



Contents lists available at ScienceDirect

Quaternary International

journal homepage: www.elsevier.com/locate/quaint

Bone hoes from the Middle Iron Age, Limpopo Province, South Africa

Justin Bradfield ^{a, b, *}, Annie R. Antonites ^c^a Evolutionary Studies Institute, University of the Witwatersrand, Johannesburg 2050, South Africa^b School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand, Johannesburg 2050, South Africa^c Department of Anthropology and Archaeology, University of South Africa, Pretoria, South Africa

ARTICLE INFO

Article history:

Received 13 January 2017

Received in revised form

10 July 2017

Accepted 26 October 2017

Available online 4 November 2017

Keywords:

South Africa

Iron Age

Limpopo Valley

Scapula hoes

Agricultural implements

Farming communities

Worked bone

Use-traces

ABSTRACT

This paper presents the first recognised evidence of bone hoes in South Africa. Two bovine scapulae and a portion of a long bone show use-trace evidence that supports our interpretation as ground-working implements. The scapulae were probably hafted onto wooden handles using a combination of plant fibres and sinew, whereas the tool made from the long bone appears not to have been hafted. Bone hoes represent a short-lived technological innovation, although the reasons to account for this remain speculative. The recognition of these agricultural implements poses interesting questions about the extent and variety of bone working among Iron Age agriculturalists in the Limpopo Valley during the 10th – 13th centuries AD, and potentially also about the nature of women's work in these communities.

© 2017 Elsevier Ltd and INQUA. All rights reserved.

1. Introduction

Bone tools made from animal scapulae (shoulder blades) are found among pre-industrial societies in most parts of the world (see Griffiths, 2006; Xie, 2014). Various interpretations have been proffered for these tools, but most agree that they were used for moving earth. The precise function ranges from construction tools for digging trenches and pits (e.g. Curwin, 1926, 1937; Griffiths, 2006) to agricultural implements (e.g. Strong, 1933; Bell and Cross, 1980; Griffiths, 2006; Xie, 2014). Among the Plains Indians of the central United States for instance, bison scapulae were used in historic times for cultivating small garden crops like maize, beans and squash (Strong, 1933; Bell and Cross, 1980). Although perhaps less widely used for this purpose than wood, stone and metal implements (Xie, 2014), scapulae have a high tensile strength making them ideal for heavy-duty work such as digging, and thus more economical than their stone and metal counterparts in terms of manufacturing time (Griffiths, 2006; Xie, 2014).

In southern Africa broad-blade, spatula-shaped bone tools have

been recovered from numerous sites along the South Coast (Meiring, 1952). Where recovered *in situ* these tools have been placed within the Final Later Stone Age technocomplex; roughly the last 4000 years (Meiring, 1952; cf. Lombard et al., 2012). These tools are made from ribs or slivers of long bone and the edges ground into shape against an abrasive surface (Meiring, 1952). No proper use-trace studies of these artefacts have been conducted yet, and their precise function remains elusive. Proffered interpretations range from shell fish scoops, melon knives for shredding vegetables, meat mattocks, and skin scrapers (Clark, 1959) to hand adzes for wood working (Meiring, 1952). Further inland three similar tools, two of which are fashioned from bovine scapulae, have been recovered from Iron Age contexts dating between c. 1000 CE - 1250 CE in the Limpopo River Valley.¹ Voigt (1983: 110) previously described one of these tools from K2 as a meat mattock for the preparation of skins, based on the extensive visible polish covering the artefact surface. The other two artefacts, one made from a scapula and the other from a piece of a large bovid

* Corresponding author. Evolutionary Studies Institute, University of the Witwatersrand, Johannesburg 2050, South Africa.

E-mail address: jbradfield8@gmail.com (J. Bradfield).

¹ It is possible that more bone hoe-like objects exist but have not been recognised as tools. Voigt (1983) describes two other similarly-shaped tools from K2, one of which she interpreted as a chopping board. Neither tool could be located for analysis here.

long bone, derive from the roughly contemporaneous site of Pont Drift (Fig. 1).

Bone working is not unusual among Iron Age communities of this region (Hanisch, 1980; Voigt, 1983; Antonites et al., 2016). K2 and the nearby 13th century capital of Mapungubwe have well developed bone-working traditions, yet the function of spatula-shaped tools remains poorly understood (Voigt, 1983). Understanding what these tools were used for may shed light on the diversity of bone tool technology among Bantu-speaking agriculturalists in the Limpopo Valley during this period. The aim of the present paper is to formally describe the use-trace features of three tools found at K2 and Pont Drift. The extensive use-wear on these artefacts, which are unique to the South African Iron Age, warrants closer scrutiny into their precise function.

2. Background

The bone implements described here come from two roughly

contemporaneous settlements in South Africa's middle Limpopo Valley – K2 and Pont Drift (Fig. 1). The area is best known for the emergence of class distinction and political centralisation in the 13th century AD (Huffman, 2000, 2007). K2 was a large 'elite' settlement that asserted socio-political and economic influence over a wide region (c. 1000 CE – 1200 CE, 'K2 period'). Intermittent excavations between the 1930s and 1990s revealed several household areas and domestic middens surrounding a large central animal enclosure and communal midden. The K2 inhabitants kept livestock (cattle, sheep and goats), cultivated sorghum, millet and legumes in the floodplain, and occasionally hunted and gathered wild resources. They manufactured a range of crafts and traded ivory and other raw materials for glass beads with Arab traders on the East African coast (Huffman, 2007; Gardner, 1963; Meyer, 1998; Miller, 2001; Voigt, 1983). Sometime during the early 'Transitional K2 period' (1200 CE – 1250 CE), K2 was abandoned and its community relocated to the nearby site of Mapungubwe Hill – a move marked by the physical separation between elites and commoners

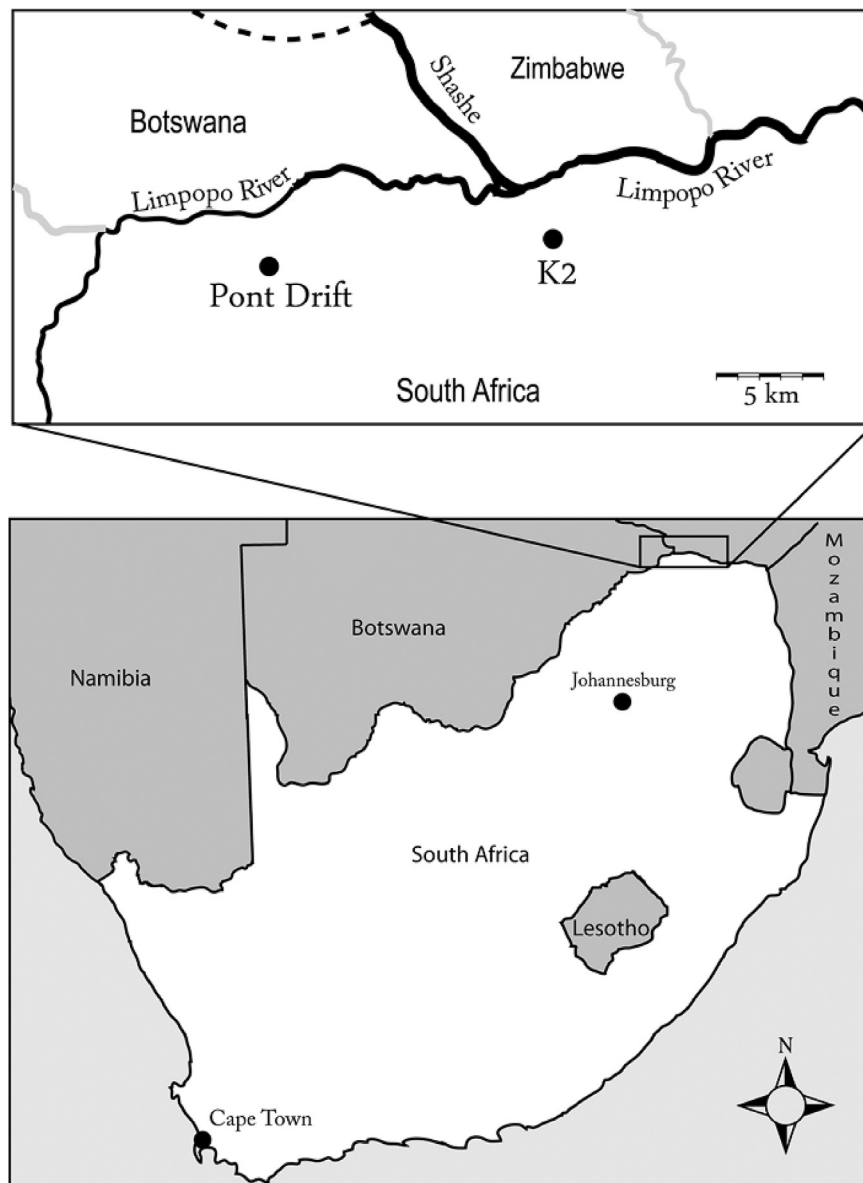


Fig. 1. Map showing the geographical region of the study area.

Download English Version:

<https://daneshyari.com/en/article/7450008>

Download Persian Version:

<https://daneshyari.com/article/7450008>

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