



Exploring Climate Change and Culture and Heritage

Report from a one-day conference held in the
Royal Irish Academy on 1 June 2023

Executive Summary

The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines cultural heritage as 'artefacts, monuments, a group of buildings and sites, museums that have a diversity of values including symbolic, historic, artistic, aesthetic, ethnological or anthropological, scientific and social significance' as well as 'intangible cultural heritage (ICH) embedded into cultural, and natural heritage artefacts, sites or monuments'.¹ Cultural heritage influences societal perceptions and imbues communities with a strong sense of identity, history and place.

Changing climates, extreme weather events and rising sea levels will have a detrimental impact on the culture and heritage of Ireland in many ways. Some of Ireland's heritage sites have already been irrevocably damaged by the rise in weather and climate extremes. Scattery Island in the Shannon Estuary is one such site. The island is the location of an early Christian settlement, a Napoleonic artillery battery and a nineteenth-century school house. It is a place of ecclesiastical, vernacular, maritime and military heritage and is now under threat from coastal erosion.

In June 2023 the Royal Irish Academy's Climate Change and Environmental Sciences Committee, in collaboration with the Environmental Protection Agency (EPA), hosted a one-day conference to explore climate change and culture and heritage. By bringing together climate and heritage experts, this one-day conference aimed to highlight the profound effects of climate change on Ireland's cultural legacy and to propose solutions and approaches for mitigating these effects.

Key takeaways from the conference emphasised the need to draw lessons from the cultural heritage sector to inform environmental conservation efforts across the island of Ireland and highlighted the Royal Irish Academy's role in addressing these challenges, fostering structured discussions, and promoting eco-citizenship.

As this is an emerging research area, we have aimed to capture as much of the proceedings of the conference as possible. This report contains summaries of the keynote papers and case studies presented on the day as well as a summary of the conclusions and recommendations captured during the conference's closing discussion. It is our hope that this can be used as a resource to advance research, discussion and action in this field.

¹ <https://uis.unesco.org/en/glossary-term/cultural-heritage>

The conference was organised by the Royal Irish Academy's Climate Change and Environmental Sciences multidisciplinary committee and was kindly supported by the Department of Housing, Local Government and Heritage, and the EPA.

Background and conference theme

The research area of climate change and heritage is relatively new. This conference aimed to build on the recent European Joint Programming Initiative (JPI) white paper 'Cultural Heritage and Climate Change: New Challenges and Perspectives for Research'.² The white paper highlighted research gaps and opportunities at the interface of cultural heritage and climate change, and identified the emerging research priorities that participants in the conference were invited to address:

- The impact of climate change: Predicting and assessing the impacts of climate change on and through culture and heritage
- Protecting heritage: Opportunities for climate mitigation, protection and adaptation strategies, and sustainable development.

In the programming of this conference our goal was to shine a spotlight on current and recent projects at the intersection of climate action and cultural heritage, addressing the following broad areas:

- Natural heritage
- Cultural heritage
- Built heritage
- Water heritage
- Archaeological heritage.

The importance of language and its preservation was also a recurring motif throughout the day.

The intended audience for this conference included:

- Academics working in climate change and environmental sciences
- Academics studying heritage sciences and heritage-related disciplines
- Policymakers
- Practitioners including local authorities, architects, planners and representatives of cultural institutions
- Community representatives including members of creative and heritage groups, local environmental groups and citizen scientists.

² <https://www.heritageresearch-hub.eu/white-paper-cultural-heritage-and-climate-change-new-challenges-and-perspectives-for-research/>

Conference structure and format

Introductory remarks were delivered by Frank McGovern, EPA, who highlighted the important role of the Royal Irish Academy in facilitating knowledge sharing and action in this area and proposed that the enduring lessons of Irish language survival are applicable to climate change, culture and heritage.

The conference then opened with a review of the national and EU-wide situation with regard to research on and mitigations for the impact of climate change on heritage. The main messages delivered by the keynote speakers outline the potential for the funding of projects around climate change, heritage and landscape and current progress in Ireland.

The keynote speeches were followed by a series of thematic discussions on specific areas of relevance to Ireland. These discussions were grouped into two sessions; in each one four speakers presented a case study followed by a moderated discussion. Case studies included the impacts of climate change on coastal heritage, the historic built environment, waterways, scientific heritage, cultural heritage and biodiversity in Ireland.

The closing conference session aimed to engage the participants and attendees in a critical discussion, reflecting on the learnings of the day and proposing what the research and practitioner sectors in Ireland could do to generate solutions. The online noticeboard tool Padlet was used to capture the input from the audience during this session.

Summary reports of the keynote speeches and case studies can be found below.

Keynote Addresses

Dr Pascal Liévaux, Chair of the JPI Cultural Heritage and curator, Directorate-General for Heritage and Architecture, Ministry of Culture, France

In 2023 the EU Commission launched a Joint Programming Initiative (JPI)³ aimed at enhancing the coordination of research and resources at the local level. This funding primarily targets the humanities, facilitating the exploration of the connection between cultural heritage and climate change. A Cultural Heritage and Climate Change Task Force composed of 20 experts from nine countries was formed in March 2021 with the aims of developing a Joint White Paper and organising a future joint funding call. The task force also

³ <https://jpi-climate.eu/programme/climate-cultural-heritage-joint-call/>

highlighted the Belmont Forum⁴ as a global platform for joint international research support.

The Joint White Paper⁵ was launched in 2022. The literature review in this white paper advocates for a 'mixed methods' approach to stimulate research, exploring the integration of social heritage into society. The paper highlights priorities and research gaps: tackling the climate emergency by assessing climate change impact and forecasting future scenarios through cultural heritage; safeguarding and aiding climate adaptation; and leveraging cultural heritage as a resource for climate mitigation and sustainable futures.

Dr Cathy Daly, University of Lincoln & Carrig Conservation International

The Archaeological Heritage and JPI White Paper initiated discussions on research needs within our field. The connection between heritage and climate action—adaptation and mitigation—is crucial, as they form two integral parts of a unified approach. Ireland has pioneered research-informed policy development globally, marked by extensive literature research and robust stakeholder engagement, following a structured six-step process to formulate the plan.

Adaptation planning for cultural heritage is intricate, involving the understanding and protection of heritage values alongside assessing climate hazards' impacts and transitioning to low-carbon practices. However, adaptation alone is insufficient. The research plan outlines the sustainability challenges of preserving heritage in situ, especially considering underground concerns, and advocates for learning from historical responses to climate change, incorporating both scientific and indigenous knowledge into adaptation strategies. There is a critical need for adaptation solutions rooted in robust conservation principles that draw on local knowledge and existing solutions from various disciplines to avoid redundancy and ensure effective responses.

Maladaptation and neglecting heritage values can also harm biodiversity, emphasising the need for balanced solutions. A survey of heritage practitioners highlighted concerns about communication, engagement, skills and methodologies, all of which can be improved through research efforts. Tangible cultural heritage, which was recognised in COP27's work programme on the global goal on adaptation,⁶ is now emerging as a prominent theme for adaptation strategies, indicating a growing focus in this area. A question from the audience raised the issue of categorising and systematising Ireland's preservation efforts over different time periods, underscoring the necessity for clear sectoral directions.

⁴ <https://www.belmontforum.org>

⁵ https://www.heritageresearch-hub.eu/app/uploads/2022/03/White-Paper-March-2022-OK-revision-nm-18_05.pdf

⁶ https://unfccc.int/sites/default/files/resource/GGA_AUV.pdf

Jacqui Donnelly, Department of Housing, Local Government and Heritage

Efforts are focused on understanding and preserving heritage resources, integrating plans for the built and archaeological heritage, and at the same time communicating this knowledge for future generations while securing necessary resources to carry out this work. A climate change advisory group and working groups have been established to implement various projects, including GIS and digitally based initiatives, community engagement and research. Identifying heritage assets vulnerable to climate change impacts is crucial, especially under the National Monuments Acts,⁷ which call for increased awareness and mapping. Collating existing data sets and conducting risk assessments on vulnerable assets are essential steps, along with improving energy efficiency and resilience of historical buildings. Collaboration with local authorities and international partners is vital as well as integrating heritage into climate action plans and initiatives such as Heritage Ireland 2030, all the while ensuring an integrated approach to climate change impacts on heritage and the built environment.

Efforts are underway to engage communities and provide training, with a focus on reporting these activities. Initiatives like Fingal County Council's Heritage X Climate Project,⁸ along with collaboration with the EPA, highlight the importance of addressing all aspects of heritage resources, while sharing international best practices. Fingal's comprehensive approach to assessing heritage sites serves as a model for others, as evidenced by positive feedback in the EU Commission's report on heritage and climate change, which lauds Ireland's performance and highlights specific recommendations and best practices.⁹

⁷ <https://www.gov.ie/en/publication/e1169-legal-protections-for-archaeological-monuments/>

⁸ <https://www.fingal.ie/fingal-heritage-x-climate>

⁹ <https://op.europa.eu/en/publication-detail/-/publication/4bfcf605-2741-11ed-8fa0-01aa75ed71a1/language-en>

Exploring Key Issues

Dr Noeleen Smyth, UCD

Natural Heritage—Biodiversity

Teaching environmental and sustainable horticulture underscores the importance of biodiversity across ecosystems, species and genetics. Natural ecosystems play a critical role for pollinator services and eco-tourism benefits, yet there is ongoing debate on the valuation of our natural environment. Sustainable Development Goals (SDGs) highlight the necessity of preserving ecosystems and the importance of SDGs is reflected in global agreements like the Rio Summit of 1992 and its 2012 review. Biodiversity loss, driven by factors such as invasive species and land use changes, threatens a significant portion of Ireland's plant and bee species, as highlighted in Ireland's 2019 Convention on Biological Diversity Report.¹⁰ Efforts led by experts such as Matthew Jebb at the Botanic Gardens and Teagasc aim to monitor and address changes in plant distribution, such as the depletion of Irish semi-natural grasslands due to land use changes, providing crucial insights for current debates on land management and conservation strategies.

Direct exploitation poses risks to plant use, highlighting a modern healthy relationship between people and plants, with growing populations requiring more plants for sustenance and trade into Europe necessitating sustainability measures, particularly for vulnerable species, like orchids used in cosmetics. Exploitation often fails to benefit indigenous communities engaged in wild harvesting, as seen in Mexico's cosmetic plant industry. Invasive species pose a significant threat to natural habitats. While the hottentot-fig was being monitored in Howth, 34 different garden plants and plant species from other parts of the world were found along the coast that is part of this Special Area of Conservation (SAC). These included species from as far away as Asia, Chile and New Zealand. Substantial efforts and resources are dedicated to the eradication of invasive species. In 2021, the government spent €500,000 on clearing rhododendrons from Connemara National Park. Challenges persist, including garden waste dumping in conservation areas and the spread of invasive species from Mediterranean and South African regions, exacerbated by climate change. Efforts to mitigate biodiversity loss, such as Jane Stout's work at TCD and initiatives like the All-Ireland Pollinator Plan, aim to achieve a 30% decrease in species extinction rates.

Championing various species is crucial for their preservation and could serve as a strategic communication and action plan to encourage much-needed behavioural change. Additionally, the east coast of Ireland is projected to experience significant heat disparities compared to the west coast, which will impact the island's evolving flora and fauna.

¹⁰ <https://www.npws.ie/sites/default/files/files/NPWS%20Biological%20Diversity%20web.pdf>

Anthony Corns, The Discovery Programme/CHERISH Project

Archaeological Heritage

The Climate, Heritage and Environments of Reefs, Islands, and Headlands (CHERISH) project,¹¹ funded generously over six years with partners in Wales and Ireland, employs a cross-disciplinary approach to examine changes along the land–coast continuum, focusing on marine and coastal environments. By reconstructing past environments and investigating recorded data, the project sheds light on the impact of shipwrecks and structural damage on coastal regions. Utilising a toolkit comprising 15 methods, from satellite imaging to underwater techniques, researchers aim to understand issues and problems affecting these areas. Drone surveys facilitate three-dimensional modelling while archaeological aerial reconnaissance offers a rapid visual inspection of the coastline. Geological surveys uncover buried archaeology and identify areas for excavation, emphasising the need for data baselines and benchmarks to assess changes across all regions.

Terrestrial laser scanning enables the detection of changes over time, while excavations in Kerry unearthed a precarious Iron Age site requiring careful handling over a cliff-face. Marine surveys have been undertaken to map differences between land and sea, including the assessment of three shipwrecks in Ireland to gauge their deterioration levels. Divers explored the wrecks, which serve as indicators of environmental changes in hosting diverse species, while coastal goal assessments and desk-based analyses complemented archival research. Additionally, community recording initiatives in the Waterford Copper Coast identified erosion hotspots. This project culminated in a multimedia exhibition that toured both Ireland and Wales, ending in Tralee.

Dr Susan Hegarty, DCU

Landscape and Cultural Heritage

Musings on climate change and cultural heritage prompt reflection on the evolution of landscape. Places such as Lough Cullen in County Kilkenny, near Waterford city, have significantly diminished over two centuries, as evidenced by historical records including name books from the 1830s. Folklore attributes the lake's flooding to a legendary hurling game, showcasing the intersection of human activity and landscape transformation.

Place names offer rich insights into our innate connection with the land and its features, with resources like logainm.ie providing valuable references. Analysing place names like those in Glen Columbkille unveils cultural heritage, emphasising the significance of mapping such sites for future generations. The landscape serves as a historical record of climate and environmental changes, while living heritage underscores the importance of local knowledge for self-identity. As climate change and biodiversity loss accelerate, preserving this cultural

¹¹ <https://cherishproject.eu/en/>

landscape becomes imperative if we are to avoid decoupling it from its climate origins in the future.

Terri Sweeney Meade and Rosemary Bradley, Office of Public Works

Built Heritage

The Shannon Estuary serves as a case study for examining built heritage and historical buildings, with Scattery Island showcasing its resilience and cultural significance, including its round tower and disused battery. Uncertainty abounds in relation to the island's future preservation and use. Cultural heritage is viewed as a resource influencing societal perceptions, with ongoing monitoring of tangible and intangible changes and discussions on heritage futures. Consensus on the island's multiple potential futures is needed to envision and protect it for generations to come.

Rosemary discussed methods for measuring change, particularly concerning the assessment of climate change impacts on the 750 sites managed by the OPW despite limited resources. Scattery Island, now entirely in state ownership, boasts rich ecclesiastical, maritime and military heritage, embodying a bygone way of life. In the ninth century it was vulnerable to raids by Vikings and in more recent times it has become vulnerable to coastal erosion. Care for Scattery involves engaging all stakeholders and utilising available resources effectively. The trial of a climate vulnerability index on Skellig Michael highlights the need for scalable models to address conservation challenges across Ireland, with vulnerable sites already identified for targeted maintenance efforts. Engaging and communicating with stakeholders remains crucial for preserving sites, as inaction could exacerbate climate change's impact on these valuable heritage locations.

Dr Jade Berman, Northern Ireland Coastal Adviser, National Trust

Geological Heritage

Efforts are underway to preserve a diverse range of heritage, including islands, while exploring strategies for climate adaptation. Northern Ireland, with 22% of the Irish coastline, has a dedicated adaptation strategy, informed by evidence from sources like the website UK Climate Risk.¹² Risk assessment reveals 61 risks in Northern Ireland, with 19 requiring further investigation for action. Climate hazard maps, particularly focusing on popular tourist sites like Giant's Causeway and Carrick-a-Rede, highlight vulnerabilities. However, challenges remain, such as outdated flood maps and the reliability of high-level data, necessitating careful consideration for effective adaptation measures, especially concerning slope failure and sea level rise at iconic sites like Giant's Causeway.

¹² <https://www.ukclimaterisk.org/>

The adaptation plan emphasises the importance of assessing exposure and vulnerability and identifying tipping points, considering not only physical aspects but also public perceptions. The National Trust is responsible for looking after and providing access to both of these key tourist attractions as part of its remit as a conservation charity. In doing this, it is focused on delivering on trustees' expectation that it will make climate-informed decisions. Over the next three years, the National Trust is assessing all of its properties for risks and hazards associated with climate change to inform the organisation's Climate Adaptation Framework and the development of place-based adaptation plans. The first step in the process is an analysis of the changes each property is exposed to based on hazard maps and verifiable external data. 'Ground truthing' involves staff and members of the public documenting observations via apps like ArcGIS,¹³ facilitating citizen science efforts and capturing data on phenomena like cliffside rockfalls.

Professor Michael Cronin MRIA, Trinity College Dublin

Cultural Heritage—Language

Language is often marginalised in climate and heritage discussions. Policy documents such as the Climate Action Plans 2019¹⁴ and 2021¹⁵ reflect this neglect. Despite strategic objectives outlined in documents like the Heritage Council's *Our Place in Time*,¹⁶ references to language remain minimal, highlighting a lack of emphasis on linguistic considerations in conservation efforts. This neglect suggests a disconnect between language preservation and broader strategic objectives in environmental policy.

Patrick Sheeran's paper 'Landscape and Literature', delivered at the Centenary Conference of the Galway Archaeological and Historical Society in 2000, highlights the intense interest Irish people have for place; how when they get together, they always want to place a person and know where their accent is from.¹⁷ He then points to the fact that if we look at a record of how we have treated so many of these places—particularly from an environmental point of view—the reality is quite different.

The neglect he refers to is illustrated in Pádraig Fogarty's book *Whittled Away: Ireland's Vanishing Nature*, which emphasises the disconnect between language and place.¹⁸ Obsessions with possession and colonial echoes complicate our relationship with place, while the conceptual failure at official levels contrasts with grassroots initiatives like the Turas initiative in East Belfast. Projects like An Tobar in South Armagh and North Louth, or

¹³ <https://open-data-national-trust.hub.arcgis.com/>

¹⁴ <https://www.gov.ie/en/publication/ccb2e0-the-climate-action-plan-2019/>

¹⁵ <https://www.gov.ie/en/publication/6223e-climate-action-plan-2021/>

¹⁶ <https://www.heritagecouncil.ie/content/files/Strategic-Plan-2023-2028.pdf>

¹⁷ Patrick Sheeran, 'Landscape and Literature', *Journal of the Galway Archaeological and Historical Society*, Vol. 55 (2003), pp. 151–158.

¹⁸ Pádraig Fogarty's book, *Whittled Away: Ireland's vanishing nature* (Dublin, 2017)

Oideas Gael in Donegal, underscore the connection between language and place, which remains largely overlooked in official discourse.

American novelist, activist and farmer Wendell Berry has emphasised the importance of a specific language to defend what we cherish. Irish writer Manchán Magan has done incredible work in revitalising the Irish language and linking it to nature, contributing to the development of a form of integral ecology where we respect all aspects of the environment and the place of ecology in it.

Belfast essayist Chris Arthur highlights the disconnect between spending time indoors and the lack of exposure to nature, including in Irish language instruction, which predominantly occurs indoors. Efforts to reconnect with nature, such as bringing Irish language learning outdoors, are crucial to bridging this gap, as seen in outdoor methodologies promoted in RTE's Irish language programming, such as *Amuigh Faoin Spéir*, a series by Éamon de Buitléar and Gerrit van Gelderen in the 1960s.

Guilt is often used by environmental and language activists, as noted by scholar Tim Morton, who highlights how the public is often paralysed by horror in the face of the climate crisis. Instead of focusing on policing pleasures, Morton suggests the importance of inventing new ones. Unfortunately, the development of the Irish language has been associated with control, rules and guilt, but there's potential for extraordinary pleasures when ecological and linguistic templates converge. Addressing the disconnect between environment and heritage, and language and hope, through embracing Irish cultural identity can offer a transformative approach to environmental issues, particularly in regions like Kerry, which have grappled with landscape and language in the context of conflict.

Dr Shane Regan, National Parks and Wildlife Service

Natural Heritage—Peatlands

In July 2023, the European Parliament voted to pass a flagship law aimed at restoring the health of Europe's natural habitats, more than 80% of which are deemed to be in poor condition. At the time of the conference MEPs and EU member countries were negotiating the final text of the Nature Restoration Law, with a deal anticipated before the European Parliament elections in 2024. The new rules will aim to set a binding target at EU level, which would require member states to put in place effective restoration measures to cover at least 20% of the EU's land and sea areas by 2030. By 2050, measures should be in place for all ecosystems in need of restoration.

Peatlands encompass approximately 20% of the Irish landscape with distinct types found in different regions, from raised bogs in the midlands to blanket bogs in the west and south. Peat, formed in wet environments, stores significant carbon reserves, playing a crucial role in global carbon cycles. However, degradation, particularly due to activities like agriculture, has

led to carbon emissions rather than sequestration, with only a small fraction of peatlands in good condition. Restoration efforts are crucial to address this pressing environmental issue.

Efforts to utilise natural ecosystems such as boglands to mitigate Ireland's carbon emissions face significant challenges and require extensive restoration processes. Initiatives like the restoration of Pullagh Bog by Bord na Móna contribute to reducing carbon output over time. However, emissions from water sources pose a significant problem and necessitate ongoing scientific research to quantify carbon levels and inform future predictions. The National Parks and Wildlife Service emphasises the importance of data collection for monitoring and predicting ecosystem changes. Restoration projects aimed at rewetting peat upland regions in areas like Wicklow are underway but must consider potential risks such as landslides. In addition, maintaining water quality is crucial for various stakeholders including multinational companies like Intel, which highlights the broader significance of ecosystem preservation beyond carbon sequestration.

While EU policies now mandate land use changes and forestry practices, the immediate impact on carbon reduction remains uncertain, prompting debates over the rationale behind such measures. The Peatland Finance Ireland initiative aims to address challenges related to the vast scale of restoration projects, limited expertise, and the management of organic grasslands. Concerns have been raised about the preservation of historical artifacts found in bogs, highlighting the need for comprehensive archiving efforts within research endeavours with Bord na Móna managing archaeological sites and records.

Professor Celeste Ray, University of the South

Water Heritage—Holy Wells

Holy wells have historically served as spiritual sites, reflecting humanity's connection to fresh water sources essential for survival. The spread of *Homo sapiens* across the globe often followed the availability of fresh water, emphasising its significance in cultural and religious practices. Traditional ecological knowledge embedded in sacred natural sites, including holy wells, offers insights into sustainable water management practices. In the face of current and projected water crises, exploring folk science and ancient practices may provide valuable solutions. Despite their global presence, many holy wells remain unexplored, representing a rich reservoir of cultural and ecological heritage worth investigating.

In Ireland, prayers at holy wells are part of folk liturgical practices, representing intangible cultural heritage. In 1895 there were approximately 3,000 holy wells in Ireland. Despite their historical significance, many holy wells have been lost over time. Coastal and tidal wells face challenges due to flooding, as seen in examples like St. Dymphna's Well at Kildownet on Achill Island in County Mayo, and St Finnian's Well in Kenmare, County Kerry. These wells are often associated with sacred trees, such as hawthorn, willow or ash, and cloth offerings, known as rag trees. Understanding the medicinal properties attributed to different wells, such as sulphur for skin complaints and iron for women's health, was once crucial. However,

factors like shallowness and environmental changes, with wetter winters and warmer summers, lead to increased algae and weed growth, posing threats to their preservation.

The healing properties of the flora that thrived near holy wells also gave them their reputation for cures. Specific plants like St Patrick's cabbage, known as a stone breaker, have been associated with treating ailments like kidney stones. Folk ethno-science traditions have been instrumental in passing down knowledge for survival and water stewardship, with Gerry Quinn et al.'s research¹⁹ revealing the medicinal properties of soils around holy wells. These sites historically served as pilgrimage destinations for seekers of grace and divine connection, highlighting the intertwined spiritual and conservation aspects. Holy wells also act as indicators of environmental health, making their preservation essential for overall ecosystem well-being. With their significance spanning biological, cultural and spiritual realms, there's potential for holy wells to become protected areas contributing to long-term landscape conservation efforts in Ireland.

The designation of high-nature-value farmland raises concerns about preserving precious land, echoing sentiments tied to mythology and the protection of sites like 'fairy forts'. Embracing a local stewardship approach akin to Aldo Leopold's land ethic²⁰ could integrate the conservation of holy wells into land management practices. Additionally, leveraging citizen science initiatives could facilitate a cohesive and protective Irish model, enhancing holistic mapping efforts. Initiatives like blue/greenways aim to safeguard intangible cultures while planning for socio-ecological resilience.

¹⁹ Gerry A. Quinn, Alyaa M. Abdelhameed, Aiya Banat, Nada Alharbi, Laura Baker, Helena Carlo Castro, Paul J Dyson, Paul D Fancy, Diego Cobice, Luciana Terra, Simms Adu, Martin T Swain, Ibrahim M Banat, 'Streptomyces Isolates from the Soil of an Ancient Irish Cure Site, Capable of Inhibiting Multi-Resistant Bacteria and Yeasts,' *Applied Sciences*, Vol. 11, No. 11 (2021), Article 4923

²⁰ <https://www.aldoleopold.org/about/the-land-ethic>

Reflections and opportunities

Observations

- The EPA's perspective on climate change emphasises the need to safeguard the future, drawing lessons from cultural heritage to inform environmental conservation efforts.
- The Royal Irish Academy (RIA) has a crucial role to play in facilitating structured discussions on environmental issues and eco-citizenship.
- Funding instruments proposed by the Joint Programming Initiative on Cultural Heritage and Global Change (JPI CH) will help to fund and coordinate research on the connection between cultural heritage and climate change.
- Attendee feedback emphasised key themes such as connection to place, collective histories and identities, the value of citizen science, climate grief and the impact of loss.
- There was a recurring discussion around the Irish language, in particular the significance of Irish names, their connection to sense of place, and the importance of preserving this aspect of cultural heritage.

Recommendations

- There is a need for increased research, recording and engagement in environmental efforts.
- Culture and heritage and the recognition of climate grief can be leveraged to address the urgency of the climate crisis.
- Citizen involvement makes a positive contribution to heritage and biodiversity and should be actively encouraged. The Botanical Society of Britain and Ireland has amassed valuable data over 20 years, largely contributed by ordinary citizens.
- We need climate specialists and an all-Ireland approach in order to ensure consistency in how we assess the risk from, and adapt to, climate change.
- The value of diverse expertise coming together to address environmental challenges cannot be overstated.

Acknowledgements

The authors and the Royal Irish Academy wish to thank the speakers and chairs of the Exploring Climate Change and Culture and Heritage conference, all of whom are listed in the conference programme in Appendix 1, for their expert inputs. Thanks also to the attendees of the event, who made thoughtful and challenging contributions to the discussion.

This report is produced on behalf of the Climate Change and Environmental Sciences committee of the Royal Irish Academy in collaboration with the Environmental Protection Agency and with support from the Department of Housing, Local Government and Heritage. The views expressed are the committee's own and do not necessarily reflect the opinion of the Royal Irish Academy.

The following authors made significant input into the development, writing and editing of this report:

Professor Fiona Regan, Director of the DCU Water Institute and Chair, Climate Change and Environmental Sciences committee

Professor Pat Brereton, DCU School of Communications and Member, Climate Change and Environmental Sciences committee

Dr Frank McGovern, Chief Climate Scientist with Ireland's Environmental Protection Agency

Thanks also to our scribe, Sorcha Corcoran, who captured the proceedings on the day.

Appendix 1: Conference programme

Exploring climate change and culture and heritage

One-day conference • 1 June 2023 • 10.00 am–4.30 pm

Royal Irish Academy, 19 Dawson Street, Dublin 2

PROGRAMME

10:00 Registration

10:30–11:15 **Keynote addresses on the situation in the EU, Ireland and Northern Ireland**

- Dr Pascal Liévaux, Chair of the JPI Cultural Heritage and curator, Directorate-General for Heritage and Architecture, Ministry of Culture, France
- Dr Cathy Daly, University of Lincoln & Carrig Conservation International
- Jacqui Donnelly, Department of Housing, Local Government and Heritage

11:35–1:15 **Exploring key issues**

- Natural heritage – biodiversity, Dr Noeleen Smyth, UCD
- Archaeological heritage – Anthony Corns, The Discovery Programme/CHERISH Project
- Cultural heritage – landscape, Dr Susan Hegarty, DCU
- Built heritage – historic buildings, Terri Sweeney Meade & Rosemary Bradley, OPW

1:15–2:00 **Lunch break, lunch provided**

2:00–3:40 **Exploring key issues**

- Geological heritage – coasts, Dr Jade Berman, Northern Ireland Coastal Adviser, National Trust
- Cultural heritage – language, Professor Michael Cronin, Trinity College Dublin
- Natural heritage – peatlands, Dr Shane Regan, National Parks and Wildlife Service
- Water heritage – holy wells, Professor Celeste Ray, The University of The South

4:00–4:30 **Reflections and opportunities**

This conference is organised by the Royal Irish Academy's Climate Change and Environmental Sciences Committee and kindly sponsored by the Department of Housing, Local Government and Heritage and the EPA.

Appendix 2: Royal Irish Academy Multidisciplinary committee

The Climate Change and Environmental Sciences committee is a broadly based body with representatives from third-level institutions in Ireland and Northern Ireland involved in climate and environmental research, as well as representatives from State agencies and other bodies with an interest in this area. The current committee was formed in 2022 with a four-year term of office. The committee meets regularly and performs a broad range of functions including, but not limited to, organising outreach events, promoting public engagement, responding to government consultations and producing expert statements.