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Editorial

Persistent foragers: New insights into Holocene hunter-gatherer archaeology in northern Eurasia

1. Introduction: aims, objectives and research context

Holocene archaeological sequences across much of northern Eurasia record hunter-gatherer societies undergoing long-term transition. Many of these communities took considerable time to develop full reliance on agro-pastoral farming, and several maintained mixed forager-farmer economies for long periods. Others living along major waterways, lakes and in coastal areas found ways to innovate within the older foraging mode of subsistence, particularly through an increasingly specialised exploitation of aquatic resources. Some of these coastal foragers eventually went on to develop resilient modes of interaction and exchange that enabled them to persist in some areas right through to historic times.

In recent years, much more detailed understandings of what drives variability and change in these long-term archaeological trajectories have been emerging, thanks both to increasing international collaborations and the sharing of information across linguistic boundaries, but particularly through the application of new scientific methods and approaches, which have refined chronologies, and generated higher-resolution insights into diet, mobility, interaction and long-term culture change. In turn, this expanding body of information stimulates productive critique of established models and opens exciting new lines of enquiry.

Many papers in this special issue were presented at a session entitled '*Comparative Perspectives on Hunter–Gatherer Archaeology of Northeast Eurasia*', which was held at the 19th Annual Meeting of the European Association of Archaeologists (EAA), Pilsen, Czech Republic, 3–8 September 2013. In line with the founding aims of the EAA, which were to enable archaeologists from diverse international backgrounds to communicate and exchange archaeological information, the goals of the session were threefold:

1. To explore evidence for the exchange of skills, practices and technologies among prehistoric hunter-gatherers living across northern Eurasia; this is important because older political divides – and especially enduring *linguistic* boundaries – continue to block fuller integration of archaeological evidence between regions and across national boundaries;
2. To undertake structured comparative analyses between hunter-gatherer sites, landscapes and archaeological sequences in eastern and western Eurasia, in order to explore alternative interpretations, and critique implicit assumptions about particular sequences of innovation and culture change;
3. More generally, to trace how new theory and scientific methods are dramatically improving insights into the lifeways and behavioural strategies of the hunter-gatherers living across Holocene Eurasia.

A few papers were added after the EAA session, and the outcome is a diverse yet mutually-complimentary set of case-studies, which engage with all three goals, and provide truly Eurasian coverage (Fig. 1). Together, the special issue is a timely overview of the range of innovative research underway across this region, much of which is being generated by long-running international collaborations. Although fresh ideas, new approaches and emerging insights are presented, all papers highlight that much important work still remains to be done, a clear signal that this is a dynamic and rapidly-evolving research field.

2. Eurasian perspectives: inter-regional connections and comparative approaches

Damlien (2016) addresses the first goal of the EAA session – to explore long-range connections – and reaches back into Late Palaeolithic of Eurasia. Her goal is to link local technological innovations taking place in Mesolithic Norway with the dispersal of new skills and cultural traditions across the wider continent. Having identified that lithic blade techniques in Mesolithic south-eastern Norway share many apparent similarities with those in other parts of Eurasia, she argues that they may form a single, widely-shared, technological tradition. This hypothesis is important, because Mesolithic traditions in Norway have generally been understood to derive exclusively from the Late Palaeolithic of Western Europe.

Chronological patterns appear to lend preliminary support to her 'eastern' dispersal model: the distinctive 'conical core pressure blade concept' appears around 20,000 years ago in northern China, Siberia, Mongolia, and Japan, and somewhat later in Central Asia and the southern Urals; by the early Holocene it was adopted by hunter-gatherers living in Northwest Russia and the eastern Baltic, eventually reaching Finland around 8300–8200 cal. BC, and the Varangerfjord in Arctic Norway shortly afterwards.

Although these broad spatio-temporal patterns do suggest that knowledge of this distinctive 'eastern cultural tradition' may have been spreading into Scandinavia from a previously under-studied source area further to the east, much more work will be needed to test these ideas further. But even by introducing the potential for the contribution of eastern cultural influences on the

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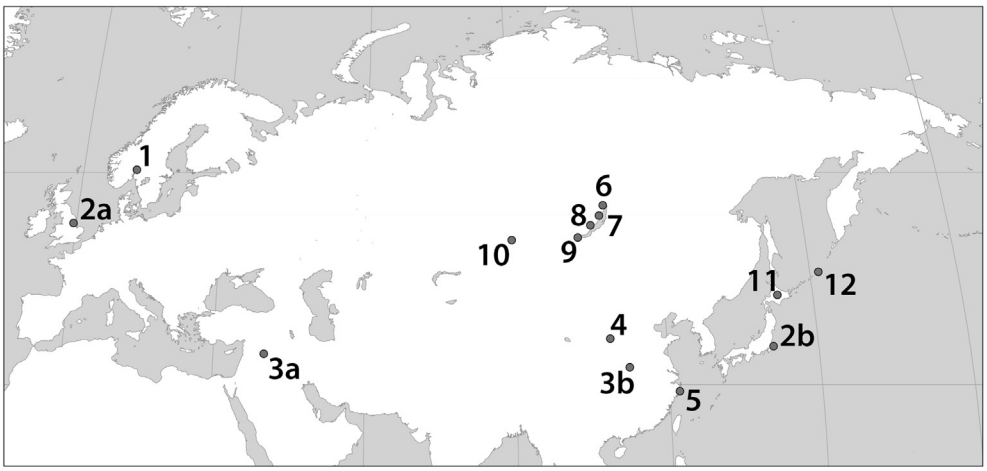

Fig. 1. Location Map: Holocene Hunter-Gatherer Archaeology of northern Eurasia. The case-studies in this special issue focus on: (1) lithic traditions – Norway (Damlien, 2016); (2) comparative analysis of Awashimadai/Star Carr – Japan and UK (Uchiyama, 2016); (3) comparative analysis of 'eastern' and 'western' Neolithics – Southwest Asia and East Asia (Gibbs and Jordan, 2016); (4) Neolithization (inland areas) – China (Liu et al., 2016); (5) Neolithization (coastal areas) – China (Jiao, 2016); (6) subsistence activities – Cis Baikal (Losey et al., 2016); (7) chronology and dietary change – Cis Baikal (Weber et al., 2016); (8) social consequences of an increased reliance on fishing – Cis Baikal (Scharlotta et al., 2016); (9) ancient DNA of marmot/hunting strategies – Cis Baikal (Masuda et al., 2016); (10) macro-regional interconnections – Cis Baikal/Inner Eurasia (Shepard et al., 2016); (11) maritime adaptations – Japan (Eda et al., 2016); (12) population history and resilience – Kuril Islands (Fitzhugh et al., 2016).

Norwegian Mesolithic she makes an important step of 'embedding' prehistoric Scandinavia firmly back into wider Eurasian interaction networks. Similar motivations have informed recent work on the emergence of early pottery among hunter-gatherers in northern Eurasia (Jordan and Zvelebil, 2009); some early pottery traditions may have dispersed into northern Europe from areas located further to the east, although these preliminary models also require additional research, and in particular, the building of much more accurate chronologies (Jordan et al., 2016).

The next two papers focus on the second goal of the EAA session, and undertake carefully-structured comparative analyses, but operate at contrasting analytical scales. Uchiyama (2016) works at the site-based scale, but shuttles between opposite end of Eurasia in order to creatively apply insights from the Japanese Jomon site of Awashimadai to understand activities at the Mesolithic site of Star Carr in Northwest Europe. He argues that Awashimadai is much better understood, both as a site, but also how it operated in its wider landscape context. In contrast, the role of Star Carr in wider settlement and subsistence activities remains enigmatic despite long-running debate. By working through the structured similarities, Uchiyama concludes that both sites were being visited by specialist task groups that used them for highly-ritualised hunting activities.

In contrast, Gibbs and Jordan (2016) provide a continental-scale comparative analysis of the divergent 'western' and 'eastern' Neolithic trajectories that were playing out in different parts of Eurasia during the Holocene. These insights provide a useful context for all the later papers in the special issue, and make three overarching conclusions: (1) fundamentally different sequences of Neolithization unfolded at opposite ends of the continent; the Eastern Neolithic is marked by the innovation of pottery technology among hunter-gatherers, while the Western Neolithic is defined by the transition to agriculture; (2) the classic Neolithic traits of farming, pottery and sedentism (*sensu* Childe 1950) were all independent developments, which appeared separately, at different times, and in different sequences; (3) the emergence and wider uptake of each innovation – including farming – was a protracted process, not a sudden revolutionary step.

Looking out across Holocene Eurasia, these findings highlight that at more local scales: (a) foraging and mixed forager-farmer economies were persisting for many millennia; (b) communities were shifting repeatedly between less and more mobile lifestyles; (c) groups had a wide array of alternative technologies available to them. In other words, local choices were playing an important role in each of these localised developments, and awareness of new strategies, subsistence resources and alternative practices did not necessarily result in their automatic adoption. But at a more general level, Gibbs and Jordan's (2016) paper highlights that much more work still needs to be done to understand how these local choices fed into longer-term archaeological sequences, and specifically, to investigate how and why diverse forager societies innovated, interacted and changed over time. All the following papers in this special issue grapple with this central theme.

3. Transitions in Holocene hunter-gatherer subsistence

The next two papers examine the pace, timing and long-term implications of changes in subsistence in Holocene China. Liu et al. (2016) employ an inter-disciplinary approach to reconstruct shifting plant use strategies in south-central Inner Mongolia, China. They identify an extended Neolithization trajectory that involved long-term use of wild plants, a strategy later combined with low-level food production, which was only replaced much later on by the rise of intensive cereal-based agriculture. The paper by Jiao (2016) broadens these insights, and emphasizes that Neolithization trajectories were complex and highly variable, even within China, not to mention across Eurasia.

Jiao (2016) focuses on understanding hunter-gatherer cultural changes in coastal areas of China that had started to become peripheral to the core areas of early rice and millet faming. By 7000–8000 BP these coastal societies were becoming increasingly sedentary and had adopted pottery traditions, making them Neolithic according to the eastern definition (Gibbs and Jordan, 2016). However, reliance on food production remained very limited, and communities chose instead to focus on aquatic resources and exploitation of highly productive coastal ecosystems, in some cases developing ocean-going boat technologies. Jiao concludes that although this reliance on coastal foraging (mixed with some low-level food production) was a viable strategy, and persisted over several millennia, it may ultimately have kept