

# Climate Change and Current Challenges for Landscapes and Cultural Heritage

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Landscapes and cultural heritage have faced many challenges over time, including modifications and degradation that appear with time, overlap with other challenges not previously observed, and the influence of cities and management [1–3]. One of the most visible and globally discussed challenges is climate change [4–6]. Therefore, there is an urgent need to launch initiatives to tackle climate change and other current challenges from the perspective of landscape and cultural heritage protection. This Special Issue presents selected papers of studies conducted in the relation to the 28th Conference on the Series of Garden Art and Historical Dendrology titled “Climate Change and Current Challenges for Landscapes and Cultural Heritage” that was held on 28 and 29 October 2021. This collection serves as a platform for the exchange of experiences among researchers from different scientific domains. It focuses on an important discussion related to the changing climate around the world, and identifies the current problems and challenges in maintaining and preserving the cultural heritage of cities, villages, and open spaces. Raising this issue may significantly increase awareness of the benefits associated with the protection of historical heritage sites, as well as the vulnerability and hazards of these monuments [7–9]. This is especially important considering that, in regions dominated by traditional and historical methods of managing natural resources, local communities’ acceptance of improvements in the field of modern renewable energy sources and climate protection is relatively low [10]. This links to tangible cultural heritage, which includes cultural landscapes, historical buildings and gardens, archaeological sites, and historical sites. It is worth noting that such heritage plays an important role in economic, touristic, and recreational development, bringing significant benefits at social, environmental, and economic levels. Urban greenery also plays a significant role in the context of urban areas. Considering that social activity and the cocreation of common spaces in large cities are among the most important needs of residents, not discounting projects related to mobility infrastructure, the issues of preserving and using green areas for recreation and relaxation are particularly relevant [11].

Climate change affects regions around the world and is associated with changes in average temperature, climate patterns, and extreme weather events (e.g., storms, floods, and heat waves). Moreover, an additional factor is the development of urban areas, which contributes to lowering the quality of water, increasing the number of impermeable surfaces, and creating urban heat islands. As the reports of IPCC [12] and ICOMOS [13] show, unfavorable phenomena may also threaten the survival of cultural heritage in the future. ICOMOS has been working diligently to improve the integration of culture and heritage into climate research in general, and the work of the IPCC in particular, and the International Meeting on Culture, Heritage, and Climate Change represents a significant step in this direction. The current state of discussion in this domain can be ascertained



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from the scientific outcomes of this meeting [14]; however, in this discussion, there were no representatives from Central Europe, which highlights the importance of our conference and this Special Issue. Moreover, there are shortcomings in the policy of adaptation to climate change for heritage, and shortages of technical guidelines for individual countries, which may contribute to the loss of valuable landscapes in coming years. As stated in the March 2021 European Cultural Heritage Green Paper, “we firmly believe therefore that cultural heritage is a vector for achieving the long-term vision and policy goals of the European Union, including the European Green Deal. Cultural heritage is not just about preserving our past—it is about shaping our future”. Taking this into account, this Special Issue focuses on three main pillars:

- Green infrastructures and gardens responding to climate change and improving human health [15–19];
- The protection of natural heritage in the context of climate change [20,21];
- Problems and challenges of natural and cultural heritage in terms of landscape [22–25].

Our expectation is that the collection of interdisciplinary research will add real value to this scientific domain. This approach should generate the attention of experts from various professions and highlight the need to employ complex strategies when developing sustainable cities and regions.

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