

Revealing the invisible: Identifying preserved Pennine Mesolithic sites in the face of climate change



WRoCAH funded Collaborative Doctoral Award between Department of Archaeology, University of York and West Yorkshire Archaeology Advisory Service



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GMAAS
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Project summary



This project models the locations of previously undiscovered (invisible) Pennine Mesolithic sites, using evidence curated by the project partners. These sites are at substantial risk as they lie at the most vulnerable southernmost limit of peatlands, now severely threatened by climate change.

The project will

- a) provide a means of managing and preserving upland Mesolithic sites
- b) generate new evidence in a poorly understood area which will allow for new archaeological interpretations and public engagement

c) provide a student with valuable career opportunities and skills

d) contribute a new methodology for peat and moorland enhancement

The project would suit a range of potential students. We welcome applicants with not only general archaeological backgrounds, or those with a specific prehistoric background, but also those from other relevant backgrounds such as heritage management or nature conservation, and those with or without technical expertise.



Photograph ©National Trust Images/Trevor Ray Hart

PhD Project description

What is this project about?

This project aims to make preserved 'invisible' Mesolithic sites on the Pennine moorlands 'visible'. This will be achieved through GIS based predictive modelling, drawing on archaeological evidence curated by the project partners (West Yorkshire Archaeology and Archives service and Greater Manchester Archaeology and Archives Service) and with the advice and support of collaborators (South Yorkshire Archaeology Service, the Peak District National Park Authority and the National Trust Marsden Moor estate).

What are the key research questions?

- 1) Where might high integrity Mesolithic sites remain preserved under (currently threatened) peat moorland?
- 2) What do distribution patterns and predictive models tell us about significance and use of these landscapes in the Mesolithic?
- 3) How can we best manage and preserve these sites and further public engagement?

Outline of research undertaken

- 1) Data collection, characterisation and interpretation and consultation (6 months) with project partners, and with involvement of collaborators
- 2) GIS-based mapping, modelling and testing (12 months) (York)
 - a) GIS site potential model 1: based on archaeological evidence from Mesolithic material curated by the project partners in the Historic Environment Records (HERs) as well as peat cover data.
 - b) GIS site potential model 2: based on ethnographic evidence of the types of activities in different parts of the landscape drawing on similar ecological contexts and the Human Relations Area Files (a dataset with evidence from over 3,000 records).
 - c) Critical appraisal and valuation of models against known distributions

3) Consultation phase (3 months) with project partners and collaborators

4) Public engagement/impact phase (6 months)

5) PhD production, publication and dissemination (9 months) (York)

Why is this project important and original?

National and international significance: The south and central Pennine moorlands boast the greatest concentration of Mesolithic findspots in the British Isles. However remarkably little is known about the Mesolithic occupation of the region as exposed sites were destroyed in the last century. Limited excavations in 1993-6 have revealed sites under peat with hearths, possible structures and fire pits found in conditions of extraordinary preservational integrity.

Current threats: Upland peat moorlands in Britain are already ecologically unviable in their present form through being at the leading edge of the effects of climate change. Sites under peat are threatened by both direct impacts in terms of temperature changes as well as (increasingly frequently) through frequent wildfires and (necessary) rewilding and planting initiatives. Without this type of modelling, preserved Mesolithic sites, like those facing rising sea levels, will be lost due in the near future before they have been understood.

What will be the lasting significance of the project?

The project will

- make preservation of these 'invisible' moorland sites for future generations possible
- develop a methodology for understanding and protection of other similar sites worldwide
- provide a new interpretation of the significance of these landscapes

The student will gain

- technical skills in information management, GIS manipulation and modelling
- experience within local government and heritage management, and in working with many different organisations
- research experience in archaeological interpretation of Mesolithic landscape use
- possibilities and support to follow their own career priorities (whether modelling / academic research / heritage management / public engagement)

The project partners will gain

- the capacity to effectively manage these extremely valuable upland Mesolithic sites with a meaningful interpretation of site potential

- a publicly available collection of sites and evidence provides the basis for education and public engagement

About the West Yorkshire Archaeological Advisory Service

The current dramatic threat to what are well preserved and poorly understood Mesolithic sites with substantial potential significance is a key concern for both the partners (WYAAS and GMAAS) and other contributing organisations (South Yorkshire Archaeology Service, the Peak District National Park Authority, and the National Trust Marsden Moor estate).

The project partners: West Yorkshire Archaeology Advisory Service (WYAAS) and Greater Manchester Archaeological Advisory Service (GMAAS), the two project partners, are organisations which form part of local government. Their key role is to provide informed and authoritative advice and information to the Planning Authorities to help conserve the most significant heritage sites that are affected by development proposals. Advice can also be provided on site management and interpretation. Each organisation holds and actively maintains the regional Historic Environment Record.

South Yorkshire Archaeology Service, the Peak District National Park Authority, and the National Trust Marsden Moor estate. These organisations also play a key role in the management, restoration and understanding of upland moorlands in the Pennine region, and the local Mesolithic sites. They are also involved in researching the public appreciation and understanding of landscape change.

This PhD project will

- enhance the abilities of a small team to act on a large subject area which is under appreciated and only partly understood.
- permit a knowledge and evidence led approach to managing the resource, developing tools and concepts that allow rapid appraisal of both a site's potential and threats.
- identify areas for monitoring by rangers and local volunteers
- enhance capacity to reach out to both existing interested groups and others, and shift from archaeological collecting to understanding landscapes and changing environments through time. - potentially inform national approaches to threatened sites of this and other periods.
- further the use of partners social media feeds to share information and updates. - further local education and interest in the local archaeological resource
- help to promote a local sustainability agenda through the example of real sustainable societies in the past

Engagement, outreach, dissemination and impact initiatives

The studentship will support

- The development of an exhibition and online material 'Prehistoric People of the Pennines: Lives of sustainable societies 5000 years ago', starting at the National Trust Centre in Marsden and touring local information centres within the West Yorkshire, Greater Manchester and South Yorkshire Pennine region. This small exhibition will include two plasticised poster panels and examples of recreated Mesolithic artefacts, as well as leaflets and online local walks illustrating key Mesolithic sites. For example for West Yorkshire an existing site tour can be made available crossing Marsden moor and 5,000 years of mesolithic occupation, starting at the site of early Mesolithic hut structures progressing to that of late Mesolithic flint knapping areas to latest Mesolithic fire pits likely used to communicate across the region. An updated version of the volume 'Prehistoric People of the Pennines' (Spikins, 1998) will be made available online jointly authored by the academic supervisor, project partner supervisors and student.
- The coordination of the above with material made available for local schools engagement initiatives and associated with educational material linked to the theme of sustainability
- Social media and local radio engagement

The partners, aided by collaborators, will promote opportunities to meet local groups and societies as well as sister bodies and potentially new audiences, e.g. West Yorkshire Ecology Service

Financial support

Studentships for doctoral research are 40 months in duration for full-time study. Awards are subject to satisfactory academic progress. Awards must be taken up in October 2023; no deferrals are possible. Awards will comprise fees at Research Council rates and a maintenance grant (£17,668 in 2022/23). The grant pays the fees at the Home/UK rate; international students are, however, eligible to apply for this Studentship and the difference between the Home/UK and International fee will be met by the University of York for a successful international applicant. Awards may be taken up on a part-time basis if a student is eligible to undertake part-time study; international applicants may be required to study full-time by the terms of their visa.

Qualifications

Strong applicants will have a good first degree in an appropriate subject, as well as a Distinction at Master's degree (or be working towards one) and/or professional experience relevant to the scope of the project.

Requirements of the Studentship

WROCAH students are required to undertake a bespoke training package and to complete a Researcher Employability Project of at least a month, a Knowledge Exchange Project, and to engage with Internationalisation.

All WROCAH students must submit their thesis for examination with the funded period. This is a requirement of the Arts & Humanities Research Council, which provides the funding for WROCAH, and is a condition of accepting a Studentship.

Before applying for any WROCAH Studentship, please first ensure that you have read the WROCAH webpages about the WROCAH training programme and requirements, as well as other funding opportunities

<http://wrocah.ac.uk/>

How to apply

By 5pm BST Wednesday 26 April 2023, applicants are required to submit to WROCAH an Expression of Interest, which should include:

1. A CV with details of academic qualifications
2. A covering letter comprising a two-page statement to convey your motivation and enthusiasm for the project, and to demonstrate your suitability for your intended PhD studies with the University and Project Partner.

The covering letter should specifically highlight the following:

- Your interest in the project and details on why you have chosen that University and Project Partner.
- How you will apply your current skills, knowledge and experience to undertake a PhD and the approach you would take to develop the project.

- How the project fits into your career plans and ambitions.

Expressions of Interest must be [submitted via this form](#).

- **2 May 2023: decision on short-listing**

The short-list of candidates to be invited for an interview will be announced on Tuesday 2 May 2023. *Short-listed candidates must complete a PhD programme application before interview.* If you are short-listed for an interview you will be sent details of how to apply for a place at the University of York. At that point you will need to submit the names and contact details of two referees, copies of transcripts of your academic qualifications and (if applicable) an IELTS certificate.

- **w/c 22 May 2023: interviews**

Interviews will involve the academic supervisor, Project Partner supervisor and a member of the WRoCAH Studentships Committee. They will be conducted online.

For more information about this project contact

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