M4C Collaborative Doctoral Award- Predicting and Protecting Lithic Landscapes

Project Title				
Predicting and Protecting Lithic Landscapes				
LEAD INSTITUTION				
Name of HEI institution	University of Leicester			
Lead regional city	Birmingham ☐	Coventry ☐	Leicester ☒	Nottingham ☐
PARTNER ORGANISATION				
Name of organisation	Dartmoor National Park Authority			
Website URL	https://www.dartmoor.gov.uk/			
THE RESEARCH PROJECT 750				

Research Context

This project seeks to characterise the significance and extent of Dartmoor's prehistoric subsurface archaeology, to inform future landscape management practices and to raise local and national awareness about this valuable heritage. The studentship offers a unique opportunity to explore the relationships between archaeological research, land management and conservation. The project is needed now as Dartmoor's buried prehistoric archaeology faces significant impacts from the growing scale and frequency of landscape-scale conservation initiatives (e.g. afforestation, peat-restoration, natural flood management). Additionally, land-management schemes and subsidies post-Brexit are being reconfigured and trialled with anticipated realisation in 2025 (e.g. DEFRA's "Environmental Land Management Scheme" (ELMS); the National Parks' "Farming and Rural Management Scheme" (FARMS)). This CDA research will be well-placed to directly inform such schemes' approaches to prehistoric heritage.

The DNPA has identified the transition from hunter-gatherer to farming lifeways as a research priority because so little is known about this period on Dartmoor compared to later prehistoric archaeology. From the first *Homo sapiens* hunter-gatherers (~44,000 years ago (Higham et al. 2011)) to the earliest agriculturalists (~4500 years ago), the dominant source of archaeological evidence is lithics. Lithics are currently excluded from protection by existing agri-environment schemes which focus on upstanding/visible archaeology. Surface finds and nineteenth century excavations demonstrate significant early activity relating to these remote periods and tantalising glimpses of archaeology concealed beneath peat and other superficial deposits.

Recent excavations of dense lithic scatters in SW England have demonstrated associations with ephemeral subsurface features including post-holes, hearths and pits (e.g. Hawkcombe Head (Gardiner et a. 2011), Wintershead (Bray 2015)). These features provide important information about early hunter-gatherers' lifeways and palaeoenvironments. Elsewhere in Britain later farming practices have negatively impacted the survival of such features (especially deep ploughing), but on Dartmoor predominantly pastoral farming has meant less ground disturbance and potentially a higher chance of feature survival. However, there has never been a comprehensive assessment of Dartmoor's prehistoric lithics that explores their changing uses and meanings through time; or investigated their abundance, distribution and significance.

Research Questions (RQ)

1. **What is the extent and significance of Dartmoor's subsurface prehistoric archaeological record?** The objective will be to identify patterns in the Historic Environment Record and establish which locations have high potential for the recovery of prehistoric lithics and associated archaeology.

2. **To what degree does the known record of prehistoric activity on Dartmoor indicate continuity in people's engagement with the landscape over time?** The objective will be to assess the nature and range of known lithic concentrations (techno-typology and *chaîne operatories*) and identify common site/feature associations.

3. **What is the relationship between the upland and lowland records?** The objective will be to compare the results of questions 1 and 2 with extant published data from surrounding lowland contexts.

4. **How can the results of RQ1, RQ2 and RQ3 be used to inform DNPA long term land-management practice?** The objective will involve the student developing a theoretical and practical understanding of stewardship and agri-environment schemes to inform the production of an evaluation tool and outreach activities (RQ5).

5. **What are the best ways to improve public awareness and understanding of Dartmoor's prehistoric record?** The objective will be to engage in local and national outreach activities to generate quantitative data that can be used to promote more diverse engagement with and understanding of National Parks.

Methods

Desk based methods include:

- Geographical Information Systems (GIS) analysis. Existing familiarity with GIS is important as predictive modelling will be a core component of the project.
- Academic and policy literature review (including ELMS; FARMS).
- Quantitative and qualitative analyses of archaeological datasets.

Field based methods include:

- Targeted geophysical survey and archaeological test-pitting. Archaeological fieldwork and training will be directly supported by the supervisory team and skilled DNPA volunteers.
- Direct involvement in field conservation archaeology through participation in restoration projects. This may vary from condition assessment to participating in dry stone walling.

Outputs

In addition to the thesis the student will be encouraged to give talks and research seminars at collaborating institutions and cross-sector conferences. There will also be series of public outputs in which the student will play a key role. These include:

- Production of guidance or a tool to improve the DNPA's ability to mitigate against damage to the prehistoric record
- Devising activities with DNPA to understand different audiences' interests, promote inclusivity and engagement with prehistoric archaeology.
- Creation of outreach materials
- Organisation of a workshop potentially in collaboration with Heritage 2020 or the Council for British Archaeology to explore peoples' motivations for visiting Dartmoor National Park
- Peer reviewed publications.

HOW TO FIND OUT MORE	
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