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Heritage Responds – Taking Positive Actions on Climate Change

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Summary

The Storm Tower, Bude. Image credit Historic England

Our heritage now faces unprecedented challenges from climate change. However, heritage can also be part of the solution. This article is drawn from the 'Heritage Responds' report issued by the Historic Environment Forum in England in November 2021, just ahead of the United Nations COP26 Conference in Glasgow. The purpose of the report was to highlight the positive actions already being taken by the heritage sector in England, and their partners in academia, ecology, development and the commercial sector, to address a broad range of climate factors. The key message is that while we recognise the very real risks that climate change presents to our tangible heritage, we also recognise there are solutions we can bring to the table that

help not only to protect heritage but also bring wider benefits to local, and wider, communities.

The full report - 'Heritage Responds – Taking Positive Action on Climate Change' – is available on the Historic Environment Forum webpage: Heritage Responds - Historic Environment Forum. It is accompanied by an online repository of case studies demonstrating actions across research, technology, innovation, advocacy, carbon and energy reduction, adaptive reuse, nature-based solutions, community engagement and skills development.

1. Introduction

Climate change is one of the biggest threats facing the historic environment, and the heritage sector should be united in our response to this extraordinary challenge. As heritage organisations, we recognise the unique opportunity presented by COP26, the United Nations Conference of the Parties on Climate Change, to address this issue in line with efforts to 'unite the world to tackle climate change'. The 2022 Intergovernmental Panel on Climate Change (IPCC) report (IPCC 2022) has made the situation painfully clear – the situation is worsening, and we must act now.

The heritage sector is acutely aware of the potential impacts of climate change on the places we value. We know an increasing amount about the potentially damaging impacts that higher sea levels, increased flooding, storm damages, droughts and temperature have on historic buildings and landscapes, archaeological sites, on our marine heritage, gardens and parklands. We know the impact this will have on people's homes and property, on towns facing increased flooding, on coastal and rural communities.

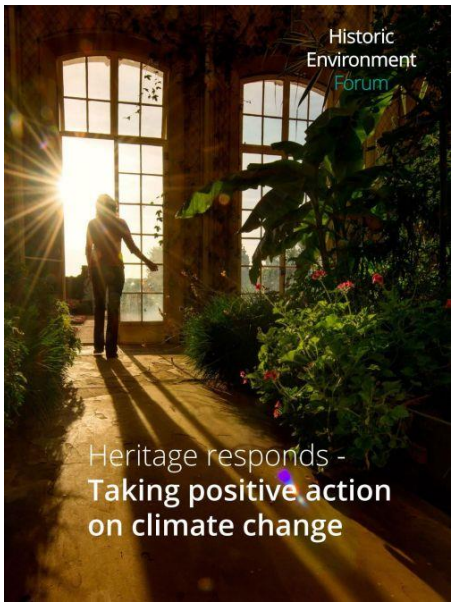

Figure 1: Heritage Responds report cover image. Image credit: Historic Environment Forum/English Heritage

Heritage matters – people love it, respond to it, debate it. The historic environment is all around us, in landscapes, in buildings and in communities. Heritage forms the backdrop of our everyday lives in cities, towns and countryside across the nation. Thousands of jobs in tourism, hospitality, consultancy and construction depend on it. Millions of people visit heritage sites every year, generating billions in tourism revenue for the economy. Regenerating urban areas brings further investment and pride in town centres. Historic buildings, gardens and landscapes are habitats for protected species and act as the green lungs for our towns and cities. Heritage cannot, however, be defined by buildings, landscapes and places alone; it's about the knowledge and insight heritage offers into how people lived in the past and shaped the world around them. This knowledge, alongside an appreciation of how it has shaped our social and cultural values, help us to make the right choices as we face today's challenges.

We can make a difference – the heritage sector is now committed to finding ways of not only protecting and adapting the places people value, but utilising heritage as a means to support society in meeting the challenges of climate change. Far from being a barrier to mitigation and adaptation, the heritage sector can offer solutions. This document is intended to show how heritage can become part of the solution to the risks and challenges of climate change. Importantly, this isn't just about making statements and promises, but rather sharing what we are already doing, and galvanising further action. The case studies set out here speak for themselves and of the talent, ingenuity, and technical endeavour of so many people working across the heritage sector with partners in academia, government and industry, striving to play their part.

2. Taking Positive Action

We believe heritage can play an active and positive role in addressing the challenge of climate change.

We recognise that if we care about heritage, we need to show the value of the contribution we can make to the climate change debate. We also need to demonstrate real action and commitment to changing how we work, decarbonising our sector and supporting others in making informed decisions. We believe our role is to help people make such decisions about climate change. More than 20% of all homes in England, and around a third of offices in England and Wales date to before 1919 (Whitman *et al*. 2016; and also Heritage Counts 2019). We know that maintaining and adapting historic buildings avoids the carbon of demolition and new construction. No matter how energy efficient a new building might be there is still a carbon cost of the materials and the construction.

Our role is also to offer solutions. The sector has pioneered research into climate change impacts and is innovating new approaches to vulnerability and hazard assessments. We are harnessing digital technology to inform carbon reduction. We are focusing on new training needs and closing the skills gap to support sustainability. And, importantly, we are working across sectors to develop nature-based solutions to protect heritage better, enhance biodiversity and address the risks of major flooding and sea level rise. And we have an audience of millions. Our

understanding of the past and long interaction between people and nature – evident in the archaeological record, monuments, buildings and landscapes that characterise our world – can provide insight into how people can adapt to change. We can help people discover their heritage, understand how places have changed and so bring them together to adapt to change. Our task now is to harness the social, economic, cultural and environmental benefits of heritage to become part of the climate change solution.

3. Heritage Responds

We are already taking action, but there's much more to do. On behalf of the Historic Environment Forum, the HEF COP 26 Task Group – made up of representatives of Historic England, Historic Buildings and Places, the Institute for Historic Building Conservation, the National Trust, Historic Houses, Church of England, English Heritage, the Institute of Conservation (Icon), the Architectural Heritage Fund, Heritage Alliance, Natural England and the National Lottery Heritage Fund – reviewed our current understanding of heritage-related climate change activities. What we found was just how much activity was already underway within the heritage sector and across its partners, and often in collaboration with other bodies.

Overall, the Task Group captured nearly 50 case studies reflecting the breadth, depth and diversity of work already being undertaken by the heritage sector and its partners to address many different aspects of climate change. These are summarised below, but all the case studies are available on-line:

- *Pioneering research and innovation: leading the science on understanding climate impacts, adaptation and risk*
  The heritage sector has been engaging in research and innovation for the last 20 years, identifying the potential risks and impacts from climate change. Since the publication of the seminal 'Climate Change and the Historic Environment' report (Cassar 2005), climate change study has expanded rapidly, with the academic sector working increasingly with international partners to understand the scale of impacts and change across different heritage assets. Heritage scientists map and analyse climate change, risk and hazard across the UK, from historic coastal landscapes to heritage sites at risk of storm surges, soil movement, flooding and rising sea levels. Understanding how we face into the risk of loss has become an increasingly important research theme. Case studies provided included the leading work by the Institute for Sustainable Conservation (UCL), research into Hazard Mapping led by the National Trust, the use of smart technology to manage energy and reduce carbon led by English Heritage, and research led by the University of Exeter and partners into managing change and loss (Blundell *et al*. 2022).
- *Advocacy, awareness raising, sharing best practice*
  The heritage sector – with colleagues in aligned areas such as biodiversity, architecture and collections care – has responded to the climate crisis by bringing people together under a number of declarations and manifestos for change. Much of this has been grass roots-led by a groundswell of concern around practitioners wanting to raise awareness and take positive action – as well as larger organisations bringing key people together on a national and international stage. Such networks create vital cross-sector and cross-border links, offering important opportunities to share and collaborate in an impactful way.
  Sharing knowledge is central to improving our preparedness, helping us adjust how

we care for our heritage and the communities that depend on it. Heritage bodies have been proactive in providing guidance and advice to trusts, property owners and local authorities on climate change and sustainability, and this is increasingly becoming an expectation in funding streams administered by the National Lottery Heritage Fund in the UK and the British Council overseas for the Cultural Protection Fund.

- *Decarbonising heritage: creating a low-carbon heritage sector*
  Global efforts to avoid a climate change catastrophe centre on the need to drastically reduce global carbon emissions. As a sector, many organisations have worked hard to become greener, setting carbon targets, cutting energy use, shifting to renewables and encouraging more sustainable options for visitor travel. We know there is still a long way to go for many trusts and charities, but the need to act and the commitment to invest in change is increasingly acknowledged. To make this happen we need to assess our activity and find new and innovative ways to reduce our carbon footprint, build sustainability into operational plans from the outset, back up net zero pledges with robust implementation plans, implement green travel plans, look for viable, net zero ways to heat our buildings, continue to make the case for building adaptation over new build, and seek to actively lock up carbon through landscape restoration and sensitive peatland and ancient woodland management.
- *Supporting and enabling sustainable communities through adaptation and engagement*
  We know climate change will have a significant impact on communities around the country. Heritage can help us respond and act in a number of ways. Our primary response has to be in retaining – and adapting – what we already have, and what is valued by local people and visitors alike. Utilising and adapting historic buildings prevents the loss of embedded carbon already locked up in existing structures, and can offer new and creative uses of valued assets. Likewise, utilising and adapting traditional and nature-based solutions helps to create resilient historic landscapes. Investing in heritage over new build can breathe new life into urban and rural areas by repurposing and reusing historic buildings and enhancing local resilience. Historic places are inherently sustainable; their structure and design support a local life-work balance, reducing the need to travel and providing a sustainable model for future development. Heritage organisations can also play an important role in assisting smaller and community-led organisations to make informed choices, particularly on the right technological solutions for decarbonising their historic assets. The involvement of local community stakeholders, who know and love their heritage, in decision-making is crucial to successful climate change management, fostering resilient heritage and resilient communities.
- *Supporting nature- and culture-based solutions to climate change*
  The historic environment is made up of so much more than buildings and structures. We care for our country's rich and diverse historic landscapes, coastlines and marine heritage, and have a duty of care for the delicate eco-systems that exist within our natural habitats. There is a long tradition of adjusting land management practice and river restoration to improve preparedness to face floods and landslides, and we protect historic coastal landscapes at risk of storm surges and rising sea levels. What's good for nature is often good for heritage and vice versa, for example the protection of peatland, which is hugely valuable for buried archaeology as it is for biodiversity and carbon sequestration. Our view must go beyond protecting nature within a heritage context, and we are increasingly embracing nature-based solutions and former traditional land management practices to improve conservation, to reduce risk and mitigate climate change. Understanding and working with natural processes, particularly in rivers and dynamic coastal environments, is also challenging the heritage sector to consider what it values and what influence it can have in the face of changing weather patterns and sea level rise.

- *Improving energy efficiency – making the case for historic buildings*
  Historic buildings are the ultimate low-carbon and recyclable product. They are also often made from natural materials, are endlessly adaptable, and can keep carbon locked up for centuries, and we've learnt so much about this in recent years. But they need to be well maintained, with respect to their significance and character, and avoid inappropriate modern measures, materials and interventions only suitable for new build. Retrofit offers important environmental gains but, as with any activity, the impact of retrofit itself must be considered and sustainable, low-carbon choices should be made. A solution-focused, 'whole building' approach will support design changes effectively and deliver results for both occupants and the climate.
- *Investing in training and both new and traditional skills for sustainability*
  The heritage sector is entering new areas and still has much to learn. Training and skills development is therefore crucial, and the Fit for the Future Network in particular has been hugely proactive in bringing together heritage, environment and sustainability practitioners to share and learn from one another in this area. The value of peer learning is proving immense. But we need to face the significant shortage of people with traditional construction and heritage conservation skills if we are to be truly able to step up to climate change. There's no point worrying about climate adaptation or carbon reduction if the assets we care about are in poor condition. A building that is not well maintained will be inherently less energy efficient and more exposed and vulnerable to the potential impacts of climate change than one that is well cared for. Likewise, peatlands emit rather than store carbon if not properly cared for. Investing in both 'traditional', land management and new heritage skills would therefore help address climate change and create highly prized new jobs, creating much needed capacity across the sector.

We hope the case studies included here help illustrate the breadth of current activity, get people talking and inspire further positive action. However, they are by no means comprehensive – we know a lot more activity is ongoing and we hope to keep the tool that supports this document, the Heritage Responds Climate Change Story Map, live with future updates. Collaboration is the key to taking things forward. We must continue to talk to others and build new partnerships; it's the interaction of ideas and perspectives that will continue to lead to positive action. And just as climate change knows no boundaries, nor should we.

Acknowledgements

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