

Osteoarchaeological and isotopic approaches to the Copper Age in central and southern Spain

Jess Beck

University of Cambridge

My Iberian research is focused on the osteoarchaeology of the Copper Age, particularly the analysis of human remains from 3rd millennium enclosure sites in central and southern Spain. My research themes include developing new methods to maximize the information recoverable from fragmentary and commingled skeletal remains, deriving a more nuanced understanding of individual and community identities by combining osteoarchaeology and mortuary archaeology, conducting isotopic analyses of human diet and mobility, and developing approaches to complex sites and mega-sites grounded in anthropological archaeology. Previous and ongoing projects include bioarchaeological and isotopic analyses of burials and commingled deposits at Marroquíes (Jaén, Spain) and Los Melgarejos (Jetafe, Spain). I am interested in connections and collaborations with researchers focused on late prehistory, the Copper Age, social complexity, osteoarchaeology, mortuary archaeology, and isotopic analyses.

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Connectivity in the Bay of Biscay during the Bronze Age: from typo-chronology to archaeometallurgy

Juan Latorre Ruiz

University of Oxford

Unlike connectivity around the English Channel and the Irish Sea during the Bronze Age, not much attention has been given to the Bay of Biscay, understood as the sea body connecting Northern Iberia and Western Atlantic France. For my doctoral research, I have built up a relational database of the Chalcolithic and Early and Middle Bronze Ages metal artefacts recovered in the regions around the Bay. This is NW Iberia, the Cantabrian region, Aquitaine, CW France and Brittany. My research studies these artefacts from a traditional typo-chronological perspective establishing connections between the regions where they have been found and using post-processual views to offer an interpretation of their distribution. However, in a future postdoctoral project I plan to add the chemical composition of the artefacts into my database hence including archaeometallurgy in my analysis. My objective is to establish connections between regions not only based on morphology but also on the chemical composition of the artefacts. To do so, I will need to dialogue with research groups that have made archaeometallurgical studies overlapping my geographical and chronological scope and find possible sources of funding. The IberoArchUK conference is the ideal place to make progress on these two fronts.

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Connecting the Western Mediterranean. Archaeometallurgy and interdisciplinary research between Balearic Islands and Iberian Prehistory

Pau Sureda

Incipit-CSIC & University of Cambridge

My research is focused on the Balearic Islands Prehistory (Mediterranean Sea, Spain), particularly on Early colonisation and Bronze Age societies. This is also based on 6 years of interdisciplinary and fieldwork research in two archaeological sites from Formentera Island: the settlement of Cap de Barbaria II and the funerary context of Cova 127. Currently, I am working on my postdoctoral project, which is focused on archaeometallurgical studies of

metallic objects and remains from the whole archipelago. Specifically on their production technology (XRF/ICP-MS and metallography/SEM) and provenance (Lead Isotope Analysis). In general terms, I want to examine their social and economic structure (household, funerary and ritual activities) but also its relations within their environment and the significance of external contacts and influences. According to this, isolation/connection and technologic adaptations to its environment are some of the main questions to study within the context of the Western Mediterranean. Future plans and possible collaborations will include materials studies from both archaeological sites. Besides, I am open to collaborate or develop archaeometallurgical studies from other Iberian sites.

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Look below by looking above: contributions of the combination of aerial survey and computational methods for archaeological surveys

Arnau Garcia-Molsosa
University of Cambridge

In recent years, archaeology has been benefiting from continuous technological advances RS and computational methods: new sensors and improvement of existing ones, expansion of aerial and space platforms, increasing resolution and availability of the acquired images, long-term historical series of the whole globe, and data services that provide large quantity of data and increasing computing capabilities through cloud and parallel computing are some examples. The combination of these advances is revolutionising a field with a long history of archaeological applications. In this presentation we will introduce different examples in which the authors are using new (and old) remote sensing methods to document and interpret the historical dynamics of landscapes and the societies inhabiting them. Case studies in the Mediterranean and South Asia will demonstrate the importance of each specific context in the building of successful workflows. The aim is to discuss new technologies and methods, such as machine learning approaches, from a bottom-up perspective, departing from archaeological and historical questions and focusing on potential contributions to the understanding of archaeological contexts.

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Investigation of foddering strategies in pastoral contexts through micromorphology and lipid biomarkers analysis

Natalia Égüez
University of La Laguna & University of Cambridge

I am a geo-ethnoarchaeologist focusing on the study of the ephemeral traces of occupation left by mobile pastoralist societies through the analysis of dung and organic-rich deposits in prehistoric and modern-day contexts. Particularly, I am interested in the identification of molecular fingerprints in sediments related to animal penning and husbandry practices, including seasonal foddering, during the Neolithic and Bronze Age periods. My research includes n-alkanes, fatty acids and carbon compound-specific stable isotope analysis, together with soil micromorphology, to provide contextualised and quantifiable data to better understand pastoral households and related husbandry strategies within the local surrounding ecological settings. Although my main geographic working area has been Mongolia, ongoing projects include Western European contexts such as in Spain, Italy, the UK and Finland. I am keen to meet and collaborate with other researchers willing to explore human-domesticates relationships through the soil-dung lipid biomarker approach.