
E DITORIAL

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In this issue, we launch what is hoped will be a long-running forum for new and exciting methods and techniques in archaeological science. There are few enough journals devoted to scientific archaeology and only a minority of the papers makes concessions to humanistic archaeologists. The *European Journal of Archaeology* aims to publish two short articles per issue dealing with new techniques or new and important applications of established techniques, with the explicit aim of ensuring ready accessibility for all of our readers. I hope that the short turnaround of these peer-reviewed papers will make this option attractive for archaeological scientists all over Europe. I am grateful to our President for the idea and to Matthew Collins (m.collins@ncl.ac.uk) for his enthusiastic support for this initiative. Anyone wishing to offer a short paper for this section should contact Matthew Collins or the General Editor.

This issue is divided between interpretative articles with or without archaeological science. Tagerup will undoubtedly remain one of the key Mesolithic sites in Europe for many years. Per Karsten and Bo Knarrstrom's excavation of almost 20,000 m² of settlement deposits covering 1,500 years (from middle Mesolithic Kongemose to late Mesolithic Ertebolle) provides ideal spatial context for the excellent organic preservation, with finds of wood, osier, bone and antler. The distance of the Kongemose graves from the coeval settlement focus may explain their previous rarity. Although no Kongemose houses were found, a variety of Ertebolle houses was excavated, including a long-house! These forager central places became increasingly tied to places, grounded there by the ancestral presence.

The Maltese temples have long provided a focus of archaeological enquiry, seemingly arriving out of nothing in the Neolithic and being just as mysteriously abandoned in the Bronze Age. A long series of traditional explanations emphasising diffusion was replaced in the 1970–1990s by an even longer series of processualist articles stressing environment, population, social hierarchy and heightened ritualization. Here, John Robb has produced a theoretically sophisticated account of how Maltese Neolithic communities created cultural islands as ideas, as inhabited metaphors and as symbols within a cultural geography. Robb demonstrates increased inter-regional contacts in the final Neolithic and Copper Age, going on to show how travel and contact with the outside world led to the definition of difference on Malta. His discussion of the low temple mounds as visual islands standing for the Maltese islands themselves complements the architectural

parallels between underground ancestral zones and their recreation above ground in the temples. He identifies the intensive reworking of inherited rites as the point of origin of the temples, over a far shorter timescale than environmental stress could produce.

Since Lewis-Williams, shamans and altered states of consciousness have been enjoying increasing popularity in European prehistory. However, the literary and epigraphic data in the Roman period make their presence at least as probable. Miranda Aldhouse-Green has combined these data with the archaeological and iconographic evidence, viewed contextually, although sadly many images are stray finds. Her key point is that the images of half-human, half-animal monsters may not represent deities but, rather, Gallo-British shamans. The cultural identity of humans in relation to animals provides both synergy through transcendence as well as creative tension, leading to a more complex perception of otherness in this period.

The Newcastle upon Tyne-based research project on 'jet' utilized a technique known for 75 years in the oil industry but never before applied to archaeological materials. Reflected light microscopy has three advantages over chemical analyses – the ease of application, the tiny sample size, making it virtually non-destructive, and the ease of interpretation, with its non-overlapping distribution. Predictably, Lindsay Allason-Jones and Mick Jones found that very little in the Roman 'jet set' was what it seemed, with many black shiny substances utilized and even black glass imitations of 'jet' forms. The analysis of almost 100 samples is revealing interesting trading patterns between Roman provinces, including links between Spain and Britain, and Germany and Hungary.

A parallel research project, to Robb's, on Malta concerns Mike Richards, Richard Hedges and Isobel Walton's stable isotope analyses of seven Neolithic individuals from three phases of the Brochdorff Circle complex, excavated by Caroline Malone and Simon Stoddard. This indicates that marine protein played little or no part on the diet of these people. The authors admit that burial in the Circle alone may have been open to a small fraction of the total population; I would add probably a high-status subgroup. Nonetheless, given the abundance of marine resources then and now around Malta, this is a surprising result and leads us to consider the overall importance and value of cereals in the diet of Neolithic Malta – as much a question of cultural identity as were the temples. This contribution is one of an increasing number of articles utilizing the production of stable isotopic dietary signatures at the same time as AMS dates on human bones. This development is likely to revolutionize our perceptions of the subsistence basis of European communities over the next decade. One of the most urgent research topics is the closer integration of stable isotopic data with animal bone and plant data.

The dietary implications of the AMS method are also important for the second of the archaeological science contributions, which details how the technique of DXA (dual-energy X-ray absorptiometry) improves the measurement of BMD (bone mineral density) to diagnose osteoporosis in ancient populations. Gordon Turner-Walker, Unni Syversen and Simon Mays combined forces to compare medieval skeletons from Trondheim and Wharram Percy to investigate the past incidence of osteoporosis. Surprisingly, they found that this condition was just as prevalent then as now, especially amongst females, even though the causes may well have been different (then – poor diet, short birth interval and prolonged lactation; now – alcohol, tobacco and lack of exercise). The provision of time-depth to the study of modern pathologies is important, since a genetic component for osteoporosis can seemingly be ruled out.