Working Stone and Making Places in Neolithic Wales

WRoCAH funded Collaborative Doctoral Award between Department of Archaeology, University of Sheffield and Parc Eryri (Snowdonia National Park Authority)

Lead Academic and Partner Organisation Supervisors

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Project summary

The PhD project will investigate one of Europe's largest sources of Neolithic axe blades: Graig Lwyd, north Wales. New fieldwork and public outreach at Graig Lwyd led by Parc Eryri (the national park in Snowdonia and the project partner) is revealing an extensive and varied landscape of stone extraction, with exceptional potential for original research. Through fieldwork and artefact analysis, the PhD researcher will generate new knowledge about how stone working made places and landscapes in the Neolithic. It will benefit the project partner by providing evidence to better conserve the stone-working landscape and present Neolithic axe making in vivid and compelling ways.

PhD Project description

Stone axes were prolific, practical and potent objects in Neolithic Europe (4000-2200 BC). The axe heads (blades) derived their properties and potency from the stone from which they were fashioned. People selected sources of igneous rock and flint on the basis of the materials’ properties and the places where the stone derived. One of the largest sources of blades was Graig Lwyd, north Wales.
Graig Lwyd has received only piecemeal interest since its discovery due to the belief that the workings were lost to a modern quarry. Recent fieldwork disproved this belief. The rock (microdiorite) favoured in the Neolithic lies in screes of loose stone ignored by the modern quarries.

Excavations and public outreach at Graig Lwyd led by Parc Eryri (the project’s partner) has identified new sites and recovered large quantities (>500 kg) of Neolithic stone-working debris, representing most stages of blade making (introductory video on YouTube). It has extended the traces of stone working to areas within 5km of the original discoveries. Graig Lwyd is an extensive and varied landscape of stone extraction. The recently recovered assemblages of working debris offer exciting potential for original research that integrates materials and landscape investigation.

Research on Neolithic axe blades has shifted from a narrow attention on the objects to studies of the making, movement, use and deposition of blades. Despite greater interest in quarries, no major igneous sources have received sustained, systematic investigation. Even at Langdale, the UK’s most prolific source, research has been piecemeal and lacked integrated artefactual and landscape analyses. Theoretical research has generated compelling accounts of the social organisation of stone working. Yet the evidential basis remains dominated by old data and lacks landscape studies.

The PhD project will investigate one of Europe’s largest sources of Neolithic axe blades, capitalising on the discoveries made during Parc Eryri’s ongoing fieldwork:

1. Where did quarrying and blade making occur in the Graig Lwyd landscape?

2. How did technologies of stone working vary in the landscape and what factors influenced these variations?

3. How do stone-working technologies and placemaking at Graig Lwyd compare with other stone-working landscapes in NW Europe?

The methodology has three phases:

Year 1 – The PhD researcher will identify Neolithic quarrying and stone working in the Graig Lwyd landscape by (a) mapping areas of outcropping microdiorite, scree and worked stone, and (b) assessing assemblages in local collections and from the ongoing programme of excavations. The mapping will enable Parc Eryri and other agencies to better manage the fragile remains of stone working.
Year 2 – The researcher will investigate variations in technologies of stone working using (a) detailed photogrammetric surveys of worked outcrops to reconstruct Neolithic quarrying methods, and (b) technological analysis of the assemblages of blade-making debris and incomplete, discarded blades to match stone-working strategies with specific places. The researcher will determine the aims, parameters and methods of the analyses and the proportions of survey versus materials analyses in their research.

Year 3 – The variations in where and how stone was worked at Graig Lwyd will underpin interpretative models explaining how stone working was organised in the landscape and its differential effects in placemaking. Drawing on wider theories, shaped by their interests, the researcher will infer the significance of variations in how and where stone was worked. The interpretations will enable a comparison of Graig Lwyd with Neolithic quarrying landscapes in Europe.

The research will generate knowledge about how blade making derived meaning from and gave meaning to places. It will benefit Parc Eryri by providing evidence for better conserving the stone-working landscape as a historic asset and presenting Neolithic axe making in vivid and compelling ways.

The PhD researcher will be based at the University of Sheffield and supported by a cross-institutional supervisory team. Prof. Bob Johnston (Sheffield) and John Roberts (Parc Eryri) will act as primary supervisors. Bob Johnston will supervise the project’s overall academic direction, landscape analysis and archaeological theory. John Roberts will support engagement with the LPS, landscape familiarisation and fieldwork. Specialist supervision will be provided in lithic studies and analysis (Prof. Mark Edmonds, York) and the archaeology of Graig Lwyd (Dr Jane Kenney, Gwynedd Archaeological Trust).

About Parc Eryri (Snowdonia National Park Authority)

Graig Lwyd is in the Carneddau region, northwest Wales. Parc Eryri (Snowdonia National Park Authority) leads the Carneddau Landscape Partnership Scheme (LPS), together with Cadw, National Trust, Natural Resources Wales and the Snowdonia Society. The LPS is a £4-million five-year scheme (2020-25) to record, conserve and celebrate the natural and cultural heritage of the Carneddau.

‘Landscape of Neolithic Axes’ is a community archaeology project within the LPS, run by Parc Eryri and Gwynedd Archaeological Trust. Three seasons of excavations have been undertaken and will continue until 2024. Hundreds of local volunteers have excavated large assemblages (>500kg) of stone-working debris and identified new stone-working sites.

Integrated within the LPS, the PhD researcher will undertake surveys across the full extent of microdiorite screes and outcrops, collated with data from the Neolithic Axes project. This will enable the LPS to meet its objective to ensure the fragile remains of stone working are recognised in land management decision-making and protected through legal designation. The researcher’s detailed analyses of the assemblages and the landscape will generate new knowledge about the practices and places of stone working. This will enable the LPS to meet its objectives of visualising prehistoric landscapes and increasing
appreciation of local heritage. The findings will extend the Neolithic Axes project beyond the end of the LPS, an important legacy objective for the LPS.

**Engagement, outreach, dissemination and impact initiatives**

A core aim of the LPS is to improve engagement with and understanding of the heritage of the Carneddau. The Neolithic Axes project has made strong progress in addressing this aim. Hundreds of people have participated in events and fieldwork (watch this short video on YouTube). There is a successful collaboration with the thriving Penmaenmawr Museum (located close to Graig Lwyd). Participation by local schools in the excavations (>150 pupils to date) has been well received and led to further engagement from parents and pupils.

The LPS needs compelling information to enrich its engagement offer during the next 3 years. It will create an exhibition (at Penmaenmawr Museum initially, then travelling), organise Neolithic-awareness days, host a symposium to showcase and contextualise the work, and produce a comic-style book about Neolithic life and axe making.

The PhD researcher will contribute to these activities and take the lead in developing additional engagement events. As the LPS draws to a close and the PhD project ends, the researcher can collaborate on synthetic reports and conference presentations, public talks, guided walks, and policy workshops, and support the archiving of the excavated assemblages.

Neolithic blade making and Graig Lwyd in particular are identified as priorities in Wales’ Archaeological Research Framework. The researcher’s analytical work will ensure that the potential of Graig Lwyd is maximised and shared within national and international networks.

**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 Sheffield 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 Master’s degree (or be working towards one) and 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 Employ.ability 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 Wednesday 8 March 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.

- 17 March 2023: decision on short-listing
The short-list of candidates to be invited for an interview will be announced on Wednesday 17 March 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 Sheffield. 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 17 April 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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