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DOI

[10.1007/978-3-030-51812-7_322-1](https://doi.org/10.1007/978-3-030-51812-7_322-1)

Publication date

2022

Document Version

Final published version

Published in

The Palgrave Encyclopedia of Urban and Regional Futures

Citation (APA)

Mehan, A., & Mostafavi, S. (2022). Building Resilient Communities Over Time. In R. Brears (Ed.), *The Palgrave Encyclopedia of Urban and Regional Futures* (Living Edition ed.). Palgrave MacMillan Publishers. https://doi.org/10.1007/978-3-030-51812-7_322-1

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Building Resilient Communities Over Time



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Conceptualizing the Resilient Communities

The term *resilience* (sometimes used interchangeably with *robustness*) aims to describe the ability of an ecological system to continue functioning amid and recover from a disturbance. Based on the 2030 United Nations Agenda for Sustainable Development Goals (SDGs), resiliencies (social, cultural, ecological, environmental, technical, or economical) are defined as the capacity of individuals, societies, communities, institutions, entities, and financial systems within a city to survive, adapt, and recover from the effects of chronic stresses and acute shocks promptly. This mainly reflects the progress toward achieving the Sustainable Development Goals (SDGs), especially SDG 11, which “make cities and human settlements inclusive, safe, resilient and sustainable.” The emergency of the theme has been mentioned as part of the Venice Biennale’s Italian Pavilion 2021, *Resilient Communities*, which exhibited the seriousness and urgency of the issue of climate

change and the significant challenges (urban, productive, and agricultural systems) that architecture is called on to face.

Various academics and policymakers suggest the concept of resilience and environmental activists to empower the communities to respond effectively and positively to the changes, hazards, and risks on various scales. However, as Reyers et al. (2018) put it, “promoting resilience in limited scales or sectors such as households, communities, climate change or recovery from disasters will only suffice for the short term.” In better words, resiliency cannot be achieved without a substantive reduction of the potential impact caused by disasters on population, society, culture, and economy. So, the concept of “community resilience” will help provide enough flexibility to cope with a wide range of risks and crises by underpinning the specified resilience where required (Berkes and Ross 2012). To respond to the growing uncertainties, major stresses, and shocks (such as environmental, political, and economic), the increasing complexity, and to enhance the adaptive capacity of the society, the general concept of resilience is continuously evolving to be able to appropriately respond to the societal, political, cultural, and environmental needs of the people and society (Bazazzadeh et al. 2021; Mehan 2017). In another definition, community resilience has been defined as the “capacity of a distinct community to absorb disturbance and reorganize while changing to retain key elements of structure and identity that

preserve its distinctness” (Fleming and Ledogar 2008). So, in this definition, the maintenance of structure and identity is critical in resilient systems.

The concept of resilience has a long history in the local communities, which is embedded in their culture around shared values based on a strong and dedicated collaboration among diverse groups of the community and the various actors from different backgrounds. However, providing the holistic and multi-benefit response from this wide variety of actors with varying interests to a diverse, complex, and sometimes unpredictable range of changes is a significant challenge to overcome, but opportunities do co-exist (Kozlowski et al. 2020; Rahdari et al. 2019; Mehan and Soflaei 2017; Repellino et al. 2016). Norris et al. (2008) present a thorough review of “community resilience” definitions before proposing a comprehensive conceptualization that describes it as a “process linking a set of networked adaptive capacities to a positive trajectory of functioning and adaptation in constituent populations after a disturbance.” Norris et al. (2008) make one key point: community resilience implies “networked adaptive capacities” from which the “community wellnesses” emerges. Therefore, “community resilience” is a collective endeavor and participatory process that will increase societies’ adaptive capacities. Among the sets of adaptive capabilities highlighted by Norris et al. (2008), the role of “communal/collective narratives” deserves particular attention for further research. To foster the sense of belonging and identity that directly affects the “community resilience” (both in terms of response and recovery), “communal/collective narratives” provide a shared meaning of experience and social memory.

As Crane (2010) clarifies, the plurality and diversity of cultural behaviors within any system are essential to its resilience. Here, the aim is to deal with (and support) the diversity not just based on individual characteristics alone (such as culture, cultural values, language, customs, norms, etc.), but also from the support of more significant sociocultural factors (such as the national values and organizations) (Clauss-Ehlers 2010).

Building upon this definition, it is important to take into consideration the elements of the resilient communities that remain stable despite adaptation or even transformation of other elements of that system which are inherently related to the resilience of communities to respond to change in an adaptive and transformative manner, without traversing the social thresholds that secure their cohesiveness and identity (Rotarangi and Stephenson 2014). In resilient communities, the collective narratives provide the system’s stability to cope with unpredictable change. In contrast, the plurality and diversity of individual records provide the transformative agent that is critical for adaptation and innovation. Thus, it is critical to focus on the communities and the socio-cultural context to see their effects on resilient outcomes by considering the larger variables to help individuals overcome the obstacles they face (Clauss-Ehlers 2004). However, due to the lack of empirical methods and innovative assessment tools to capture the collective narratives of change, measuring the “community resilience remains a challenge” (Steiner and Markantoni 2014).

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The resiliency of a community in a built environment needs to be analyzed, assessed, and refined when a radical change threatens the stability and sustainability of the context. Such radical shifts might range from economic crises, natural or man-made disasters, environmental hazards, pandemics, and changes to societal turmoil. While there is a consensus on the definition of “community resilience,” there is less clarity on the building process of community resilience over time. These domains have been rather broad and lack the specificity required for implementation in a timely manner.

In the community setting, shared memory and oral history play a crucial role in facilitating communications, sharing information, learning from experiences, and transmitting and articulating the built environment. Because the new social means

and digital media have changed the world, it is essential to focus on the latest digital technologies, smart apps, automation, and data-driven methods for urban research in a selected community to encourage self-resilience. To gather and analyze a large pool of data, crowdsourcing techniques, data journalism, and data visualization, are recommended to promote the dialogue between different parts of the society, which can make research more democratic by increasing the more significant number of public participation (Del Savio et al. 2016). These new digital methods combine the competence of journalists, planners, citizens, data analysts, and graphic designers to work collaboratively on the online tools: interactive charts, maps, timelines, and visualizations.

The other urban technique is “cultural mapping,” also called “community-based mapping,” “counter mapping,” or “participatory mapping,” to develop the intercultural dialogue. In practical terms, cultural mapping is defined as the “process of collecting, recording, analyzing and synthesizing information to describe the cultural resources, networks, links and patterns of usage of a given community or group” (Stewart 2007). As Lydon (2003) puts it, “ordinary people and communities can make maps to express the stories about their lives and home places. Community mapping is both the recovery and discovery of the connections and common ground that all communities share to enhance participatory learning, community empowerment, and sustainable development.” In addition, the use of “artistic interventions,” “participatory art” or “socially engaged art,” “augmented reality (AR),” and “urban living lab” as an approach, not an output, can merge the terms both in theory and practice (Hoskyns 1999). So, organizing the experimental workshops and living labs, artistic representations, training schools, museum installations, cultural and recreational events, conferences, seminars, and festivals can enhance the knowledge sharing and building the community resilience.

It is important to note the role of time in creating and sustaining resilient communities which tie the past to the future visions. This includes a holistic and systematic approach of the

community on how it uses material and energy resources or how a society educates the members over time to learn from the past and adapt to present and future opportunities and threads (Bears 2021; Rauf et al. 2021). To open up a conversation on community resilience, it is essential to use interdisciplinary and cross-disciplinary methods, new media, civic engagement, and digital techniques to contribute to the co-creation of diverse and inclusive narratives of change.

Cross-References

- [Circular Economy and the Water-Food Nexus](#)
- [Climate Resilience in Informal Settlements: The Role of Natural Infrastructure](#)

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