin Tin Kanza had been selected as a site for test-pitting for four main reasons: the presence of a past settlement site was known from ethnographic interviews (Gosselain 2012); it lies at a point at which the floodplain is very narrow compared to other stretches of the river, arguably leading to more focused settlement; its location corresponded roughly with the historically-known site of Katan-ga, reputed to be an early focus of settlement; and finally, it lies close to two places of current and past ceremonial significance (Kanza cave and 'Nooru Bangu', the cowry marsh). The site itself lies next to a track, on the edge of a small tributary that runs into the Niger. A mango tree sits by the location of the settlement mound, marking its picturesque location by the water (Figure 2). The mound evidences a high density of surface pottery. An escarpment meets the top of the mound, where Kanza cave is located.

Excavation

The test pit discussed here was one of two at the site (see Champion and Haour, this volume, for a discussion of the other). It was placed within a modern field, about two thirds of the way up the mound, and close to a very large grinding stone sitting on the surface. The trench was 2x1m in size and aligned north to south, with the two metre sections aligned east- and west- facing. Following initial clearing of surface finds, the excavation began

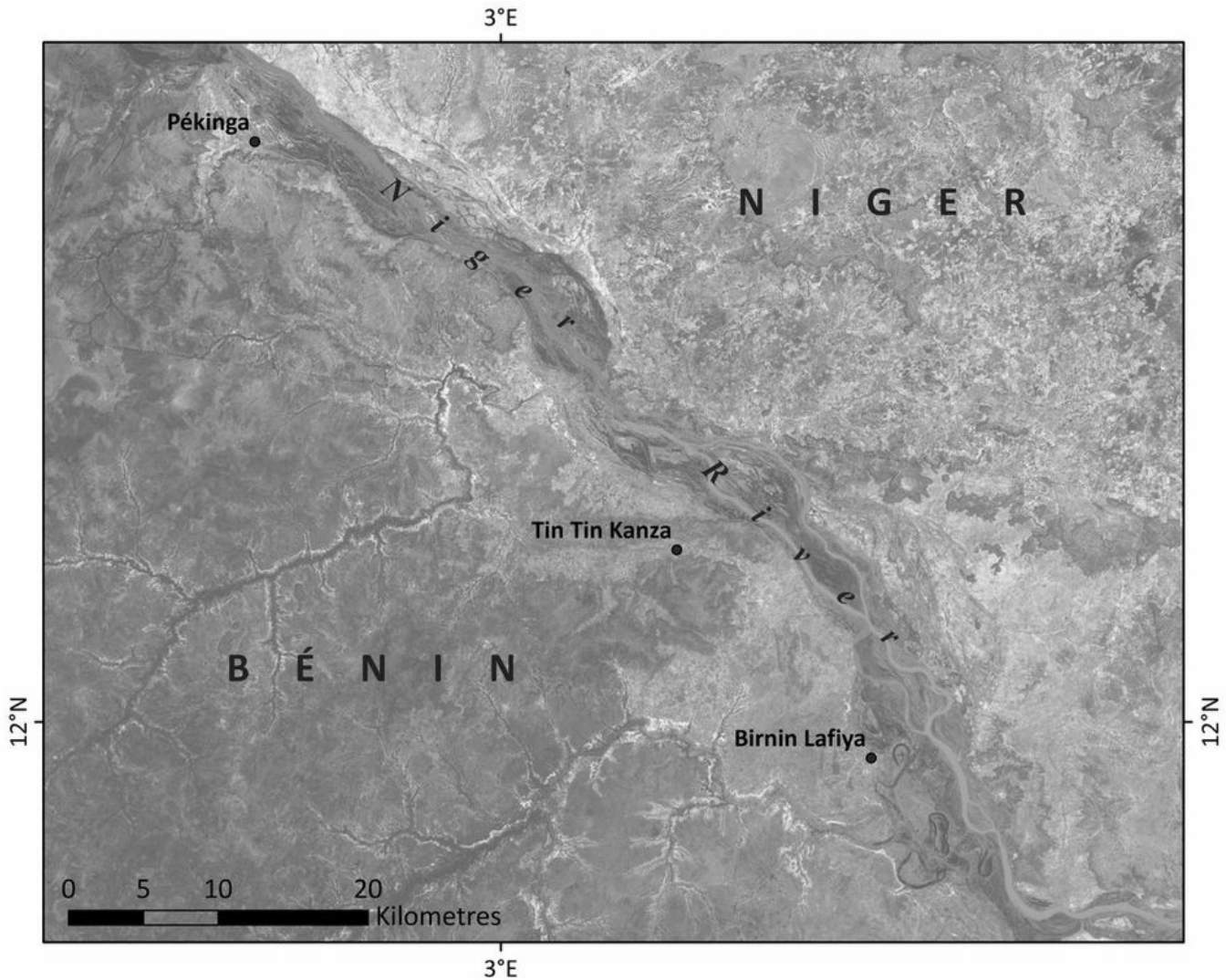


Figure 1: Map: location of test pit and sites in the vicinity.

in spits. As is well known, given the difficulty in defining stratigraphic differences in deposits during excavation (these often only become apparent in section), excavation by spits has long been the preferred option in West African archaeology [see e.g., Kasana in Ghana (Nilirmi 2008); sites in Yobe, northern Nigeria (Hambolu 2000); Gajiganna, northeast Nigeria (Wendt 2007: 27) and Akumbu in the Méma in Mali (Togola 2008: 27)]. However, Tin Tin Kanza presented us with an unusual opportunity to try out context-based excavation, for after removal of the first spit, it became clear that distinct stratigraphic and architectural features were pres-

ent. Excavation thereafter continued by contexts.

The two uppermost contexts had been subjected to varying degrees of disturbance and were excavated quite quickly. The top-soil (the uppermost 25cm), Context 1, loose in compaction and composed of a mid to dark brown, sandy silt, was heavily disturbed by cultivation and tree rooting, but included pottery, disarticulated animal bone, and small traces of shell. Beneath this was a context, which had seen substantial disturbance and ashy contamination from burnt tree rooting in the northern end of the trench. This Context 2, on the whole, was more compact compared to the topsoil



Figure 2: Photo taken from the top of Tin Tin Kanza mound, overlooking the Niger River.

and comprised of a mid to light yellowy brown sandy silt. Once again, the deposit featured many pottery and bone inclusions.

Beneath this was a mixed deposit (Contexts 3-5) composed of grey clay building material, red-pigmented soil, and charcoal inclusions. A single cowry shell was recovered here. Although the red stratum (context 6) was very thin and fragile during excavation it, and another that appeared subsequently, showed up very clearly in the trench sections; we interpret these as floor layers. Indeed, underneath were the remains of another more substantial floor, which included large fragments of pottery. The grey clay reminiscent of building material or rubble (Context 7) was again present, perhaps associated with the destruction and levelling of earlier features. A hearth associated with a large smashed pot, the very

partial remains of a potsherd pavement (Pavement 1), and what appeared to be a complete, but broken, vessel in the west section, were notable occurrences here. Pavement 1, centred in the middle of the excavation unit, was composed of one complete vessel that had a vertical stratigraphy spread in a circular fashion (c. 0.27m in diameter) integrated with other potsherds; thus this pavement included a variety of decorated and undecorated sherds, incorporated with pebbles (Figure 3). The complete vessel was decorated with folded strip roulette. Charcoal from Context 8, which included this fragmented pot and pottery pavement, subsequently yielded a date of 920 ± 30 bp (Beta 348774), after calibration at 2 sigma AD 1030-1190, AD 1200-1210.

The pavement was carefully removed, along with the layers of large pottery fragments. The de-

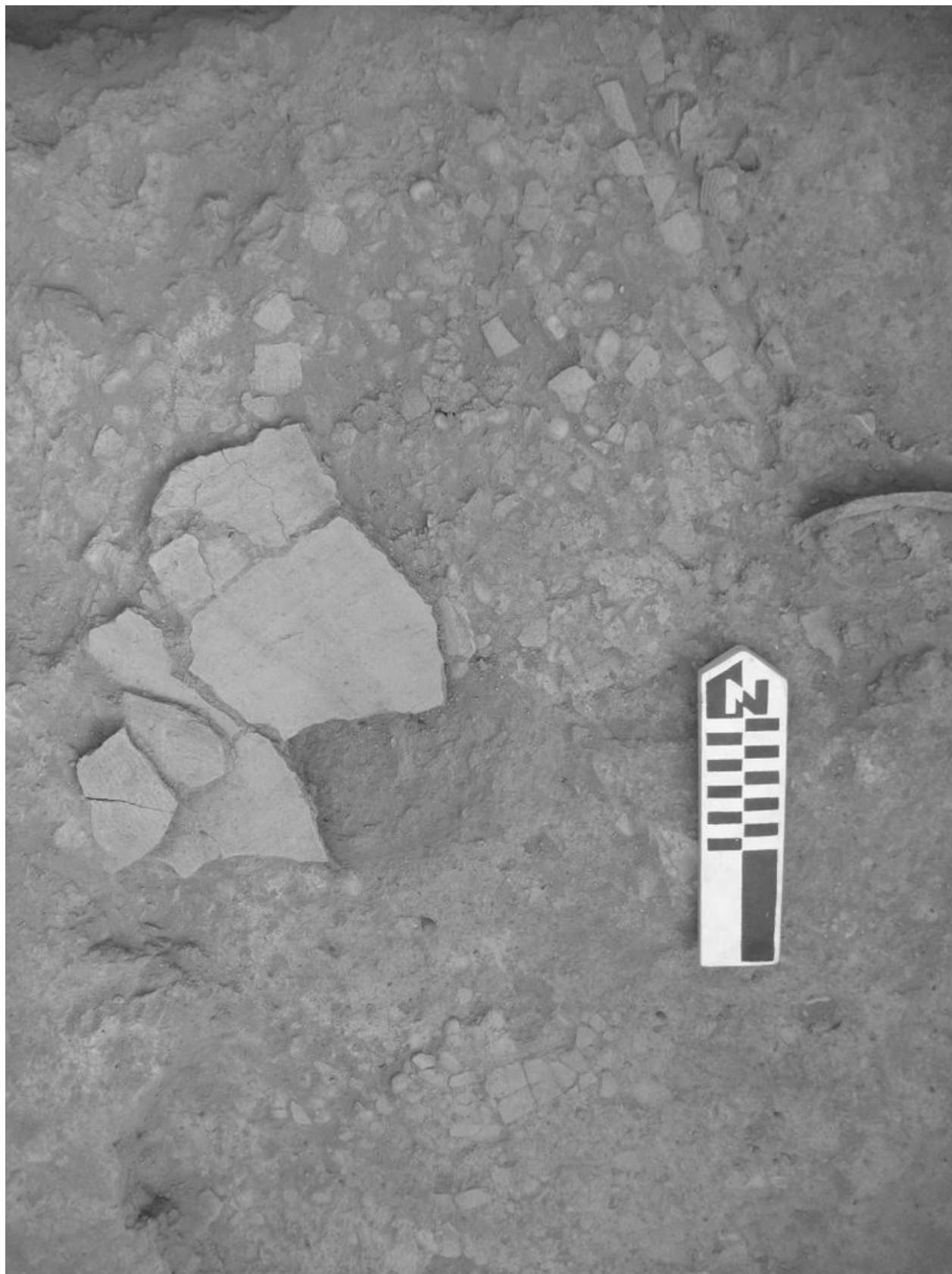


Figure 3: Potsherd pavement 1 with associated pot.



Figure 4: Chalk floor with associated postholes, pottery and clay-hardened surface. The rectangular shape in plan close to the large posthole was a result of over-digging. North is at left.

posit beneath was reddish brown in colour and had a moist, friable texture. This context contained fragments of animal bone, some of which had degraded onto the pottery. This deposit sealed a semi-circular chalk floor, 1.26m x 0.94m in size; the eastern edge of the floor remains unexcavated, but it appears the floor could be a complete circle. The chalk floor, although only 0.05m thick, was very compact. It had five clear post-holes cut into it and was overlain at the northern edge by hardened, cracked clay (Figure 4). The postholes were very generic in their form and shape, all circular in plan, with flat bases and steep sides. The post in each case had not survived. The postholes were excavated independently, and assigned individual context numbers (14-23).

Judging by their shallowness it may be that these postholes were cut from a higher level but had been missed in excavation due to the nature of the deposits.

Context 11, sitting directly on top of this chalk floor, was a mixed deposit of reddish brown, friable silty sand, which had animal bone and pottery inclusions. There was also charcoal present within this context, which produced a date of 1120 ± 30 bp (Beta 348775), after calibration at 2 sigma AD 880 - 990.

In the layer (Context 13) directly above the chalk floor were several refitting sherds while at the north end of the excavation unit and associated with



Figure 5: Hearth with associated iron object and (left) potsherd pavement 2.



Figure 6: Excavation of chalk floor and associated Pavement 2 and wall. Hearth seen in Figure 5, now removed, was at bottom left.



Figure 7: Pavement 3 and associated wall stump, left in-situ for next field season.

the chalk floor were the remains of another potsherd pavement, 'Pavement 2', constructed using an integration of stones and pottery sherds. Interestingly, stone predominated and, unlike the case of the other pavements excavated, the pottery used in the surface was taken from the same pot and not pieced together from different individual sherds.

Unfortunately this pavement was in the corner of the trench and its full extent could not be revealed, but it appeared to be sitting on a wall. The wall was made up of very compact whitish grey building material, clearly a different deposit from the surrounding more friable material; it resembled an interior wall. This was the area where the hearth had been recovered, and it may be that the hearth cut the (earlier) pavement. Placed at the base of the hearth (Context 28) were an elongated iron blade (Figure 5) and 11 pieces making up a small vessel, around 7cm in diameter, with a thickness of 1cm, and undecorated. The co-occurrence of the vessel and blade may suggest a possible ritualistic aspect. Charcoal associated with the hearth has returned the date of 1010 ± 30 bp (Beta 345503), after calibration AD 990-1040, AD 1110-1120. The hearth fill was sampled for archaeobotanical remains.

The potsherd pavement and the wall were maintained in the trench until the circular floor had been entirely excavated, in order to check that the pavement had been fully exposed and did not continue beneath the chalk floor. Figure 6 shows the deposit underneath the chalk floor: a mottled deposit of red, white and grey, perhaps a packing material to seal and level previous floors. At this stage the trench was levelled to this mottled surface throughout.

Following the removal of the circular floor, potsherd pavement and hearth, a grey deposit with some large stone inclusions and very few archaeological materials was revealed. It was thought that we were approaching the sterile level, but this proved not to be the case: underneath this deposit was uncovered a very fine potsherd pavement, Pavement 3 (Figure 7). It covered the entire excavation unit, and the stump of a wall separated

two areas; the fact that this wall appeared only as a stump suggested its deconstruction at some point in the past to make room for another living arrangement, perhaps contemporary with the creation of Pavement 3. The surface design of Pavement 3 is striking: potsherds were used to create leaf-shaped patterns pressed into the stones making up the rest of the floor. It was at this stage that, faced with the end of the current field season, we resolved that we should continue excavation in 2014.

The Pottery Assemblage

The ceramic assemblage from this trench, consisting of 829 sherds, has been subjected to a preliminary study. Of these, 229 sherds can be discounted as they issue from entire vessels, which will be refitted and treated separately. These arise in Context 8 (192 sherds decorated with a folded strip roulette), Context 26 (25 sherds, undecorated), and Context 28 (11 sherds, undecorated). There was also a single, burnished, worked sherd from Context 8, which we similarly discount here.

Of the remainder 600 sherds, (Table 1), we can observe the following. Decorated sherds account for between 50 and 80% of the material within levels, with no clear pattern from layer to layer. Globally, folded strip rouletting, which results from the use of a roulette made of one or more strips of flat-sectioned materials folded into an accordion shape, is the most common decoration and is consistent throughout contexts. Pierced potsherds (*couscoussière*) are quite common in the top of the stratigraphy, less so after context 9. We plan to continue the analysis of this material in parallel with that from the other test pits excavated in the course of the *Crossroads of Empires* project.

Conclusion

Security permitting we intend to return to Tin Tin Kanza in January 2014, which should allow us to reach a much better understanding of this

	Cont. 1	Cont. 2	Cont. 3	Cont. 4	Cont. 5	Cont. 7	Cont. 8	Cont. 9	Cont. 11	Cont. 12	Cont. 13	Cont. 24	Cont. 25	Cont. 26	Cont. 29	Totals
UNDEC																
Couscous	2	5	3	3	0	3	0	2	0	0	0	1	0	0	0	19
Carinated	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Rims	12	2	0	2	0	0	0	1	3	0	0	0	2	0	0	22
Body sherds	54	26	10	0	6	6	8	4	10	0	10	8	0	0	0	142
BOT	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
<i>Total Undec</i>	69	33	13	5	6	9	8	7	14	0	11	9	2	0	0	186
DECORATED																
Rim, FSR	0	1	0	0	0	4	0	0	3	0	0	2	0	1	0	11
Rim, channel	0	0	4	0	0	0	0	0	0	1	0	0	0	2	0	7
Rim, braided cord	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Rim, burnished	0	0	5	0	0	0	0	0	1	0	0	2	0	2	0	10
Rim, incised	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	4
Body, FSR	46	24	27	16	8	10	7	7	24	0	13	27	13	9	30	261
Body, incised	5	0	1	0	1	3	1	2	0	0	0	1	0	0	0	14
Body, burnished	10	4	11	2	0	4	1	0	3	0	0	4	0	4	11	54
Body, channel	2	6	0	0	1	0	7	0	4	0	2	4	2	0	6	34
Body, channel + FSR	0	0	2	0	1	0	0	0	0	0	0	0	0	0	1	4
Body, incision + FSR	4	0	0	0	0	0	0	0	6	0	0	0	0	0	0	10
Body, ONE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Body, slip	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	3
<i>Total Dec</i>	69	36	51	18	11	21	16	10	42	2	15	42	15	18	48	414
TOTAL	138	69	64	23	17	30	24	17	56	2	26	51	17	18	48	600

Table 1: Detail of pottery recovered from Tin Tin Kanza Trench II. All contexts that included material large enough for analysis (sherds of a diameter above a 25cfa coin) are included here. Detail of contexts which did not feature any material: Context 6 – red floor; Context 10 – pottery pavement; Contexts 14, 16, 18, 20, 22 – postholes; Contexts 15, 17, 19, 21, 23 – posthole fills (of contexts 14, 16, 18, 20 and 22 respectively); Context 27 – cut of floor; Context 28 – hearth fill. Complete vessels are not included in the totals above. They comprise fragmented vessels in contexts 8, 26 and 28, as discussed in the text. FSR = folded strip roulette. ONE = one-fibre strip. BOT=bottle neck. Decoration terminologies follow Livingstone Smith et al. 2010.

complex site. Future excavation, involving sectioning the wall stump and Pavement 3, will for example confirm the relationship between wall and the pavement. One obvious question is how far the sequence will extend, and what was the initial date of settlement of the site; as a reminder, our three current radiocarbon dates, reported above, span the very late ninth to the very early 13th centuries. At a first assessment, Tin Tin Kanza seems to share similarities with sites of the Kainji area some 200km downstream (Nzewunwa 1983: 42-43) and thus may hold a unique promise for an archaeological understanding of West African pavement cultures. There is also a question of archaeological mitigation: we learnt in April 2013 – just six weeks after our excavations there – from Mardjoua Barpougouni, an MA student associated with our project and carrying out follow-up investigations in the region, that widening of the Birnin Lafiya-Pékinga track directly threatened the site.

Bibliography

Gosselain, O.

2012 *Mission au Dendi 2012*. Unpublished field report.

Hambolu, M.O.

1996 Recent excavations along the Yobe Valley. In *Vorträge, Internationales Symposium SFB 268*, Frankfurt am Main, 13.12-16.12. Volume 2: 215-229.

Haour, A., O. Banni Guéné, O. Gosselain, A. Livingstone Smith and D. N'Dah

2011 Survey along the Niger River Valley at the Bénin-Niger Border, Winter 2011. *Nyame*

Akuma 76: 23-32.

Livingstone Smith, A., O. Gosselain, A. Mayor, A. and S. Ndèye Guèye

2010 Roulettes in sub-Saharan Africa today. In Anne Haour, K. Manning, N. Arazi and O. Gosselain, editors, *African Pottery Roulettes Past and Present: Techniques, Identification and Distribution*. Oxford: Oxbow, pp. 1-90.

Nilirmi, N.S.

2008 The archaeology of slavery: A study of Kassana, Upper West region, Ghana. In T. Insoll, editor, *Current Archaeological Research in Ghana*. Oxford: BAR International Series 1847, pp. 103-115.

Nixon, S., and A. Haour

2012 *Potsherd Pavements and Associated Structures From First and Second Millennium AD Sites in Northern Benin*. Presentation to African Archaeological Research Days, University of Southampton UK, 3rd – 4th November 2012.

Nzewunwa, N.

1983 *A Sourcebook for Nigerian Archaeology*. Lagos: National Commission for Museums and Monuments.

Togola, T.

2008 *Archaeological Investigations of Iron Age*

Sites in the Mema Region, Mali (West Africa), Cambridge Monographs in African Archaeology 73. Oxford: BAR International Series 1736.

Footnotes

¹ (ERC Independent Starter Grant # 263747)

Wendt, P.K.

2007 *Gajiganna: Analysis of Stratigraphies and Pottery of a Final Stone Age Culture of Northeast Nigeria*, Journal of African Archaeology Monograph Series, Vol. 1. Frankfurt a. M.: Magna Verlag.