

# Telling the stories of landscape: a team-based approach to environmental archaeology

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Our broad specialisms within the field of environmental archaeology ensures Archaeology South-East (UCL Institute of Archaeology) can undertake holistic approaches to communicating the past, allowing us to support the planning of large-scale conservation projects and to inform choices about land management and landscape change. We are fortunate to be imbedded within a coherent set of historic landscapes that articulate with Natural England's National Character Areas (NCAs). Their definition has immense value as they provide a framework for reconstructing the relationships between past societies and the environment in order to understand the evolution of the modern countryside.



Environmental archaeology has been at the heart of forming understanding of the evolution of some of the most important historic landscapes in the areas in which we work. From the coastal marshes of Kent and Sussex to the claylands and heaths of East Anglia, archaeology takes us into some of our most ecologically rich and historically interesting cultural landscapes. Alongside archaeological and historic environment work, our geoarchaeological and palaeoenvironmental expertise helps chart these changing environments from the depths of prehistory up to the present day.

Black Down, 240 hectares of wooded heathland in National Trust ownership, straddling the boundary between the South Downs National Park and the Surrey Hills AONB, provides an example of where historic landscape analysis told the story of this beautiful and vulnerable part of the countryside to visitors, but also helped the National Trust manage the site in a sustainable way. By mapping surviving archaeological features and charting the evolution of the landscape, we were able to reconstruct historic land use from the Mesolithic onwards.

A holistic approach ensures integration of geoarchaeological and palaeoenvironmental work with historic landscape analysis and archaeological investigations. Our recent work within the nationally important landscape of the Wantsun Channel, Kent, identified deep sedimentary sequences. These were shown to preserve a record of the landscape over the last 13,000 years, helping us understand a location witness to some of the defining moments in our history (such as the opening of the Dover Strait, the Claudian invasion and the landing of St Augustine). Over 500 subsamples were extracted from 21 boreholes in order to study the relative abundance and diversity of a range of environmental proxies. These included pollen, diatoms, foraminifera, ostracoda, insects, plant macrofossils and mollusca. Lithological, particle-size and micromorphological analyses were also performed on the sediments. This palaeoenvironmental and geomorphological strategy was supported by scientific dating subsequently built into Bayesian models, allowing the creation of a detailed chronological framework for the sedimentary sequences.

Heathland landscapes: Black Down, West Sussex (includes material © Archaeology South-East; Courtesy of Enid Allison; © Natural England under CC BY-NC-ND 2.0 licence)

Knowledge of past landscapes also allows us to plan for future change. Medmerry, on the Manhood Peninsula, West Sussex, comprises the largest managed realignment of open coastline in Europe. It provided an opportunity to examine a landscape subject to dynamic coastal processes that have impacted the local community today as much as influencing how, where and when people lived in the area in the past. The landscape preserved environmental remains, in dry and waterlogged conditions, revealing a complex interplay between freshwater, saline and brackish environments that impacted flora and fauna as well as human settlement. A range of samples were analysed including plant macrofossils, wood, fauna and mollusca as well as pollen, micropalaeontological remains and insects, providing information about vegetation and agricultural and pastoral economies, as well as human exploitation and management of resources.

Environmental archaeology is at its best when employed as part of synthetic multi-disciplinary approaches. At Archaeology South-East, publication of archaeological syntheses that include major environmental components tally with Natural England's NCAs (<https://www.ucl.ac.uk/archaeology-south-east/our-research/publications>). The understanding of the evolution of these landscapes helps facilitate their conservation and enhancement. Articulation with areas

of landscape character has been helpful in forming meaningful study areas. ASE are in the process of completing major new archaeological syntheses of the Sussex coastal plain and the important wetland landscape of Romney Marsh. Over the last decade our work has transformed understanding of the South East's largest environmental and cultural area, the woodland landscape of the Weald.

Here, as elsewhere in Britain, past agriculture has been one of the biggest influences on landscape ecology and biology. By elucidating the history of particular agricultural regimes, and charting their impact through palaeoenvironmental studies, we can evaluate both their benefits and disadvantages in terms of habitat and nature recovery. In the case of the Weald, historic woodland management and pastoral land use had a fundamental impact on the area's landscape character. Wood pasture in particular has been of great importance to the formation of the region and its restoration enhances the historic landscape.

Wood pasture is an incredibly rich habitat, the product of grazing animals within historic land management systems. These environments often owe their origins to the medieval period when herders turned their beasts out on the wooded commons. As well as their ecological importance, these sites have additional cultural and landscape value. At Archaeology South-

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Wetland landscapes: The Medmerry realignment scheme (includes material © Archaeology South-East; © Environment Agency; © Natural England under CC BY-NC-ND 2.0 licence)

East we are exploring historical and archaeological aspects of the origins, composition and operation of wood-pasture. Our work has involved engagement with conservation bodies such as the Sussex Wildlife Trust, but understanding of historic agricultural regimes also has wider public benefit. The creation, management and restoration of wood pasture is a key element of the government's new Environmental Land Management Scheme (ELMS). Farmers, land managers and practitioners of regenerative agriculture can embrace recognisable elements of historic pastoralism to respond to the agricultural challenges of the future.

By utilising landscape character areas as a framework for our environmental archaeology we are able to help communities by informing decisions about the places they inhabit and care for. By demonstrating how a given landscape has evolved, we can aid choices about land management and landscape change, providing valuable evidence to help inform planning and conservation decisions. Only through partnership can archaeology respond to the challenges of the future, and only through embracing the multidisciplinary elements of 'environmental archaeology' can we as practitioners inform the restoration and enhancement of the historic landscape. By doing this we will provide added benefit in terms of supporting biodiversity and nature recovery and aiding the targeting of agri-environment schemes.

**Andrew Margetts**

Andy has published widely on the archaeology of South East England, with a particular focus on the Wealden region. His main research interests are medieval pastoralism and agriculture as well as the application of archaeological studies to inform future landscape management.



**Lucy Allott**

After completing a PhD at the University of the Witwatersrand, South Africa, Lucy joined ASE in 2005. Lucy has developed research interests in woodland management, fuel supplies, and imports of timber and plant food to London. She teaches identification of archaeological wood and charcoal annually at Kew Royal Botanic Gardens.



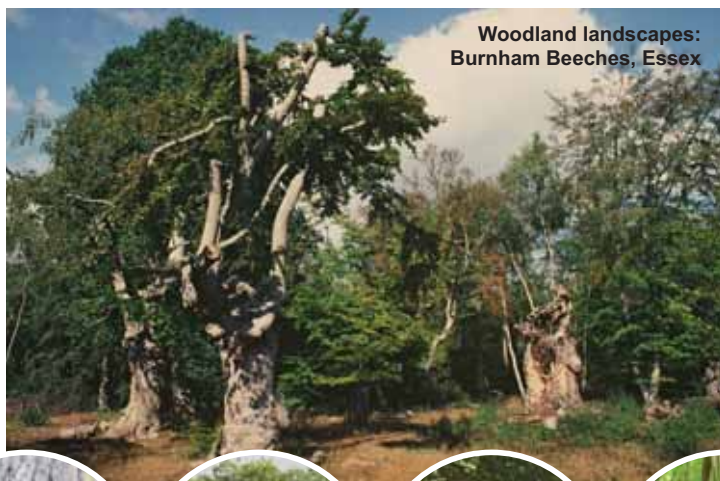
**Alice Dowsett**

Alice is a Senior Geoarchaeologist at Archaeology South-East. She is a specialist in reconstructing Holocene landscapes and has been undertaking palaeoenvironmental investigations in the south-east of England for the past seven years. Alice specialises in the analysis of ostracods and foraminifera.

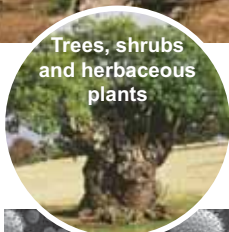


**Richard James**

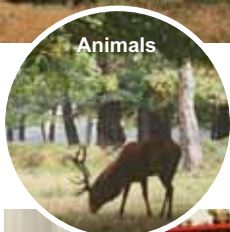
Richard is a Senior Archaeologist with Archaeology South-East, specialising in archaeological impact assessment and historic landscape surveys. His interests include the archaeology of woodland and heathland landscapes.



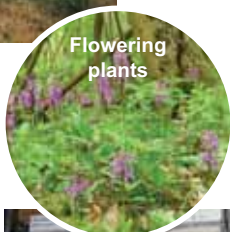
Insects



Trees, shrubs and herbaceous plants



Animals



Flowering plants



Insect analysis



Pollen analysis



Faunal remains



Macrobotanical plant remains

Woodland landscapes: Burnham Beeches (includes material © Archaeology South-East; Courtesy of Enid Allison; © Natural England under CC BY-NC-ND 2.0 licence