



Contents lists available at ScienceDirect

Quaternary International

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

Early Epipaleolithic lithics, time-averaging, and site interpretations: Wadi al-Hasa region, Western Highlands of Jordan



Maysoon al-Nahar ^{a, *}, Deborah I. Olszewski ^b

^a Faculty of Archaeology and Tourism, University of Jordan, Amman, 11942, Jordan

^b Department of Anthropology, Penn Museum, 3260 South Street, University of Pennsylvania, Philadelphia, PA 19104, USA

ARTICLE INFO

Article history:

Available online 11 September 2015

Keywords:

Early Epipaleolithic
Levant
Lithics
Time-averaging
Persistent places
Jordan

ABSTRACT

The lithic assemblages from the Wadi al-Hasa region Early Epipaleolithic site occupations reveal long-term patterning as well as distinctions. These assemblages are records of time-averaged deposition of multiple activities in these persistent places in the landscape. In this paper we examine the characteristics of the lithic assemblages from the rockshelters at Tor Sageer, Yutil al-Hasa, and KPS-75, as well as the open-air context in front of the rockshelter at KPS-75 and the open-air site at Tor at-Tareeq. There are several cross-cutting variables that can be considered, including exterior versus interior spaces, temporal slices within the Early Epipaleolithic (e.g., Nebekian and Qalkhan), and the issues of time-averaging. A number of lithic measures often are used in these contexts to examine concepts such as the relative mobility of prehistoric hunter–gatherer–forager groups (e.g., blank-to-core ratios, lithic densities, and stone raw materials) and thus their settlement systems, although these measures can produce contradictory results. We argue instead that lithic assemblages (“occupations”) that are the result of accumulations in site layers must be assessed using the framework of time-averaging because such accumulations are not a record of an individual event but of long-term deposition and discard at locales in the landscape. The Hasa region Early Epipaleolithic site occupations are not unique in being such accumulations, as most researchers combine the lithics from layers to form analytical units. In this regard, consideration of time-averaging should be applied more broadly to Levantine site occupation lithic assemblages and their interpretation(s).

© 2015 Elsevier Ltd and INQUA. All rights reserved.

1. Introduction

Although known about from occasional research projects since the late 1930s, investigations into the Early Epipaleolithic in the Eastern Levant began in earnest in the 1970s when surveys and excavations in several areas of Jordan identified and tested sites of this time range (Olszewski, 2008). However, it has been only more recently, primarily beginning in the mid-1980s, that sites of this temporal period have served as the direct focus of research projects and that considerable data about this period has been amassed.

The Epipaleolithic period itself is defined typologically by the appearance of backed microliths; these most often dominate the retouched tool component (Bar-Yosef, 1970, 1989; Goring-Morris, 1987, 1995; Donaldson, 1991). The lithic industries that comprise

it have been divided either (1) according to time (e.g., Early, Middle and Late Epipaleolithic) (Moore, 1985; Garrard et al., 1988) or (2) according to a combination of time and geography (Bar-Yosef, 1981, 1989; Henry, 1983; Goring-Morris, 1995). For the Early Epipaleolithic (24,000–17,400 cal BP; see Byrd and Garrard, 2013: 367), there are four widely accepted lithic industries that are present in the Eastern Levant (the geographic area of interest in this paper): Kebaran, Nebekian, Qalkhan, and Nizzanan, which, along with lithic differences, incorporate temporal and geographical distinctions. An initial proposal for a fifth industry, the Madamaghan (Henry, 1986, 1989), within the Early Epipaleolithic framework, is no longer widely accepted (Olszewski, 2006).

1.1. Kebaran

The Kebaran, which dates between 22,500 and 17,400 cal BP (Byrd and Garrard, 2013: 353), is found mainly in the western Levant, that is, west of the Rift Valley. However, there are instances of the Kebaran in the eastern Levant, at sites in the Wadi Hammeh

* Corresponding author.

E-mail addresses: maysnahar@gmail.com (M. al-Nahar), deboraho@sas.upenn.edu (D.I. Olszewski).

(Edwards et al., 1996), and at Kharaneh IV (Maher et al., 2012; Maher and Macdonald, 2013) and 'Ayn Qasiyya (Richter, 2011) in the Azraq Basin. A number of regional sub-groups were recognized on the basis of various nongeometric microlith combinations (Bar-Yosef, 1970, 1981; Hours, 1973). Generally speaking, Kebaran industries have little to no use of microburin technique, and are characterized by micro-points, curved backed bladelets, and microgravettes. In some instances, microliths are relatively narrow in width, while in others, they are much wider. Later in the Kebaran, there are more obliquely truncated backed bladelets, along with curved backed bladelets (Bar-Yosef, 1987; Byrd, 1994).

1.2. Nebekian

The Nebekian is dated to 24,000–21,300 cal BP (Byrd and Garrard, 2013: 374). It thus overlaps to some degree chronologically with the Kebaran. However, the spatial distribution of the Nebekian is east of the Rift Valley (Goring-Morris, 1995), and it is often identified as a steppe adaptation as a result of its location in this phytogeographic zone. Nebekian microliths are dominated by narrow, curved-pointed/arched backed bladelets (Byrd and Garrard, 2013: 374–380). There also are some instances of obliquely truncated bladelets. Unlike the Kebaran, Nebekian assemblages feature relatively prominent use of the microburin technique to manufacture microliths.

1.3. Qalkhan

The Qalkhan complex was originally recognized, defined, and named by Henry (1995), on the basis of tests at three rockshelter sites in the Wadi Humeima in southern Jordan. However, these excavations did not yield materials for dating. Instead, a series of radiocarbon dates from sites in the Azraq Basin indicates that the Qalkhan falls into the interval between 21,300 and 19,700 cal BP (Byrd and Garrard, 2013: 380). The Qalkhan thus postdates the Kebaran and the Nebekian, and like the Nebekian, the Qalkhan is found east of the Rift Valley. Byrd and Garrard (2013: 380) argue that the assemblages from southern Jordan used by Henry to define the Qalkhan are mixed, thus in this paper, we follow the definition as presented for the Azraq region. In the Azraq region, Qalkhan assemblages are characterized by wider microliths, which include double truncated pieces similar to triangles, La Mouillah points, and large, asymmetrical triangles (Byrd and Garrard, 2013: 380). Among these also are its diagnostic tool type, the distinctive Qalkhan point, which exhibits a remnant notch from use of the microburin technique.

1.4. Nizzanan

The Nizzanan is dated between 20,000 and 18,700 cal BP (Byrd and Garrard, 2013: 380), thus overlapping somewhat with the Qalkhan. Its main lithic feature is the dominance of triangle microliths, made using microburin technique. There also are microgravettes and arched backed bladelets. Nizzanan sites are found both east and west of the Rift Valley (Goring-Morris, 1987, 1995; Byrd and Garrard, 2013).

1.5. Early Epipaleolithic in the Wadi al-Hasa region

One of the areas in the Eastern Levant that has been the center of Early Epipaleolithic research is the Wadi al-Hasa region in the Western Highlands of Jordan (Clark et al., 1988; MacDonald, 1988; Olszewski and Coinman, 1998; al-Nahar and Olszewski, 2015). During the Pleistocene, and particularly the period of the Last Glacial Maximum (LGM), the Hasa region was characterized by a

wetlands ecology (Schuldenrein, 1998; Schuldenrein and Clark, 2001, 2003; Winer, 2010; see also Ramsey and Rosen, 2016). In the area surrounding the Hasa region, more arid conditions would have pertained. This meant that the Hasa region was an attractive habitat for Early Epipaleolithic hunter–gatherer–forager groups because it contained a greater abundance of resources: animals, plant foods, fresh water, and stone raw materials. As a result, one of the aspects of research in the Hasa region has been examination of the potential settlement systems and levels of mobility for the groups who used the sites there (e.g., Clark, 1989; Olszewski and Coinman, 1998). These earlier endeavors, however, did not always factor time-averaging of lithic events and other behaviors in the site deposits into their assessments of mobility and of residential versus logistical settlement patterns.

This paper discusses the Early Epipaleolithic lithic assemblage analyses for the rockshelters of KPS 75 on the Kerak Plateau and Yutil al-Hasa and Tor Sageer in the Wadi al-Hasa drainage system, as well as the open-air site of Tor Tareeq in the eastern portion of the Wadi al-Hasa drainage, and incorporates the implications of time-averaging for a variety of issues related to interpreting mobility and settlement when using lithic measures of various types (Fig. 1A). The lithics data presented are those from the 2009, 2010, and 2012 excavations of the Western Highlands Early Epipaleolithic Project (WHEEP) for KPS-75, Yutil al-Hasa Area C, and Tor at-Tareeq Area A, respectively, while the Tor Sageer assemblage data is from the Eastern Highlands Late Pleistocene Project (EHLPP) excavations in 1997 and 1998. Additional information about these sites is in Olszewski and al-Nahar (2016), as well as in several earlier publications (Clark et al., 1988, 1992; Coinman et al., 1999; Olszewski et al., 1990, 1994, 1998, 2000, 2001; al-Nahar et al., 2009; Olszewski and al-Nahar, 2011).

2. Site occupations

Based on calibrated radiocarbon dates, the earliest occupations are at Tor Sageer and Yutil al-Hasa, followed by Tor at-Tareeq (see Olszewski and al-Nahar, 2016, for specific chronological details). There are no dates for KPS-75, but the features of the lithic assemblages at this site overlap with Tor Sageer, Yutil al-Hasa, and Tor at-Tareeq, as well as likely post-date them by an unknown interval of time. The occupations at the sites thus are: Nebekian (Tor Sageer upper, Yutil al-Hasa upper, Tor at-Tareeq lower, KPS-75 lower), possible Qalkhan (Tor at-Tareeq upper, KPS-75 middle), and an undetermined Early Epipaleolithic that is later than the possible Qalkhan (KPS-75 upper). As nongeometric microlith forms are commonly used to characterize assemblages of the Early Epipaleolithic and to order various occupations into a temporal sequence, a brief overview of these for each of the site occupations is presented below.

2.1. Tor Sageer

At Tor Sageer, the upper occupation (Stratum I) is most likely referable to the Nebekian. Stratum 1 is about 35 cm thick and was present in all six contiguous 1 × 1 m units excavated. This deposit yielded 311 nongeometrics, 54 of which are unidentifiable fragments (Table 1); unidentifiable microlith fragments are mainly medial segments, or more rarely, proximal segments, for which there is no shaping that is identifiable to a specific type of nongeometric or geometric. Microliths (excluding unidentifiable fragments) at Tor Sageer are 69% of all tools. Nongeometric microliths of the Early Epipaleolithic have very narrow widths, often in the range of 3 mm–5 mm (Tor Sageer: 3.7 mm average width, sd = 0.9 mm). The highest frequencies within the nongeometrics are those of backed and truncated bladelets (23.3%) and curved

Download English Version:

<https://daneshyari.com/en/article/1040239>

Download Persian Version:

<https://daneshyari.com/article/1040239>

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