

MULTIADAPTIVE PLACES FOR MULTIRISK RESILIENCE

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PART 1
RISK, RESILIENCE AND ADAPTATION

Contemporary Risks

Marichela Sepe

In recent years, the concept of risk has acquired increasing relevance within scientific, political, and social debates, expanding the range of its manifestations and overlapping quantitative and qualitative factors. Referring to the definition developed by the Office of the United Nations Disaster Relief Coordinator (UNDRO, 1980), the concept of risk concerns the probability that a hazardous natural event will cause losses or damage to people, material assets, and social and economic activities. From this perspective, risk is associated with the potential effects generated by a natural phenomenon considered dangerous, which may include fatalities, injuries, social and economic impacts, and, more generally, the erosion of the value of exposed elements. This definition is operationalised through the formula: $R = H \times Vu \times Va$, where H represents hazard, Vu the vulnerability of exposed elements, and Va their value (Leone, 2015).

Hazard indicates the probability that an event of a given intensity will occur within a specific area and temporal interval. Vulnerability corresponds to the share of anthropogenic elements that would be unable to withstand such an event, including the estimate of potential losses in terms of human lives. Exposed value refers to the extent of goods and people subjected to risk, quantifiable both in terms of human lives po-

tentially involved and in terms of foreseeable economic damages. Within this formulation, hazard can be described exclusively through a probabilistic approach.

In this volume, the notion of exposed value is extended to multiple categories of assets, both material and immaterial, recognising how contemporary risks operate on different levels and produce diversified effects across a variety of places and scales. The risks described do not constitute an exhaustive list of all existing forms of risk but instead represent a set of categories directly or indirectly connected to those examined in the case studies presented in the following chapters.

In contemporary territories, risks manifest in heterogeneous forms—environmental, social, cultural, economic, urban, anthropogenic, identity-related, pandemic, and linked to urban liveability—yet they share a common feature: the capacity to profoundly affect the stability, cohesion, and well-being of societies (Beck, 1992). Analysing their causes and understanding their effects represent fundamental steps in developing prevention and resilience strategies (Paton et al., 2001; Parry, 1996; Komendantova et al., 2016; UN-Habitat, 2020; Wilkinson, Pickett, 2009).

Environmental risks constitute one of the most widely debated issues at the global level. They stem from climate change, biodiversity loss, air and water pollution, deforestation, and the excessive exploitation of natural resources (IPCC, 2023). The intensification of extreme weather events—such as heatwaves, wildfires, floods, and droughts—is increasing the vulnerability of territories and communities, with consequent infrastructural damage, environmental migration, and impacts on public health (Watts et al., 2021). Added to these are risks deriving from natural disasters, such as earthquakes and landslides, and landscape-related risks connected to the degradation and insufficient maintenance of urban and peri-urban green areas, which cause a loss of ecological and environmental quality, contributing to making places less healthy, less safe, and less liveable (Sepe, 2025).

Social risks arise from structural inequalities, marginalisation, and exclusion. Furthermore, the intensive use of virtual spaces at the expense of physical ones, combined with the lack of well-maintained social spaces, contributes to the fragmentation of social relations and the erosion of social capital.

Globalisation, cultural homogenisation, and uncontrolled urban development put at risk the material and immaterial heritage of societies. Many local traditions are endangered, with a progressive erosion of cultural identity and diversity (UNESCO, 2003). Mass tourism also contributes to

the rapid consumption of cultural assets, producing phenomena of both physical and symbolic degradation. Cultural risk therefore concerns not only the conservation of heritage but also the intergenerational transmission of knowledge and the safeguarding of collective memory.

Economic risks include financial instability and vulnerability to external shocks, with consequent changes in purchasing habits, such as the rise of e-shopping. This trend is leading to the gradual closure of a variety of commercial establishments, with corresponding modifications in land use—and sometimes degradation—in the neighbourhoods where they were previously located (OECD, 2020; Sepe 2023).

Urban liveability—closely linked to health, safety, and psychosocial well-being—is threatened by a lack of green public spaces, by low-quality urban design, and by inefficient mobility systems (EEA, 2019; Gehl, 2011; WHO, 2016). Urban environments designed without attention to the people who will use them may generate insecurity and discomfort among inhabitants, as well as becoming subject to neglect and decay.

The risk of loss of place identity (Sepe, 2013), understood as the ensemble of material, symbolic, and relational elements that confer uniqueness and recognisability upon a territory, emerges when economic, social, or cultural transformations generate spatial and symbolic homogenisation. In particular, territorial and tourism marketing strategies oriented toward the standardisation of urban imagery tend to reduce cultural and landscape specificity, replacing local distinctiveness with global and reproducible models. This dynamic gradually leads to a depersonalisation of places, where identity markers and collective memories are weakened or reinterpreted according to logics of consumption and spectacle. The result is a loss of authenticity that compromises the relationship between community and territory, altering shared meanings and diminishing the capacity of the place to function as a symbolic and cultural reference.

Finally, the COVID-19 pandemic has demonstrated how health risks are profoundly interconnected with ecological, urban, and socio-economic systems. Epidemiological emergencies produce systemic effects, amplify inequalities, and transform the use of public spaces (Bambra et al., 2020). Uncontrolled urbanisation, destruction of natural habitats, and intensified global mobility increase the likelihood of pandemics and other health emergencies.

These risks do not operate in isolation; rather, they frequently emerge in concurrent and interrelated forms, generating situations of multiple and

systemic vulnerability. The effects of different risk factors tend to amplify one another, producing complex and enduring outcomes that affect not only the physical and environmental quality of places but also their social, economic, and cultural dimensions.

When, for example, accessibility is limited, architectural barriers exist, and public space suffers from poor maintenance, the area may gradually become depopulated, be perceived as unsafe, and become subject to degradation. If, furthermore, the urban space is located in a city exposed to natural hazards—such as seismic or hydrogeological risks—and is simultaneously characterised by low-quality materials, an unattractive urban design, or a lack of basic amenities, it loses its capacity to fulfil a role of socialisation and cohesion. In such cases, perceptions of insecurity intertwine with perceptions of discomfort, undermining the liveability of the place.

Additional combinations of risk may arise from processes of different nature, such as those linked to mass tourism or the loss of place uniqueness. Tourist pressure and insufficient attention to identity-related dimensions may generate anonymous and globalised spaces, devoid of specificity and resembling many others throughout the world, where the symbolic and cultural value of the original context progressively dissolves.

Places particularly exposed to these multiple risks include historic centres, areas affected by intense and unregulated tourism, public spaces and urban parks lacking maintenance, territories with high seismic or hydrogeological vulnerability, as well as peripheral, mountainous, and inland areas often marked by isolation, limited accessibility, and depopulation.

Addressing contemporary risks therefore requires an integrated, multidisciplinary, and participatory approach, adopting dynamic and flexible methods capable of interpreting local contexts and formulating adaptive solutions in the face of unforeseen events or sudden transformations.

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