



Chemical analysis, chronology, and context of a European glass bead assemblage from Garumele, Niger



Peter Robertshaw^{a,*}, Marilee Wood^{b,c}, Anne Haour^d, Karlis Karklins^e, Hector Neff^f

^a Department of Anthropology, California State University, San Bernardino, 5500 University Parkway, San Bernardino, CA 92407-2397, USA

^b School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand, South Africa

^c 126 Madrona Drive, Friday Harbor, WA 98250, USA

^d Sainsbury Research Unit, University of East Anglia, Norwich Research Park, Norwich NR4 7TJ, United Kingdom

^e Society of Bead Researchers, Ottawa, Canada

^f Institute for Integrated Research in Materials, Environments and Society, California State University, Long Beach, 1250 Bellflower Blvd., Long Beach, CA 90840-1003, USA

ARTICLE INFO

Article history:

Received 31 December 2012

Received in revised form

21 August 2013

Accepted 31 August 2013

Keywords:

Laser ablation

ICP-MS

Glass

Beads

Garumele

Niger

Artifact sourcing

Provenance

ABSTRACT

Garumele, also known as Wudi, in the Republic of Niger, is reputed to have been a capital of the Kanem–Borno ‘empire’ and was visited by various European travelers in the 19th century. However, despite historical documents and a few radiocarbon dates, its date of settlement and occupation remain unclear. Forty-four of a morphologically very varied assemblage of 106 glass beads recovered during excavations were chemically analyzed using LA-ICP-MS. There were two main objectives for these analyses: first, to clarify the chronology of occupation, and secondly to gain an insight into the nature and extent of the connections of its inhabitants with the wider world. Comparisons with both the chemistry and morphology of other published bead assemblages indicate that all the beads are of European origin, probably Venetian and/or Dutch, and that most belong to the later 17th or 18th centuries.

© 2013 Elsevier Ltd. All rights reserved.

1. Introduction

In the last decade or so, remarkable progress has been made in the morphological analysis of ancient glass beads (e.g. Wood, 2012) and in the application of minimally-destructive LA-ICP-MS analysis to glass beads found in Africa (e.g. Robertshaw et al., 2010). As a result of this and other work, there is available a corpus of morphological and chemical data that can be used for comparisons with newly acquired results. Thus, glass bead analysis can shed light on problems in African archaeology and history. In this case we report results that not only add to the corpus of available data but also clarify the date of occupation and extent of long-distance connections of the site of Garumele in the Republic of Niger, a site reputed to have been a capital of the Kanem–Borno ‘empire’

and a place visited by several European explorers in the 19th century.

1.1. The site

When Heinrich Barth passed by Wudi in September 1851, the deserted state of the site plunged him “into sad reflections on the fate of this once splendid empire of Kanem”; the place, “an occasional residence of the Borno kings”, was at the time of Barth’s visit marked by just a few date palms (Barth, 1857: II: 261). This abandoned settlement is now known as Garumele, in the Republic of Niger (Fig. 1), and it has been a subject of discussion and speculation ever since Barth’s time, occupying a prominent position in oral traditions relating to the Kanem–Borno ‘empire’ (see e.g. Bivar and Shinnie, 1962; Gronenborn, 2001a; Magnavita et al., 2009).

Characterized by the remains of fired-brick enclosures and a three-kilometer long surrounding wall of unfired bricks, Garumele is said to have served as a capital for Kanem–Borno sometime before the foundation of Birnin Gazargamo in the last third of the 15th century (Landeroin, 1910–1911: 354–356, 387). Its occupation

* Corresponding author. Tel.: +1 909 537 5551; fax: +1 909 537 7645.

E-mail addresses: proberts@csusb.edu (P. Robertshaw), mwood@rockisland.com (M. Wood), a.haour@uea.ac.uk (A. Haour), karlis4444@gmail.com (K. Karklins), hneff@csulb.edu (H. Neff).



Fig. 1. The location of Garumele and sites mentioned in the text.

as a Kanem–Borno capital has been suggested to fall as early as the 13th century by Gronenborn (2001a: 106). At the same time, Garumele, under its name Wudi, appeared to retain some importance up to the early 19th century. Denham & Clapperton (Clapperton et al., 1826) spent several days at the site awaiting a caravan to take them back across the Sahara to Tripoli, since Garumele seems to have been naturally situated at the southerly end of a trans-Saharan route. Recently Magnavita et al. (2009: 223), while agreeing with a likely earlier date (mid-second millennium) for the settlement of Garumele/Wudi, have pointed out that it “does not seem to have lost its appeal as an alternative royal residence until the early nineteenth century”.

Archaeology has now been able to shed some light on the date and nature of the settlement's occupation. A field season in 2005 directed, by Anne Haour and Boubé Gado, involved the mapping of the walling and numerous mounds at the site and the excavation of one mound which was chosen for its potential for offering an undisturbed stratigraphy on this site that had been heavily mined for

building materials in the early 20th century. The excavation yielded charcoal samples, abundant animal bone, beads, spindle whorls, grinding stones, fired brick, shell and iron artefacts, and over sixty kilos of pottery. The contents, and the stratigraphy of gently sloping layers made up of ashy sand and domestic refuse, with no living structures or burials, suggest this mound was a midden. The excavation methodology has been described elsewhere (Haour, 2008; Haour and Gado, 2009) and will only briefly be reported here. Natural ground, sterile yellowish brown sand, was reached at a depth of just over three meters. It was not possible to excavate following natural levels, given the sandy nature of the sediments, bleached by sun; instead, five contexts, determined by global changes in the nature of the soil matrix as work progressed, were defined. Layers were, however, clearly visible in section, indicating the integrity of the stratigraphy, as does the fact that conjoining fragments of pottery identified during analysis always belonged to the same context. During excavation, spatial control was maintained vertically through the use of a theodolite, and horizontally

Download English Version:

<https://daneshyari.com/en/article/7444051>

Download Persian Version:

<https://daneshyari.com/article/7444051>

[Daneshyari.com](https://daneshyari.com)