Quaternary International 396 (2016) 20–30

Contents lists available at ScienceDirect

Quaternary International

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

Persistent and ephemeral places in the Early Epipaleolithic in the Wadi al-Hasa region of the western highlands of Jordan

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ARTICLE INFO

Article history:
Available online 23 October 2015

Keywords:
Early Epipaleolithic
Levant
Nebekian
Mobility
Settlement
Persistent places

ABSTRACT

Early Epipaleolithic groups in the Levant often are described as highly mobile. Although there are some exceptions (e.g., Kharaneh IV and Ohalo II), most sites are aerially small and said to represent short-term camps. In this paper, we use information from the Early Epipaleolithic occupations at KPS-75, Yutil al-Hasa, Tor Sageer, and Tor at-Tareeq in the Wadi al-Hasa region of Jordan to examine their nature as persistent places in the landscape, which yield cumulative palimpsests that often result in time-averaging of the activities and events that occurred at these locales. We argue that aerially small sites do not necessarily constitute short-term occupations because sites that might indicate high mobility as part of the spatial palimpsest of the landscape would have been quite ephemeral and often are not recorded by traditional surveys which focus on identifying highly visible sites rather than on systematically recording nonsite locales.

1. Introduction

Assessing the type of settlement mobility engaged in by prehistoric hunter–gatherer–forager groups across the landscape is a common theme in archaeological research. In very general terms, it is built in part on group size known from extant hunter–gatherer–foragers and ethnohistorically known peoples, as well as their documented patterns of locale and landscape use (Binford, 2001; Kelly, 2013). It is also conditioned by the aerial size of archaeological sites recorded and/or excavated, the cultural materials recovered from those contexts, the spatial arrangement of features or materials within sites (where discernible or available), and reconstruction of the paleoclimate and habitat.

In the eastern (inland) Levant, the Pleistocene Last Glacial Maximum (LGM) was one of those periods during which overall colder and drier climate resulted in the shrinkage of optimal habitats such as the Mediterranean forest and open parklands, which even under optimal conditions was less widespread than in the western Levant (west of the Jordan Rift Valley). Under these aerially increased conditions of presumably marginal LGM Levantine habitats, one idea has been that many Early Epipaleolithic hunter–gatherer–forager groups had few options other than to frequently move from place to place and to disperse across the landscape in relatively small groups, as documented in part by small site sizes (e.g., Goring-Morris, 1995: 167; Maher et al., 2012: 72). These strategies, among others (e.g., social networks; see Richter et al., 2011), are thought to have helped mitigate the concerns of adequately obtaining the food resources necessary for group survival.

1.1. Theoretical background

The concepts of residential (circulating) - logistical (radiating) (Mortensen, 1972; Marks and Freidel, 1977; Binford, 1980), which constitute the two point ends of a spectrum of settlement organization, have been widely used by researchers to examine prehistoric hunter–gatherer–forager mobility. Binford (1980), among others, noted that hunter–gatherer–forager settlement did not sort out into strictly residential or strictly logistical systems (see also Chatters, 1987). Rather, hunter–gatherer–foragers employed a complex set of mobility strategies that varied seasonally, yearly, or over decades, based on group needs, but also on aspects of the landscape (e.g., patches of resources, seasonally available resources, etc.) and the impact of climate on those resources (e.g., Kelly, 1983; Dewar and McBride, 1992). This greater complexity aspect was taken up by Henry (1987, 1995) for the Levant, who described

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http://dx.doi.org/10.1016/j.quaint.2015.08.061
1040-6182/

hunter–gatherer–forager mobility as transhumant, with settlements likely to be more logistical during wintering in lowlands and more residential while summering in the highlands of southern Jordan. Site size, density of artifacts, and artifact typological variability/richness factored into Henry's analyses. Clark (1992) assessed this transhumance model, as well as the circulating–radiating model, for the Wadi al-Hasa region, using site distributions and characteristics, concluding that settlement models developed using data from one region did not necessarily easily transfer to other regions. This supports the observation that hunter–gatherer–forager settlement systems are complexly variable.

One attribute often used as partial documentation of degree of mobility is site size. Overall site size, however, is partially conditioned by several factors. One of these is whether the site is a rockshelter as rockshelters can be small and thus limit the number of people who can fit within their confines. Presumably, this means that group size is small. On the other hand, in open-air contexts (and large rockshelters), there is much more available space and thus potential for larger groups. This might also apply to open spaces in front of small rockshelters. The larger size of sites in these scenarios, though, reflects the aerial extent of cultural materials both on the surface and in sub-surface deposits. This aerial extent might be due to the presence of a larger group, but just as equally might reflect repeated visits by small groups who use slightly different spaces across a site during each visit. It even may reflect taphonomic processes that have redistributed cultural materials horizontally so that site size is now larger than the space(s) used by a prehistoric group.

Site size, however, should not be taken as necessarily accurate in the assessment of mobility. This is because higher mobility can mean a quite brief visit, so that such a site would be archaeologically ephemeral. It would contain few artifacts or other materials simply because the visit was so short as to leave little evidence. Recognizing and recovering this ephemeral evidence is generally not a strong suit in archaeology because of how traditional archaeological survey, based on recognizing dense concentrations of artifacts as sites, is accomplished (but see Dunnell and Dancey, 1983; Potts, 1994; Anschuetz et al., 2001; Olszewski et al., 2010). This aspect of mobile groups thus goes largely unrecognized and means that longer term occupations at traditionally defined sites are instead interpreted as potentially reflecting higher mobility. Moreover, the non-recognition of truly ephemeral sites may also be an important consideration given that many of them may be the "task/activity" camps which would constitute one of the elements in a logistical settlement pattern, which itself is often interpreted as reflecting lower levels of mobility. The majority of the sites that are studied, then, are actually persistent places in the landscape that become records of long-term use of a locale (e.g., Schlanger, 1992). A site thus could document long-term repeated and highly similar uses of place or it could document long-term repeated and disparate uses. Using a variable such as site size to speak definitively about group size or group mobility can thus be difficult.

Importantly, however, any assessment of mobility in the archaeological record must take into account not only cultural (behavioral) and natural taphonomic processes involved in the record's formation, but also the nature of archaeological deposits. As described elsewhere (e.g., Bailey, 1983, 2007, 2008; Stern, 1994; Wandsnider, 1992, 2008; Lucas, 2012), the majority of such deposits in the archaeological record are various types of palimpsests or, in some cases, time-averaged accumulations. The palimpsest types of most relevance to this paper are those described by Bailey (2007) as cumulative (often time-averaged) palimpsests and their variant, spatial palimpsests (discussed in Section 3 below). Cumulative palimpsests at sites have the potential to result in homogenizing individual events ("visits"), many of which can no longer be teased apart from each other (e.g., Stern, 1994; Bailey, 2007), while in spatial palimpsests, activities across the landscape can be "lost" for various reasons (Bailey, 2007), as noted above for ephemeral sites. This is the situation for the Early Epipaleolithic sites in the Wadi al-Hasa region, which are discussed below.

2. Regional setting and sites

As has been known for some decades, the eastern Levant during the Pleistocene contained a number of wetland settings, e.g., in the Palmyra Basin, the Damascus Basin, the Azraq Basin, the Jafr Basin, and the Wadi al-Hasa region (Huckriede and Wiesemann, 1968; Kaiser et al., 1973; Sakaguchi, 1978; Garrard et al., 1988; Schuldenrein and Clark, 2001). These locales would have mitigated the harsher conditions of the LGM. As one of the areas with Pleistocene wet conditions (see Ramsey and Rosen, 2016), the Wadi al-Hasa would have been an attractive node for animals and people, as well as supporting a greater diversity of plant communities than in the surrounding more arid landscape.

The topography of the Wadi al-Hasa region includes an eastern basin area (through which the modern Desert Highway traverses) which has relatively flat terrain and gently rolling hills. The basin also contains deep paludal sediments which were downcut and eroded during the earlier Holocene (Schuldenrein, 1998; Schuldenrein and Clark, 2001; Moumani et al., 2003; Winer, 2010). These paludal sediments have been variously interpreted as representing a Pleistocene shallow lake, marshlands, or an in-stream wetlands regime. The main Wadi al-Hasa channel flows west-northwest from this eastern basin. Approximately 4 km downstream from the basin, the topography steepens considerably and the channel area narrows. This type of topography characterizes much of the remaining drainage, as well as tributary drainages, until the Wadi al-Hasa reaches the Jordan Rift Valley just south of the current extent of the Dead Sea. To the north of the Wadi al-Hasa drainage is the uplifted Kerak Plateau. In the vicinity of the Wadi al-Hasa, the Kerak Plateau has a relatively flat aspect, with some relief in the form of rolling hills created by small outcrops of Bahiya Coquina bedrock. To the south-southwest of the Wadi al-Hasa, the topography also is gently rolling and additional Pleistocene wetlands are in the vicinity of the modern village of Jurf ad-Darawish (Moumani, 1997; Moumani et al., 2003).

Archaeological surveys of the Wadi al-Hasa and regions immediately north and south yielded around 1000 Pleistocene sites, although those attributable to the Epipaleolithic number just a handful (ca 30 sites), of which only 6 are definitively Early or Middle Epipaleolithic (MacDonald, 1988; Clark et al., 1992, 1994; Schurmans, 2001; Neeley, 2004). Four excavated sites are discussed here—Tor Sageer, Yutil al-Hasa, Tor at-Tareeq, and KPS-75 (Fig. 1).

2.1. Tor Sageer

Situated in a tributary wadi to the Wadi al-Hasa, some 5 km downstream (as the bird flies) from the eastern Hasa basin, Tor Sageer is a small rockshelter (5 × 4 m) about 17 m above the modern wadi floor. It has suffered erosion of deposits in front of the shelter due to post-Pleistocene down cutting of the wadi channel (Fig. 2). At the time of occupation, it is likely that Tor Sageer was at or just slightly above the channel floor, and there would have been additional space available in front of the shelter. While aerially quite small, it contains about 85 cm of deposits, with the uppermost layer (Stratum I) referable to the Nebekian Early Epipaleolithic (al-Nahar and Olszewski, 2016; Olszewski, in press). A radiocarbon date from the top of Stratum II indicates that the Nebekian