Quaternary International xxx (2017) 1–20

Contents lists available at ScienceDirect

Quaternary International

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

Taphonomy of old archaeofaunal collections: New site-formation and subsistence data for the Late Paleolithic Nile Valley

Reuven Yeshurun

Zinman Institute of Archaeology, University of Haifa, Mt. Carmel, Haifa 3498838, Israel

ARTICLE INFO

Article history:
Received 3 October 2016
Received in revised form
1 June 2017
Accepted 14 June 2017
Available online xxx

Keywords:
Late Paleolithic
Nile Valley
Zooarchaeology
Taphonomy
Kom Ombo
Wadi Halfa

ABSTRACT

Archaeofaunal remains play an important role in the studies of Late Pleistocene human adaptations in Africa. Salvage excavations and surveys along the Nile Valley, in the Kom Ombo Plain (Upper Egypt) and opposite Wadi Halfa (northern Sudan), respectively conducted in the 1960s by Yale and the University of Colorado produced several Late Paleolithic (ca. 22.5–14.5 years BP) faunal assemblages which have never been published. Here I present a comprehensive taphonomic and zooarchaeological analysis of the faunal assemblages, with the aim of, first, understanding their integrity through identifying the depositional, post-depositional and collection biases and, second, characterizing the latest Pleistocene animal economy in the Nile Valley. The faunal assemblages come from both surveys and controlled excavations and in most cases the collections appeared to have been fully retained. The excavated remains were deposited in thin horizons representing small camps, associated with diverse lithic assemblages and sometimes hearth features. In one case the fauna originates from a large cemetery (the 6B36 site, opposite Wadi Halfa). Taphonomic criteria indicate that the faunas are anthropogenic and attest to consumption of predominantly medium and large ungulates as well as hippopotamus. The preservation of the material is variable and was chiefly affected by dispersal processes and the pace of burial. The assemblages' characteristics and their context suggest non-intensified animal exploitation and consequently low site-occupation intensity in the Nile Valley during the latest Pleistocene.

1. Introduction

The study or re-study of "old" archaeofaunal collections may be useful to solve key research questions, especially when the remains originate from important localities that had been destroyed or are currently inaccessible. Moreover, careful taphonomic study may shed light on site-formation processes and the (often unknown) integrity of collection and retention of these remains. During the early 1960s, several faunal assemblages were collected in a series of salvage excavations and surveys of Late Paleolithic (ca. 22.5–14.5 years BP) sites in the Nile Valley (Fig. 1). The collection took place in the Kom Ombo Plain (southern Egypt) by a Yale University expedition led by Charles Reed (Reed, 1965; Reed and Turnbull, 1969; Reed et al., n.d.), and opposite Wadi Halfa (northern Sudan) by a University of Colorado expedition led by Gordon Hewes (Irwin et al., 1968; Saxe, 1971). The Paleolithic sites were destroyed shortly after their investigation as a result of the construction of the Aswan High Dam and the archaeofaunas from the Yale and Colorado expeditions were never published in any detail. Systematic paleontology of the parallel collections, of the Canadian Expedition to Nubia (directed by P.E.L. Smith) in the Kom Ombo Plain and the Combined Prehistoric Expedition to Nubia (directed by F. Wendorf) in the Wadi Halfa region, were published (Churcher, 1972 and Gautier, 1968, respectively), providing a valuable taxonomic overview. These results have been repeatedly cited in support of the existence of a Late Paleolithic adaptation to a "Nilotic" environment, including the hunting of aurochs (*Bos primigenius*) and hartebeest (*Alcelaphus buselaphus*) in the grassland and woodland near the river; the occasional procurement of desert animals, such as Dorcas gazelle (*Gazella dorcas*) and wild ass (*Equus africanus*) in the hyper-arid areas surrounding the valley; and seasonal fishing and fowling in the Nile's floodplain (Churcher, 1972; Connor and Marks, 1986; Paulissen and Vermeersch, 1987; Peters, 1990; Phillips, 1994; Linseele and Van Neer, 2009; Schild and Wendorf, 2010). However, taphonomic, economic and social aspects of the Kom Ombo and the Wadi Halfa region faunas were not studied, and so their anthropogenic origin is assumed rather than

E-mail address: ryeshuru@research.haifa.ac.il.

http://dx.doi.org/10.1016/j.quaint.2017.06.027
1040-6182/

Fig. 1. Location map showing the study sites.

demonstrated; the hunting, consumption and carcass transport patterns, as well as the intensity of attrition processes is unknown; little is known of their context and collection method; and quantitative data are lacking for placing these faunas in their regional and temporal perspective.

The study of late Pleistocene archaeofaunal remains in northeast Africa is crucial for the documentation of key human adaptations and migrations (e.g., Van Peer, 2004; Steele, 2012; Goder-Goldberger, 2013) and for establishing the base-line of human-animal interaction prior to the arrival of domesticates in Africa (e.g., Close and Wendorf, 1992; Garcea, 2006; Marshall and Weissbrod, 2011; Linseele, 2013). Moreover, the integration of late Pleistocene archaeofaunas from northeast Africa in the general methodological and theoretical scheme of circum-Mediterranean research, engaged in perspectives of human ecology and demography (e.g., Stiner et al., 1999; Munro and Atici, 2009; Stiner and Munro, 2011), still needs to be made. Extracting detailed information of the excavated remains is therefore warranted.

Given that the sites no longer exist, the faunal remains (and other archaeological materials) are the only evidence left, and thus have significant potential for shedding light on their formation and ancient use, as well as illuminating the excavation histories. I aim to show how the application of taphonomic techniques can shed new light on the archaeology of sites excavated long ago, sometimes with inadequate documentation or unclear site-formation conditions. I present the results of a comprehensive taphonomic and

Please cite this article in press as: Yeshurun, R., Taphonomy of old archaeofaunal collections: New site-formation and subsistence data for the Late Paleolithic Nile Valley, Quaternary International (2017), http://dx.doi.org/10.1016/j.quaint.2017.06.027