Climate and Energy Responsible Museums

Modern world is currently facing multiple crises and challenges, which are radically altering human lifeways and ecosystems. The European Union has identified climate change and the energy crisis as urgent and complex challenges that need to be addressed across all sectors. As such, a crucial issue is how the cultural heritage (CH) sector can contribute meaningfully to overcome these challenges by investigating every possible way to support the sustainable transition of Europe. CH sector's commitment towards society is related to climate, energy, and environmental concerns. Museums and heritage sites, regardless of their size and resources, have the opportunity to play the key role of change makers and leaders locally and globally in order to better respond to challenges confronted by the communities they serve. They are called not only to be relevant to the visitor and their interests, but also to be relevant participants in the world. Tackling the current energy and climate crisis requires immediate actions and a radical and urgent approach in the context of Cultural Heritage Management (CHM). Museums and heritage sites need to take actions to adjust to current effects of climate change and prepare for the predicted impacts in the future. Furthermore, they need to support improved solutions and new approaches so as to work in an energy-efficient manner.

Setting up an Environmental and Energy strategy

In the context of the CHM plan, museums and heritage sites should set up an Environmental and Energy strategy in order to create an effective policy framework for decision making and implementation in relation to the sustainable transition of Europe. This is an absolutely essential step to contribute to climate action, to adapt to the effects of the climate and energy crisis, to prepare for foreseen or unforeseen impacts in the future, to review and adapt environmental plans, to reduce energy consumption, to improve the sustainability of buildings, to find alternative energy sources, to have guidance on how to deal with the energy crisis and the cost of living, and to help the public to better understand these urgent challenges and become more active.

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What issues and principles an efficient Environmental and Energy strategy should take into account?

The following recommendations are intended to support CH professionals in designing an effective Environmental and Energy strategy in the context of their CHM plan:

- Adopt a broader view founded on realistic thinking and immediate action.
- Be aware of the current or future global issues. Try to understand the bigger picture in order to better understand the specific role your organisation can play locally.
- Engage everyone who can contribute to climate action.
- Collaborate with governments, local authorities, policy makers, fund raisers and sponsors.
- Explore new funding opportunities.
- Cultivate a culture of environmental and energy sustainability, and climate action. Museums and heritage sites as educational bodies can include in their mission to convey the important message of environmental and energy concerns so as to inspire people and activate individual and collective agency.
- Create collections, exhibitions, and educational programs as well as undertake a variety of campaigns and community engagement activities (e.g., engage indigenous and traditional populations). These activities can be used as a vehicle to:
  - raise awareness
  - inspire climate action
  - build and share knowledge about human impacts on environment and climate as well as teach skills
  - co-create positive responses
  - foster community discussions that help communities craft better carbon reducing approaches for energy, water, waste, and infrastructure
  - help local communities plan to become more climate-resilient
- Engage artists and designers to find more creative responses to climate and energy crisis and propose solutions for how humanity might shape the future.
- Conduct climate related research (community-based for action, audience-focused for heightened awareness and engagement, or technologically innovative for problem solving).
- Encourage risk assessment, adaptation and mitigation for museums and heritage sites.
- Analyse possible challenges resulting from climate change and energy crisis to each museum and heritage site.
- Join in cultural climate-related networks and act in partnership with other CH professionals around Europe or experts outside the sector.
- Train CH professionals in climate and energy issues, in order to better assess the opportunities for the CH sector to contribute meaningfully to the sustainable transition of Europe.
- Reduce energy consumption. Determine institution's annual carbon footprint.
- Stop promoting single-use plastics and select goods and materials with low environmental and climate impacts.

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ReInHerit
Redefining the Future of Cultural Heritage

How can the CH sector operate in energy efficient and sustainable ways?

Most of the museums and heritage sites have high fixed energy cost around collection care, while at the same time they have to manage energy inefficient buildings or open spaces. This makes them extremely vulnerable to unprecedented cost increases following a period of declining revenues during the pandemic. CH professionals currently feel that they have limited options and guidance to address this challenge. As a result, many museums and heritage sites will not be able to keep their doors open for at least a few days a week in order to save on energy costs. In the context of the research conducted during the ReInHerit project, the following activities were listed that facilitate museums and heritage sites to focus on managing their operations and collections in energy efficient and sustainable ways as well as on building sustainability into their long-term plans.

- Good ventilation.
- Lights, unnecessary computers, printers, and laboratory equipment should be turned off overnight and when not in use during the day.
- Replace dead light bulbs with energy-efficient alternatives in needed places. Use also natural light.
- Use air-conditioning less.
- All printers should be default set to print on both sides of the paper and reuse paper when possible.
- Increase electronic communication.
- Conduct regularly energy audits. The energy audit should be regularly analyzed to determine the carbon footprint of conservation activities. As a response to the energy audit recommendations the museums can set an action plan.
- Rinsing treatments should be revised to assess water flow, duration, and potential for reuse of rinse water.
- Set temperature settings in accord with human comfort.
- Review environmental standards for collections to identify potential energy savings.
- Place timers or motion sensors for lights where possible.
- Make adaptations to the building, such as insulation and draft reduction, to reduce energy loss.
- Explore regularly alternative sources of green energy production and heat generation.

The Project

This study is part of the research project "Redefining the future of cultural heritage, through a disruptive model of sustainability" (ReInHerit), which has received funding from the European Union's Horizon 2020 research and innovation program (https://www.reinherit.eu/).

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