**CONVENTION FOR THE SAFEGUARDING OF THE  
INTANGIBLE CULTURAL HERITAGE**

**Expert meeting on safeguarding intangible cultural heritage and climate change**

**19 – 20 June 2024 (Part I)**

**UNESCO Headquarters, Paris**

**25 – 26 September 2024 (Part II)**

**Online**

**Defining the field: a preliminary literature review**

#### Introduction

This report briefly describes the process of identifying a relevant body of literature for the relationship between intangible cultural heritage and climate change, as a preliminary step in developing this new field and surveying for potential partnerships and collaborations. A scoping review process, rather than a systematic review, was adopted as the most appropriate strategy in this initial stage of enquiry.

There has been no comprehensive review of the literature on the relationship between these two concepts. Whether as a term or as a unified concept, intangible cultural heritage has very low visibility in the broader literature on climate change adaptation and risk reduction, and very few published or unpublished works focus directly on both ‘climate change’ and ‘intangible cultural heritage’ together.

The challenge for a review of the literature that can inform and guide the development of policy on intangible cultural heritage and climate change is first to identify those cultural activities and their proxy terms and definitions that can map usefully onto the concept of intangible cultural heritage, and then to consider how intangible cultural heritage engages with climate change, and where indicators of such engagement can be found in the literature.

The forms and the media in which the literatures relevant to these issues are produced and available are highly disparate and diffuse, and search strategies need to be sufficiently broad and flexible to capture this diversity. This challenge is not particularly well served by the more formal or systematic literature review methodologies that have been applied recently in studies of cultural heritage and climate change, and the alternative option of a scoping review is preferred here. The result is a preliminary survey at ‘maximum aperture’, designed to constitute a new field rather than analyse an established field.

#### Systematic Literature Reviews on Cultural Heritage and Climate Change

Recent reviews of the broader literature on cultural heritage and climate change have tended to adopt a systematic review methodology, designed ‘to address a specific question, reduce bias in the selection and inclusion of studies, to appraise the quality of the included publications, and to objectively summarise them’ (Orr et al. 2021: 3, following Petticrew 2001). At least 12 reviews addressing some aspect of cultural heritage and climate change have been published between 2011 and 2021, 9 of which have appeared in either 2020 or 2021 (see Table 1 below). Together, these reviews provide a very significant resource for understanding the intersection of climate change and cultural heritage. However, none of these reviews focus directly on intangible cultural heritage and climate change, though Guto (2020), Lam et al. (2020), Petzold et al. (2020), and Shaffril et al. (2020) address Indigenous knowledge and climate change.

The key advantage of a systematic review approach is transparency in the selection of search terms and search engines, exclusion criteria and analytical methods, allowing for bibliometric analysis (the statistical assessment of distributions in the literature) and replicability of the same process in the future (enabling the detection of trends in those distribution results); thus, Orr et al. (2021) explicitly position their review as an iteration of the previous survey by Fatorić and Seekamp (2017).

However, several limitations in the results of these systematic reviews are evident, at least from the perspective of a focus on intangible cultural heritage and climate change:

* The selection of search terms is generally too narrow to capture references to the full scope of intangible cultural heritage (see the discussion of terms and concepts in document LHE/24/EXP THEMA-CLIMA/4c); in particular, ‘cultural heritage’ almost invariably refers to built or tangible heritage. One review (Orr et al. 2021) notes that ‘the impact of climate change on intangible heritage has rarely been the sole focus of recent research’; however, this review uses neither ‘intangible’ nor the more useful term ‘knowledge’ amongst its search terms, with the result that just 15% of its identified references focus substantially on intangible cultural heritage.
* The search methods adopted tend to sacrifice depth and breadth for transparency and replicability, often consisting of a single rather than an iterative or recursive search through different databases, followed by a process of reduction and elimination of duplicates and irrelevant results; the studies listed in Table 1 narrow down to a select bibliography of between 25 and 236 references for analysis (the mean average being 111 references).
* The focus of most systematic reviews solely on scientific journal articles that are accessible through the primary search tools of Web of Science and Scopus results in the exclusion of many social science and humanities sources, books and book chapters, and reports or other unpublished or ‘grey’ literature. This runs counter to the advice of Petticrew (2001: 99): ‘Strive to locate all relevant published and unpublished studies to limit impact of publication and other biases’ (emphasis added).
* The coverage of languages other than English is generally and often deliberately limited.
* The analysis of review results is often narrowly bibliometric, focusing on numbers of references, and their distribution by author, discipline, sub-topic, journal, language, region etc, rather than a scoping or critical review of themes, prizing metrics over comprehension of the field. This focus on metrics presumably reflects the perceived need for quantitative assessment of changes in the literature over distinct periods, such as the intervals between IPCC Assessment Reports.

Not surprisingly, a formal systematic review focused on the terms ‘climate change’ and ‘ICH’ or ‘intangible cultural heritage’ yields very limited results. The choice of the acronym ‘ICH’ rather than ‘intangible cultural heritage’ as a search term was particularly unproductive, identifying other uses of the acronym including ‘Intra Cranial Haemorrhage’ and even ‘Immovable Cultural Heritage’. A search on ‘climate change’ + ‘intangible cultural heritage’ using Web of Science, Scopus, and Google Scholar generated a total of 85 positive results, of which 14 were duplicates. Of the remaining 71 papers, only 18 could be said to directly address the relationship between climate change and intangible cultural heritage. A more expansive frame of reference and wider-ranging search methods are obviously required to uncover what we know to be a substantial literature on the topic.

#### A Scoping Review

Because the intersection of intangible cultural heritage and climate change represents a fairly new and still poorly defined field, a scoping approach to literature review is adopted here. Scoping reviews are the most appropriate method where the challenges include clarifying key concepts and definitions, exploring the scope and scale of the available evidence, and identifying useful research methods and knowledge gaps (Munn et al. 2018). An effective scoping review can provide the platform for systematic reviews in the future.

The approach adopted here has consisted of an iterative process of constantly reviewing and refining search parameters as the collection of sources has developed, and as the concepts and definitions that characterise the field have become clearer. Through this process, the search has become increasingly purposive, deliberately seeking out individual studies ‘on the basis that they can add conceptually to the review’ (Petticrew 2015: 3). Beyond a certain point, and probably before the first 3000 references had been collected, a degree of saturation of the field was recognised, with diminishing returns from further large-scale searches (Petticrew 2015: 3), even as new material is constantly being published.

Review Objectives

The two core questions informing the review reflect the now-familiar dual function of intangible cultural heritage in all forms of emergency (UNESCO 2019), including climate change (for details of these ‘roles and risks’ see document LHE/24/EXP THEMA-CLIMA/4d):

* 1. how is intangible cultural heritage negatively impacted by climate change, and
  2. how does intangible cultural heritage positively contribute to climate change adaptation or the reduction of risk of impacts from climate change?

To canvas available literature sources on these two issues, this review must fill an evident gap in recent reviews and collections, by seeking to cover those sources as comprehensively as possible and to establish a bibliographic platform adequate to this and other tasks in the future. Building on this coverage, a third broad objective for the review relates to:

* 1. identification of strengths in thematic or regional coverage, gaps and areas for future research, and significant institutions, individuals, and outlets for research in the field.

The first step in mapping the scope of the review, given these objectives, is to define what is usefully and practically understood by the terms ‘intangible cultural heritage’ and ‘climate change’, and how we might best search for literature that addresses their intersection (see the discussion of terms and concepts in document LHE/24/EXP THEMA-CLIMA/4c).

As a formal term and concept at the international level, intangible cultural heritage dates only to the 1990s and especially to the 2001 International Round Table on Intangible Cultural Heritage Working Definitions, leading to the 2003 Convention. Intangible cultural heritage is more commonly described using a range of synonyms, including Indigenous knowledge, local knowledge, Indigenous technical knowledge (ITK), traditional ecological knowledge (TEK), urban knowledge and vernacular knowledge, as well as terms for practices such as craft, agriculture, wayfinding, performing arts, social practices, rituals and ceremonial events. Some or all of these terms need to be used in searches to capture this wider literature, particularly before 2003. These forms of knowledge and practice may be either conscious or unconscious, and may or may not be communicated verbally or in writing. Note that the term ‘cultural heritage’ appears to be synonymous in much of the literature, as in popular usage, with built, monumental or other forms of tangible heritage, and rarely leads to materials on intangible cultural heritage. A further addition made here to this otherwise conventional list of forms of intangible cultural heritage is ‘archaeological knowledge’, which provides evidence for intangible cultural heritage at work over longer and deeper time frames, especially in the context of collaborative archaeological programs that foreground local or Indigenous interpretation. Visualisations, performances and other artistic responses to the challenge of climate change, as well as forms of media, communication or other means of transmission of climate change knowledge and adaptive strategies are further areas that emerge as significant and valid intersections between intangible cultural heritage and climate change.

Climate change, or the suite of transformations over the long term in all measures of climate associated with global warming, has been in circulation as a scholarly and policy concept since at least 1979. From about 2007, it has achieved a much greater currency in both popular and scholarly use (Lineman et al. 2015). One challenge for a review of literature that might help us to understand the potential intersections between climate change and intangible cultural heritage is that neither term had much currency before 2000, and yet there is a vast body of earlier literature which addresses local and Indigenous forms of knowledge in relation to environmental or ecological change and natural hazards, much of which can inform future policy and strategies for climate change risk reduction and adaptation (e.g. Nakashima, Krupnik and Rubis eds 2018, Reyes-García ed. 2024). A second challenge is that climate change is detected formally through global changes that are visible to scientists as changes in the averages of variables such as temperature or precipitation. On the ground, at the local level at which most intangible cultural heritage operates, the effects of climate change are perceived instead in terms of changes both in the frequency and intensity of weather extremes, such as drought, flood, or cyclones, and in slower-onset transformations such as sea-level rise, desertification, loss of biodiversity, glacial retreat and changes in the distribution of pest species. Much of the relevant research on local knowledge in relation to these observable phenomena has been published in the literatures on disasters and disaster risk reduction, and on environmental change and subsistence practices, and yet these literatures are very rarely consulted in reviews on climate change and cultural heritage. An adequate search for relevant literature on climate change as it relates to intangible cultural heritage must expand to include writing on environmental change, changes in weather and the impacts of natural hazards, as these are experienced and understood at a local level.

Search Terms and Coverage

Reflecting these principles, the search began narrowly, using ‘climate change’ and ‘intangible cultural heritage’, and then broadened to include some of the synonyms identified above, including ‘disaster’ and ‘hazard’ (for ‘climate change’) and ‘Indigenous knowledge’, ‘local knowledge’ and ‘urban knowledge’ (for ‘intangible cultural heritage’). Searches were conducted on both titles and abstracts, in order to maximise returns.

The search sought to cover all geographical regions, and to some extent this has been achieved, though a certain bias is inevitable, reflecting personal experience and familiarity of the authors with the literatures relating to Australia, Southeast Asia and the Pacific Islands. Initially, material was sought in any format, published or unpublished, including but not restricted to published journal articles, books and book chapters, along with unpublished reports, conventional media reports, blogs and social media, and video materials. As the search evolved, the large volume of relevant material available, and the limited value of much of the informal materials in particular, led to a narrowing of focus and the deletion of most blogs, conventional media, and social media references. Ideally, further development of this bibliographic database would aim to incorporate some of these sources, in order to broaden further the range of perspectives being canvassed (see below).

Sources

These search terms and concepts were then applied to a broader range of databases than in previous systematic reviews, including:

* Web of Science – <https://clarivate.com/webofsciencegroup/solutions/web-of-science/>
* Scopus – <https://www.scopus.com/home.uri>
* Google Scholar – <https://scholar.google.com/>
* Google – <https://www.google.com/>
* Australian National University (ANU) Library – <https://anulib.anu.edu.au/>
* National Library of Australia (NLA) Trove search engine – <https://trove.nla.gov.au/>
* Bookfinder.com – <https://www.bookfinder.com/>
* personal research collections

In addition, references listed in the following key sources were reviewed, and included where relevant:

* the systematic reviews listed in Table 1 below;
* White Papers produced by the International Co-Sponsored Meeting on Culture, Heritage and Climate-Change (Morel et al. 2022, Simpson et al. 2022, Shepherd et al. 2022, Orlove et al. 2022) and the European Union’s Joint Project Initiative (JPI Climate and JPI Cultural Heritage and Global Change 2022); and
* individual references from the full bibliography that were regarded as particularly significant or relevant.

Processing Search Results

References were processed through bibliographic software and reviewed in an iterative series of eight ‘tranches’, which greatly assisted in narrowing the search process over time to focus on more relevant materials. Wherever possible, references of all types have been scanned or downloaded as PDF (Portable Document Format) copies, and uploaded to the reference management software Mendeley (<https://www.mendeley.com/>). Mendeley was initially selected over other bibliographic software options for its relative ease of use and flexibility in terms of both input and output. However, Mendeley ceased to function effectively during 2022, forcing migration of the database first to Zotero (<https://www.zotero.org/>) and then to Endnote.

The collection process was largely completed by March 2022, although some key references from 2022 and 2023 have since been added. The search ingested over 4000 references of all types. Once duplicates and references identified as irrelevant or less relevant, along with most blogs, social media and conventional media articles, had been removed, a total of 2706 references was compiled in a full bibliography ([Appendix I](https://ich.unesco.org/doc/src/65029-EN.pdf)). While digital copies of over 90% of these references are held in the database, not all of the references have been closely edited or checked for accuracy against the digital copies. Most of the digital copies of the references in the full bibliography have been accessed through databases operating under licence or subscription (such as the Australian National University Library) and cannot be supplied with this report.

#### Results

Preliminary Findings

The broadening of search parameters for this review has yielded a substantial body of relevant literature, currently consisting of 2706 items, which is largely adequate as a platform on which to develop the Guidance Note and its background documents, and contribute to policy discussion.

Key preliminary findings of the review, which are simply listed here, include the identification of:

* materials covering a very wide diversity of cultural contexts and geographical regions
* an approximate split between general / theoretical / comparative sources (ca. 40%) and case studies specific to particular communities, locations or intangible cultural heritage elements (ca. 60%)
* basic policy statements and guidelines produced by all of the major institutions and networks engaged at the intersection of cultural heritage and climate change
* areas of particular emphasis in coverage that are likely to provide instructive case studies
* a core group of authors who have contributed significantly to this relatively new field, some of whom have been consulted as Peer Reviewers in drafting background materials for the Guidance Note (the Concept Note and Background Note) during 2023.

Gaps

Three significant gaps or areas of weakness in the coverage for this review, which need to be addressed in any further development of the bibliography, include local and Indigenous authors, materials in languages other than English, and the field of urban knowledge:

1. A major limitation of this review, as with the results of most other literature reviews in cultural heritage, is the relative absence of voices and authors from local and Indigenous communities, and from low- and middle-income countries (LMICs) (Simpson et al. 2022). While significant long-term commitment is required to redress this fundamental inequality of representation, an interim measure in expanding the present review is to move beyond published academic outputs to include formats and media in which these perspectives are more adequately represented.
2. Another significant limitation of this review, in common with most other literature reviews in cultural heritage, has been the focus on English language sources, with the inclusion here of only a small number of sources in Spanish and French. This reflects the authors’ limited competence in other languages, as well as the overwhelming dominance of English in the published literature and its much greater accessibility through available search engines. But the consequence of this bias is to entrench the dominance, and the perception of dominance, of materials published in English, and to exclude concepts, ideas and case studies that are in circulation in other languages, along with comparable attention to non-Anglophone regions of the world.
3. Urban knowledge is a highly significant form of intangible cultural heritage in the context of climate change, but one that has not been the subject of sustained attention or much secondary analysis. The materials for such analysis exist in areas such as the increasing interest in the transmitted knowledge of built space, and the collective response of urban communities to natural hazards, but they need to be more clearly and definitively sought out and understood as bodies of knowledge or intangible cultural heritage.

Possible Outputs

The collated sources listed in [Appendix I](https://ich.unesco.org/doc/src/65029-EN.pdf) represent a significant resource database for further research into the relationship between intangible cultural heritage and climate change. These sources were gathered as background research for the Guidance Note, but some consideration should be given to the most effective ways to make the database more user-friendly and accessible, and to identify open-access sources amongst them.

**See Appendix I:** **Climate Change and Intangible Cultural Heritage: a preliminary bibliography** https://ich.unesco.org/doc/src/65029-EN.pdf

**Table 1: Systematic Reviews of Literature on Climate Change and Cultural Heritage 2011-2021**

n = number of references retained for final analysis in each study

1. Aktürk, G., & Dastgerdi, A. S. (2021). Cultural landscapes under the threat of climate change: A systematic study of barriers to resilience. *Sustainability (Switzerland)*, *13*(17). <https://doi.org/10.3390/su13179974> [n=112]
2. Fatorić, S., & Seekamp, E. (2017a). Are cultural heritage and resources threatened by climate change? A systematic literature review. *Climatic Change*, *142*(1–2), 227–254. <https://doi.org/10.1007/S10584-017-1929-9> [n=124]
3. Ford, J. D., Berrang-Ford, L., & Paterson, J. (2011). A systematic review of observed climate change adaptation in developed nations. *Climatic Change*, *106*(2), 327–336. <https://doi.org/10.1007/s10584-011-0045-5> [n=39]
4. Guto, R. (2020). A Meta-Analytical Review of the Role of Indigenous Knowledge on Environmental Conservation and Climate Change in Kenya. *Regional Journal of Information and Knowledge Management*, *5*(January), 65–84. [n=220]
5. Horowitz, A. D., Lopez, M. F., Ross, S. M., & Sparenberg, J. A. (2016). Climate Change and Cultural Heritage Conservation a Literature Review. *APT Technical Committee on Sustainable Preservation’s Education and Research Focus Group*, *July*, 10–26. [n=68]
6. Lam, D. P., Hinz, E., Lang, D., Tengö, M., Wehrden, H., & Martín-López, B. (2020). Indigenous and local knowledge in sustainability transformations research: a literature review. *Ecology and Society*, *25*(1): 3. <https://doi.org/10.5751/ES-11305-250103> [n=81]
7. Maldonado-Erazo, C. P., Álvarez-García, J., del Río-Rama, M. de la C., & Durán-Sánchez, A. (2021). Scientific mapping on the impact of climate change on cultural and natural heritage: A systematic scientometric analysis. *Land*, *10*(1), 1–19. <https://doi.org/10.3390/land10010076> [n=47]
8. Orr, S. A., Richards, J., & Fatorić, S. (2021). Climate Change and Cultural Heritage: A Systematic Literature Review (2016–2020). *Historic Environment: Policy and Practice*, 1–43. <https://doi.org/10.1080/17567505.2021.1957264> [n=165]
9. Petzold, J., Andrews, N., Ford, J. D., Hedemann, C., & Postigo, J. C. (2020). Indigenous knowledge on climate change adaptation: A global evidence map of academic literature. *Environmental Research Letters*, *15*(11). <https://doi.org/10.1088/1748-9326/abb330> [n=236]
10. Quesada-Ganuza, L., Garmendia, L., Roji, E., & Gandini, A. (2021). Do we know how urban heritage is being endangered by climate change? A systematic and critical review. *International Journal of Disaster Risk Reduction*, *65*, 102551–102551. <https://doi.org/10.1016/j.ijdrr.2021.102551> [n=29]
11. Sesana, E., Gagnon, A. S., Ciantelli, C., Cassar, J. A., & Hughes, J. J. (2021). Climate change impacts on cultural heritage: A literature review. *Wiley Interdisciplinary Reviews: Climate Change*, *12*(4). <https://doi.org/10.1002/WCC.710> [n=191]
12. Shaffril, H. A. M., Ahmad, N., Samsuddin, S. F., Samah, A. A., & Hamdan, M. E. (2020). Systematic literature review on adaptation towards climate change impacts among indigenous people in the Asia Pacific regions. *Journal of Cleaner Production*, *258*, 120595–120595. <https://doi.org/10.1016/j.jclepro.2020.120595> [n=25]