



**AHRC Collaborative Doctoral Partnership
Historic England and English Heritage CDP Priority Research Areas 2024
CALL FOR PROPOSALS
SUBMISSION DEADLINE – 5.00pm on FRIDAY 29TH NOVEMBER 2024**

Background

The Historic Buildings and Monuments Commission for England (HBMCE) was established by the National Heritage Act 1983, and until 31 March 2015 was known commonly as English Heritage.

On 1 April 2015 English Heritage separated into two organisations:

- Historic England, the public body that champions and protects England’s historic environment
- The English Heritage Trust, a charity that, under license from HBMCE, looks after the National Heritage Collection consisting of 400 historic sites, such as Stonehenge and Dover Castle

Together, Historic England and English Heritage were recognised as an Independent Research Organisation in 2017.

HBMCE’s Collaborative Doctoral Partnership (CDP) programme, funded by the Arts and Humanities Research Council, will allow us to identify and co-supervise 3 collaborative PhD studentships commencing in 2025.

Call for Proposals

We are now issuing a Call for Proposals for co-supervised PhD studentship projects to commence in October 2025, based on one of the CDP Priority Research Areas identified below. These have been selected to align with Historic England or English Heritage corporate plans and strategies.

Proposals for studentship projects should be made by a university-based researcher in collaboration with a named member of staff from Historic England or English Heritage, who will act as first non-HEI co-supervisor. Two second co-supervisors - one from the university and one from Historic England or English Heritage – must also be named in the proposal, making a supervisory team of four. We **are not** looking for project ideas directly from potential students.

Studentship funding is available for four years and includes support for career development opportunities (lasting three to six months) that are additional to the main research.

Please note that we may not support every approach for collaboration. Our ability to progress co-supervised PhD proposals depends upon their alignment with our corporate plans and match with organisational knowledge. This will be determined following initial discussion. Projects reaching full submission stage will be assessed via a peer review panel.

To submit a studentship project please carefully read the **Proposal Form and Guidance** which can be found on the [Historic England website](#). **Completed forms must be submitted by the closing time/date of 5.00pm on Friday 29th November 2024.**

To discuss please contact: Jo.byrne@historicengland.org.uk or Jeremy.Ashbee@english-heritage.org.uk

Priority Research Area (Historic England)

Digital Heritage: Adopting, Supporting and Sustaining FAIR Digital Heritage

Context and Further Details

The heritage sector holds increasing volumes of data regarding human society and culture, past and present. It has invested substantially in using digital systems; digitising and cataloguing earlier analogue sources and is increasingly gathering and archiving born-digital content. Digital collections provide a foundation for new research into both historical phenomena and contemporary life. The considerable amount of data collected by the sector over time deserve to be better understood and utilized by a much wider range of people within and beyond academia. Yet these data sets are complex, fragmentary, and often produced in formats that are not easy to handle. The rate of change in digital technologies challenges a sector that does not always have resources for cutting edge systems and digital skills. In a world of big data and records born digitally, we need to manage information to manage the historic environment. The [FAIR data principles](#) (Wilkinson et al 2016) set out useful guiding standards to ensure research data remain Findable, Accessible, Interoperable and Reusable (FAIR) when machine processed. But with a growing broader interest in Data Analytics and AI applications globally, we may equally need to establish what heritage data *is not suitable* for data mining, so others do not misrepresent heritage data, along with identifying where historic environment datasets could inform other interdisciplinary analyses.

We are seeking proposals that could address: What constitutes ‘heritage data’? Can we better characterize and connect different types of heritage data held in records and archives? Can such characterizations help data analysis and synthesis within and beyond the heritage sector? What methods best enable researchers to integrate large-scale cultural and heritage data with high volume, velocity and variability? How can cultural and heritage data be combined, reorganised, and reassembled using methods that are context-aware and culturally sensitive? How best to FAIR-ly use heritage data in combination with data from other sectors? How can we ensure that researchers use the most appropriate current techniques to maintain sustainable heritage data? What sort of information will be most useful to historic environment decision makers?

We would particularly welcome research that:

1. Investigates the effectiveness and sustainability of methods, tools and techniques to better manage, share, interrogate and archive digital data across and beyond the heritage sector to improve the Findability, Accessibility, Interoperability and Reusability (FAIRness) and Openness of digital heritage data so it can increase in the overall knowledge dividends for understanding and managing the historic environment.
2. Investigates how new technologies for (FAIR) sharing and reporting of data can best be used to increase interoperability and innovation and explore the value of linking data from Heritage to data and analyses in other sectors and areas of society.

3. Investigates and identifies the skills needed for Heritage Data Analysts of the future; what data will be most useful; what new analyses may inform improved research data management and increase understanding of change in the historic environment over time and space.

Wilkinson, M., Dumontier, M., Aalbersberg, I. *et al.* The FAIR Guiding Principles for scientific data management and stewardship. *Sci Data* **3**, 160018 (2016). <https://doi.org/10.1038/sdata.2016.18>

Priority Research Area 2 (Historic England)

From Tradition to Innovation: The performance and durability of paint systems for external traditional lime-based substrates

Context and Further Details

Climate change has impacted the rate of deterioration of historic buildings, with increased extreme weather events, a rise in the concentration of air pollutants, and a resultant increase in surface recession, erosion and biofilm formation. Paints and coatings play a key role to prevent weathering processes that take place at the interface material-environment. The goal is to reduce the impact of exposure to rainwater and assist the building fabric to dry after rain events.

Historic England regularly receives requests for guidance on selecting appropriate paints/coatings to be applied over external lime-based substrates. Product selection is complicated by the frequent need to identify a system compatible with an accumulation of previous coatings, often comprising diverse paint systems. Much existing research and guidance is focussed on the durability of the paint itself, without considering its effect on the condition of the substrate (including any pre-existing paint layers of historic significance), the aesthetic requirements, or the impact on significance.

This project will deliver evidence-based research to determine which paint systems for external lime-based substrates provide greatest resilience to the effects of climate change, minimise damage to the building fabric (both whilst the paint is in good condition and as it subsequently degrades) and minimise the carbon footprint of historic buildings by maximising the longevity of building fabric and improving thermal performance.

We are inviting proposals that focus on:

1. understanding moisture transfer through lime-based substrates coated with selected traditional paint systems (traditional limewash, dispersed lime paints, mineral paints, silicate paints, etc.) and new formulations marketed as suitable for external traditional lime-based substrates in laboratory mock-ups and in case studies, both when the paint-over-substrate system is well preserved and when the paint and/or underlying substrate has started to deteriorate;
2. developing robust laboratory- and *in situ*-based methodologies to assess moisture transfer through selected paint systems applied to traditional lime-based substrates;
3. developing robust laboratory- and *in situ*-based methodologies for monitoring and evaluating the durability, performance and degradation processes of selected paint systems and the lime-based substrates to which they are applied, taking into consideration traditional lime-based substrates in varying states of preservation and subjected to accelerated ageing and natural ageing, with a specific focus on the impact of rain;

4. developing robust laboratory- and *in situ*-based methodologies to assess the impact of the selected paint systems on the thermal performance of the whole system paint-over-lime-based-substrate;
5. assessing the potential to remove paints applied to traditional lime-based substrates and understanding the requirements of different paint systems when re-painting with the same paint type or a different one.
6. evaluating critical steps before, during and after the paint application to grant optimal results: preparation of the substrate, application methodology, care of the surfaces after the paint application.

The proposal will be developed and carried out in partnership with built heritage professionals and craft practitioners.

The outcomes will contribute to greater understanding of the performance and durability of a range of traditional and innovative paint systems applied on external lime-based substrates in various states of preservation, as a system (that is, the whole stratigraphy paint(s)-over-substrate).

The results will be used for the wider Historic England's paints and coatings research programme to develop best-practice guidance.

Priority Research Area 3 (Historic England and English Heritage)

Open Space: Enabling Inclusion

Context and Further Details

Inclusion and equality are at the heart of a vision where England's heritage is for everyone, and where a diverse range of people can connect with, enjoy and benefit from the historic environment. Delivering historic environment advice, policies, projects and narratives that are inclusive, participatory and collaborative involves actively seeking new ways to engage with diverse researchers, multiple audiences and plural pasts. Inclusive practice means working to ensure that no-one feels excluded. It also means adjusting the balance where the experience and values of certain groups* are not visible or represented within celebrated heritage.

For our current programme, Historic England and English Heritage have committed to including an open space within our annual CDP call with the proactive aim of attracting PhD supervisors and applicants from different backgrounds. In this space, and in a spirit of co-creation, we are seeking new ideas and perspectives that address issues of equality, diversity and inclusion in relation to the historic environment and which are driven by those impacted by these issues. Our aim is to enable deeper understandings of what matters to a more diverse range of people through a broader portfolio of PhD research.

Research may explore inclusive methodologies or tackle subjects that will enhance the value and benefit of the historic environment for marginalised communities. For example, projects may focus on 'missing pieces' within historic environment knowledge or historic property storytelling; investigate the barriers to inclusive practice; examine the consequences when people feel excluded from heritage spaces; or consider how new approaches to interpretation, including digital technologies, may

embrace multiple heritage narratives. Associated impacts may be policy, guidance, interpretation, or practice based. The key requirement is that the research a) addresses the priorities and outcomes within Historic England and/or English Heritage current corporate/strategic plans (below); and b) is specifically aligned with the principles contained within our strategies for Equality, Diversity, and Inclusion (see lists below). Projects may be in partnership with Historic England or English Heritage, or both together (i.e. with one supervisor from each organisation).

**As a priority, we invite research that responds to improving heritage outcomes for people with Black, Asian or other Minority Ethnic Heritage; people who identify as Lesbian, Gay, Bisexual, Transgender, Queer +; young people under 25; people with disabilities.*

Priority Research Area 4 (English Heritage)

The Design, Development, Management and Maintenance of Historic Path Surfaces

Context and Further Details

English Heritage cares for some of the most significant historic gardens and landscapes in England, including those with notable moments such as the early use of ‘tarmac’ for the paths at Brodsworth Hall in Yorkshire. Historic paths networks are fundamental to the understanding, exploration and enjoyment of these historic spaces, but their management and maintenance is often overlooked and underfunded. This is compounded by increasing visitor numbers which were never envisioned when the gardens were laid out for family use. There is also a lack of understanding of how these paths were created and maintained in the past, which can result in historic paths being damaged through lack of maintenance or the use of inappropriate materials and repair techniques.

We are seeking research proposals that respond to the ‘conservation, stewardship & sustainability’ priority outlined in the English Heritage Strategic Plan (2022-25). In the context of historic path surfaces, the research will inform the sustainable conservation, management, presentation and interpretation of our sites; assess and address the vulnerability to climate change of our historic sites, landscapes and artefact collections; and enhance visitor experience, facilities and accessibility. The research could take several directions. For example, it could consider the historic significance of paths and surfaces; local distinctiveness; the sustainability of materials; modern accessibility requirements; the impact of climate changes (particularly extreme cold, heat and rain); increased public access and challenges such as capacity limitations and increased wear; impact on nearby interiors and collections, as well as ongoing maintenance needs.

The desired outcome would be a greater understanding of historic path surfaces and their development, alongside guidelines for the management and maintenance of historic path surfaces today, responding to the outlined knowledge gaps and challenges. Research outputs could include a typological classification of different historic path constructions, with guidance on their individual construction (materials, camber and drainage) and ongoing maintenance requirements (frequency of resurfacing, rolling, weed control and reduction in herbicide use etc.) and/or guidance on suitable modern alternatives in areas where a historic surface is no longer feasible. English Heritage would provide access to relevant research case studies, including Brodsworth Hall, Kenwood House, Audley End, Eltham Palace, and Wrest Park.

The challenges associated with path management and maintenance are becoming increasingly pressing, with areas of our gardens sometimes closed off to visitors due to path flooding (likely relating to climate change), as well as the increased wear and tear on paths and surrounding grass areas (often related to large events). This can impact on visitor satisfaction and visitor numbers if popular areas of gardens are unavailable. These impacts are only likely to increase in the future. Proposals to this theme should lead to new historical knowledge and enable proactive research driven decision making to mitigate these problems now and in the future.

Priority Research Area 5 (English Heritage)

Climate Change Impacts – Compound Hazards

Context and Further Details

To effectively prioritise climate adaptation for the English Heritage-managed National Heritage Collection of historic places (or indeed for the wider historic places management sector), it is crucial to understand the impact that climate change could have on different heritage assets. One approach to climate change risk assessment is set out by the Intergovernmental Panel on Climate Change (IPCC). This encompasses four aspects, hazard, exposure, vulnerability and response. How individual hazards manifest as impacts is well understood, and hazards have been mapped nationally and for individual sites to understand and manage projected future changes. However, the work has identified key knowledge gaps, particularly around how multiple hazards combine to cause impacts. These are referred to as compound hazards by the IPCC.

We are seeking research into the potential impact of compound hazards to enable effective identification and prioritisation of significant impacts. In some cases, we already understand the relationship between different hazards, or between hazards and environmental parameters, but we require climate projections to understand how the risk will change. For instance, how will the recession rate of stone or biomass accumulation on stone be projected to change in the future. However, for other risks some initial applied research is required to identify and understand the basic links between the different environmental parameters and the potential consequences for our buildings, monuments and collections. For example, some insects can be detrimental to buildings and collections, whereas others are important to the historic garden and landscapes we care for. Elsewhere specific plants are significant with respect to conservation (through soft capping), but damaging species can contribute to the deterioration of our buildings and monuments.

The research theme relates to the ‘conservation, stewardship & sustainability’ priority outlined in the English Heritage Strategic Plan (2022-25). In addition, our Climate Action Plan (CAP) sets out how we will become an organisation that uses resources efficiently, is collaborative and creative in our environmental work, thinks for the long term and builds resilience to the changing climate. The studentship will collaboratively build our understanding of climate risks to ensure we can effectively care for and operate the National Heritage Collection, as well as develop more sustainable approaches to conservation for English Heritage and the heritage sector. With an improved understanding of compound hazard and risks, we can prioritise climate change actions, implement adaptation only where necessary, introduce effective change and improve climate resilience.

Key Strategies and Agendas

Historic England

- Historic England Corporate Plan 2023-2026: <https://historicengland.org.uk/images-books/publications/he-corp-plan-2023-26/>
- Historic England Research Agenda: <https://historicengland.org.uk/research/agenda/>
- Historic England Strategy for Inclusion, Diversity and Equality: <https://historicengland.org.uk/content/docs/about/strategy-ide-nov20-mar23/>
- Historic England Climate Change Strategy: <https://historicengland.org.uk/whats-new/features/climate-change/our-strategy/>
- Historic England Wellbeing and Heritage Strategy: <https://historicengland.org.uk/research/current/social-and-economic-research/wellbeing/strategy/>

English Heritage

- English Heritage Strategic Plan 2022-2025: https://micro.green-park.co.uk/english-heritage/wp-content/uploads/sites/101/2022/07/Strategic_Plan_2022-25.pdf
- English Heritage Research Agenda: Can be supplied on request
- English Heritage Equality, Diversity and Inclusion Strategy: <https://www.english-heritage.org.uk/siteassets/home/about-us/our-people/jobs/equality-diversity--inclusion/telling-everyones-story---english-heritage-edi-strategy.pdf>
- English Heritage Climate Action Plan 2022-2025: <https://www.english-heritage.org.uk/siteassets/home/about-us/our-priorities/sustainability/climate-action-plan.pdf>

If you require an alternative accessible version of this document (for instance in audio, Braille or large print) please contact our Customer Services Department:

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