

HOW CULTURE AND CULTURAL PRACTICES CONTRIBUTE TO DISASTER RISK REDUCTION IN THE LOCAL COMMUNITY: EVIDENCE FROM ZAGREB COUNTY

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Abstract: This paper examines how culture and cultural practices contribute to Disaster Risk Reduction (DRR) in local communities, with a focus on Zagreb County, Croatia. Cultural associations, institutions, and amateur artistic groups have long played a vital yet often overlooked role in enhancing community resilience. The study argues that cultural participation not only strengthens social cohesion and trust but also provides practical mechanisms for risk communication, volunteer mobilization, and psychosocial recovery after disasters. Using a qualitative and interpretive research design based on document analysis, comparative policy review, and contextual interpretation of local practices, the paper explores how cultural networks function as part of the region's social infrastructure.

Findings suggest that cultural actors are indispensable partners in all phases of the disaster management cycle. Before crises, they promote risk awareness and social preparedness through educational and community programs; during emergencies, they facilitate rapid mobilization of volunteers and resources; and in the recovery phase, they provide emotional and symbolic spaces that help restore a sense of belonging. Cultural facilities—such as community centers, museums, and libraries—can serve as physical hubs for coordination and aid distribution, while artistic and heritage activities contribute to collective healing.

The study concludes that integrating cultural actors into local DRR governance enhances overall resilience, improves communication between citizens and institutions, and contributes to sustainable, inclusive recovery. It also highlights the importance of recognizing cultural networks as strategic assets within civil protection systems, aligning local policies with the Sendai Framework and the European Agenda for Culture. Recommendations emphasize the need for stronger institutional cooperation, targeted training for cultural leaders, and inclusion of resilience-building measures in cultural funding schemes.

Keywords: *local community, culture, DRR, resilience, Zagreb County, social capital*

1. INTRODUCTION

Disaster Risk Reduction (DRR) is a cornerstone of sustainable development policies aimed at reducing vulnerabilities and enhancing the adaptive capacities of communities. The Sendai Framework for Disaster Risk Reduction 2015–2030 (UNDRR, 2015) emphasizes the importance of community engagement and local governance in this process. Within this

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framework, culture is increasingly recognized not only as a sector at risk from disasters but as an active driver of resilience.

Cultural heritage, creative practices, and everyday cultural participation contribute to social solidarity and identity. They help communities sustain trust, transmit traditional ecological knowledge, and maintain a sense of belonging. The Faro Convention (Council of Europe, 2005) underscores this human-centered understanding of culture, encouraging citizens to participate in the stewardship of shared cultural resources. Likewise, the *Culture 21: Actions* framework (UCLG, 2015) recognizes culture as a fourth pillar of sustainable development and as a key vector for inclusion, safety, and well-being.

In times of crisis, these cultural networks become invaluable. They maintain communication channels, mobilize volunteers, and provide safe spaces for expression and emotional support. Research by Aldrich (2012) and Putnam (2000) demonstrates that communities with higher levels of social capital—defined by trust, reciprocity, and civic engagement—recover faster and more effectively from disasters.

Zagreb County, located in north-western Croatia, represents an illustrative case for exploring the relationship between culture and resilience. It is a region with a rich heritage and an extensive network of amateur cultural associations that operate in both urban and rural contexts. The 2020 Zagreb and Petrinja earthquakes revealed the potential of cultural actors to mobilize swiftly, transforming cultural facilities into shelters, organizing volunteer aid, and supporting psychosocial recovery.

The purpose of this paper is to analyze how cultural organizations and practices contribute to DRR at the local level. Specifically, it aims to:

1. Identify mechanisms through which cultural actors strengthen resilience;
2. Examine examples of their participation in crisis response and recovery; and
3. Provide recommendations for policy integration.

The central hypothesis is that cultural participation reinforces local resilience through social capital and civic engagement, bridging the gap between citizens and institutions during emergencies.

At the international level, growing attention has been devoted to integrating culture into resilience frameworks. UNESCO, ICCROM, and the World Bank (2019) emphasize that cultural heritage and participation are not passive assets but active enablers of social recovery and continuity. In Europe, the EU Strategy on Cultural Heritage (2018) and the New European Agenda for Culture (European Commission, 2018) promote the idea that safeguarding heritage and cultural participation are integral to crisis management and sustainable urban development. Situating Zagreb County within this context provides an opportunity to explore how European principles translate into local governance and community practice.

2. METHODOLOGY

The selection of Zagreb County as a case study is grounded in its unique combination of rich cultural infrastructure and active civil protection structures. It offers a representative model for

mid-sized European regions where cultural and disaster management systems coexist within decentralized governance. The county's response to the 2020 earthquakes provides valuable insights into how cultural networks operate under stress and how local authorities can institutionalize such cooperation.

Using secondary sources posed both opportunities and challenges. On one hand, official documents and media reports provided a broad overview of institutional responses; on the other, the absence of direct interviews limited access to personal narratives. Nevertheless, triangulating different data types—policy documents, institutional reports, and journalistic evidence—ensured reliability and analytical depth.

The study employs a qualitative, descriptive, and interpretive design combining document analysis, policy review, and a case study of Zagreb County. This approach is appropriate for exploring complex social processes and institutional interactions where quantitative measurement is not feasible.

Data sources:

- County and municipal civil protection plans and DRR strategies;
- Local cultural strategies, annual reports, and activity records from 2020–2021;
- Media coverage and institutional statements from cultural associations;
- International policy frameworks (Sendai Framework, Faro Convention, UNESCO Culture|2030 Indicators).

Analytical framework:

Thematic analysis was applied to identify recurring motifs of cultural participation in resilience-building, such as volunteer coordination, use of cultural spaces as shelters, and post-disaster psychosocial programs. A comparative reading aligned local observations with global DRR frameworks, including Sendai's four priorities and UNESCO's guidelines for safeguarding intangible heritage in emergencies (UNESCO, 2019). The study relies solely on publicly available documents and verified institutional data. No personal information was collected. The research adheres to the principles of transparency, data accuracy, and acknowledgment of sources.

Although secondary in nature, this methodological approach allows an in-depth understanding of how culture functions within a specific governance and social context.

3. DISCUSSION AND CASE STUDY FINDINGS

3.1 Culture as social infrastructure

Culture operates as a critical component of social infrastructure—an ecosystem of organizations, practices, and spaces that sustain relationships and mutual trust. Cultural centers, museums, libraries, and amateur artistic groups act as “third places” (Oldenburg, 1999), connecting people beyond family and work. These connections form networks of weak ties that facilitate rapid information exchange and volunteer mobilization during crises (Aldrich, 2012; Norris et al., 2008).

In Zagreb County, cultural associations such as folklore ensembles, choirs, and theatre troupes are deeply rooted in community life. Their members often double as volunteers in civil protection or humanitarian organizations. During the 2020 earthquakes, these associations repurposed their rehearsal spaces for collecting and distributing aid, demonstrating adaptability and solidarity.

3.2 Institutional cooperation and coordination

Cultural actors complemented the efforts of formal institutions even without explicit inclusion in DRR frameworks. Local cultural centers coordinated with the Red Cross and volunteer fire brigades, providing logistical and communication support. Municipal cultural departments facilitated the use of public cultural infrastructure for shelter and distribution purposes. However, coordination was largely informal and dependent on personal initiative. Formalizing such cooperation through Memoranda of Understanding (MoUs) or inclusion of cultural representatives in civil protection headquarters could significantly improve preparedness and efficiency. Training programs in basic disaster response, first aid, and volunteer management for cultural leaders would also enhance capacity.

3.3 Psychosocial recovery and community identity

After the immediate crisis phase, cultural activities proved essential for psychological recovery. Storytelling evenings, community concerts, and art workshops organized by cultural institutions in Samobor, Jastrebarsko, and Vrbovec provided emotional relief and reinforced a sense of normalcy. These initiatives supported mental health and restored collective identity, confirming international evidence on the role of culture in recovery (Chamlee-Wright & Storr, 2010; Labadi, 2018).

In this context, culture transcends entertainment; it becomes therapy, memory work, and a tool for rebuilding trust. Restoring damaged cultural facilities as part of the “Build Back Better” approach contributes not only to heritage protection but also to social regeneration.

3.4 Policy integration and funding challenges

Despite these demonstrated benefits, culture remains peripheral in DRR funding and policy frameworks. Cultural budgets rarely include provisions for resilience, while DRR allocations prioritize emergency services and infrastructure. Integrating resilience objectives into cultural funding criteria would enable a sustainable cross-sectoral model.

At the European level, programs such as *Creative Europe* and the *EU Civil Protection Mechanism* offer opportunities for projects combining heritage protection, citizen engagement, and disaster preparedness. Local governments could adapt these models by including DRR awareness and safety training in cultural programs.

3.5 Rural versus urban dynamics

Rural municipalities of Zagreb County depend heavily on cultural associations as the main form of organized civil society. They serve not only as keepers of local heritage but also as vital

communication nodes in emergencies. Urban areas, by contrast, host a wider range of NGOs and institutions, where cultural actors play a more complementary role. Tailored strategies should therefore recognize these contextual differences: strengthening infrastructure and training in rural areas, while enhancing coordination and specialization in urban ones.

4. LIMITATIONS OF THE STUDY

This research is limited by its reliance on secondary data and the absence of primary empirical evidence, such as interviews or surveys. As a result, findings are interpretive rather than statistically demonstrative. The case study is also geographically specific, which limits generalization to other regions. Future research should include comparative studies among Croatian counties and integrate empirical methods—interviews, focus groups, or participatory observation—to assess how cultural engagement directly influences preparedness and recovery outcomes.

5. CONCLUSION

The case of Zagreb County demonstrates that cultural actors are not peripheral but central to disaster resilience. Their networks embody trust, belonging, and civic responsibility—values that underpin collective preparedness and recovery. By operating within both formal and informal governance systems, cultural organizations make DRR more participatory and adaptive.

Beyond their immediate impact, cultural actors provide continuity and meaning during uncertainty. Integrating culture into DRR policies transforms passive heritage into an active instrument of resilience. This approach aligns with the Sendai Framework’s call for “whole-of-society” participation and supports the European Union’s emphasis on culture as a driver of cohesion and innovation.

Future policy should ensure that local governments explicitly recognize cultural associations and facilities as components of civil protection infrastructure. Dedicated funding for preparedness training, safety upgrades, and cross-sectoral cultural projects would institutionalize their role. By embedding resilience in cultural policy, Zagreb County—and by extension, Croatia—can serve as a model for culturally grounded disaster governance in Europe.

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