## **Editorial**

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Welcome to the fourth issue of the *European Journal of Archaeology* for 2015. Here, we present six general articles and eleven book reviews. Below, I summarize and evaluate their significance to the archaeology of Europe.

Jordan Karsten, Sarah Heins, Gwyn Madden, and Mykhailo Sokhatskyi compare the rate of dental caries between Tripolye culture farmers buried in Verteba Cave (c. 3950–2600 cal BC) in western Ukraine with earlier hunter-fisher-gatherers in the Dnieper Rapids area of central Ukraine. The Tripolye individuals were found to have carious lesions on 9.5 per cent of teeth, while the hunter-fisher-gatherers were free of them. This statistically significant difference can be explained with reference to the increased consumption of highly processed grains of carbohydrate-rich cultivated wheat and barley by the farmers. It is worth adding that the Tripolye rate of dental caries lies at the high end of values published for other European Neolithic/Eneolithic populations, although a recent study of human remains found in Grotte des Pigeons at Taforalt in Morocco with a rate of over fifty per cent (Humphrey et al., 2014) reminds us that high rates of caries are not exclusive to agricultural groups.

Building on the work of Leroi-Gourhan at Les Mournouards II hypogeum, Arnaud Blin re-examines the patterning of mortuary deposits found in the Late Neolithic (c. 3350-3000 cal BC) rock-cut hypogea of the Paris Basin, the majority of which are situated around the Saint-Gond swamps in the Marne region. Despite the overall impression of 'collective' primary burial practices, distinctions based on the age, sex, and social status of the deceased can be identified. Infants and children aged less than four years are clearly under-represented. Most females were buried along the left wall of the tombs, on the same side as the collective grave goods and female figurines, and were exclusively associated with double-perforated shell ornaments. Contrasts can also be identified between supine corpses accompanied by abundant grave goods and flexed bodies with rarer grave goods. In line with processual archaeological thought, Blin argues that these mortuary patterns reflect a conservative social order maintained by the living, although from a more interpretative perspective there remains plenty to discuss with regard to social relations and dynamics in later fourth millennium northern France. For example, what kinds of people were buried in hypogea (as opposed to other—potentially competing—types of collective burial), and what kinds of people were buried in the main chamber (as opposed to the antechamber)? Why were some tombs closed relatively quickly while others were reused for a long time? And did the clearing out of some hypogea mean that some segments of the dead lost their importance?

Laura Perucchetti, Peter Bray, Andrea Dolfini, and Mark Pollard reassess the circulation of early copper and copper-alloy across the Alpine region during the Copper Age (c. 3800–2200 cal BC) and earliest Bronze Age (c. 2200–2000 cal BC) by plotting the geographical distribution of sixteen simple chemical compositional groups (based on the

presence/absence of arsenic, antimony, silver, and nickel in previously analysed artefacts). For the Copper Age, they identify at least seven subtly different copper types in use across the region, linked to particular river systems and with associations to particular classes of artefacts, suggesting that at this time Alpine metal-using groups mainly extracted, smelted, and circulated copper locally. In contrast, at the beginning of the Bronze Age, the chemical groups are much more consistent across the region, indicating the growth of fewer but larger-scale exchange networks. The authors also identify the existence of a north-south 'tin-line' at this time, separating the western Alps from the central Alps and cutting across the River Po, to the west of which early tin-bronze prevails, particularly in the case of ornaments (which would have appeared brighter and more lustrous with the addition of tin). Despite the general pattern of a westward radiation of copper-tin alloy throughout Europe from the Near East, this 'tin-line' may, then, hint at a selective early use of tin in the western Alps. These are interesting patterns, although the authors acknowledge the broad-brush nature of their approach, and when a finer-grained absolute chronology is established for the Alpine Copper Age we can expect the establishment of an even more complex scenario.

Timothy Earle, Johan Ling, Claes Uhnér, Zofia Stos-Gale, and Lene Melheim adopt a more theoretical approach to the trade in metal and other special commodities, situating it within a Marxist model of Bronze Age political economy across Europe. They argue that regional inequalities and local 'bottlenecks' in access to and control of key resources (including not only flows of valued materials such as metals, amber, salt, wool, and fur from their sources via riverine and maritime transport routes, but also boat technology, and specialist craftworkers, warriors, and priests) offered would-be leaders different 'comparative advantages' to siphon off wealth to meet their socio-political aspirations—fluctuations in which led to the frequent rise and fall of local chiefdoms. This model, whose intellectual roots can be traced back to the work of Colin Renfrew in the 1980s, is certainly stimulating, although some scholars may wish to challenge its in-built assumptions that the metal trade across Europe was sufficiently large to alter societies fundamentally and that the main source of elite power lay in controlling this trade.

Carla Maria Amici examines the use of a sophisticated iron grid system in the architecture of Roman imperial baths. Italian examples include Villa Giulia (Ventotene), Villa Adriana (Tivoli), and the Baths of Caracalla (Rome). This technology, employed to create horizontal and curvilinear hollow airspaces, improved both the circulation of hot air and the support of superimposed floors and ceilings. It required careful planning and great accuracy in execution, and was only possible in the socio-economic context of the Roman Empire, when political stability, large financial resources, and high levels of technical expertise existed. This is a valuable article, which adds new examples, new details, and new reconstructions to increase our understanding of a phenomenon which has been previously recognised, but which has not entered mainstream thinking about Roman construction to the same extent as other uses of iron have (e.g. tension elements and tie-bars).

Steven Ashby, Ashley Coutu, and Søren Sindbæk present the results of their species identification of collections of antler combs, comb manufacturing waste, and raw antler from the early Viking Age sites of Ribe, Aarhus, and Aggersborg in Jutland, Denmark. Using the ZooMS peptide mass fingerprinting technique, they are able to distinguish (local) roe deer from (exotic) reindeer (which was restricted to the circumpolar subarctic

Editorial 561

zone). They reveal the early and specialized use of reindeer antler from the early eighth century AD, which indicates the existence of long-range travel and trade links between urban markets in the southern North Sea and Baltic region and the Arctic outlands to the north. They consequently argue that urbanism should be redefined and researched in terms of communication and social network dynamics (rather than seen as a function of more circumscribed hinterlands). This interesting article, then, applies a much-needed biomolecular technique to an important dataset, the results of which are interpreted in the broadest possible archaeological light.

We also have a stimulating set of reviews of recently published books of relevance to European archaeology. Ruth Tringham provides a thoughtful discussion of a new book on archaeology and the senses—accompanied by case-studies on Bronze Age Crete which challenges traditional Western approaches to the five senses. Next, mixed opinions are expressed on an edited volume on the (rather imprecisely defined) archaeology of places. There follows a helpful introduction to an edited volume on 'irregular' or 'deviant' burial in prehistory, many of whose authors conclude that their 'irregular' burials are just one facet of diverse 'regular' burial rites. Gonzalo Ruiz-Zapatero appropriately points out the limitations of a popular book that attempts to chart the population history of Europe from the Upper Palaeolithic to the Viking Age. Alison Sheridan inevitably clashes with Julian Thomas over his indigenous-centred view of the Mesolithic-Neolithic transition in Britain. A collection of essays on cultural dynamics in fourth millennium BC (Late Chalcolithic) western Turkey and neighbouring regions to the west is described as important, although whether they warrant the title 'protourbanisation' is questioned. The usual flow of new books about Bronze Age Europe continues: one on the relationships that formed the archaeological mortuary evidence for Early Bronze Age northeast England, the other on the somewhat neglected topic of religion and society in Middle (and early Late) Bronze Age Greece. John Collis recommends a new book on Iron Age societies in northeast Gaul. Attention is drawn to the relative lack of gender perspectives in an edited conference volume on the history of prehistoric and protohistoric archaeology in Italy. Finally, there is both criticism and praise for a volume reflecting upon public archaeology in Spain.

If you are interested in submitting an article on any aspect of European archaeology, or have recently published a book that you would like us to review, do please get in touch with a member of our editorial team or visit us on http://www.maney.co.uk/index.php/journals/eja/.

## REFERENCE

Humphrey, L.T., De Groote, I., Morales, J., Barton, N., Collcutt, S., Bronk Ramsey, C. & Bouzouggar, A. 2014. Earliest Evidence for Caries and Exploitation of Starchy Plant Foods in Pleistocene Hunter-Gatherers from Morocco. *Proceedings of the National Academy of Sciences*, 111(3):954–59.