

The settlement mound of Birnin Lafiya, Republic of Benin: new evidence from the eastern arc of the Niger River, c. fourth to thirteenth centuries AD

A. Haour¹, S. Nixon¹, D. N'Dah², C. Magnavita³ & A. Livingstone Smith^{4, 5, 6}

¹ *Sainsbury Research Unit for the Arts of Africa, Oceania and the Americas, University of East Anglia, Norwich NR4 7TJ, UK (Email: A.Haour@uea.ac.uk)*

² *Université d'Abomey Calavi, 01 Bp 526 Cotonou, Republic of Benin*

³ *Archaeoscan – Geophysical Prospecting, Altkönigblick 83, 60437, Frankfurt, Germany*

⁴ *Royal Museum for Central Africa, Leuvensesteenweg 13, 3080 Tervuren, Belgium*

⁵ *Centre de Recherches en Archéologie et Patrimoine, Université libre de Bruxelles, CP 133/01, Avenue F.D. Roosevelt, 50, B-1050 Brussels, Belgium*

⁶ *School of Geography, Archaeology and Environmental Studies, University of Witwatersrand, Johannesburg 2001, South Africa*

The development of complex social organisation and trade networks during the first and second millennia AD in the Sahel region of West Africa has long been hampered by a paucity of reliable data. Investigations at Birnin Lafiya, a large settlement mound of this period on the eastern arc of the Niger River, help to fill this gap. The site can now be placed within its broader landscape, and discoveries of early mud architecture, circular structures, human burial remains, personal ornamentation and striking potsherd pavements can be contrasted with contemporary sites both within the inland Niger region and at Ife to the south.

Keywords: Niger, fourth–thirteenth centuries AD, settlement mound, potsherd pavement, trade networks, social organisation

Table 1. Dates from Birnin Lafiya site (total = 41), sorted by age. Charcoal determinations by Barbara Eichhorn, Goethe Universität Frankfurt. In bold: shown on Figures 9 and 10. The Ox-A dates, as well as Beta-320517 and Beta-305218, are from the architectural complex, Unit 10. In the table above, Phase 2 = AD 0–500, Phase 3 = AD 500–1000, and Phase 4 = AD 1000–1400. Occupations from Phases 1 (pre 0) and 5 (post AD 1400) were documented elsewhere in Dendi, but not at Birnin Lafiya. All dates calibrated using OxCal 4.2, Curve IntCal13 (Bronk Ramsey 2009; Reimer *et al.* 2013).

Sample #	BP	Context	Cal AD	Phase
Beta-305218	740±40	Unit 2, Context 2. Possible posthole. Direct association with a pavement.	1215–1301 (92.6), 1368–1382 (2.8)	4
OxA-29894	781±24	Unit 10, Room 2, Sample taken from underneath pottery cluster #4. <i>Dalbergia melanoxylon</i>	1218–1275	4
OxA-29888	819±24	Unit 10, Context 30. Direct association with pavement. Charred botanical tissue.	1170–1263	4
OxA-29890	819±24	Unit 10, Context 4. <i>Sapotaceae vitellaria par</i>	1170–1263	4
OxA-29896	840±24	Unit 10, Context 8. Direct association with pavement. <i>Anogeissus leiocarpus</i> .	1161–1256	4
OxA-29891	843±23	Unit 10, Context 4, Room 1. Direct association with pavement. <i>Sapotaceae vitellaria par</i> .	1160–1255	4
Beta-360211	850±30	Unit 9, Context 7	1052–1080 (5.2), 1152–1260 (90.2)	4
Beta-321055	850±30	Unit 6, Context C 3	1052–1080 (5.2), 1152–1260 (90.2)	4
OxA-29886	862±22	Unit 3, Context 6. Direct association with pavement. <i>Anogeissus leiocarpus</i> .	1052–1080 (5), 1152–1225 (89.1), 1233–1244 (1.2)	4
OxA-29893	869±24	Unit 10, Room 2. Sample taken from underneath pottery cluster #1. Charred plant tissue.	1048–1085 (11.6), 1123–1138 (2.3), 1149–1224 (81.5)	4
Beta-360210	880±30	Unit 9, Context 3, 45-60cm	1042–1105 (27), 1117–1222 (68.4)	4
Beta-320517	880±30	Unit 3, Context 9. Direct association with pavement.	1042–1105 (27), 1117–1222 (68.4)	4
OxA-29889	887±23	Unit 10, Context 4, Room 1. Sample taken from underneath pottery cluster #3. <i>Pterocarpus sp.</i>	1045–1095 (30.3), 1119–1217 (65.1)	4
Beta-412222	890±30	Unit 11, Context 1	1041–1108 (35.9), 1116–1218 (59.5)	4
Beta-320521	900±30	Unit 5, 60-70cm	1039–1210	4
OxA-29895	906±23	Unit 10, Context 8. Direct association with pavement. <i>Rubiaceae, Mitragyna iner.</i>	1038–1189	4
OxA-29897	908±22	Unit 10, Context 8. Direct association with pavement. <i>Anogeissus leiocarpus</i> .	1038–1185	4
OxA-29887	910±23	Unit 3, Context 8. Direct association with	1036–1185	4

SUPPLEMENTARY MATERIAL

		pavement. <i>Anogeissus leiocarpus</i> .		
Beta- 320522	920±30	Unit 5, 110-120cm.	1028–1184	4
Beta-412223	920±30	Unit 11, Context 3. Sapotaceae Vitellaria Pottery pavement and large iron implement	1028–1184	4
OxA-29892	921±23	Unit 10, Room 2. Direct association with pavement. <i>Sapotaceae vitellaria</i> .	1034–1163	4
Beta-360212	1080±30	Unit 9, Context 8	894–930 (27.2), 938–1018 (68.2)	3
Beta-360213	1110±30	Unit 9, Context 8	879–1013	3
Beta-321056	1160±30	Unit 6, Context 6	773–906 (71.8), 916–968 (23.6)	3
Beta-320519	1210±30	Unit 4, South profile, Pit 5, at the base of which were two stacked ceramic vessels	695–700 (0.6), 710–745 (10.8), 764–891 (83.9)	3
Beta-411139	1210±30	Unit 13, Context 14, a likely pit feature	695–700 (0.6), 710–745 (10.8), 764–891 (83.9)	3
Beta- 305219	1260±30	Unit 1, 120cm BD	669–779 (85.3), 791–829 (5.9), 838–865 (4.2)	3
Beta-360216	1270±30	Unit 9, Context 16	663–778 (92.3), 792–804 (1.3), 819–821 (0.2), 842–859 (1.6)	3
Beta- 321054	1270±30	Unit 7, square B	663–778 (92.3), 792–804 (1.3), 819–821 (0.2), 842–859 (1.6)	3
Beta-305221	1300±30	Unit 1, 25-50cm	660–731 (64.4), 736–770 (31)	3
Beta-411141	1300±30	Unit 13, Context 19	660–731 (64.4), 736–770 (31)	3
Beta-411140	1320±30	Unit 13, Context 14	652–723 (73), 740–768 (22.4)	3
Beta-305217	1350±30	Unit 1, 125cm BD	637–714 (88.5), 744–765 (6.9)	3
Beta-360215	1390±30	Unit 9, Context 13	602–674	3
Beta- 305220	1420±30	Unit 1, 75-100cm	582–661	3
Beta-412224	1460±30	Unit 11, Context 18. Anogeissus	553–648	3
Beta-320520	1540±30	Unit 4, Pit 9, a well-sealed pit	426–588	2-3
Beta-345492	1560±30	Unit 11, Context 23 (taken inside human cranium)	420–565	2-3
Beta-360214	1620±30	Unit 9, Context 13, associated with fragmented vessel	382–539	2
Beta-345491	1620±30	Unit 8, Context 4	382–539	2
Beta- 320518	1650±30	Unit 4, West profile, Pit 4.	264–274 (1.1), 330–433 (85.3), 461–466 (0.5), 489–533 (8.5)	2

References

BRONK RAMSEY, C. 2009. Bayesian analysis of radiocarbon dates. *Radiocarbon* 51: 337–60.

REIMER, P.J., E. BARD, A. BAYLISS, J.W. BECK, P.G. BLACKWELL, C. BRONK RAMSEY, P.M. GROOTES, T.P. GUILDERSON, H. HAFLIDASON, I. HAJDAS, C. HATTÉ, T.J. HEATON, D.L. HOFFMANN, A.G. HOGG, K.A. HUGHEN, K.F. KAISER, B. KROMER, S.W. MANNING, M. NIU, R.W. REIMER, D.A. RICHARDS, E.M. SCOTT, J.R. SOUTHON, R.A. STAFF, C.S.M. TURNEY & J. VAN DER PLICHT. 2013. IntCal13 and Marine13 radiocarbon age calibration curves 0–50,000 years cal BP. *Radiocarbon* 55: 1869–87. http://dx.doi.org/10.2458/azu_js_rc.55.16947