

**JOB DESCRIPTION**

**Research Associate in Computational Environmental History**

**Vacancy Ref:** 1055-24

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| **Job Title: Research Associate in Computational Environmental History** | **Present Grade:** 6P |
| **Department/College:** History |
| **Directly responsible to:** Dr Katherine McDonough, Principal Investigator |
| **Supervisory responsibility for:** None |
| **Internal Contacts:** Academic, research and support staff colleagues in the Department of History; colleagues across departments of the University and central administration. **External Contracts:** David Alexander, Peak District National Park; stakeholders at the South Downs National Park; data scientists, research software engineers and other academic colleagues at The Alan Turing Institute; relevant stakeholders; academic colleagues and advisors from across the globe; participants in the project’s workshops.**Job Description:**The Research Associate will contribute to the *Landscape Change and Conservation with MapReader* project (funded by Impact Acceleration Account AHRC funding to Lancaster University) working with the PI, Dr Katherine McDonough.This project explores landscape change from the nineteenth century to today in UK National Parks, using the MapReader software library to create and analyse datasets of features (such as field boundaries, trees, or footpaths) in a variety of historical. *LCCM* aims to provide National Parks with information to support planning conservation efforts, including helping to meet biodiversity and net-zero targets.**Main Duties:*** Use and maintain open-source computer vision tools for historical maps (specifically, the MapReader software library).
* Co-design and implement machine learning experiments analysing change over time in UK National Park landscapes.
* Publish models and data created during experiments.
* Explore emerging AI methods for historical map analysis and contribute new approaches in consultation with the project team.
* Co-write open-source software documentation and tutorials for reproducing computer vision experiments.
* Contribute to the publication of a white paper about the impact of historical map analysis on landscape conservation in UK National Parks.
* Contribute to a peer-reviewed article based on the project research, especially analysing and interpreting results of computer vision applications with historical maps.
* Communicate their research effectively across a range of audiences, academic and non-academic.
* Collaborate proactively with the interdisciplinary research team, including data scientists, historians, and librarians.
* Contribute to project meetings at Lancaster, online, and internationally as appropriate.
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