

The British
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Palaeolithic - Mesolithic Conference



Edited by Claire Lucas and Nick Ashton

Book of Abstracts

Palaeolithic-Mesolithic Conference

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Papers

Session 1

Time and change in Mesolithic Britain 9600-3600 BC

Chantal Conneller¹, Seren Griffiths²

¹ Newcastle University, UK Chantal.Conneller@newcastle.ac.uk

² Manchester Metropolitan University, UK

The British Mesolithic has often been treated as a period without history, where the only significant change is from an early Mesolithic characterised by highly mobile big game hunters to more sedentary marine-focused late Mesolithic. This presentation presents the results of a British Academy funded project which has aimed by contrast to understand temporal change over this period on a centennial scale. This has involved collating all existing radiocarbon dates for the period and commissioning new dates for certain key sites. This has permitted the production of a new four-fold typo-chronology for the period that can be used to date sites without organic preservation and incorporate undated sites into broader narratives of changing patterns of occupation.

The patterns that have emerged are illuminating. In the early Mesolithic, different waves of colonisation can be discerned by groups with different cultural practices. A new Middle Mesolithic phase emerges, characterised by new ways of engagement with the landscape including the building of large buildings and monuments. Similarly, significant temporal and regional differences can be seen in the late Mesolithic, while the last millennium of the period is one of dynamic change and contact with the continent.

Mesolithic excavations at Ufton Bridge in the Kennet Valley

Martin Bell¹, Nick Barton², Tom Walker¹

¹ University of Reading, UK m.g.bell@reading.ac.uk

² Institute of Archaeology, University of Oxford, UK

The first results of the summer 2023 excavations at the early Mesolithic site at Ufton Bridge will be presented. The site is on a gravel rise adjacent to a contemporary palaeochannel on the Kennet floodplain. It has previously been the subject of geoarchaeological and environmental investigation, organic material is preserved in the palaeochannel. This is the first extensive excavation. The results will be related to the wider picture of the early Mesolithic in the Kennet valley, the nature and seasonality of activity and how these sites may relate to the interplay between human, animal and environmental disturbance factors and agency and patterns of landscape connectivity.

The Early to Late Mesolithic transition in Britain: Exploring technological change within a stratified Mesolithic sequence from pre-10,500 to 5000 BP from Western Scotland

Steven Mithen¹, Inger Berg-Hansen²

¹ University of Reading, UK s.j.mithen@reading.ac.uk

² University of Oslo, Norway

There is currently a sharp divide between the Early and Late phases of the British Mesolithic. While the former (c. 11,500-10,300 BP) is part of the widespread Maglemosian complex of Northwest Europe, the latter (c. 10,300-6000 BP) with its small geometric microliths has no clear parallels on the continent. With neither transitional assemblages nor stratified sites encompassing both phases, the origin of the Later Mesolithic is unclear: does it reflect a local development within Britain which then became widely adopted or the arrival of new population? Excavations undertaken between 2018 and 2023 at Rubha Port an t-Seilich, Isle of Islay, have discovered a continuous stratified sequence of artefact-rich deposits providing an opportunity to explore the Early-Late Mesolithic transition: does this reveal a gradual process of technological change or an

abrupt replacement of one technology by another? Is there a 'Middle Mesolithic' between the two known phases? This presentation will provide results of an on-going technological study of chipped stone, along with the fragmentary but significant faunal remains from the site, plant remains and coarse stone artefacts.

Session 2

A Place In-Between: Exploring Mesolithic activity on the Isle of Man

Sinéad McCartan¹

¹ *Department of Archaeology, University College Dublin, Ireland* smccartan@cbl.ie

Located in the middle of the Irish Sea, the Isle of Man is visible, weather conditions permitting, from north-west England, south-west Scotland, the north-eastern coast of Ireland, and occasionally from north Wales. The island's position, between Britain and Ireland, provides an opportunity to explore its role during the Mesolithic period and how hunter-gatherer groups may have used it as part of their activities within the Irish Sea basin area.

This paper presents the early results of research examining the evidence for the Mesolithic period on the Isle of Man. It reviews the late nineteenth and early twentieth century antiquarian investigations, overviews by J.G.D. Clarke and Peter C. Woodman, and excavations by Woodman at Cass ny Hawin I and most recently by Oxford Archaeology North at Cass ny Hawin II. Taken together with an examination of a large volume of lithics gathered through fieldwalking, the evidence builds a picture of extensive activity on the Isle of Man during the Mesolithic period. The significance of this activity is explored and the role of the island locality between the larger land masses of Ireland and Britain.

Back on the map: new work on the early Holocene archaeology and environments of Ceredigion, West Wales

Samantha Brummage¹, Martin Bates¹

¹ *University of Wales Trinity Saint David, UK* s.brummage@uwtsd.ac.uk

Archaeological work in the early 20th at Tanybwllch, near Aberystwyth, on a site containing both early and late Mesolithic archaeology was followed by nearly 100 years in which little was added to our understanding of this period in the county. The paucity of the Mesolithic archaeological record in Ceredigion contrasts with the rich record in Pembrokeshire to the south where substantial efforts have been made to understand the post-glacial record of environmental change and human activity. Here we report on our recent, and on-going, work to address the reasons for this discrepancy between the counties. Excavations at Talsarn, in the Aeron Valley have demonstrated that Mesolithic archaeology is present around the margins of a large lake that formed during the Late Glacial. Pollen records from the lake document potential human impact on the vegetation from the very start of the Holocene. Elsewhere in the county deep boreholes have started to understand the flooding history of the larger rivers (Dyfi/Ystwyth) and off shore survey has been undertaken to map the system of buried valleys that were present in what is Cardigan Bay prior to flooding around 9,000 years ago. Sites have been identified at which future excavation may take place.

Prospection and discovery of well-preserved Late Glacial and Early Holocene sites via commercial archaeology: a case study from Killerby

Clive Waddington¹

¹ *Archaeological Research Services Ltd, UK* clive@archaeologicalresearchservices.com

The establishment of a 200ha quarry on morainic and outwash deposits at Killerby, North Yorkshire, presented an opportunity to evaluate and then excavate over a large land parcel in advance of development. By adopting a geoarchaeological approach it was understood at an early stage that the potential for Late

Glacial and Early Holocene archaeological and palaeoenvironmental remains was possible on this site. Key geomorphological features were identified and targeted for investigation, including a kettle hole and several wetland basins, and a series of remarkable discoveries were made. This has included 11,000 year old timber remains of tepees, or lavuu, structures, one with its final hearth still in situ, as well as a timber platform built out into a pond that is thought might have been used as a tanning pit. An important assemblage of chipped lithic material was also recovered ranging from Ahrensburgian-type point through to microliths, scrapers, flint axe head and more. The well-preserved sequences of sediment units extending back to the Late Glacial contained the stratified archaeological remains and this meant detailed palaeoenvironmental analysis could be undertaken, including the use of sedaDNA in combination with pollen analysis. A radiocarbon dating programme, including the application of Bayesian modelling, has provided a robust framework for aging the archaeological remains as well the onset, duration and cessation of climate and vegetation change.

Human interactions with the environment in the Palaeolithic-Mesolithic occupations at Cueva de los Murciélagos (Albuñol, Granada, Spain)

Francisco Martínez-Sevilla¹, Maria Herrero-Otal², María Martín Seijo^{3, 4}, Rafael M. Martínez Sánchez⁴, Jordi Revelles López⁵, Juan Santana⁶, Samuel Castillo Jiménez¹, Raquel Piqué Huerta², Blas Ramos Rodríguez⁷, Luis Miguel Zahonero Gómez¹, Anotonio Peralta Gómez⁸, José Antonio Lozano Rodríguez⁹

¹ *Departamento de Historia y Filosofía, Área de Prehistoria, Universidad de Alcalá, Spain* f.martinezs@uah.es

² *Departament de Prehistòria, Universitat Autònoma de Barcelona, Spain*

³ *Instituto de Ciencias del Patrimonio, Consejo Superior de Investigaciones Científicas, Spain*

⁴ *Departamento de Historia, Universidad de Córdoba, Spain*

⁵ *Unitat d'Arqueobotànica. Institut Català de Paleoecologia Humana i Evolució Social, Spain*

⁶ *Departamento de Ciencias Históricas, Universidad de Las Palmas de Gran Canaria, Spain*

⁷ *Laboratorio de Arqueología Biocultural (MEMOLab) de la Universidad de Granada, Spain*

⁸ *Instituto de Historia, Departamento de Arqueología y Procesos sociales, Consejo Superior de Investigaciones Científicas, Spain*

⁹ *Centro Oceanográfico de Canarias, Instituto Español de Oceanografía, Spain*

Cueva de los Murciélagos is a karstic cave 7 km from the current Mediterranean coastline of southern Iberia. It is located at the lowest section and on the right bank of the Angosturas gorge, 450 m above sea level and about 70 m from the base of the gorge. The cave has a lenticular entrance of 15 m wide and oriented to the east, yielding direct access to the main chamber. The cave is archaeologically known since the 19th century as a sepulchral cavity highlighting the preservation of organic materials. The site has been re-studied in the framework of the MUTERMUR project, which aims to reevaluate the archaeological materials stored in the museums as well as carry out the first systematic fieldwork at the site. Part of the research showed that the site has provided the best-preserved set of basketry from the Mesolithic in southern Europe (c. 9500 BP). In addition to the exceptional conservation of plant-based materials, the last fieldwork in the cave shelter have revealed a Late Palaeolithic sequence of approximately 3 m depth. The results of radiocarbon analysis from six hearth features, sets the Late Glacial human occupation at c. 12,200 BP. In this presentation we provide preliminary results from recent fieldwork and the results from interdisciplinary analyses including palynology, charcoal analysis, faunal remains, as well as the associated lithic tools and personal ornaments. The aim is to describe human-environment interaction during the Palaeolithic-Mesolithic occupation at Cueva de los Murciélagos and its relations with others Late Glacial site in south Iberia.

Session 3

Searching for ghosts with the machine: Using computational approaches to examine the semiotic structure of prehistoric art

Lasse Lukas P. Herskind¹, Dale Daykin²

¹ *Institute for Culture and Society, Aarhus University, Denmark*

lasselukas@gmail.com

² *Department of Archaeology, Durham University, UK*

The role of information in prehistoric art has been a hotly debated topic within the field for almost 60 years, from Leroi-Gouran's 'mythogram' to more recent claims of 'graphic communication systems' (Von Petzinger, 2016). Until recently, these hypotheses were purely speculative. However, Bacon *et al.* (2023) provide further support that at least some Upper Palaeolithic art was designed to record and store information. Whilst these results are fascinating, Bacon *et al.*'s approach relies on individual observations and can only identify associations between a limited set of motifs at any one time. Additionally, past approaches towards a 'formal grammar' within Upper Palaeolithic art (e.g. Sauvet and Wlodarczyk, 2008) have used simplified datasets that cannot reveal any semantic relationships between individual motifs. However, the integration of computational linguistic methodologies enables more efficient data processing at a far greater resolution. This presentation will discuss how k-skip-n-grams (skipgrams) can be used to examine relationships between non-linearly organised motifs, allowing archaeologists to statistically evaluate the potential for underlying semiotic structure. To demonstrate its versatility and effectiveness, two case studies will be examined: Portable art from the South Scandinavian Mesolithic; and Magdalenian parietal art from the Dordogne. For the Mesolithic material, the relationships between all motifs on each individual object were analysed. The results show a statistically significant cluster of interrelated motifs from the Ertebølle culture, indicating deliberate collocations. K-means clustering was used to detect various 'motif clusters' on each panel of the Magdalenian corpus, which could then be analysed.

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The engravings of the Laurel-leaf point knappers from Ormesson, Les Bossats (Paris Basin, France)

Claire Lucas^{1,2}, Pierre Bodu², Alexandra Legrand-Pineau², Sophie Tymula-Teillac³

¹ Department of Britain, Europe and Prehistory, British Museum, UK clucas@britishmuseum.org

² UMR 8068 Technologie et Ethnologie des Mondes PréhistoriqueS, CNRS, France

³ Musées communautaires d'Éguzon-Argenton-Vallée de la Creuse, France

The open-air site of Ormesson, Les Bossats is located on the left bank of the Loing River, c. 80 km south-south-east of Paris, and retains Middle and Upper Palaeolithic occupation layers. Amongst these, a vast Solutrean campsite with ten structures marked by Fontainebleau limestone blocks was preserved *in situ* in loess over 300 m² and excavated from 2012 to 2022. Flint knapping primarily dedicated to the manufacture of laurel-leaf points, butchery of reindeers, horses, and a bison, fire, and possibly antler working or use occurred within these structures dated to 24,000-22,800 cal BP.

Structure nos. 2, 3, and 5 notably yielded 49 fragments of thin shaping flakes on which the cortex shows deliberate modifications by engraving sets of parallel lines, criss-crossed patterns, and a sinuous line, as well as superficial scraping of the cortex surface. Crucially, this assemblage confirms the existence of engravings on flint cortex during the Solutrean period.

We will present the results of a technological analysis indicating that the shallow engravings were performed in single stroke actions without attempt of deepening the lines and are adjacent to lightly scraped areas without obvious practical purpose on a thin, smooth cortex. Both engraving and scraping were achieved prior to the removal of the flakes on which they appear and there is no evidence that more than one block, most likely shaped into a laurel-leaf point, underwent such modifications. Comparisons will then highlight similar engravings on flint cortex from different periods, in some cases clearly associated with demanding knapping methods such as the shaping of laurel-leaf points or long blades debitage, leading to a discussion about the intentions of the engravers.

The Ahrensburgian cave site of Remouchamps: New ¹⁴C-dates and technological reappraisal of the lithic industry

Hans Vandendriessche¹, Camille Pironneau¹, Prudence Robert¹, Pierre van der Sloot², Isabelle De Grootte¹, Philippe Crombé¹

¹ Department of Archaeology, Ghent University, Belgium

hans.vandendriessche@ugent.be

² Agence wallonne du Patrimoine, Belgium

First excavated at the turn of the 20th century, the cave site of Remouchamps, in the Belgian Meuse valley, has played a pivotal role in our understanding of the geographical extension of the Ahrensburgian (Taute, 1968) and the organization of the Ahrensburgian settlement system along the Meuse and Lower Rhine valleys (Arts and Deeben, 1981; Baales, 1996). Characteristic of its lithic industry are the many Zonhoven points it yielded, alongside small tanged points, as well as its clear focus on the production of bladelets instead of blades (> 5 cm). The latter are scarce and *Long Blades*, *Gross-* or *Riesenklingen* seem to be entirely absent. The faunal assemblage is dominated by reindeer, but is further comprised of horse, chamois, hare and ptarmigan among others. The site is furthermore renowned for yielding a collection of less mundane finds, among which are several remarkably decorated bone artefacts, perforated tertiary shells from the Paris Basin, some human remains (mostly teeth, foot- and hand bones, potentially from the same individual) and a few “ochre-encrusted” lithic artefacts.

Here, we will present some of the results of the new interdisciplinary research program that started in 2021 and was designed to shed more light on the chronological framework, the technological characteristics and the faunal exploitation of the Ahrensburgian occupation(s) of the Meuse valley. For Remouchamps, these revisions not only concerned the materials recovered during the 1969-1970 excavations by Michel Dewez (1974), but also include the numerous finds of the original excavations of the site by Edmond Rahir (1920) that had never been analyzed in detail until now.

The four ¹⁴C-dates already available indicated possible repeated occupations of the cave from the first half of the Younger Dryas up to the beginning of the Preboreal and established Remouchamps as one of the older Ahrensburgian sites in Europe. This older chronological position was according to most researchers also in agreement with the typological characteristics of the site, as it was still composed of a considerable number of tanged points. However, a new series of more than 30 radiocarbon dates, carried out essentially on cut-marked bones entirely spans the final phase of the Younger Dryas and the Preboreal transition, approximately from ca. 12,200-12,000 cal BP to ca. 11,700-11,500 cal BP. The occupations at Remouchamps are by consequence much more homogeneous than initially expected and the use of tanged points in the Low Countries seems to have persisted more or less until the onset of the Preboreal.

Apart from this new chronological framework, we will also present new data on the lithic technology of the site, based on the results of a quantitative attribute analysis and an ongoing refit study. This technological data should allow us to further assess the affiliation between the (Epi-)Ahrensburgian of the Low Countries and the Long-Blade/Belloisian industries of the southern part of the United Kingdom and Northern France, as proposed by several researchers (Fagnart and Coudret, 2019) and as suggested by the results of the recent elaborate refits at the early Younger Dryas site of Ruien in Western Belgium. In addition, it should allow us to verify whether Remouchamps should indeed be considered an exponent of the Flat Blades and Bladelets Technocomplex, as has been stated in recent years (Naudinot, 2013) and to what extent the knapping methods applied at Remouchamps match those of the Laborian and classic Ahrensburgian cultures.

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Session 4

PALaEoScot: Archaeo-ecological approaches to Scotland's elusive Palaeolithic Past

Kate Britton¹

¹ University of Aberdeen, UK k.britton@abdn.ac.uk

For more than a century, Palaeolithic Scotland was missing from the textbooks, presumed non-existent. A low-density of archaeological finds was compounded by a research tradition that had persistently excluded the possibility of human settlement at the extreme edge of north-west Europe prior to the Holocene, a situation at odds with decades of palaeoenvironmental research. Recent discoveries of Late Upper Palaeolithic (LUP) sites have provided the first evidence for human activity in Late Pleistocene Scotland, yet research continues to be held back by both a lack of investigation and a lack of conventional finds.

With specific reference to the Palaeolithic archaeology of Scotland, this talk will explore the perceptual barriers that can inhibit research, as well as challenges of understanding the human past where little conventional archaeological evidence belies an undoubted human presence. PALaEoScot ('People, Animals, Landscapes and Environments of Late Glacial Scotland') will be introduced – a new research initiative from the University of Aberdeen which centres on the use of archaeo-ecological and multi-species approaches to explore the low visibility archaeology of LUP Scotland. The first results will be presented, including potential new sites, new radiocarbon dates and isotopic analyses of palaeontological materials, illuminating the chronological and ecological context of post-glacial recolonisation in Scotland.

Early prehistoric occupation of Wogan Cavern: initial observations

Rob Dinnis¹, John Boulton², Jennifer C. French³, Martin Bates⁴, Kate Britton¹, Michael Buckley⁵, Andrew T. Chamberlain⁶, Jesse Davies⁷, Elodie-Laure Jimenez⁸, Edouard Masson-MacLean¹, Jonquil Mogg⁷, Simon Parfitt^{9, 10}, Catriona Pickard¹¹, Elizabeth A. Walker¹², Chris Stringer⁹

¹ University of Aberdeen, UK rdinnis@yahoo.co.uk

² Devon Spelæological Society, UK

³ University of Liverpool, UK

⁴ University of Wales Trinity Saint David, UK

⁵ University of Manchester, UK

⁶ British Cave Research Association, UK

⁷ Independent researcher

⁸ Royal Belgian Institute of Natural Sciences, Belgium

⁹ Centre for Human Evolution Research, Natural History Museum, London, UK

¹⁰ Institute of Archaeology, University College London, UK

¹¹ University of Edinburgh, UK

¹² Amgueddfa Cymru – Museum Wales, UK

Small-scale excavations at Wogan Cavern (Pembrokeshire) since 2021 have identified several areas of intact sedimentary deposits and seemingly well-stratified early prehistoric archaeological layers. A layer that contains characteristically Mesolithic artefacts has been found in three areas of the cave. This overlies intact Pleistocene sediments. Pleistocene sedimentary deposits have so far been tested in only one area of the cave, to a maximum depth of c. 1.5 m below surface. Two Upper Palaeolithic layers dating to before the Last Glacial Maximum have been found. The lower of these shows clear similarity to the archaeological

assemblage from Paviland Cave, and therefore has implications for understanding the early *Homo sapiens* occupations of Britain. Here we explain this work and offer thoughts regarding the evidence encountered so far for the early prehistoric occupation of the cave.

Guildford Fire Station: new perspectives on the British Late Upper Palaeolithic

Alison Roberts¹, Nick Barton²

¹ *Ashmolean Museum, University of Oxford, UK* alison.roberts@ashmus.ox.ac.uk

² *Institute of Archaeology, University of Oxford, UK*

A rare example of a large, well preserved, *in situ* open-air Late Upper Palaeolithic site at Guildford Fire Station, Surrey is described. Besides multiple refits and evidence for the presence of three different flintknappers (including a novice) the site throws fresh light on function of artefacts and mobility of Late Glacial hunter-gatherer groups in southern Britain. We conclude with some new observations on the techno-typological nature of the British LUP lithic assemblages and where they belong chronologically in a North West European context.

New Fieldwork Results from Ash Hole Cavern, Torbay

Laura S. Basell¹, Chris J. Proctor², Philip. Armitage³, Janet Proctor², Henry Webber⁴, John Stewart⁵, Gill Plunkett⁶, Diana Sahy⁷, David Chivall⁸, Danielle de Carle¹, Catherine Farnell⁹, Kevin Johns¹⁰

¹ *University of Leicester, UK* lb434@leicester.ac.uk

² *Independent researcher*

³ *Brixham Heritage Museum, UK*

⁴ *Royal Agricultural University, UK*

⁵ *Bournemouth University, UK*

⁶ *Queen's University Belfast, UK*

⁷ *British Geological Society, UK*

⁸ *Oxford Radiocarbon Unit, UK*

⁹ *Heritage, Arts, People, UK*

¹⁰ *Taleblazers, UK*

This paper presents new results from recent geoarchaeological fieldwork at Ash Hole Cavern in Torbay, undertaken by the authors in close collaboration with the English Riviera UNESCO Global Geopark, Historic England and Torbay County Council. The study forms part of wider research on the Quaternary landscapes of the South West region. The caves of South West England have long been recognised as important archives of Quaternary landscape change including fauna and archaeology. Investigation of their archaeology and palaeontology was placed on a scientific footing by William Pengelly (1812–1894). He developed sophisticated recording techniques at his excavations in Brixham Cavern and Kent's Cavern, notably the adoption of a three-dimensional grid system of recording. Continued excavations and research to the present day have permitted the application of modern dating techniques and reanalyses of fauna and archaeology from deposits spanning the last 500,000 years. However, not all caves in the region have received equal attention. In our paper we will provide an overview of the Ash Hole Cavern project which involved an assessment of previous geoarchaeological fieldwork; high-specification survey; sampling for palaeoenvironmental and dating purposes; outreach and the consideration of long-term management strategies.

Session 5

Chronostratigraphy of the Late Middle Palaeolithic and Middle to Upper Palaeolithic transition in North-West Europe: new results from Scladina Cave (Belgium)

Kévin Di Modica¹, Stéphane Pirson^{2, 3}, Mona Court-Picon⁴, Freddy Damblon⁴, Thibaut Devière⁵, Guillaume Guérin⁶, Tom Higham⁷, Virginie Sinet-Mathiot^{8, 9}, Sahra Talamo^{8, 10}, Sophie Verheyden⁴, Hubert Vonhof¹¹ and Grégory Abrams^{1, 12}

¹ *Scladina Cave Archaeological Centre, Espace Muséal d'Andenne, Belgium* kevin.dimodica@ema.museum

² *Direction scientifique et technique, Agence wallonne du Patrimoine, Belgium*

³ *Centre européen d'archéométrie, University of Liège, Belgium*

⁴ *Institute of Natural Sciences, Brussels, Belgium*

⁵ *UMR 7330 Centre Européen de Recherche et d'Enseignement des Géosciences de l'Environnement, CNRS, France*

⁶ *UMR 6118 Géosciences Rennes, CNRS, France*

⁷ *Human Evolution and Archaeological Sciences, University of Vienna, Austria*

⁸ *Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany*

⁹ *UMR 5199 De la Préhistoire à l'Actuel: Cultures, Environnement et Anthropologie, CNRS, France*

¹⁰ *Department of Chemistry GCIamician, Alma Mater Studiorum, University of Bologna, Italy*

¹¹ *Max Planck Institute for Chemistry, Mainz, Germany*

¹² *Department of Archaeology, Ghent University, Belgium*

The Late Middle to Upper Palaeolithic Transition in North-West Europe (NW) is particularly crucial in European Palaeolithic archaeology in terms of cultural and demographic changes (e.g.: Hublin, 2015; Flas, 2011). Especially, the replacement of Neanderthals by anatomically modern humans (AMH) seems to occur in a very different way in NW Europe compared to what has been identified in southern and easternmost areas (e.g.: Talamo *et al.*, 2020; Fewlass *et al.*, 2020). However, most of the documentation related to that issue has been excavated very early in the history of archaeology, and therefore does not meet the current standards of scientific research.

Scladina Cave (Belgium) is one of the few sites in NW Europe where ongoing excavations can contribute to a better understanding of the human settlements of the northern latitudes during MIS 3, including the anatomy and cultures of the Late Neanderthals and early AMH. The cave is characterized by a 8 metre thick stratigraphy covering from MIS 1 to at least MIS 5. It has yielded the remains of a juvenile Neanderthal individual related to the MIS 5 as well as two main archaeological assemblages attributed respectively to MIS 5 and MIS 3 (Pirson *et al.*, 2018; Toussaint and Bonjean, 2014).

Over the last decade, Scladina has been subject to a multidisciplinary project focusing on the latest Neanderthal and earliest AMH occurrences comprised in the ca 4-metre-thick upper part of the sequence. The aim of this project was to collect new archaeological evidence, refine the stratigraphic attribution of the assemblages and reach a better understanding of both depositional and post-depositional sedimentary processes affecting the artefacts. The recent excavations yielded abundant faunal assemblages, artefacts from the Middle Palaeolithic and the Upper Palaeolithic as well as new human remains.

Through this project, the sedimentary sequence has been subject to a rigorous stratigraphic survey and a chronological approach combining multiple dating techniques (¹⁴C, U-Th, OSL) and integrating paleoenvironmental data, notably from palaeobotany, vertebrate palaeontology, and sedimentary dynamics. Our new results suggest that MIS 4 is barely represented in the cave, while the age of the Middle Palaeolithic assemblages related to MIS 3 are older by thousands of years than previously thought (Di Modica *et al.*, 2016). One Middle Palaeolithic assemblage (1B) possibly bears witness to the recolonisation of the northern latitude early in MIS 3 after the lack of Neanderthal occupations in the North during at least part of MIS 4. Another assemblage (1A) previously dated as one of the youngest assemblages representing the typical Middle Palaeolithic in NW Europe seems now to be dated to more than 45 ka BP, an age anterior to the latest Neanderthals in Belgium, recently dated to between 44.2 ka and 40.6 ka cal BP (Devrière *et al.*, 2021). Regarding the Upper Palaeolithic in Scladina cave, the multidisciplinary approach as well as the direct dating of anthropogenically modified bones (Abrams *et al.*, 2024) suggest an age in the range of the Aurignacian in Europe. The newly found human remains have been retrieved in two distinct sedimentary contexts related to the Middle Palaeolithic and their possible association with the archaeological assemblages is still under discussion.

These new results challenge the published cultural and chronological interpretations (Pirson *et al.*, 2012). Our study therefore leads to a renewed understanding of the Scladina Cave sequence and sheds new light on the latest Neanderthal populations as well as the arrival of AMH in North-West Europe.

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Reconsidering the British Late Middle Palaeolithic – New Investigations at Great Pan Farm, Newport, Isle of Wight

Andrew Shaw¹, Alex Brown¹, Jon Dobbie¹, Hayley Hawkins¹, Mark Stewart¹, Phil Toms²

¹ Wessex Archaeology, UK a.shaw@wessexarch.co.uk

² University of Gloucestershire, UK

When was the British Late Middle Palaeolithic? What did the British Late Middle Palaeolithic archaeological record look like? Where does the British Late Middle Palaeolithic record sit in the Upper Pleistocene settlement history of northern Europe? These are significant questions but have proven difficult to even attempt to answer due to a lack of sites, archaeology and dates. Recent investigations at Great Pan Farm, Isle of Wight have, however, shed some light into this dark corner of the British Palaeolithic.

Great Pan Farm has long been recognised as a Middle Palaeolithic site of importance, having in the 1920s (Poole, 1925; Shackley, 1973; Tyldesley, 1987) produced a lithic assemblage including Levallois flakes and a characteristic late Middle Palaeolithic Bout Coupe handaxe. However, the full significance of site has remained elusive due to limited understanding of the stratigraphic context, and the taphonomic history and age of the archaeology.

This paper reports on new research at Great Pan Farm. This included the first recent investigations carried out within and adjacent to former Great Pan Farm gravel pit (Wessex Archaeology, 2023) and reassessment of the historic artefact collection and available archive curated by Isle of Wight County Archaeology and Historic Environment Service.

The new research has established the lithostratigraphy of the site and, importantly, the context of historic (Poole, 1925) and new Palaeolithic finds (Wessex Archaeology, 2023). Most significantly, through luminescence dating the work has established the age of the Great Pan Farm deposits, which, when linked to techno-typology and taphonomy of the artefacts, allows the full significance of the Palaeolithic archaeology from Great Pan Farm to be considered for the first time. The site hints at the complexity of British Late Middle Palaeolithic. It adds to the picture of human activity during the mid Devensian (MIS 4/3). Most significantly though the site demonstrates that the British early Devensian (MIS 5d-a) is not the archaeological blank canvass that it is often considered to be.

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Searching for dermestid osteo-bioturbation in early human contexts: the challenges and potential paleoenvironmental insights of diagnosing arthropod traces in prehistoric bone

Sarah E. Seeley¹

¹ Durham University, UK sarah.e.seeley@durham.ac.uk

Necrophagous arthropods are of broad interest in archaeological and fossil contexts where both invertebrate remains and bioturbation traces in bone have been used to interpret nuances in past funerary practices and to reconstruct site formation histories. Arthropod traces in bone can potentially expand our insight into localised prehistoric environments and climate that impacted early human landscape use, early anthropological site formation histories in subsistence settings, and emerging mortuary practices. However, these traces are uncommonly reported in the literature, and environmental conditions that drive arthropod osteophagy appear to be highly understudied. This presentation combines observations of diagnostic characteristics from dermestid damage to specimens processed at the Natural History Museum at Tring, behavioural bone-boring experiments with *Dermestes haemorrhoidalis* at Durham University's Botanic Gardens, as well as fossil Mesozoic and Quaternary examples from the literature to paint a bigger picture of the conditions that encourage dermestid osteophagy. It also highlights the challenges with identifying these traces and understanding the environmental effects they represent. The findings and preliminary exploration of potential dermestid traces from the Linford Mammoth Quarry site will be discussed.

Session 6

New insights into the Lincombian-Ranisian-Jerzmanowician at Ilsenhöhle Ranis, Germany

Helen Fewlass^{1, 2}, Dorothea Mylopotamitaki^{3, 1}, Marcel Weiss^{4, 1}, Elena Irene Zavala^{5, 1}, H  l  ne Rougier⁶, Arev Pelin S  mer¹, Mateja Hajdinjak¹, Geoff M. Smith^{7, 1}, Karen Ruebens^{3, 1}, Virginie Sinet-Mathiot^{1, 8}, Sarah Pederzani^{9, 1}, Elena Essel¹, Florian S. Harking¹⁰, Huan Xia¹¹, Jakob Hansen^{12, 13}, Andr   Kirchner¹⁴, Tobias Lauer¹⁵, Mareike Stahlschmidt^{16, 1}, Michael Hein^{17, 18, 1}, Sahra Talamo^{19, 1}, Lukas Wacker²⁰, Harald Meller²¹, Holger Dietl²¹, J  rg Orschiedt²¹, Jesper V. Olsen¹⁰, Hugo Zeberg^{1, 22}, Kay Pr  fer¹, Johannes Krause¹, Matthias Meyer¹, Frido Welker¹², Shannon P. McPherron¹, Tim Sch  ler²³, Jean-Jacques Hublin^{3, 1}

¹ Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany helen.fewlass@crick.ac.uk

² Ancient Genomics Lab, Francis Crick Institute, London, UK

³ UMR 7241-U1050 Centre Interdisciplinaire de Recherche en Biologie, Coll  ge de France, CNRS, France

⁴ Institut f  r Ur- und Fr  hgeschichte Friedrich-Alexander-Universit  t Erlangen-N  rnberg, Germany

⁵ Department of Molecular and Cellular Biology, University of California Berkeley, USA

⁶ Department of Anthropology, California State University Northridge, USA

⁷ School of Anthropology and Conservation, University of Kent, UK

⁸ UMR 5199 De la Préhistoire à l'Actuel: Cultures, Environnement et Anthropologie, CNRS, France

⁹ Archaeological Micromorphology and Biomarker Lab, University of La Laguna, Spain

¹⁰ Center for Protein Research, University of Copenhagen, Denmark

¹¹ College of Earth and Environmental Sciences, Lanzhou University, China

¹² Globe Institute, University of Copenhagen, Denmark

¹³ Departament de Prehistòria, Universitat Autònoma de Barcelona, Spain

¹⁴ Department of Soil Protection and Soil Survey, State Authority for Mining, Energy and Geology of Lower Saxony, Germany

¹⁵ Department of Geosciences, Eberhard Karls Universität Tübingen, Germany

¹⁶ Department of Evolutionary Anthropology and Human Evolution and Archaeological Sciences, University of Vienna, Austria

¹⁷ Institute of Ecology, Leuphana University, Germany

¹⁸ Historical Anthropospheres Working Group, Leipzig University, Germany

¹⁹ Department of Chemistry Giacomo Ciamician, Bologna University, Italy

²⁰ Ion Beam Physics, ETH Zurich, Switzerland

²¹ Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt- Landesmuseum für Vorgeschichte, Halle, Germany

²² Department of Physiology and Pharmacology, Karolinska Institutet, Stockholm, Sweden

²³ Thuringian State Office for the Preservation of Historical Monuments and Archaeology, Weimar, Germany

The Middle-Upper Palaeolithic transition marks a technological turnover in Eurasia between ~50-40 ka cal BP that accompanied the expansion of *Homo sapiens* into the continent and the subsequent disappearance of Neanderthals. Archaeological and genetic discoveries in recent years indicate a complex scenario of at least two incursions of *Homo sapiens* entering Europe prior to 40 ka cal BP. Studies of 'transitional' technocomplexes from this period are crucial to resolving the behavioural dynamics of this population turnover, but many debates remain as to their makers. One such technocomplex, the Lincombian-Ranisian-Jerzmanowician (LRJ), is present in sites across north-west and central Europe from the UK to Poland. The makers of the LRJ have been heavily debated and few LRJ sites have a well-refined chronology, although most dates fall between ~44-40 ka cal BP.

Ranis Ilsenhöhle in Thuringia, Germany is one of the typesites of the LRJ technocomplex and is known for its assemblages coming from excavations in the 1930s. New excavations were carried out at the site between 2016-2022 which aimed to refine our understanding of the stratigraphy, produce a reliable radiocarbon chronology, and resolve the questions surrounding the makers of the LRJ at Ranis. Here we present the morphological and proteomic identification, mitochondrial DNA analysis, and direct radiocarbon dating of human remains associated with the LRJ assemblage, alongside an extensive set of ¹⁴C dates from newly excavated material. Our new data provide important evidence in the discussion surrounding the dynamics of *Homo sapiens* and Neanderthal groups during this period.

New data on the origin and dispersal of *Homo sapiens*

Chris Stringer¹

¹ Centre for Human Evolution Research, Natural History Museum, London, UK

c.stringer@nhm.ac.uk

There are many outstanding issues regarding the origin of our species, and the process of our dispersal from Africa. The fossil human record from Africa for the period between about 200,000 and 1 million years ago is quite incomplete, and yet this timespan was the critical one for the evolution of *H. sapiens*. The record is generally not well-dated, and limited to small areas of the continent, with no fossils at all from large regions of West and Central Africa. In the past, researchers have proposed a range of different models, from those with a single location of origin (usually East or South Africa, which have the best fossil records for the period) through to pan-African models (sometimes also called African multiregionalism, a term I prefer not to use now because of potential confusion with the refuted global multiregional theory). Pan-African models envisage lineages of basal *H. sapiens* populations in different regions of Africa that evolved separately at times, but which also sporadically mixed and merged with each other, finally giving rise to the form of *H. sapiens* that eventually spread globally.

That global spread is usually assumed to have been initiated about 60,000 years ago, but there is increasing evidence of earlier dispersals from Africa, at least one of which led to an episode of gene flow with a basal Neanderthal lineage. We now know that the main dispersal was also accompanied by bouts of gene flow with both the Neanderthal and Denisovan lineages.

Further back in time, it is not yet clear whether the last common ancestor (LCA) of *H. sapiens*, Neanderthals, and Denisovans lived in Europe, Asia, or Africa, and when it lived. Estimates using genomic data from *H. sapiens*, Neanderthals, and Denisovans calibrate the LCA to between about 500,000 and 700,000 years ago. However, some recent studies of dental and cranial variation in fossil hominins place the LCA earlier, between about 800,000 and 1.2 million years ago. Thus identifying potential candidate fossils for the LCA is highly problematic against these uncertainties. Moreover, some genetic models for the deep ancestry of *H. sapiens* and Neanderthals suggest that concepts of a single LCA in time and space might be illusory.

Investigate large flake productions involvement in Late Middle Pleistocene technical changes: a techno-economic and technopetrographic experimental approach of Menez-Dregan I upper level (Finistère, France)

Juliette Capdevielle¹, Vincent Mourre¹, Michel Brenet², Anne-Lyse Ravon³

¹ UMR 5608 Travaux et Recherches Archéologiques sur les Cultures, Espaces et Sociétés, CNRS, France
jucapdevielle@gmail.com

² UMR 5199 De la Préhistoire à l'Actuel: Cultures, Environnement et Anthropologie, CNRS, France

³ UMR 6566 Centre de Recherche en Archéologie, Archéosciences, Histoire, CNRS, France

The second half of the European Middle Pleistocene (MIS 10-8) witness the end of Lower Palaeolithic, while technical innovations specific to the Middle Palaeolithic already emerge sporadically. An increasing systematisation and predetermination of small blank debitage are at the heart of this turning point, but methods of large flake (>10 cm) production involving varying degrees of prediction and/or predetermination are also attested at this time. The study of large flake debitage could therefore help to better characterise the variability of this period's technical systems, and question their potential involvement in the technical trajectories that led to the Middle Palaeolithic. Although large flake industries are mainly concentrated in the Southwest of the continent, Menez-Dregan I sea cave in the Armorican Massif stands out as an exception. A new techno-economic study of the most recent occupational level in the sequence (4ab; MIS 9-8) confirms the presence of large products during this pivotal period in the region, either without further working, or used as tools and/or core blanks. The raw materials of coarse-grained rocks such as sandstones, quartzites and microgranites, come exclusively from pebble beaches accessible nearby. The flakes are mainly neocortical first removals, but sometimes have one or more removals prior to debitage. The acquisition techniques and methods are still difficult to characterise and do not seem to match any classic debitage patterns for this period. A technopetrographic experimental approach focusing on the impact of available raw materials on technical choices provides new insights into the place of this large-scale debitage practice within the Menez-Dregan atypical technical system in Northern Europe.

Beyond Rodafnidia, Acheulean sites on Lesbos: Surface survey results

Nena Galanidou¹, George Iliopoulos², Simon Kübler³, Peny Tsakanikou¹

¹ Department of History and Archaeology, University of Crete, Greece

galanidou@uoc.gr

² Department of Geology, University of Patras, Greece

³ Geology Faculty, Ludwig Maximilian University of Munich, Germany

Rodafnidia site on Lesbos Island offers tangible evidence for the presence of the Acheulean at the Eurasian crossroads as early as at least 300-200 Kya, triggering a reconsideration of the biogeographical role played by the Aegean during the early hominin dispersal and settlement. Coupled with an extensive surface survey (2012-2023) over the wider area of the Kalloni Basin and along the fluvial riverbeds and shorelines of southern Lesbos, excavated material from fluvio-lacustrine sequences at Rodafnidia open-air site suggests repeated visits by hunter-gatherer groups during the Pleistocene, bearing different variants of the Acheulean tradition. Numerous Lower Palaeolithic sites and/or clusters of sites have been identified beyond Rodafnidia,

in the immediate and wider vicinity. Of course, surface material alone cannot offer any exclusive interpretation(s) on the timing and duration of the hominin presence or the nature of their activity; yet, examined together with excavated material and palaeogeographical and paleoenvironmental parameters, it can offer valuable new insights. The location and distribution of lithics, palaeogeographical reconstructions, and the study of edaphics enable us to formulate and examine new working hypotheses about: (a) the routes followed by the early settlers, including land bridges between Lesbos and the adjacent coast of West Asia during periods of lower sea-level; and (b) preferable niches for occupation based on the structure and nature of the palaeolandscape and its affordances.

Session 7

Woodworking in the Middle Pleistocene: a multianalytical study of a double-pointed throwing stick from Schöningen, Germany

Annemieke Milks¹, Jens Lehmann², Dirk Leder², Michael Sietz³, Tim Koddenberg⁴, Utz Böhner⁵, Volker Wachtendorf⁶, Thomas Terberger^{2, 7}

¹ Department of Archaeology, University of Reading, UK a.g.milks@reading.ac.uk

² Department of Hunter-Gatherer Archaeology, Niedersächsisches Landesamt für Denkmalpflege, Hannover, Germany

³ Archaeological Conservation Department, Niedersächsisches Landesamt für Denkmalpflege, Hannover, Germany

⁴ Wood Biology and Wood Products, Faculty of Forest Sciences and Forest Ecology, University of Göttingen, Germany

⁵ Inventory and Heritage Atlas, Niedersächsisches Landesamt für Denkmalpflege, Hannover, Germany

⁶ Bundesanstalt für Materialforschung und -prüfung, Berlin, Germany

⁷ Department of Prehistoric Archaeology, University of Göttingen, Germany

The 300,000 year old site of Schöningen (Germany) yielded the earliest large-scale record of humanly-made wooden tools. These include wooden spears and shorter double-pointed sticks, discovered in association with herbivores that were hunted and butchered along a lakeshore. Wooden tools would have played an important role in the Middle Pleistocene toolkit, but until now, have not been systematically analysed to the same standard as other Palaeolithic technologies such as lithic and bone tools. This talk presents results from a multi-analytical study involving micro-CT scanning, 3-dimensional microscopy, FTIR, supporting a systematic technological and taphonomic analysis. In illustrating the biography of one of Schöningen's weapons, we demonstrate complex human behaviours for this time period. We show that Middle Pleistocene humans had a rich awareness of raw material properties, possessed sophisticated woodworking skills, and knowledge of aerodynamics. Ethnographic comparative material supports a primary function as a throwing stick for hunting, indicating potential hunting strategies and social contexts including for communal hunts involving children. They also demonstrate that Middle Pleistocene hominins were technologically capable of capturing smaller fast prey and avian fauna, a behaviour evidenced at contemporaneous Middle Pleistocene archaeological sites.

Excavations at Maritime Academy, Frindsbury – A new Palaeolithic site

Letty Ingrey¹, Matt Pope¹, Martin Bates², Sarah Duffy³, Phil Toms⁴, Andy Shaw⁵, Jamie Wood⁴, David Bridgland⁶

¹ Archaeology South-East, Institute of Archaeology, University College London, UK letty.ingrey@ucl.ac.uk

² University of Wales Trinity Saint David, UK

³ Freelance imaging consultant, UK

⁴ University of Gloucestershire, UK

⁵ Wessex Archaeology, UK

⁶ Durham University, UK

Archaeological investigations ahead of the construction of a new school, Maritime Academy, Frindsbury, resulted in the discovery of a new Palaeolithic site. The site lies less than 0.5 km, and at similar altitude, from the excavations of Cook and Killick (1924) near to All Saints Church, Frindsbury, which produced a large, undated Palaeolithic assemblage, and less than 5 km from the Lower Palaeolithic site of Cuxton.

Fieldwork consisted of a staged program of geoarchaeological investigation including three phases of geoarchaeological test pitting to first map, and then evaluate Quaternary deposits at the site. Following this large-scale excavations of the deposits were undertaken on parts of the site preserving Quaternary deposits that would undergo impact from the development. Fieldwork began in 2021 and was completed early 2023. The solid geology of the site is the chalk, overlain by Thanet Formation sands and clays. Investigations showed the chalk to have undergone significant solution across the site causing deformation of the overlying deposits, with solution features in the chalk frequently acting as capture points for Pleistocene sediments that had otherwise been eroded. The site is cut through by a later dry valley with distinctive differences in both deposits and archaeological signatures on either side of the valley. To the north of the valley are bedded fluvial sands and gravels which produced low densities of Palaeolithic artefacts including several handaxes. To the south of the valley Pleistocene deposits were found to be preserved within a sequence of large intercutting solution features in the chalk. Within the largest of these fine-grained Pleistocene deposits were preserved including evidence of apparent buried land surfaces with associated lithic scatters. The artefacts within these fine-grained deposits are thought to be in primary context, and in places only minimally disturbed. Many of these artefacts exhibit characteristics of prepared core technology, in contrast to the handaxes in the fluvial gravels. A unit of gravel below the fine-grained deposits and dipping almost vertically into the solution feature contained very frequent artefacts consisting of very large flakes and cores. While currently awaiting the results of an extensive OSL dating programme, the altitude of the terrace could be consistent with the MIS 10-9-8 climate cycle.

A program of post excavation and analysis of the artefacts and samples from the site is now being undertaken. The site has potential to answer questions about the human habitation of Britain during this period through further analysis of the artefacts which may represent two or three separate technological groups. Further to this, the site provides an important case study on the potential for solution features in chalk landscape to preserve significant, high-resolution Palaeolithic signatures.

Colonisation waves, cultural groups and ranges in MIS 9 Britain

Luke Dale¹

¹ *Historic Environment Scotland, UK*

bftbg@hotmail.co.uk

Recent research has explored the processes of the (re)colonisation of Britain by hominins during successive warm periods in the Middle Pleistocene. Groups of hominins with shared normative social traditions have been identified through spatial and temporal patterns in the lithic artefacts they left behind. These patterns are visible in handaxe morphology and typology, and through the presence/absence of handaxes in assemblages. The distribution of similar lithic assemblages across southern Britain, combined with ethnographic analogy, has even allowed territories or range sizes for these cultural groups to be estimated (Ashton and Davis, 2021).

Many of these reconstructions are predicated on the fine-grained chronological resolution afforded by combined archaeological/environmental sites, which generally formed in lacustrine deposits. By contrast, most assemblages dated to MIS 9 (c. 330 – 300 kya.) formed in river gravels, and the interglacial is generally under-researched. Consequently, it is unclear where MIS 9 fits into the picture of colonisation, extirpation and recolonisation which characterised the occupation of Britain in the Lower Palaeolithic.

A large scale morphometric and typological analysis of handaxes dated with reasonable confidence to MIS 9 has allowed some new inferences to be made. MIS 9 handaxes are typically narrow and pointed, with ficrons and cleavers co-occurring (Roe, 1968; Bridgland and White, 2015). Giant handaxes are also significant in MIS 9 (Dale *et al.*, 2024). The data may be interpreted to suggest that a single handaxe-making cultural group was active in Britain for most of the MIS 9 glacial cycle, with possible smaller-scale incursions in the deteriorating climatic conditions towards the end of the interglacial (and into the MIS 8 glacial) represented by exceptional sites such as Broom and Wolvercote. This, coupled with recent reassessment of the supposed ‘proto-Levallois’ technologies of MIS 9, may point to a single major colonisation wave (although remains uncertainty

surrounding the non-handaxe 'Clactonian' in MIS 9). Very similar MIS 9 handaxe assemblages occupy a substantially larger range than ranges suggested for groups in the preceding MIS 11 interglacial and would appear to run counter to the trajectory towards regionalisation suggested for the Lower Palaeolithic (García-Medrano *et al.*, 2023). The possible reasons for this larger range, and how a larger range may have influenced material culture, will be discussed.

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The terrace stratigraphy and chronology of the Little Ouse River and the late Middle Pleistocene archaeology of the Breckland of East Anglia, UK

Simon Lewis¹, Rob Davis², Marcus Hatch¹, Nick Ashton²

¹ School of Geography, Queen Mary University of London, UK

s.lewis@qmul.ac.uk

² Department of Britain, Europe and Prehistory, British Museum, UK

The Breckland of central East Anglia has a Pleistocene geological sequence spanning c. 1 million years, providing a framework for assessing changes in human technology and behaviour within a single changing palaeolandscape. The geological record and its associated Palaeolithic archaeology divides into three chronological periods: the fluvial deposits of the River Bytham, which span c. 1 ma to 450 ka; the Hoxnian interglacial sites (c. 400 ka); and the fluvial terraces of the present drainage network, which records the past c. 400,000 years. This paper focuses on the third of these periods, presenting results from new work on the fluvial sediments and Palaeolithic archaeology associated with the Little Ouse River. As part of the Breckland Palaeolithic Project (BPP), fieldwork was conducted at four important Palaeolithic sites; Barnham Heath, Redhill, Santon Downham, and Broomhill Pit, between 2017 and 2019. The new sedimentological and stratigraphic data is used in conjunction with existing borehole records to construct long profiles for the river terrace aggradations and establish a terrace stratigraphy for the Little Ouse. Correlation with the marine isotope record is supported by age estimates from electron spin resonance (ESR) dating of sand units within the terrace aggradations. The results provide an age-constrained lithostratigraphic framework for understanding the Lower and Middle Palaeolithic archaeological records from the Little Ouse. The results can be added to previous work on the Bytham and MIS 11 sites, enabling an assessment of human occupation of the region from c. 800-200 ka.

Session 8

The lithic industries of MIS 11: new evidence from the Lower Palaeolithic site of Devereux's Pit, Suffolk, UK

Rob Davis¹, Simon Lewis², Marcus Hatch², Claire Lucas¹, Simon Parfitt^{3,4}, Dustin White⁵, Ellie Nelson⁵, Simon O'Connor⁶, Kathryn Price^{1,7}, Dylan Jones⁸, Nick Ashton¹, Kirsty Penkman⁵

¹ Department of Britain, Europe and Prehistory, British Museum, UK rdavis@britishmuseum.org

² School of Geography, Queen Mary University of London, UK

³ Institute of Archaeology, University College London, UK

⁴ Centre for Human Evolution Research, Natural History Museum, London, UK

⁵ Department of Chemistry, University of York, UK

⁶ Independent researcher

⁷ Department of Archaeology, University of Reading, UK

In this paper we present preliminary results from recent excavations at Devereux's Pit. The site is a disused 19th Century clay pit located 500 m west of the Lower Palaeolithic site at Beeches Pit, between the villages of Icklingham and West Stow in Suffolk. Anglian glacial deposits are overlain by a sequence of fine-grained interglacial sediments deposited variously in slow-moving or still water, capped by colluvium. Preliminary assessment of faunal remains from the interglacial deposits indicates deposition in a temperate environment that included grassland and areas of denser vegetation such as scrub or woodland. Amino acid dating of *Bithynia* opercula indicates deposition during MIS 11. Archaeological assemblages have been recovered from stream deposits and overlying sandy clays towards the top of the interglacial sequence near the margin of the water body. The artefacts, which are made on flint and in fresh condition, are likely to be derived from local occupation sites, reworked into the water body by mass movement of bank sediments, with only minor fluvial reworking. The assemblages associated with the stream sediments consist of cores, hard hammer flakes, and occasional denticulates and notches. These contrast with the assemblages from the overlying sandy clays, which are dominated by handaxe manufacturing flakes and also include heat-altered flint. The archaeological succession at Devereux's Pit is compared with other MIS 11 sites to explore the variability of lithic technology in Britain c. 400 ka.

Re-examining Swanscombe: Regional and Temporal Variation in MIS 11 handaxe assemblages either side of the Thames

Aaron Rawlinson¹, Freddie Foulds², Nick Ashton¹, Ceri Shipton³, Mark White²

¹ Department of Britain, Europe and Prehistory, British Museum, UK arawlinson@britishmuseum.org

² Department of Archaeology, Durham University, UK

³ Institute of Archaeology, University College London, UK

Here we present preliminary results of 3-D scanning and geometric morphometric analysis of handaxes from Swanscombe, Kent. Swanscombe is one of the most renowned British Lower Palaeolithic sites, preserving a sequence of Palaeolithic industries which act as a lynchpin to our understanding of MIS 11. From scans of handaxes in numerous museums, our analysis is the largest and finest-grained analysis of the Swanscombe sequence to date, including several levels within the Middle Gravels and material from the Upper Loams/Upper Gravels. Results from this re-examination of Swanscombe will be placed within the context of British MIS 11 sites either side of the Thames in both Suffolk (Hoxne, Elveden) and Kent (Dartford Heath) representing both warm sub-stages MIS 11c and MIS 11a. Comparison with other regions and other sites shows clear regional and temporal variation at the sub-Milankovitch level, with hints of smaller changes in handaxe manufacture over generational timescales.

A gap filled: lithostratigraphy, fauna and flora of a new exposure at Marks Tey (Essex), with implications for the terrestrial record of MIS 11 in Britain

Simon Lewis¹, David Horne^{1, 2}, Tom Kelly¹, Mark Lewis², Alan Lord³, Anna March¹, Simon Parfitt², Richard Preece⁴, Adiba Salam¹, Andrew Snelling⁵

¹ School of Geography, Queen Mary University of London, UK s.lewis@qmul.ac.uk

² Natural History Museum, London, UK

³ Senckenberg Forschungsinstitut Frankfurt, Germany

⁴ University of Cambridge, UK

⁵ Independent researcher

The Middle Pleistocene lake sediments at Marks Tey (Essex) hold the only complete British record of the entire Hoxnian Interglacial, of key importance for understanding the climatic context of human presence in Britain during MIS 11. The parastratotype Hoxnian pollen diagram (Ho I – Ho IV), a composite of core data from the centre and margins of the lake basin, is a well-established standard reference for terrestrial MIS 11 stratigraphy in Britain. A new section exposed by clay extraction for the brickworks in 2020 partially fills a gap represented elsewhere in the pit by an erosion surface. Close to the western margin of the lake basin, it

includes a fossiliferous, organic-rich bed and is similar in lithostratigraphy and elevation to Turner's western marginal borehole record of the highest Hoxnian pollen zones; however, it lies not below but above a thick sequence of post-Hoxnian lake sediments. Analyses of ostracod, mollusc, vertebrate and pollen assemblages from the organic-rich unit are in hand to test the correlation and alternative interpretations of the composite Hoxnian pollen diagram.

Enabling Impact through Community Outreach and Public Engagement with Palaeolithic Archaeology

Claire Harris¹, Rob Davis², Simon Lewis³, Rachel Bynoe⁴,

¹ Museum Of London Archaeology, UK charris@mola.org.uk

² Department of Britain, Europe and Prehistory, British Museum, UK

³ School of Geography, Queen Mary University of London, UK

⁴ University of Southampton, UK

"Research impact cannot be achieved from the research production side alone" (Sarah Morton, co-investigator for What Works Scotland).

The Economic and Social Research Council (ESRC) defines research impact as "the demonstrable contribution that excellent research makes to society and the economy". Only 1% (59 of 6361 case studies) of REF 2021 Impact Case Studies list archaeology as an underpinning research subject. Of the 59 case studies that came from archaeological research only one includes any reference to the Palaeolithic (ARCA: geoarchaeological approaches to cultural resource management, University of Winchester). Two case studies feature Stonehenge!

This paper presents case studies of recent outreach and engagement work undertaken in two contrasting locations: Happisburgh on North Norfolk's Deep History Coast, and Hackney Museum, London. The case studies cover work undertaken since 2018 and funded through a variety of small grants. As well as reporting the successes of the various projects this paper will also reflect upon difficulties faced when working to enable impact without access to long-term stable funding.

It is hoped that this paper will lead to a discussion of outreach and engagement work being undertaken across the discipline.

Posters

1 - Buried landscapes of the Avon Valley and the Mesolithic of the Stonehenge Area

Antony Brown^{1, 2}, Ben Pears², Sam Hudson², Mike Allen³, Charles French⁴, Chris Gaffney⁵, Vince Gaffney⁵, David Jacques⁶, Anne Koehler⁷, Manuel Kreck⁷, Catherine Langdon², Julian Leyland², Mike Parker-Pearson⁸, Marco Pohle⁷, Rob Scaife², Phillip Toms⁹, Chris Tomsett², Ulrike Werban⁷, Lukas Werther¹⁰, Christoph Zielhofer¹¹

¹ Arctic University of Tromsø, Norway

² University of Southampton, UK tony.brown@soton.ac.uk

³ Allen Environmental Archaeology, UK

⁴ University of Cambridge, UK

⁵ University of Bradford, UK

⁶ University of Buckingham, UK

⁷ Helmholtz Centre for Environmental Research, Leipzig, Germany

⁸ University College London, UK

⁹ University of Gloucestershire, UK

¹⁰ Universität Tübingen, Germany

¹¹ Universität Leipzig, Germany

Whilst the Stonehenge landscape's iconic middle-later prehistory has recently been revealed in even greater detail and breadth, its pre-monumental environmental and archaeological history remains largely hidden. Was the Stonehenge monumental landscape, including cursus, henges, settlement and Stonehenge itself developed in an empty landscape? What was the scale of pre-Neolithic activity, and how dynamic was the environment during the mid-later Mesolithic? Recent excavations along the River Avon at Amesbury, Wiltshire have revealed a buried potential to provide the Mesolithic-Neolithic environmental context for the eastern part of the World Heritage site. This project has utilised ground-breaking methodologies including direct-push penetrometry, UAV-borne Lidar, pOSL/IRSL and sedaDNA to investigate the pre-Neolithic fluvial-terrestrial hinterland environment of the eastern part of the Stonehenge World Heritage Site (SWHS) from Durrington Walls to West Amesbury and extended the context across neighbouring catchments with confirmed Mesolithic activity and environmental potential.

Key research questions which have been addressed during this project include, how open the Mesolithic environment was, and how did the species mix change over 4000 years prior to the 3rd millennium BC? Was pine dominant, or was it decreasing in the Late Mesolithic? Is there evidence of pre-Neolithic human landscape and resource management and did this change over the course of the Early to Late Mesolithic? Was hazel managed or facilitated by human activity or related to climate and hydrology? What role did large herbivores, particularly Aurochs (*Bos primigenius*), play in the Mesolithic environment and what is their archaeological significance? Can a step-change be seen in vegetation and erosion/sedimentation in the Mesolithic-Neolithic-early Bronze Age periods and how does this relate to soil history and archaeological visibility? The answer to these questions will provide us with a much deeper contextualisation of the uniqueness and supra-regional significance of the monumentality of Stonehenge.

2 - Predicting and protecting lithic landscapes – understanding the distribution of lithics across Dartmoor, UK

Emma V. Stockley¹, Laura S. Basell¹, Lee S. Bray², Henry Chapman³

¹ University of Leicester, UK evs13@leicester.ac.uk

² Dartmoor National Park Authority, UK

³ University of Birmingham, UK

This poster takes a landscape approach to prehistoric lithic distributions on Dartmoor, focusing particularly on the Mesolithic, as a significantly under-researched aspect of Dartmoor National Park's story.

Dartmoor, a granite upland covering 368 square miles, has the largest area of peatland in southern England with the potential to store significant amounts of carbon. Concerns about climate change mean that Dartmoor is the focus of increasing numbers of landscape-scale conservation projects such as peatland-restoration and tree-planting. These initiatives pose a risk to lithic scatters and associated archaeology.

In this poster, a summary will be presented of the GIS predictive modelling that has been employed to characterise the extent and significance of Dartmoor's lithic scatters, and the implications of this for understanding past human behaviour. We will describe how the model was tested using a citizen science methodology in April and May 2023 with a team of 40 volunteers across 21 locations, and preliminary conclusions about the effectiveness of this approach.

Finally, in the context of climate change, we will touch on the tensions between the responsibilities of the National Park, future land management practices and archaeological discovery.

3 - SYLFISH: Fishing in the prehistoric Syltholm Fjord – a diachronic analysis

Harry K. Robson¹, Satu Koivisto², Bente Philippsen³, Ulrich Schmölcke⁴, Terje Stafseth⁵ and Daniel Groß²

¹ *BioArCh, Department of Archaeology, University of York, UK*

harry.robson@york.ac.uk

² *Museum Lolland-Falster, Denmark*

³ *National Laboratory for Age Determination, Norwegian University of Science and Technology, Norway*

⁴ *Centre for Baltic and Scandinavian Archaeology, Schleswig-Holstein State Museums Foundation, Germany*

⁵ *Museum of Copenhagen, Denmark*

SYLFISH is an Augustinus Fonden funded research project that aims to investigate the effects of human exploitation and environmental change on marine fauna in the former Syltholm Fjord (southern Lolland, Denmark) from the Middle Mesolithic to the Bronze Age (c. 5500-600 BCE).

The project will focus on the ecology and economy of coastal prehistoric communities and their relationship with the sea by addressing landscape changes, subsistence economies, and self-perceptions through the analysis of aquatic and terrestrial faunal remains, fishing structures, and patterns in the exploitation of marine resources.

Qualitative and quantitative techniques will enable us to understand the importance of aquatic resources to prehistoric communities, providing important insights into how humans impacted their environments and how they reacted to changing ecological and economic conditions.

As the Syltholm Fjord is one of the most important and thoroughly excavated archaeological landscapes in Europe, there is great potential to explore the diachronic effects of human impact and technological changes. To date, a range of preliminary analyses has been conducted on materials recovered from more than 50 archaeological sites in the region. Our poster will present the aims and objectives of the project and results from the first year of our analysis. Moreover, it will outline the methodology going forward.

4 - Of the ancestors, of the gods: a posthumanist analysis of bird of prey and human coexistence in Mesolithic Europe

Kate Bleckly¹

¹ *University of York, UK* blecklykate@gmail.com

Despite the rising profile of the field and the developments made in recent decades, most zooarchaeological studies of Mesolithic site assemblages are still limited to the discussion of mammals. When mentioned, avian remains are rarely granted autonomy from other 'small' and/or 'miscellaneous' finds such as fish and herpetofauna. If they are analysed in their own right, this is more often than not through a limiting resource-based perspective that designates their place in past human existence as little more than raw material. Taking inspiration from recent developments in posthumanist archaeological thought, I explore eight Mesolithic

assemblages across Europe containing contemporary raptor bone to contextualise the deeper relationships between humans and birds of prey during this transitional period. Through the creation of an in-depth database which detailing the relevant human activity in relation to these remains, including anthropic marks and body part representation, I identify potential geographic and cultural trends that can be used to inform us of how birds of prey were perceived by Mesolithic hunter-gatherers, and how birds of prey and humans may have interacted with and understood each other during this time period. Based on the evidence, I ultimately argue that birds of prey were not only important independent actors and agents of transformation who possessed the ability to influence the actions and behaviours of humans, but also one half of a relationship that was more reciprocal than has previously been thought.

5 - Birds of a Feather? The Use of Birds in Mesolithic Northeastern European Hunter-Gatherer Burials

Rosalind Fish¹

¹ *Department of Archaeology, University of York, UK*

rif502@york.ac.uk

The inclusion of birds in human burials is a rare occurrence, and yet it is a phenomenon that has appeared worldwide and throughout human history. Several interpretations have been put forward for this funerary action, hypothesising that the remains of birds were placed in human graves as food for the dead, votive offerings for gods, spirits, or ancestors, or as psychopomps and companion animals for the deceased. Furthermore, birds could be used for symbolic purposes as totem animals, representations of deities, or the deities themselves.

This poster presents a systematic review of the inclusion of whole, disarticulated, and modified bird bones in hunter-gatherer inhumations from Mesolithic Northeastern Europe, utilising an ornithoarchaeological perspective to investigate this burial practice.

From the findings, it is argued that the behaviours and physicality of these species influenced their inclusion in the grave alongside human beings, in which the animals were vested with symbolic meaning. This trend may indicate similar ways of perceiving birds by prehistoric hunter-gatherers through their inclusion as symbolic food offerings, symbolism for the dead, or use in burial dress.

6 - Annwn BC – Death in Pre-Roman Cymru. Mesolithic Mortuary Practice – A Case Study

Catherine Rees^{1,2}

¹ *Department of History, Politics and Philosophy, Manchester Metropolitan University, UK*

² *Archaeology and Numismatics, Amgueddfa Cymru, Cardiff, UK*

Cat.Rees2@museumwales.ac.uk

Spanning c.230,000 BC – AD 410, the Annwn BC PhD research project takes a long view of the treatment of human remains deposited in what is now Cymru (Wales). It has collected as complete a dataset as possible to identify patterns in funerary practice, and illustrate how these have continued, developed and changed across time.

This poster presents an overview of recorded Mesolithic mortuary practice (c. 10,000 – 4,000 BC). In keeping with evidence from the UK and Ireland, cave deposition is demonstrated as having been the dominant surviving depositional practice. Nine cave sites, including a possible cemetery group on Ynys Bŷr (Caldey Island) containing the remains of 25 radiocarbon dated individuals have been attributed to this period.

The poster presents an overview of the unpublished Mesolithic site at Llanfaethlu, Ynys Môn where human remains were recovered together with a characteristically Late Mesolithic flint assemblage cached within a tree throw. Five Late Mesolithic dates were returned on short life plant samples*, spanning c.7700 - 7000calBC with a modelled site use duration of between 280-580 years. The tree was probably a living entity, with the area at the base exposed for a considerable time, creating a distinctive feature within the landscape. The fortuitous survival of human remains offers a fresh insight into a previously unrecorded mortuary practice in Mesolithic Cymru.

* Directly dating the human remains was not possible due to low collagen yield.

7 - Investing in the Dead: exploring funerary treatments in the Levantine Epipalaeolithic

Dana Allan¹

¹ *Durham University, UK*

dana.a.allan@durham.ac.uk

The Levantine Epipalaeolithic is a time of considerable social, economic, and environmental change as exhibited by the exceptional diversity of sites, lithics, and funerary treatments throughout the region. Burials from the Late Epipalaeolithic, specifically, have long since been of interest to archaeologists. This is due, in part, to their relative frequency compared to the earlier Epipalaeolithic, their considerable variation, and their potential to reveal the origins of Neolithic social patterns seen in the region. However, there continues to be a strong bias in much of the literature focusing on grave goods and ornamentation, at the expense of well-rounded funerary studies considering all aspects of a funerary treatment. Ornamentation, while undoubtedly important, is only one aspect of a mortuary and funerary practice which results in a burial.

Here, I present my methods and preliminary results from the Ph.D. research evaluating the relative levels of investment in funerary treatments of the Levantine Epipalaeolithic. My research aims to better understand the various ways that a community may engage with, manipulate, or interact with the dead, and how these factors may be influenced, and be influenced by, social organization. These preliminary data also highlight the importance of recording, analyzing, and publishing all aspects of funerary remains in order to gain a clearer picture of the world of the dead in communities of the past.

8 - Footpaths, Woods, Gravel Pits and Golf Courses: Finding the Palaeolithic of the Middle Thames

Kathryn Price^{1,2}

¹ *Department of Archaeology, University of Reading, UK*

k.m.price@pqr.reading.ac.uk

² *Department of Britain, Europe and Prehistory, British Museum, UK*

‘There is no evidence, there are no sites, ‘they’ weren’t there’ is often cited when we are faced with an absence of evidence and conclude the absence of the earliest hominins. But have we really looked? And if so, how have we looked? It is well established that to date, the earliest occupants of Northern Europe are found at the coastal sites of Pakefield (MIS 17-19) and Happisburgh 3 (MIS 21-23). Questions and implications arise from this coastal occupation - were these earliest hominins reliant on the milder climate and wider availability of food resources found at the coast or did they have the technologies and knowledge to journey inland, and if so, did they?

This poster critically presents the methodology employed in finding evidence for early humans inland along the Middle Thames River, far away from any accessible coastal environments. The 25 km stretch of river between Reading and Beaconsfield, was unaffected by the Anglian glaciation of 500 mya and preserves, an unbroken fragmentary sequence of river terraces pre-500 mya. Did early hominins venture here? How do we find them? At first glance, this area appears either built up or rolling fields – neither conducive to finding evidence for the Palaeolithic.

This poster will present the methodology - a combination of desk-based assessment and more critically, an on the ground reconnaissance strategy in finding evidence of the earliest hominins. It will present the key methodological approaches 1) the integration of classic known digital datasets with the Historic Environmental Record (HER) and the discovery of new Palaeolithic evidence; 2) Time on the ground, physically walking the study area. The poster will demonstrate the importance of a systematic, precise methodical strategy to finding the Palaeolithic in an area considered devoid of our earliest hominins.

9 - Changes in drainage and hominin occupation patterns around the Anglian (MIS 12) in Essex

Ellery Littlewood¹

¹ Durham University, UK ellen.m.littlewood@durham.ac.uk

Modern-day Essex has seen varied and episodic hominin occupation with much of the evidence for this, in the form of lithic tools, being found in river terrace gravels. These gravels, in turn, provide records of the region's drainage systems that hominins relied on and lived around. Reconstructing these patterns is done via assessment of evidence from and correlation between flagship sites, with additional data gleaned from smaller peripheral sites. The record from Daking's Pit (Weeley), supported by that from Warren Hill, is compared with that from Upper Dovercourt to reconstruct and compare hominin occupation using lithics (specifically handaxes). The former assemblages comprise pre-Anglian Roe handaxe types V and VII, whilst the latter contains post-Anglian types II and VI (including twisted forms). Changing lithic form and technology over hundreds of thousands of years speaks to hominin technological evolution and migration into the area after the local population extinction with the onset of the Anglian. The clast lithologies, similarly, show a dramatically changing landscape with rivers' (the Bytham, Thames, Holland Brook, and Stour) courses altering before and in response to the Anglian ice sheet.

10 - Acheulean Diversity at a Discrete Local Scale: The Evidence from the East Kent River Stour

Peter Knowles¹

¹ Departments of Archaeology and Geography, Durham University, UK peter.g.knowles@durham.ac.uk

There have been many broad regional-scale studies on Acheulean diversity, which show a pattern of regional diversity within technological standardizations that align with the climatic cycles of the middle Pleistocene. This research looks at the variability in handaxe form at a local level from six key sites in the fluvial system of the East Kent River Stour (Fordwich, Westbere, Reculver, Sturry Homersham's West Pit, St Stephens Canterbury, Howletts) a former tributary of the Thames.

Thousands of handaxes and other Palaeoliths have been collected from these sites and reside in historic and often local museum collections, they are often poorly contextualised with insecure provenance; studies of these collections and their associated archival material has been able to unlock the long-lost provenance of these artefacts so they can contribute to this study, which has included a program of fieldwork together with the generation of 3D-digital models. The resulting geometric morphometric analysis is beginning to identify clear time-divergent groupings, for sites in the Stour; where the fluvial archive and terraces are discretely located yet span the broad temporal period of the entire British Acheulean record from MIS 15-8. These results will facilitate correlations with the emerging picture of varying occupation phases in Britain associated with different hominin groups and cultural traditions within the Acheulean.

11 - The Lower Palaeolithic Site at High Pit (or West Pit) Fordwich, Kent - The Willock Collection

Frank Beresford¹

¹ Independent researcher f.beresford@btinternet.com

Recent work at the Lower Palaeolithic site at the High or West Gravel Pit, Fordwich, Kent has confirmed the presence of early humans using Acheulean lithics technology in the area in MIS 15 - between 560,000 and 620,000 years ago - which currently makes the site the earliest securely dated Acheulean site in Britain (Key *et al.*, 1922). This development, which involved controlled excavations and radiometric dating, comes almost a century after Acheulean handaxes were first discovered at the site.

No additional Acheulean handaxes have been reported so far by the two groups presently working there. The currently known discoveries of Acheulean handaxes from the site were made between 1923 and 1932. Most are now curated by the British Museum and during 2022-23 they were re-assessed.

One finding from this assessment was that while most (192 items) are derived from the collection of Dr T. Armstrong Bowes of Herne Bay who paid a local antique dealer to collect them for him (Knowles, 2023), a smaller but significant collection of 68 artefacts was made personally by Dr E. Willock of Addiscombe, Croydon.

A letter, some photos and a sketch plan with notes, also curated by the British Museum, confirm that he visited the gravel pit on a number of occasions and that he observed the extraction of the artefacts by the workmen and noted the layers from which they were extracted.

This preliminary account is an analysis of the work of Dr E. Willocks at the Fordwich High or West Gravel Pit in Kent as revealed by his collection and the remaining limited documentation.

This poster can now be seen at:

https://www.academia.edu/117508709/The_MIS15_Palaeolithic_Site_at_High_Pit_or_West_Pit_Fordwich_Kent_The_Willock_Collection

Key A., Lauer T., Skinner M.M., Pope M., Bridgland D.R., Noble L. and Proffitt T., 2022. On the earliest Acheulean in Britain: first dates and in-situ artefacts from the MIS 15 site of Fordwich (Kent, UK). *Royal Society Open Science* 9: 211904.

Knowles P.G., 2023. A magnificent ficron and assemblage containing cleavers from Canterbury: a reanalysis of the collection of Dr Tom Armstrong Bowes and the problem of provenance. *Lithics* 41.

12 - Curating the Palaeolithic and Mesolithic – guidance, case studies and perspectives

Rob Hosfield^{1, a}, Rob Batchelor^{2, a}, Carl Champness^{3, a}, Hannah Fluck^{4, a}, Chris Green^{2, a}, Jonathan Last^{5, a}, Pete Allen, Nick Ashton⁶, Laura Basell⁷, Olaf Bayer⁸, Lawrence Billington⁹, Ed Blinkhorn¹⁰, David Bridgland¹¹, Tony Brown¹², Chantal Conneller¹³, Lynden Cooper¹⁴, Antony Dickson¹⁵, Mike Donnelly¹⁶, Rob Dinnis¹⁷, Lis Dyson¹⁸, Phil Harding¹⁹, Andy Howard²⁰, Matt Pope²¹, Charlotte Rowley²², Andy Shaw²³, Phil Toms²⁴, Mags Waughman²⁵, Francis Wenban-Smith²⁶, Mark White²⁷, Tom White²⁸, Keith Wilkinson²⁹

¹ Department of Archaeology, University of Reading, UK; r.hosfield@reading.ac.uk

² School of Archaeology, Geography & Environmental Science, University of Reading, UK

³ Oxford Archaeology, UK

⁴ National Trust, UK

⁵ Historic England, UK

⁶ Department of Britain, Europe and Prehistory, British Museum, UK

⁷ Archaeology & Ancient History, University of Leicester, UK

⁸ Historic England & Department for Continuing Education, University of Oxford, UK

⁹ Oxford Archaeology East, UK

¹⁰ Institute of Archaeology, University College London, UK

¹¹ Department of Geography, Durham University, UK

¹² Geography & Environmental Science, University of Southampton, UK

¹³ School of History, Classics & Archaeology, Newcastle University, UK

¹⁴ University of Leicester Archaeological Services, UK

¹⁵ Oxford Archaeology North, UK

¹⁶ Oxford Archaeology, UK

¹⁷ School of Geosciences, University of Aberdeen, UK

¹⁸ Heritage Conservation, Kent County Council, UK

¹⁹ Wessex Archaeology, UK

²⁰ Landscape Research & Management, UK

²¹ Archaeology South-East & Institute of Archaeology, University College London, UK

²² Formerly Department of Archaeology, University of York, UK

²³ Wessex Archaeology, UK

²⁴ Environmental Sciences, University of Gloucestershire, UK

²⁵ North York Moors National Park Authority, UK

²⁶ Department of Archaeology, University of Southampton, UK

²⁷ Department of Archaeology, Durham University, UK

²⁸ Natural History Museum, UK

²⁹ Department of Archaeology, Anthropology & Geography, University of Winchester, UK

^a Co-authors of poster. Other colleagues authored case studies for the *Curating the Palaeolithic* project or contributed to the *Managing Lithic Sites* guidance.

This poster summarises two Historic England-funded guidance projects relevant to early prehistory. The *Curating the Palaeolithic* project (2017-2022) has sought to emphasise the importance of the English Palaeolithic record to curators, and best practices for protecting it through the planning process. While specific curatorial approaches to the Palaeolithic are well established, the nature and significance of Palaeolithic resources varies between regions (e.g. between the south-east, the south-west, the English midlands and northern England). The poster highlights some of the key variations (e.g. in the quantity and quality of prior discoveries, the difference between primary and secondary context sites, the relative importance of artefactual and palaeoenvironmental remains) and explores different curatorial strategies in light of these, with reference to the *Curating the Palaeolithic* project's case studies. The complementary *Managing Lithic Sites* guidance seeks to emphasise the importance of Holocene lithic scatters, whether undisturbed or in the ploughzone, and ensure they are dealt with appropriately in archaeological fieldwork. The poster therefore also highlights some key themes relating to the definition and significance of lithic sites; their identification, assessment, evaluation and excavation; and their mitigation and management.

This poster can now be seen at:

https://www.reading.ac.uk/archaeology/-/media/project/uor-main/schools-departments/archaeology/archaeology-documents/curating-the-palaeolithic-and-mesolithic_palmeso-poster_2024.pdf?la=en&hash=30D551CA2F42E1AAF81D4FEFA22BEBA2