Climate change related urban transformation and the role of cultural heritage

Matthias Ripp & Christer Gustafsson
(Eds.)

Foreword by Claire Cave

IL Sileno Edizioni

Geographies of the Anthropocene

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Editors

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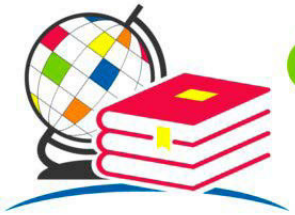

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The book series “Geographies of the Anthropocene” edited by the Scientific International Publisher “Il Sileno” (Il Sileno Edizioni) will discuss the new processes of the Anthropocene epoch through the various worldviews of geoscientists and humanists, intersecting disciplines of Geosciences, Geography, Geoethics, Philosophy, Socio-Anthropology, Sociology of Environment and Territory, Psychology, Economics, Environmental Humanities and cognate disciplines.

Geoethics focuses on how scientists (natural and social), arts and humanities scholars working in tandem can become more aware of their ethical responsibilities to guide society on matters related to public safety in the face of natural hazards, sustainable use of resources, climate change and protection of the environment. Furthermore, the integrated and multiple perspectives of the Environmental Humanities, can help to more fully understand the cultures of, and the cultures which frame the Anthropocene. Indeed, the focus of Geoethics and Environmental Humanities research, that is, the analysis of the way humans think and act for the purpose of advising and suggesting appropriate behaviors where human activities interact with the geosphere, is dialectically linked to the complex concept of Anthropocene.

The book series “Geographies of the Anthropocene” publishes online volumes, both collective volumes and monographs, which are set in the perspective of providing reflections, work materials and experimentation in the fields of research and education about the new geographies of the Anthropocene.

“Geographies of the Anthropocene” encourages proposals that address one or more themes, including case studies, but welcome all volumes related to the interdisciplinary context of the Anthropocene. Published volumes are subject to a review process (**double blind peer review**) to ensure their scientific rigor.

The volume proposals can be presented in English, Italian, French or Spanish.

The choice of digital Open Access format is coherent with the flexible structure of the series, in order to facilitate the direct accessibility and usability by both authors and readers.

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Foreword

Claire Cave[1]

The global urban environment is rapidly growing. We could say that cities are the future for humanity, but it is a future that is rapidly changing not least from the impact of climate change. Climate change is forcing transformation at an unprecedented scale across cultural, economic, environmental, political, social and technological spectrums. The challenge for cities is that this rapid transition is managed in such a way as to also provide a liveable, resilient and sustainable place for people to live. Cultural heritage is a resource which can contribute significantly to this outcome, providing quality of life for example by connecting people to place and supporting sense of identity and well-being, but how is this resource impacted within rapidly changing urban environments?

When we think of the impacts of climate change on urban cultural heritage the images that might first come to mind are historic buildings damaged by floods caused by torrential rain or the encroachment of rising sea water. Similarly, we envisage the degradation of the fabric of historic buildings exposed to high levels of humidity or new extremes of heat and cold. However, it is important to widen our focus beyond the direct impacts on tangible historic structures and their consequent preservation to a broader understanding of cultural heritage as a system. Cultural heritage is not just represented by static monuments preserved as remnants of the past but is appreciated as an evolving concept, incorporating both the tangible and intangible i.e. places, practices and objects encompassing multiple values determined by multiple stakeholders and integrated into the life of the wider community. This awareness that cultural heritage is people focussed, i.e. defined and managed by communities, means that we need to shift to a systemic, cross disciplinary approach to better address the complex, interrelationships and dynamics of a cultural heritage system and how it is affected by climate change and urban transformation.

However, the levels of complexity are increasing as the extent of environmental change is felt on the ground and in the disruption of daily lives across societies. Weather events can severely affect socio-economic activities in cities. Energy shortages caused by extreme heat and water scarcity for example

[1] University College Dublin, Dublin, e-mail: claire.cave@ucd.ie

affect industry and commerce including tourism. On a global scale, together with other stressors, climate change is forcing people to migrate, mostly from rural locations towards cities or from one city to another across countries and continents. This mass migration not only influences rapid urban transformations but disrupts cultural heritage systems as moving people are dislocated from places and practices. As a result, the distinctive character of living historic landscapes is affected by loss of people and their associated cultural knowledge. However, the movement of entire communities, displaced from their traditional homes, also means that it is important that host cities have the capacity to plan and allocate resources needed to support their social integration and sustain their cultural identity.

But cultural heritage should not be regarded solely as a victim of climate change. It has a role to play in mitigating climate change and supporting adaptation strategies and in changing human behaviour and lifestyles. Increasingly, research is revealing how culture has the power to help people imagine and realise climate resilient futures, to protect places and encourage circular and regenerative solutions. Exploring the history and heritage of cities can improve our understanding of current circumstances and our capacity to envisage and influence developments for residents and to accommodate new people and new stories. Traditional infrastructure and land management practices can inform us of sustainable approaches for dealing with storm events and acute weather. Appreciation of the process of cultural adaptation and the needs and values of communities will help identify adaptation strategies that are more likely to be accepted and employed. By promoting adaptive reuse, energy efficiency and renewable energy sources, such as the installation of solar panels, heritage can act as a model for the circular economy and climate change mitigation.

Effective governance and appropriate policies are critical factors in realising this potential. The New Urban Agenda (NUA), for example, adopted by the UN General Assembly in 2016, emphasises the role of national urban policies, legislation and regulations in achieving integrated and sustainable cities for the member states. Culture is recognised as a priority component of the programme. The NUA highlights that together with good governance, which should be inclusive and collaborative at national and local levels, it is the implementation of policies and regulations supportive of cultural diversity, sustainable planning, effective financing and local implementation that is necessary to achieve safe, resilient and liveable cities. Research which

focusses on the conditions required for good governance or on the identification of good practices and successful policies are important for expanding knowledge and improving management approaches.

Exploring the role of cultural heritage in climate change related urban transformation and the associated challenges and complexities this implies, is an important and urgent topic which requires input from multiple disciplines. This book is a welcome addition to the growing literature that considers the world's urban heritage in this time of global climate crisis. The broad scope of the chapters in this volume reflects the wide range of innovative approaches and strategies for integrating cultural heritage resources and policies into our response to climate change and sustainable development. The multidisciplinary nature of the content and the concrete case studies and theoretical approaches provides a substantial contribution to the discourse on the adaptation of cultural heritage systems in city environments. In addressing the complex and wide-ranging issues and challenges posed by climate change and in reappraising and recognising the role of cultural heritage in defining our present and future potential we are in some ways preparing for what is to come.

Starting with a systemic understanding of cultural heritage, climate-change related urban transformation processes are analyzed through a multi-disciplinary lens and methods that blend the arts, humanities, and sciences. Governance-specific topics range from relevant cultural markers and local policies to stimulate resilience, to a typology of heritage-related governance and the vulnerability of historic urban landscapes. A variety of contributions from the Americas, Asia, and Europe describe and analyze challenges and potential solutions for climate-change related urban transformation and the role of cultural heritage. Contributions focusing on innovation, adaptation, and reuse introduce the concept of urban acupuncture, adaptive reuse of industrial heritage, and how a historical spatial-functional network system can be related to a smart city approach. The potential role of cultural traditions for resilience is analyzed, as is the integration of sustainable energy production tools in a historic urban landscape. Examples of heritage-based urban resilience from around the world are introduced, as well as the path of medium-technology to address climate adaptation and prevention in historic buildings. The contributions emphasize the need for an updated narrative that cultural heritage can also contribute to climate adaptation and mitigation.

Matthias Ripp, a senior heritage manager with a background of historical geography, is coordinating the "Old Town of Regensburg with Stadtamhof" site. He is active in numerous networks such as Heritage Europe and ICOMOS. He coordinated the EU HerO (Heritage as Opportunity) project and chairs the UNESCO world heritage working group on historic city centres of the German Association of Cities. Since November 2011 he has also been regional coordinator for the North West European and North-American region of the Organisation of World Heritage Heritage Cities (OWHC), is teaching at different Universities and works as a trainer, facilitator and consultant.

Christer Gustafsson, Ph.D. is Full Professor in Conservation at Uppsala University, Sweden. Currently, he is engaged as a member of the UNESCO Culture 2030 Indicators Expert Facility, an international expert group working with indicators for the United Nations' Sustainability Goals (Agenda 2045), Secretary-General for ICOMOS International Scientific Committee on Economics of Conservation as well as Chairman for EIT Culture & Creativity strategic topic group for Innovative, entrepreneurial and circular adaptive re-use of cultural heritage.