The effects of climate change on intangible cultural heritage: between continuity and rupture

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Introduction

In the context of intangible cultural heritage (hereafter, HERITAGE), structuring conditions such as globalisation, conflict, and climate change may give rise to new practices of care, adaptation, and future-making through which communities negotiate continuity in the face of change. Under some circumstances, however, these same structuring conditions may instead generate rupture—through dispossession, enclosure, and the erosion of communities' future-making capacity.

These negative effects arise when structuring conditions—operating through trans-local governance, policy, and economic systems such as regulations, expert criteria, and market incentives—recast living HERITAGE as standardised, institutionally managed forms that privilege certain values, actors, and futures over others. When this occurs, communities lose control over how HERITAGE is defined and transmitted, weakening cultural continuity, disrupting intergenerational relations, and limiting their capacity to mobilise HERITAGE in support of cultural identity, social cohesion, and practices of shared future-making.

The scientific literature includes three reviews of scholarship on the effects of climate change on HERITAGE (Fatorić and Seekamp, 2017; Orr, Richards and Fatorić, 2021; and Puig, 2025). Indirectly, these reviews refer to the continuity and rupture dynamics that a structuring condition such as climate change exerts on HERITAGE practices, as this information is provided—albeit often succinctly—in some of the documents that these reviews analyse. However, none of the reviews include a proper assessment of these issues. **This working paper provides such an assessment.**

The first section in this paper summarises the contents of the three reviews. The second section presents an assessment of continuity and rupture dynamics—namely, how climate change, through trans-local governance, policy, and economic systems, shapes HERITAGE practices toward either continuity or rupture. This section focuses on the studies reviewed in the 2025 review— the only one of the three to apply stricter eligibility criteria regarding both the prominence of climate change relative to other structuring conditions and the level of detail devoted to HERITAGE. The third section sketches potential research gaps derived from the assessment of continuity and rupture dynamics.

Summary of the analysis presented in the 2025 review

The 2025 review analyses documents that describe situations in which communities' future-making capacity has been constrained. Accordingly, the review focuses on factors of relevance to communities whose circumstances have deteriorated relative to earlier conditions—including, for example, the HERITAGE forms and social groups most affected, as well as potential societal adjustments:

- Cultural landscapes, where environmental and cultural factors are tightly interwoven, are the **HERITAGE forms** most affected by climate change. Following at a distance are knowledge about nature, cultural manifestations tied to specific ecosystems or locations, and various traditional crafts and artistic practices. Less frequently, climate change affects identity and ways of being, for

example by disrupting the environmental conditions underlying seasonal markers, religious ceremonies, and folk stories.

- Indigenous peoples, marginalised groups, displaced communities, and cryospheric populations are among the **most affected groups**. For Indigenous groups and those relying directly on natural resources, impacts are strongest in relation to knowledge about nature and ecosystem-based traditions. For all other groups, changes to cultural landscapes tend to carry the greatest weight.
- Rising temperatures are the primary **hazard**, as they disrupt practices dependent on specific seasonal or environmental conditions. Changes in rainfall patterns follow at a distance. Across hazards, gradual, long-term changes exert far greater influence than sudden extreme-weather events.
- Governance shortcomings act as a **compounding factor**. Against this background, it is unsurprising that no communities have been able to fully overcome the disruptive effects of climate change on HERITAGE.
- Cultural identity—the sense of who people are and how they relate to their surroundings—emerges as the principal **non-economic value** at risk. Aesthetic appreciation is also affected, though to a lesser extent. Impacts on **economic values** centre on income linked to cultural activities, and on the ability to maintain and transmit knowledge relevant to securing a livelihood.
- Community **perceptions** of these changes are shaped mainly by individual values, and only occasionally by broader social norms. Psychosocial tendencies or preferences do not appear to influence these perceptions in any significant way.
- Communities **adjust** to these disruptions through four types of actions: practical responses, such as adapting tools and practices to new conditions; organisational responses, involving the restructuring of community activities; cultural responses, focused on remembering, documenting, or creatively re-expressing what is being lost; and psychological responses, aimed at supporting emotional resilience.

Assessment of how climate change shapes HERITAGE practice

Across the documents, climate change consistently prompts communities to rework cultural practices as active forms of care for people, land, and heritage. Many cases show HERITAGE evolving through revised livelihoods, altered seasonal rhythms, or modified rituals that preserve core values while accommodating new environmental conditions. Emotional and relational practices, such as grief, mourning, and reflection, emerge as culturally meaningful ways to sustain identity and ethical relationships to place. Communities often draw on Indigenous knowledge, kinship, and collective memory to guide adaptation rather than treating change as purely technical. Artistic expression, storytelling, ritual innovation, and memorialisation serve as tools for transmitting knowledge and maintaining continuity across generations. Practical adaptations—such as changing harvesting techniques, mobility patterns, or materials—are frequently embedded within moral frameworks of stewardship and responsibility. Overall, future-making is portrayed as an agentive process in which

communities actively negotiate continuity by reshaping, rather than abandoning, cultural life under climatic transformation.

The documents also show climate change producing rupture when environmental change is mediated through governance, policy, and market systems that constrain cultural autonomy. Dispossession often arises as access to land, resources, or culturally significant sites is restricted by regulatory regimes, conservation priorities, or infrastructural development. Institutional frameworks frequently privilege scientific metrics, economic values, or administrative efficiency, marginalising lived cultural relationships and knowledge systems. Market pressures and commodification reshape cultural practices into standardised, externally legible forms that narrow locally defined futures. In several cases, state-led planning and emergency responses displace community leadership and reframe heritage within bureaucratic risk-management logics. These processes erode future-making capacity by reducing the range of culturally meaningful options available to communities. Rupture is thus characterised not only by physical loss, but by the enclosing of cultural life within externally imposed systems of authority.

Across the corpus, neither dynamic—continuity or loss—is universal, but their prominence varies by context and institutional intensity. Case studies emphasising everyday practice and affect tend to foreground adaptive care and continuity-oriented future-making. In contrast, analyses focused on planning, regulation, or development more often highlight rupture and constrained futures. Several documents show both dynamics operating simultaneously, with community adaptation occurring within narrowing structural conditions. Taken together, the evidence suggests that adaptive practices are widely visible, while rupture becomes more dominant where governance and market systems strongly shape responses to climate change.

Potential research gaps

The assessment of continuity and rupture dynamics suggests several research gaps, which are sketched in the following paragraphs:

- **Uneven attention to intra-community differentiation in adaptive care practices.** Across the evidence on care, adaptation, and future-making, communities are often treated as cohesive units. There is limited analysis of how gender, age, livelihood position, or socio-economic status shape who can participate in adaptive practices and whose cultural futures are prioritised. This gap applies primarily to the care and adaptation issue, but also affects interpretations of rupture by obscuring internal exclusions. More attention to internal differentiation would clarify how continuity is unevenly negotiated within communities.
- **Limited comparative analysis of symbolic versus material continuity.** Several documents distinguish between sustaining cultural meaning and sustaining material or ecological conditions, yet they rarely compare how these forms of continuity interact. It remains unclear when symbolic practices (memorialisation, artistic expression, ritual transformation) compensate for material loss, and when they signal deeper erosion of future-making capacity. This gap cuts across care/adaptation and rupture, and would benefit from explicit cross-case comparison. Addressing

it would sharpen understanding of what kinds of continuity communities themselves consider sufficient or inadequate.

- **Under-theorisation of temporal horizons of future-making.** Future-making is widely invoked, but the documents differ implicitly in whether futures are imagined as short-term survival, medium-term adaptation, or long-term cultural reproduction. Few studies explicitly analyse how climate change disrupts the temporal depth of planning, anticipation, and intergenerational obligation. This gap applies to all three issues, especially the evaluative question of prominence. Making temporal horizons explicit would allow clearer comparison of when adaptation expands futures and when it merely delays rupture.
- **Limited attention to failed or abandoned adaptations.** The evidence strongly highlights adaptive practices that persist or evolve, but gives less analytical weight to adaptations that break down, lose legitimacy, or are actively rejected by communities. This creates a partial picture of care-based responses to climate change. The gap primarily concerns the care and adaptation issue, but it also affects assessments of prominence by biasing analysis toward visible successes. Studying unsuccessful adaptations would clarify the limits of continuity-oriented responses.
- **Insufficient comparison of governance modalities across sites.** Rupture is frequently linked to governance, policy, and institutional frameworks, yet there is little systematic comparison of which types of governance arrangements are most constraining and which allow space for culturally grounded futures. Different forms of regulation (emergency management, land-use planning, heritage protection, compensation schemes) are discussed separately rather than comparatively. This gap applies mainly to the rupture issue but also affects judgments about dominance between the two dynamics. Comparative governance analysis would help distinguish structural inevitability from contingent policy design.

References

Fatorić, S. and Seekamp, E. (2017). Are cultural heritage and resources threatened by climate change? A systematic literature review. *Climatic Change, 142*(1-2): p. 227-254. DOI: 10.1007/s10584-017-1929-9.

Orr, S.A., Richards, J. and Fatorić, S. (2021). Climate change and cultural heritage: a systematic literature review (2016-2020). *Historic Environment-Policy & Practice, 12*(3-4): p. 434-477. DOI: 10.1080/17567505.2021.1957264.

Puig, D. (2025). Social limits to adaptation in the context of intangible cultural heritage. *Current Opinion in Environmental Sustainability, 77*(101569). DOI: 10.1016/j.cosust.2025.101569.

Appendix

This appendix included document-specific assessments. The evidence presented is derived exclusively from the documents considered. Each document was coded manually to identify relevant statements.

Document 1

Reference

Rigby, C. W., Rosen, A., Berry, H. L., & Hart, C. R. (2011). If the land's sick, we're sick: the impact of prolonged drought on the social and emotional well-being of Aboriginal communities in rural New South Wales. *Australian Journal of Rural Health, 19*(5), 249-254.

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document presents clear evidence that prolonged drought, driven by climate change, both disrupts and reactivates elements of Aboriginal intangible cultural heritage by reshaping practices of care, adaptation, and future-making. While drought undermines traditional cultural practices by restricting access to land and disrupting "Caring for Country" activities, communities respond by renewing commitments to cultural knowledge, land stewardship, and collective well-being through practices such as integrating Aboriginal dreaming, strengthening partnerships for land care, and expanding artistic expression. These adaptive practices operate as forms of care for both people and Country, helping to sustain identity, social bonds, and cultural obligations under changing environmental conditions. In this way, communities negotiate continuity amid change by reworking cultural practices to imagine viable futures rooted in enduring relationships with land and culture.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides little direct evidence of this type of dynamic. While it notes indirect forms of rupture—such as restricted access to land through fencing, denial by newer pastoralists, and compensation schemes that advantage landowners over Aboriginal workers—these are not analysed as governance regimes that formally reframe intangible cultural heritage. Overall, the erosion of future-making capacity is attributed more to environmental degradation and socioeconomic marginalisation than to explicit regulatory, expert-driven, or market-based institutionalisation of cultural practices.

Which of the two is more prominent?

The more dominant dynamic in the document is the emergence of new practices of care, adaptation, and future-making rooted in cultural renewal and connection to land. While rupture through dispossession and economic marginalisation is clearly present, the study foregrounds how communities actively respond by reworking cultural practices, strengthening Caring for Country, and mobilising arts and collective programs to sustain continuity. Processes in which trans-local governance or policy standardises or institutionalises intangible cultural heritage remain marginal and weakly articulated in comparison.

Evidence concerning the impact of trans-local governance, policy and economic systems on intangible cultural heritage

Document 2

Reference

Post, J. C. (2018). Climate change and cultural heritage in Western Mongolia. *Leonardo, 51*(03), 285-286.

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document provides clear evidence that climate change gives rise to new practices of care, adaptation, and future-making embedded in the intangible cultural heritage of Kazakh mobile pastoralists in western Mongolia. Environmental disruption is expressed and worked through in songs, instrumental music, textiles, and heritage actions that transmit ecological knowledge, voice concern for changing lands, and reaffirm stewardship responsibilities across generations. At the same time, herders adapt materially and socially by altering herd composition, production practices, mobility patterns, and craft techniques, even as climate and political conditions constrain available resources. Through these evolving cultural forms and practices, communities negotiate continuity by sustaining core values and knowledge systems while pragmatically reshaping livelihoods and cultural expression under changing climatic conditions.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides moderate evidence that climate change-related rupture is intensified through trans-local economic and governance systems that reshape cultural practice and undermine future-making capacity. Market incentives tied to the global cashmere industry encourage herd expansion, contributing to overgrazing and desertification, while simultaneously displacing locally oriented production practices and the social settings through which skills and knowledge were traditionally transmitted. State control over increasingly scarce forest resources, combined with climate stress, restricts access to quality materials for instrument making and forces artisans to accept degraded inputs, subtly recasting cultural production within externally constrained conditions. Together with land privatization, mining, and infrastructure development, these processes narrow pastoralists' autonomy and erode the ecological and social foundations on which living intangible cultural heritage and alternative futures depend.

Which of these two dynamics is more prominent?

The more dominant dynamic in the document is communities' adaptive practices of care and cultural continuity in the face of climate change. While rupture through market forces, land control, and external economic pressures is clearly present, it appears mainly as a constraining backdrop rather than the central analytic focus. The study foregrounds how pastoralists continue to make futures through evolving cultural forms, even as their autonomy and options are increasingly narrowed.

Document 3

Reference

Albert, S., Bronen, R., Tooler, N., Leon, J., Yee, D., Ash, J., ... & Grinham, A. (2017). Heading for the hills: climate-driven community relocations in the Solomon Islands and Alaska provide insight for a 1.5 C future. *Regional Environmental Change, 18*, 2261–2272

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document shows that climate change gives rise to new practices of care, adaptation, and future-making through community-led relocations that seek to preserve social relations, cultural continuity, and connections to land. In the Solomon Islands, indigenous communities draw on customary land tenure, kinship, and genealogical knowledge to relocate households, plant gardens in advance, and secure food and livelihoods, thereby actively shaping futures under sea-level rise. These practices are forms of care for both people and heritage, even as they require rapid cultural improvisation and negotiation. At the same time, the study highlights how communities strive to maintain collective identity and cultural transmission despite fragmentation and displacement, foregrounding continuity through adaptive social practices rather than the preservation of fixed places.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides strong evidence that climate change generates rupture through displacement that is intensified by trans-local governance gaps and institutionally driven planning frameworks that constrain community futures. Government-led relocation processes in places such as Taro and Shishmaref rely on formal land tenure rules, technical site assessments, and complex planning requirements that delay relocation and limit community choice, thereby undermining cultural continuity and self-determined future-making. In contrast to community-led relocations grounded in customary tenure and social knowledge, these institutional approaches prioritise administrative efficiency, infrastructural resilience, and expert criteria over lived cultural relationships to land. As a result, living intangible cultural heritage becomes subordinated to standardised relocation logics that privilege state and technical actors while eroding collective practices, social cohesion, and communities' capacity to shape culturally meaningful futures.

Which of these two dynamics is more prominent?

The more dominant dynamic in the document is rupture through displacement, fragmentation, and constrained future-making shaped by governance and institutional processes. While community-led care and adaptation are present, they are repeatedly shown to be undermined by governance gaps, land tenure constraints, and expert-driven planning that delay action and erode collective cultural continuity. The study ultimately foregrounds how climate change, mediated through policy and institutional structures, narrows communities' capacity to sustain culturally grounded futures.

Document 4

Reference

Cunsolo, A., & Ellis, N. R. (2018). Ecological grief as a mental health response to climate change-related loss. *Nature Climate Change, 8*(4), 275-281.

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document provides clear but indirect evidence that climate change gives rise to new practices of care, adaptation, and future-making through processes of grief, mourning, and meaning-making linked to intangible cultural heritage. In Inuit communities and Australian farming contexts, climate-driven environmental change disrupts land-based practices and knowledge systems, prompting collective and individual efforts to grieve losses, reinterpret identities, and sustain relationships to place, culture, and future generations. Ecological grief and mourning function as practices of care that acknowledge loss, reaffirm values, and help communities cope with uncertainty while maintaining continuity in ways of knowing and being. Through this ongoing emotional, cultural, and ethical work, communities negotiate continuity amid change even as valued landscapes, livelihoods, and anticipated futures are transformed.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides very limited and largely indirect evidence that climate change generates rupture through trans-local governance, policy, or economic systems that recast living intangible cultural heritage into standardised, institutionally managed forms. While it notes that ecological grief and associated losses of culture, knowledge, and future imaginaries are often absent or under-recognised in climate policy, research, and governance frameworks, it does not analyse specific regulatory regimes, market incentives, or expert criteria that actively enclose or institutionalise intangible cultural heritage. References to policy mainly concern the marginalisation of non-market losses—such as identity, sense of place, and cultural meaning—within dominant climate assessment and loss-and-damage frameworks. Overall, the erosion of future-making capacity is described primarily as an experiential and emotional outcome of ecological change, rather than as the direct product of standardising or managerial interventions by trans-local governance systems.

Which of these two dynamics is more prominent?

The more dominant dynamic in the document is the emergence of practices of care, meaning-making, and adaptation through which people cope with and live through ecological change. Rupture and erosion of future-making capacity are clearly present, but they are framed mainly as lived, emotional, and cultural experiences rather than as outcomes primarily driven by trans-local governance, policy, or economic systems. Thus, the article foregrounds relational and affective responses to climate change more strongly than institutional or managerial forms of dispossession.

Document 5

Reference

Markkula, I., Turunen, M., & Rasmus, S. (2019). A review of climate change impacts on the ecosystem services in the Saami Homeland in Finland. *Science of the Total Environment, 692*, 1070-1085.

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document provides clear evidence that climate change gives rise to new practices of care, adaptation, and future-making among the Sámi, as communities actively work to sustain intangible cultural heritage amid rapid environmental change. Sámi reindeer herders adapt practices such as pasture use, timing of migrations, monitoring of snow and ice, and limited supplementary feeding to cope with altered seasonal rhythms while trying to preserve the cultural foundations of herding. Traditional ecological knowledge is not portrayed as static but as living and evolving, combining inherited knowledge with new observations and learning to respond to changing conditions. Through these adaptive strategies, knowledge transmission, and continued engagement with land-based livelihoods and practices such as *duodji*, communities negotiate continuity by reshaping cultural practices rather than abandoning them, even as ecological and cultural uncertainty increases.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides moderate evidence that climate change–related rupture is intensified through trans-local governance, policy, and economic systems that reframe Sámi intangible cultural heritage within standardized, institutionally managed logics. It shows that ecosystem-services frameworks and decision-making processes tend to privilege economic and measurable benefits over cultural and spiritual values, marginalizing Sámi knowledge, practices, and meanings tied to land, species, and landscapes. Climate change also interacts with regulatory regimes, land-use planning, conservation, infrastructure development, and extractive and tourism economies to restrict access to traditional territories, encourage practices such as supplementary feeding, and erode traditional ecological knowledge and future-making capacity. As a result, living Sámi cultural practices are increasingly constrained by external governance priorities that privilege scientific expertise, development, and economic growth over culturally grounded ways of sustaining land-based futures.

Which of these two dynamics is more prominent?

The more dominant dynamic in the document is rupture and erosion of future-making capacity shaped by environmental change intertwined with governance, policy, and economic pressures. Although Sámi communities actively adapt and care for their cultural heritage, the study repeatedly emphasizes that these efforts are increasingly constrained by land-use regulation, development pressures, ecosystem-services frameworks, and external decision-making priorities. As a result, climate change is portrayed less as opening new futures than as narrowing the conditions under which culturally grounded futures can be sustained.

Document 6

Reference

Marshall, N., Adger, W. N., Benham, C., Brown, K., Curnock, M. I., Gurney, G. G., ... & Thiault, L. (2019). Reef grief: investigating the relationship between place meanings and place change on the Great Barrier Reef Australia. *Sustainability Science 14* (3): 579–587.

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document provides indirect but clear evidence that climate change gives rise to new practices of care, adaptation, and future-making through the emotional, cultural, and social responses associated with "Reef Grief." As coral bleaching alters the ecological condition of the Great Barrier Reef, individuals and communities engage in processes of mourning, reflection, and meaning-making that reaffirm place attachment, identity, and cultural values tied to the reef. These affective responses are not passive but are framed as potentials for adaptation, stewardship, and collective responsibility, including rethinking relationships with the reef and motivating protective and conservation-oriented action. In this way, communities negotiate continuity amid change by transforming grief into care for place and by imagining future relationships with a degraded yet still meaningful ecosystem.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides only limited and largely indirect evidence that climate change generates rupture through trans-local governance, policy, and economic systems that recast living intangible cultural heritage into standardized, institutionally managed forms. While it highlights that ecological grief and cultural loss associated with coral bleaching are often absent or marginalized in climate policy and management, it does not closely examine specific regulatory regimes, market incentives, or expert criteria that formally enclose or institutionalize cultural relationships with the reef. The study notes that dominant climate narratives and decision-making tend to privilege material, economic, and biophysical values, which can disenfranchise emotional, cultural, and place-based meanings held by communities. Overall, erosion of future-making capacity is framed more as an affective and social consequence of ecological decline than as the direct outcome of governance or policy systems actively restructuring intangible cultural heritage.

Which of these two dynamics is more prominent?

The more dominant dynamic in the document is the emergence of affective and relational practices of care, meaning-making, and adaptation in response to ecological change. Rupture and loss are clearly present, but they are framed primarily through experiential processes such as grief, attachment, and stewardship rather than as outcomes driven by trans-local governance, policy, or economic systems. As a result, the study foregrounds lived responses to climate-driven ecosystem decline more strongly than institutional or managerial restructuring of cultural futures.

Document 7

Reference

Martin, C., Parlee, B., & Neyelle, M. (2020). Fishing livelihoods in the Mackenzie river basin: stories of the Deline Got'ine. *Sustainability, 12*(19), 7888.

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document provides strong evidence that climate change gives rise to new practices of care, adaptation, and future-making through which the Délı̨ne Got'ine negotiate continuity in their fishing-based intangible cultural heritage. Faced with warming water, thinner and less predictable ice, and changing fish health, fishers adapt their practices by checking nets more frequently, altering fishing locations and timing, and passing new observational knowledge to younger generations. These adaptations are embedded in an ethic of care for Great Bear Lake—expressed through respect, prayer, selective harvesting, and sharing—that sustains cultural values even as environmental conditions change. At the same time, the evolution of traditional ecological knowledge reflects both resilience and loss, as communities actively remake futures grounded in fishing while acknowledging that some older ways of living, traveling, and teaching may not fully carry forward unchanged.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides moderate but clear evidence that climate change generates rupture through dispossession and erosion of future-making capacity, intensified by trans-local governance, policy, and economic systems. Fisheries management and climate governance are shown to privilege Western scientific expertise and bureaucratic decision-making, while traditional ecological knowledge is often only weakly incorporated, marginalizing Indigenous values and ways of knowing. Climate-driven changes increase costs, risks, and uncertainty in fishing, pushing some community members toward wage labour and market foods, thereby indirectly enclosing subsistence fishing and reshaping cultural practice through economic pressure rather than direct prohibition. Together, these dynamics narrow the space for Délı̨ne Got'ine people to sustain fishing as a culturally grounded future, recasting living intangible cultural heritage within standardized management frameworks that favour institutional priorities over Indigenous relational futures.

Which of these two dynamics is more prominent?

The more dominant dynamic in the document is adaptive care and continuity-oriented future-making, rather than rupture imposed by governance systems. While external policies and economic pressures contribute to uncertainty and constraint, the study primarily foregrounds how Délı̨ne Got'ine fishers actively adapt practices, knowledge transmission, and ethical relationships with Great Bear Lake to sustain cultural life. Rupture is present, but it is depicted as a pressure that communities work against through everyday acts of adaptation rather than as the defining force shaping their futures.

Document 8

Reference

Van Dolah, E. R., Miller Hesed, C. D., & Paolisso, M. J. (2020). Marsh migration, climate change, and coastal resilience: Human dimensions considerations for a fair path forward. *Wetlands, 40*(6), 1751-1764.

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document provides strong evidence that climate change gives rise to new practices of care, adaptation, and future-making through which rural coastal communities seek to sustain intangible cultural heritage amid marsh migration. Communities respond by mobilising collective care—through churches, kin networks, and local collaboration—to protect culturally significant sites such as cemeteries, landscapes, and watermen heritage that anchor identity and memory. These efforts include engaging with researchers and agencies, sharing place-based knowledge, experimenting with adaptive maintenance practices, and advocating for locally appropriate resilience strategies. Through these practices, communities negotiate continuity by re-asserting cultural meanings, ethical responsibilities to place, and claims to belonging, even as environmental change forces them to rethink how cultural life can persist within transformed coastal landscapes.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides strong evidence that climate change generates rupture through dispossession, enclosure, and erosion of future-making capacity as trans-local governance and policy systems recast living intangible cultural heritage into standardized resilience frameworks. Marsh migration planning, wetland protection regulations, and permitting regimes privilege ecological metrics and expert-driven conservation goals, often restricting residents' ability to adapt in place, protect ancestral cemeteries, sustain watermen traditions, or maintain culturally meaningful landscapes. Regulatory boundaries and market logics reduce local control over land and property, depress real-estate values, and limit viable futures by constraining permitted uses to those that enhance wetlands rather than sustain community life. As a result, cultural heritage connected to place, identity, and collective memory is subordinated to institutionally managed visions of ecological resilience that favor state agencies, environmental organizations, and regional beneficiaries over rural and historically marginalized communities' preferred futures.

Which of these two dynamics is more prominent?

The rupture-through-governance and dispossession dynamic is more dominant in this document. While communities demonstrate care and adaptive effort, the study consistently foregrounds how marsh migration planning, regulatory regimes, and resilience policies diminish local control, undermine cultural heritage, and constrain future possibilities. Adaptation is present, but it is largely reactive and constrained, taking place within governance frameworks that prioritize ecological objectives over community-defined futures.

Document 9

Reference

Winkler, D. E., & Brooks, E. (2020). Tracing extremes across iconic desert landscapes: socio-ecological and cultural responses to climate change, water scarcity, and wildflower superblooms. *Human Ecology, 48*(2), 211-223.

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document provides clear evidence that climate change gives rise to new practices of care, adaptation, and future-making around wildflower superblooms that are central to desert communities' intangible cultural heritage. Local residents, resource managers, and businesses closely monitor precipitation patterns, share ecological knowledge, and coordinate seasonal activities—such as festivals, education programs, and tourism planning—to care for both desert ecosystems and community livelihoods amid increasing climatic uncertainty. Communities actively adapt by re-imagining futures based on ecotourism and stewardship, investing in institutions and initiatives that seek to balance economic survival with long-term sustainability and preservation of a distinctive desert sense of place. Through these practices, superblooms become cultural anchors that help communities negotiate continuity, memory, and identity while living with more frequent extremes and ecological unpredictability.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides moderate but indirect evidence that climate change generates rupture through trans-local governance, policy, and economic systems that reshape living intangible cultural heritage around desert wildflower superblooms. As superblooms become less predictable and more tightly tied to climate extremes, they are increasingly mediated through institutional actors—such as state and national park agencies, scientific experts, and tourism planners—who frame them as ecological indicators, management challenges, and market opportunities. This institutionalisation channels cultural meanings of desert life into standardized practices of ecotourism, monitoring, and sustainability planning that privilege scientific expertise, visitor economies, and conservation values over locally defined rhythms, memories, and ways of relating to the desert. In this process, communities' future-making capacity is constrained by dependence on volatile tourism markets and expert-driven management frameworks, which risk enclosing desert cultural life within externally managed visions of "iconic" and marketable desert futures.

Which of these two dynamics is more prominent?

The care, adaptation, and continuity-oriented future-making dynamic is more dominant in this document. While institutionalisation and market mediation are present, the study mainly foregrounds how communities actively use superblooms to sustain sense of place, social memory, and livelihoods under climatic uncertainty. Rupture appears as a secondary, emerging risk rather than the primary framing of climate–culture relations in the analysis.

Document 10

Reference

Walker, H. M., Reed, M. G., & Fletcher, A. J. (2021). Applying intersectionality to climate hazards: A theoretically informed study of wildfire in northern Saskatchewan. Climate Policy, 21(2), 171-185.

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document provides strong evidence that climate change–driven wildfires give rise to new practices of care, adaptation, and future-making through which communities negotiate continuity in intangible cultural heritage. In northern Saskatchewan, residents responded to wildfire impacts by mobilising culturally grounded forms of care, such as providing traditional foods for Elders, creating Indigenous-run evacuation spaces, and organising community rituals and artistic practices to support healing, memory, and reconnection to place. These collective actions sustained values of belonging, self-determination, and relationship to land, even as evacuation and displacement disrupted everyday cultural life. Through such practices, communities actively re-made futures rooted in local knowledge, cultural identity, and mutual support, rather than treating climate hazards solely as technical emergencies.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides clear evidence that climate change–driven wildfires generate rupture through dispossession, enclosure, and erosion of future-making capacity via trans-local governance and institutional response systems. Emergency management practices led by external agencies—such as mandatory evacuations, Red Cross–run centres, and professional firefighting crews—often sidelined local knowledge, traditional practices, and community leadership, recasting lived cultural relationships to land, food, and care into standardized risk-management frameworks. These systems privileged technical expertise, bureaucratic authority, and logistical efficiency over Indigenous governance, Elder knowledge, and culturally grounded forms of self-determination, sometimes reproducing colonial dynamics of control and displacement. As a result, intangible cultural heritage tied to land, autonomy, and collective problem-solving was constrained, narrowing communities' ability to shape hazard responses and futures on their own terms.

Which of these two dynamics is more prominent?

The rupture through governance and dispossession dynamic is more dominant in this document. Although communities demonstrate care and adaptive practices, the analysis repeatedly shows how external emergency governance, evacuation regimes, and expert-driven responses constrain local agency, marginalize Indigenous knowledge, and disrupt culturally grounded relationships to land and self-determination. Community-led care and future-making emerge largely as responses to, rather than drivers of, the dominant institutional framing of climate hazards.

Document 11

Reference

Puig, D. (2024). The Omiwatari religious ritual: an example of climate change-driven loss of intangible cultural heritage. *Case Studies in the Environment, 8*(1), 2323147.

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document provides clear evidence that climate change gives rise to new practices of care, adaptation, and future-making as the Shinto community around Lake Suwa seeks to negotiate continuity amid the potential loss of the Omiwatari ritual. Community members, religious leaders, and scholars articulate responses such as memorialisation through media, the creation of an "Omiwatari Day," symbolic rituals, and the preservation of sounds, narratives, and teachings associated with the ritual. These practices aim to care for the spiritual and moral worldview embodied by Omiwatari, even if the underlying natural phenomenon no longer occurs. In this way, future-making is oriented not toward reproducing the ritual unchanged, but toward sustaining cultural meaning, collective memory, and religious identity under conditions of irreversible environmental change.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides moderate but clear evidence that climate change generates rupture through the erosion of future-making capacity as living intangible cultural heritage becomes recast into standardized, institutionally managed forms. As the Omiwatari ritual becomes physically impossible due to warming winters, proposed responses—such as museum exhibitions, recordings, memorial days, or documentation—shift the ritual from a lived, place-based religious practice to forms of heritage preservation that are legible to public policy, scientific reporting, and cultural institutions. This process privileges expert knowledge, media, and state or museum actors, while constraining the Shinto community's ability to sustain the ritual on its own spiritual and experiential terms. Although not framed as coercive enclosure, the loss nonetheless narrows the range of culturally grounded futures available to the community, enclosing continuity within memorialisation and symbolic substitution rather than lived religious practice.

Which of these two dynamics is more prominent?

The care, adaptation, and continuity-oriented future-making dynamic is more dominant in this document. While loss and enclosure through institutionalisation are clearly present, the article primarily foregrounds how the Shinto community actively reflects on, debates, and shapes responses to the impending loss of Omiwatari in ways that seek to preserve meaning, worldview, and identity. Rupture is acknowledged as inevitable, but the emphasis lies on how communities retain agency in defining forms of continuity under irreversible change.

Document 12

Reference

Dziubata-Smykowska, K. (2024). When Tradition Depends on the Weather: Polish Intangible Cultural Heritage in the Context of Climate Change. Anthropological Journal of European Cultures, 33(1), 11-25.

Evidence concerning how climate change gives rise to new practices of care, adaptation, and future-making through which communities negotiate continuity amid change

The document provides strong evidence that climate change gives rise to new practices of care, adaptation, and future-making as Polish communities seek to sustain intangible cultural heritage amid environmental uncertainty. Practitioners of weather-dependent traditions—such as winter horse-drawn sleigh races and wickerwork—adapt by modifying materials, calendars, or forms of practice, including using artificial or recycled materials, re-imagining events, or transforming craft knowledge into environmentally oriented activism. These practices express care for both heritage and the environment by linking the safeguarding of tradition with sustainability, mitigation, and ecological restoration, such as planting willows to retain water or weaving recycled waste to raise climate awareness. Through active adaptation, communities negotiate continuity not by freezing traditions in place, but by re-embedding cultural knowledge in new relationships with changing weather, landscapes, and futures.

Evidence concerning how climate change generates rupture through dispossession, enclosure, and the erosion of communities' future-making capacity

The document provides clear evidence that climate change generates rupture through dispossession and erosion of future-making capacity as weather-dependent traditions become constrained by trans-local governance, policy, and economic systems. Intangible cultural heritage such as wickerwork is re-classified within state administrative frameworks—treated as a skill rather than as an environmentally embedded livelihood—which excludes practitioners from drought compensation and agricultural subsidies despite climate-driven losses of raw materials. Similarly, traditions like winter horse-drawn sleigh races are increasingly enclosed by technical, safety, and infrastructural criteria shaped by tourism markets and event management norms, leading to repeated cancellations or pressures to alter practices in ways perceived as undermining their meaning. These dynamics privilege institutional logics of regulation, funding eligibility, and market viability over locally defined cultural values, narrowing communities' ability to sustain heritage-based futures on their own terms.

Which of these two dynamics is more prominent?

The rupture and constraint dynamic is more dominant in this document. Although communities experiment with adaptive practices, these efforts are repeatedly limited by regulatory classifications, funding rules, and market or tourism logics that restrict what counts as legitimate heritage practice. As a result, future-making is largely shaped by navigating exclusion and loss rather than by freely re-defining heritage on community terms.