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A comparative perspective on the 'western' and 'eastern' Neolithics of Eurasia: Ceramics; agriculture and sedentism

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ABSTRACT

The Neolithic is a key topic in the study of Old World prehistory but how the Neolithic is defined varies between regions. In East Asia the invention of pottery is often seen as marking the start of the Neolithic. In contrast to this 'eastern' perspective, in western parts of Eurasia it is the presence of agriculture that usually defines the onset of a Neolithic way of life. This paper adopts a comparative perspective, examining the origins and development of pottery, agriculture and sedentary life in East Asia and Southwest Asia. We suggest that a comparative perspective indicates that some of the most enduring themes of Neolithic studies need to be reconsidered, namely: (1) the idea of a Neolithic package consisting of a number of associated traits (including, among other things, agriculture, sedentary sites, and pottery) that developed and spread together, (2) the notion of the Neolithic as a revolutionary event marking a sharp break from the preceding Palaeolithic period, and (3) the enduring impact of the Neolithic on later periods.

1. Introduction

Several papers in this special issue demonstrate the benefits of adopting a comparative perspective when studying the archaeology of hunter–gatherer communities in Northeast Asia. As recent discussions of Late Pleistocene and Early Holocene archaeology in this region have sometimes emphasized processes of 'Neolithization' (e.g. Uchiyama et al., 2014 and other articles in the December 2014 *Journal of World Prehistory* special issue; Kuzmin, 2013b) it may be useful to draw general comparisons with other areas that experienced notably different Neolithic processes. This paper compares cultural, economic and technological developments that are often associated with the origins of the Neolithic in two regions (Fig. 1): East Asia (including China, Japan and the Russian Far East) and Southwest Asia (i.e. the Near East). Our comparative approach examines the origins of pottery, agriculture and sedentism to highlight similarities and differences in the timing and cultural content of Neolithic trajectories in these two regions that can contribute to a general understanding of processes of Neolithization.

The Neolithic is a key topic in the study of Old World prehistory. Among the most enduring themes of Neolithic studies are (1) the idea of a Neolithic package consisting of a number of associated traits (including, among other things, agriculture, sedentary sites, and pottery) that developed and spread together, (2) the notion of the Neolithic as a revolutionary event marking a sharp break from the preceding Palaeolithic period, and (3) the enduring impact of the Neolithic on later periods. In both East Asia and Southwest Asia these themes have led to the characterization of the Neolithic as an important and clearly delineated stage in human development. Early and mid-twentieth century culture-historical views on archaeological stages including the Neolithic tended to imply periods of stasis separated by rapid changes. In both East Asia and Southwest Asia, more recent perspectives on the Neolithic have emphasized its development as a process of 'Neolithization' that saw the co-development of a number of inter-related economic, technological, social and symbolic features.

Despite the shift to viewing the Neolithic as a long-term process, there remain key features that are used to designate a site or culture as Neolithic but these features are not consistent across Eurasia. In western traditions the Neolithic is defined primarily by an economic strategy. Here the presence of agriculture-based economies, rather than ones based on hunting and gathering, separates the Neolithic from earlier Palaeolithic cultures. This agricultural Neolithic is thought to have developed first in Southwest Asia and

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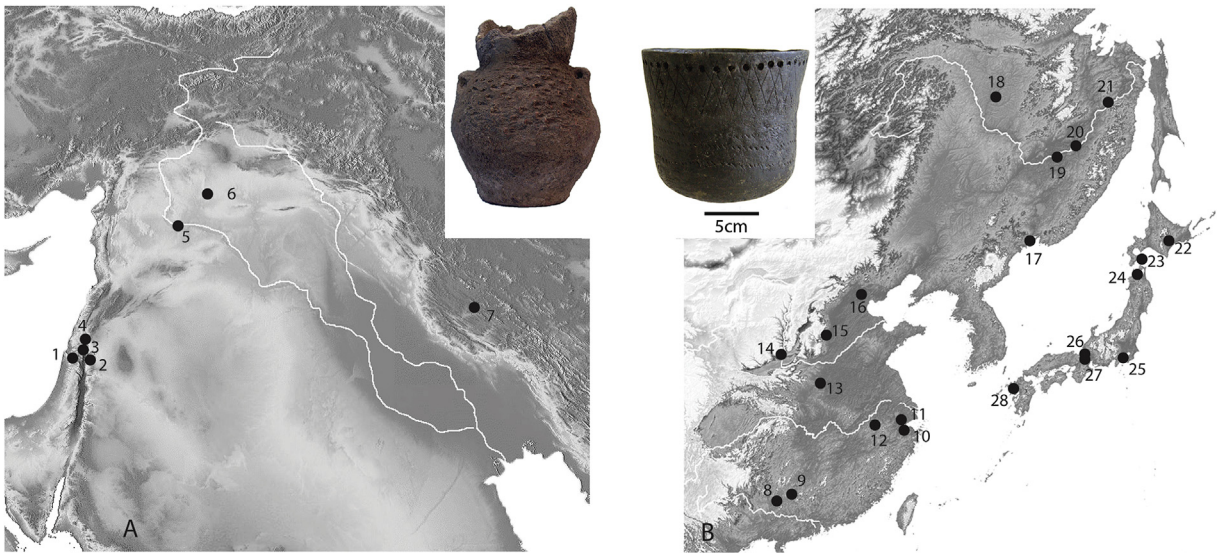

Fig. 1. Maps of Southwest Asia (A) and East Asia (B) showing sites mentioned in the text. Insets show examples of pottery from Tabaqat al-Bûma (left) and Torihama (right): 1. Kfar HaHoresh; 2. Tabaqat al-Bûma; 3. Ohalo II; 4. Ain Mallaha (Eynan); 5. Abu Hureyra; 6. Tell Sabi Abyad; 7. Ganj Dareh; 8. Zengpiyan; 9. Yuchanyan Cave; 10. Shangshan; 11. Kuahuqiao; 12. Xianrendong; 13. Jiahu; 14. Shizitan 9 and 14; 15. Cishan; 16. Donghulin; 17; Boisman 2; 18. Gromatukha; 19. Goncharka; 20. Gasya; 21. Khummi; 22. Taisho 3; 23. Nakano B; 24. Odai Yamomoto 1; 25. Kitihara; 26. Torihama; 27. Awazu; 28. Kakoinohara, Kakuriyama and Sojiyama.

then spread to neighboring regions, including Europe and parts of Central Asia. In contrast, in eastern traditions the Neolithic is often defined by a technological development: the invention of pottery (Chard, 1974:63; Barnes, 1999:17). This is perhaps most explicit in Russian archaeology (e.g. Kuzmin, 2006, 2013b; Jordan and Zvelebil, 2009: 48) but the pottery-using Jomon hunter-gatherers of Japan have also been viewed as a Neolithic culture (Habu, 2004:243) and in China the presence of pottery has been used as a marker for the Neolithic (Cohen, 2011:S274), although the comparatively early appearance of agriculture here has led to its emphasis in recent definitions of the Chinese Neolithic and the earliest Chinese pottery is sometimes described as an Upper Palaeolithic invention (e.g. Bar-Yosef and Wang, 2012).

In this paper we adopt a comparative approach to the study of Neolithization focusing on these key features—agriculture and pottery. We also consider evidence for sedentary sites in each of these regions, as sedentism is often considered important for the establishment of both agricultural economies and pottery production (Arnold, 1985). Comparative perspectives in archaeology can take different forms (McNett, 1979). Broad 'systemic' comparative studies (Smith and Peregrine, 2012) incorporate data from many cultural areas in a region or across the globe in order to develop statistically testable theories about human behavior, sometimes incorporating both archaeological and ethnographic evidence (e.g. Peregrine, 2001). For the comparative study of the Neolithic this approach can be problematic because in world prehistory a relatively small number of places witnessed the early and independent innovation of notable Neolithic developments (Rice, 1999; Barker, 2006; cf.; Fuller, 2010). For this reason this paper adopts a more 'intensive' comparative approach (Smith and Peregrine, 2012) that considers the Neolithic in only two areas—East Asia and Southwest Asia.

Arguably, on some levels, these two regions have little in common and a more obvious comparison might be between Northeast Asia and Northwest Europe, since these regions have more similar climates and geographies, and were at various points occupied by pottery-using hunter-gatherers. However, East Asia and Southwest Asia are significant for any general discussion of the origins of Old World Neolithization as they have both produced early evidence for plant and animal management, pottery production and sedentary sites. Furthermore, important Neolithic developments that first occurred in these regions eventually dispersed into new areas, giving the East and Southwest Asian 'source' areas significance for discussions of Neolithization in other parts of the Old World, such as northern Europe. More generally, as noted by Meskell and Joyce (2003), investigating the same issues in different times and places can expose unexamined postulates and can lead to productive new avenues of research.

Relatively few studies have directly compared the content and timing of Neolithic trajectories in East Asia and West Asia, although both regions are frequently included in broader comparative studies (e.g. Rice, 1999; Bellwood, 2005; Barker, 2006). Bar-Yosef (2012) compares the shift from foraging to farming at the Pleistocene–Holocene transition in the Levant and China, and Fuller and Rowlands (2011) discuss long term differences in East and West Eurasian culinary traditions, including differences in Late Pleistocene and Early Holocene food choices and culinary technologies, such as pottery and grinding stones. Kuzmin (2013b) is concerned with the spatial distribution and timing of the origins of pottery and agriculture in Asia, discussing two trajectories: the 'Levantine' with agriculture occurring before pottery, and the 'East Asian' that sees pottery developing before agriculture. Chapters in Yasuda (2002) consider the origins of agriculture and pottery in Southwest and East Asia, though with an emphasis on the latter region. Vandiver (1988), Zhushchikhovskaya (2012) and Gibbs (2015) all compare early pottery technology in Southwest Asia and East Asia.

2. Defining the Neolithic

Our point of departure is Childe's (1951) list of defining features of the Neolithic. For Childe, the Neolithic comprised: (1) an agricultural economy including domesticated animals and plants; (2) population growth; (3) storage of surplus; (4) sedentism; (5) trade networks focused on nonessential items; (6) decentralized social mechanisms for the coordination of collective activities; (7) magico-religious traditions that focus on the promotion of fertility; (8) ground stone implements; (9) pottery; and (10) weaving implements such as spindle whorls. While seven decades of

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