

# SECTION 1 - Climate Change and World Heritage

The first conference block opened with the keynote speech "World Heritage in the Climate Crisis" by Dr. Johanna Leissner from the Fraunhofer EU Office in Brussels. She presented the political framework for research on the interactions between climate change and cultural heritage in the European Union. An online survey conducted before and during the conference entitled "Climate.Heritage.Education" shed light on the challenges facing World Heritage sites and their educational work. The results of the survey were fed into the discussions by moderator Victoria Reichelt and are summarised in the article "Protection and education aspects of World Heritage in the climate crisis". The conference emphasised the responsibility of the young generation to promote sustainable action in the field of World Heritage. Young people from different countries shared their experiences from climate projects directly related to cultural and natural heritage. These contributions are summarised under the title "Youth in the climate crisis".

## Article 1: The Effects of Climate Change on Heritage – a European Review

*Dr. Johanna Leissner, Fraunhofer EU Office Brüssel*

Under the German EU Presidency 2020, a political mandate was given for the first time worldwide on the topic of climate change impacts on cultural heritage. The Culture Committee of the Council of the European Union mandated the EU Commission to set up an expert group of EU Member States on "Strengthening Cultural Heritage Resilience to Climate Change" to survey the state of affairs in the EU Member States and at EU level using the Open Method of Coordination (OMC). In January 2021, the expert group began its work with a wide-ranging task: the OMC group examined the current and emerging threats and impacts of climate change on cultural heritage, including cultural landscapes. It discussed appropriate adaptation and mitigation measures, identified potential risks and focused on building the resilience of cultural assets in the face of a changing environment while avoiding maladaptation. The group also explored the contribution that cultural heritage can make to mitigating and combating climate change in line with the objectives of the Green Deal. In September 2022, the OMC Expert Group presented its detailed report containing ten recommendations to the EU and Member States. In addition, the group produced a collection of 83 GOOD PRACTICE examples from 26 EU countries, demonstrating how our cultural heritage can contribute to climate change mitigation while increasing its climate resilience.

The following ten recommendations for the EU and EU Member States have been elaborated:

1. The European Commission must emphasise the importance of cultural heritage in the context of the climate crisis and propose new measures at European level in a new statement of the Commission, e.g. in an update of the new European Agenda for Culture, to adapt cultural heritage to climate change and full use its potential to mitigate climate change.
2. The European Commission must ensure structured co-operation between the EU Directorates-General responsible for climate change and/or cultural heritage at all levels of governance.

3. The European Commission, together with the Member States and associated countries, must draw up and regularly update a European climate change risk assessment map for cultural heritage by 2025.
4. The European Commission must initiate a comprehensive review of the economic costs of climate change adaptation and mitigation exclusively for cultural and natural heritage.
5. The European Commission must establish a common European platform for exchange, discussion, expertise and knowledge sharing on the impact of climate change on cultural heritage and its contribution to combating climate change, acting as a key reference point for cultural heritage in times of climate change.
6. Administrations at national/regional and local level must integrate cultural heritage and the cultural dimension into all climate change adaptation and mitigation policies and plans. Measures must be taken to fully integrate culture and heritage issues into sustainability and climate policies at both local/regional/national and international levels.
7. National and regional authorities need to build capacity and multidisciplinary expertise to ensure the protection of cultural heritage from climate change through education, training and awareness-raising at all levels. The European Commission could support these initiatives through EU-funded programmes.
8. National authorities must recognise the importance of research as an indispensable driver of heritage enhancement. In addition to EU-funded programmes, governments need to initiate research programmes at a national level to improve knowledge sharing and cooperation between heritage and climate research experts to develop data collection mechanisms, collect and analyse data, and develop tools, infrastructure, best practices and policies.
9. Authorities and institutions at national/regional and local levels must immediately encourage investment and incentivise the protection of cultural heritage from climate change through financial and taxation policies.
10. Ministries and administrations of Member States and associated countries, as well as local and regional authorities, must ensure co-operation between climate change and cultural heritage authorities at all levels of government and in all relevant policy areas, in particular in planning committees.

**References:**

European Union. Strengthening cultural heritage resilience for climate change: where the European Green Deal meets cultural heritage [Internet]. Publications Office of the European Union. Europa.eu. 2022. Available under: <https://op.europa.eu/en/publication-detail/-/publication/4bfcf605-2741-11ed-8fa0-01aa75ed71a1/language-en>

European Union. Strengthening cultural heritage resilience for climate change: where the European Green Deal meets cultural heritage: compilation of good practice examples from Member States and third parties participating in the group [Internet]. Publications Office of the European Union. Europa.eu. 2022. Available under: <https://op.europa.eu/en/publication-detail/-/publication/3c7bff54-2741-11ed-8fa0-01aa75ed71a1/language-en/format-PDF/source-286866669>

## **Article 2: The safeguarding and interpretation of World Heritage in the climate crisis - results of a survey conducted as part of the conference**

35 stakeholders from 52 World Heritage sites in Germany and other European countries took part in the "Climate.Heritage.Education" survey within the context of the conference. They came from the fields of education and communication, heritage protection and administration and answered ten questions on the subject of climate change and education.

### ***Threats, protection and adaptation***

Half of the respondents stated that the topic of climate change plays a very important role at their World Heritage sites. A quarter rated the role of climate change as average. In line with the conference theme, education and communication, monument protection and nature conservation were cited as the most important fields of action associated with climate change. The question of whether the respective World Heritage sites were threatened by climate change either acutely or in the future was answered in the affirmative by the majority.

The most frequently mentioned climate-related threats in the survey were mostly in line with the final report of the expert group commissioned to research the topic of climate change and cultural heritage, which was presented by Johanna Leissner in the keynote speech. They included drought, heavy rainfall and extreme weather events, rising sea levels and storms. Other specific threats described included falling groundwater levels, an increase in invasive species, a reduction in biodiversity and changes in vegetation, the destruction of building structures, a lack of water resources, tree death and branch breakage, the risk of forest fires and changes to the entire cultural landscape and soil composition. In addition, climate protection measures in the form of infrastructure projects for renewable energy plants were also named as factors influencing cultural heritage in connection with climate change.

Adaptation and climate protection measures have already been implemented at most of the World Heritage sites. In addition to research projects on the effects and adaptation strategies, these include concrete conservation measures and the development of planning instruments such as climate resilience plans, climate adaptation and energy concepts. In addition to optimising water management, fire prevention systems, soil improvement and horticultural revitalisation of tree populations, adapted visitor guidance and resource-efficient construction methods were listed as adaptation measures.

### ***Importance of education and communication***

It was particularly clear from the survey that respondents see World Heritage sites as places of learning for raising awareness of climate change, as well as for the 17 Sustainable Development Goals of the 2030 Agenda. The beacon character and role model effect of the World Heritage sites was emphasised particularly frequently. Reference was made to their potential to discuss sustainable living and economic activity as a basic prerequisite for fair and peaceful global coexistence at the specific learning location in question and to make this tangible. Specifically, the contribution of World Heritage sites was seen in the fact that they can increase awareness and motivation to act on the topics of climate change and sustainability. It was also critically noted that a holistic implementation of the educational role of the World Heritage sites must go beyond tourist offers. In addition to dealing with the local effects of climate change, the interviewees focussed on communicating sustainable solutions. Practical learning and discovery, exploration and experimentation as well as joint activities in line with the sustainability goals were named as important educational formats. These are generally anchored approaches within the framework of Education for Sustainable Development. The potential of World Heritage sites as places of identification and home for social change processes was also emphasised. The sustainability of the monuments themselves, learning from history, but also their preservation, the use of renewable raw materials and the use of reusable and natural materials were likewise mentioned in the survey.

### ***Experience with education and communication***

50% of respondents had already implemented educational programmes on climate change and sustainability. These mainly include projects, educational materials and guided tours for school classes, students and visitors, but also practical tree planting and clean-up campaigns. The topics covered in the educational programmes are as diverse as the World Heritage sites themselves and illustrate their contribution to sustainable learning. The topics include sustainable building and gardening, traditional craft techniques, sustainable water and energy management and sustainable behaviour in the present and future.

Various challenges were identified for the planning and implementation of educational programmes, some of which have already been addressed in previous conferences at the heritage fair in Leipzig: Lack of financial resources and qualified personnel, the wide range of educational formats and target groups, the high amount of time required and the lack of integration of the topic of world heritage into curricula. The challenge of getting young people in particular interested in the World Heritage in the long term and maintaining their identification with the World Heritage was mentioned several times in the survey. Climate-relevant communication formats must maintain a clear link to the World Heritage Site in order to create positive identification and a connection to life. However, due to the parallelism with other current crises and problems, there is also a risk of general overstimulation and topic overload. There is also the fear that the quickly polarising effect of the problematic issue of climate change could conflict with the desired positive identification with the World Heritage sites. The complexity of the topic also requires vivid and very concrete communication that establishes a direct and credible link to the World Heritage sites.