

NOTES ON LANDSCAPE AT RISK AND POST-PANDEMIC IMPLICATIONS

A new concept of risk for Landscapes

The choice of *landscape at risk* as a research topic arises from the belief that landscape design and landscape policies should no longer be considered external to risk reduction strategies but they ought to be considered a basic part of each action, as one of the sides of a multifaceted problem.

In this book, the concept of risk affecting landscapes concerns all the different hazardous phenomena threatening “the significant or characteristic features of a landscape, justified by its heritage value derived from its natural configuration and/or from human activity” (ELC, 2000). Starting from the concept of landscape proposed by the European Landscape Convention (ELC), risk is here conceived as risk of alteration or interruption of the relationship between community and places, which leads to the creation of landscape features. Therefore, everything that can cause alteration, degradation, depletion or loss of tangible and intangible resources that mark landscape out constitutes risk factor for landscapes. “Landscapes at risk” will then acquire many different meanings, starting from landscapes hit by natural disaster and Climate Change effects, moving to those suffering from shrinkage, abandonment or gentrification, or even overexploitation and/or congestion, up to landscapes in transition.

The pandemic has changed our daily lives and habits by transforming how we work, learn and interact. Social distancing guidelines have led to a more virtual existence, both personally and professionally. Landscapes have obviously been affected, not only in the way they are perceived but also as regards the intensity of the phenomena that usually put them at risk (i.e. abandonment, tourism) or our understanding of risks and the way to cope with them. In the following paragraphs, the different issues threatening landscapes are examined within the new changed context due to the sudden irruption of pandemic. Moreover, possible future scenarios for landscapes at risk in post-pandemic time are analyzed.

Landscapes, Natural Risk and Climate Change effects

Many natural disasters are the direct outcome of devastation and irreversible changes perpetrated on everyday landscape. Such events can sometimes be construed as the result of an ill-adapted society that broke the connection with nature and its living context, which is essential to ensure an ecological balance and is a fundamental principle for the concept of landscape. Unsustainable spatial development and climate change are the main processes that lead to an increased level of risk for urban and rural landscapes. In particular, extreme hydro-meteorological events are increasing in frequency and intensity, generating dramatic negative impacts on ecosystems and enhancing hazards for other risks, such as fires, sea-level rise and biodiversity loss. Measures involving landscape planning, agricultural and ecosystem management, water management and drainage are essential for mitigating natural risks and Climate Change effects. Furthermore, quality landscapes could also reduce poverty and improve food security, thereby enhancing community resilience.

Therefore, a landscape approach could help in every step of the risk management chain. In fact, the need to bring together different sectoral approaches represents one of the main points of convergence between the landscape approach and risk theory. Moreover, the multi-relational approach envisaged by landscape theory could represent a reference pattern for risk analysis.

Until recent decades, landscape and risk management were considered two opposite irreconcilable matters: works and engineering solutions to prevent and mitigate risk were usually crushing for landscape.

Nowadays, it is widely recognized that risk management and landscape care are mutually interdependent. The lack of landscape maintenance and daily monitoring, with the consequent loss of environmental balances, could be a driver of natural hazards. Such ecological equilibria were often forged by people historically living with well-known natural hazards, leveraging on traditional knowledge to implement prevention and mitigation measures. Local knowledge is part of the immaterial value of a landscape. Local knowledge and traditional practices in dealing with disasters are reconsidered by main international documents on Disaster Risk Reduction as a welcome supplement to scientific knowledge.

Starting from 2000, a new way to conceive both Landscape and Risk management led to the awareness that landscape design could contribute to hazard mitigation in many ways, i.e. through nature-driven urban and regional regeneration. These policies were strongly justified by the need to cope with adaptation and mitigation to Climate Change. The need to tackle climate-related risk has been pushing researchers, local authorities and policy makers to find and test viable solutions to mitigate the negative effects of climate change and make landscapes more resilient to such effects. New solutions that are landscape consistent have been recently set up to cope with Climate Change effects and hazard mitigation, (i.e. Nature Based Solutions, ecosystem services). The implementation of these solutions will significantly modify urban and rural landscape and its perception by communities. Examples of sustainable solutions that can transform the relation between the landscape and its community can be found at urban scale, such as green roofs and walls, winter gardens, soil sealing recovering or at a wider scale blue –green infrastructures. In addition, solution to mitigate CC are destined to improve urban and regional environment such as the implementation of sustainable mobility-oriented traffic policies (e.g. restricted traffic areas, bike lanes, etc.) or nature-based solutions. At a wider scale, climate-sensitive management of agricultural practices (e.g. by shifting to crops with higher carbon storage potential or reducing forest clearing for agricultural expansion) can contribute to a significant reduction in CO₂ emissions.

Nature and local based solutions aware of traditional practices are one the most suitable “bricks” of landscape design and policies since they make possible to conceive projects and strategies that improve quality of landscapes and, at the same time, contribute to hazard mitigation and climate change adaptation. Furthermore, landscape improvement advantages risk resilience. As a matter of fact, landscape care, poverty reduction, food security, climate change adaptation and disaster risk reduction have to be considered mutually supporting objectives.

Another interesting issue concerns the aftermath of a disasters. Reconstruction represents a crucial phase for the future of communities and landscapes. The landscape approach shows that the relationship between people and their surroundings is based on a system of tangible and intangible values, which are

important in the definition of a sense of belonging and place identity. These values must be carefully considered in all the phases of risk management since they are crucial during the building-back phase. During the reconstruction, among the rubble, the very essence of communities also falls apart, neighborliness and affective ties are broken, habits and customs are interrupted, and small-scale economies grind to a halt. Basically, the link between community and environment, which is crucial in the ELC's conception of the landscape, is severed. Landscape approach is essential in this phase.

A special attention should be paid to cultural heritage and landscape features that are representative of identity and pride: they need to be proactively considered in post-disaster recovery. Safeguard of heritage and landscape features have a significant role in social cohesion and sustainable development especially in time of crisis. The pandemic has focused our attention on a new natural risk –biological risk- that Europe thought it had overcome. A new research agenda on disaster risk reduction has been tabled. Can the pandemic be tackled by using some tools and strategies from the field of disaster risk reduction? Is it possible to identify areas most prone to risk? Do certain elements increase resilience? What strategies can be implemented to avoid future emergencies? What weaknesses and what strengths have emerged in regions while combating the pandemic?

The pandemic has generated considerable awareness that the need to re-establish a more balanced relationship between humankind and nature can no longer be ignored. During lockdowns everyone has perceived an unexpected and sudden return of some aspects of nature in the city. In the aftermath there has been an increasing demand for green spaces and sustainable mobility. In Europe new financial opportunities have emerged to combat CC and the need to implement a sustainable transformation of cities and regions seems to be stronger than ever.

Landscapes, depopulation and overexploitation

Not only natural risks endanger landscape, but also anthropic actions, which could overcharge natural resources or break fragile balances regulating the relationship between communities and nature.

All over Europe there are extensive cultural landscapes at risk of depopulation, they belong to peripheral areas isolated from the main development dynamics. They have gradually become marginalised due to decline of the local economy and depopulation. Frequently, such areas conserve unspoilt natural environments with a rich cultural and historical heritage comprising a network of small historical centres, as well as abundant high-quality agricultural products and knowledge and skills utilised in traditional activities. This heritage is at risk since population decline is leading to the abandonment of these areas with the consequent decay of tangible cultural heritage. These settlements play an important role in preserving such landscapes. They are custodians of memory and beauty, and their depopulation has led to decay of places, emptying of relationships, and desertification of the environment and culture.

New ways of thinking and living, and new approaches to the built environment, are required to give new chances to such areas, using culture and traditional local resources as leverage for new tailored development.

The pandemic has given way to new scenarios for the revitalization of these landscapes and new development paths seem to have opened up within the emergency, where the elements that are traditionally considered weaknesses for economic growth become the strengths of a new concept of development, the starting point of a “different” development pattern, perhaps possible after the pandemic. The boom in home working due to the COVID-19 pandemic, however, could mean a reversal of such negative trends. Lockdowns that trap city dwellers and users in small apartments have made village life more appealing due to the ability of country living to provide attractive vistas, fresh air and more space for social distancing. Small towns are seeing an influx of new residents and homeowners looking to take advantage of a slower pace of life. The crucial question is whether this trend will be confirmed even when the pandemic is definitively vanquished or people will really discover a new way of life in rural environment.

Nowadays it is impossible to understand what will be the future trend. Of course, cities are currently more exposed to pandemic risk and less healthy places but, at the same time, they are still the places where things happen, people meets, ideas run. Therefore, the new trend solution could be a greener city and, perhaps, a new lifestyle, less rooted in a specific place but organized in different homes and places: both in the city and in the village.

On the contrary, the levels of exploitation of the landscape are causing unprecedented changes in the configuration and perception of places, in the maintenance of ecosystems and biodiversity, as well as in social and cultural alterations. The enjoyment of rural, coastal, mountain and urban landscapes is a resource of enormous value that is a great attractor for every type of tourism, whether for cultural and natural heritage or recreation. However, the paradox is that tourism development through infrastructures, building densification, urban space alteration, transformation of tertiary activities and coastal resorts, has a devastating impact on the main attraction, namely landscape, in its multiple manifestations and material and immaterial features.

Overexploitation of resources can be seen in every territorial setting: in peri-urban degraded settlements, in historical urban centres transformed into tourist resorts, and in rural areas modified by intensive crops.

Tourism was a worldwide phenomenon in strong expansion and transformation prior to the pandemic, producing unexpected changes in the social, economic and environmental fields (ISPRA, 2017). At the same time, it has been one of the economic sectors most affected by the pandemic. International tourism is expected to fall by around 80% in 2020. Destinations that mainly rely on international, business and events tourism, as well as art cities, are particularly struggling. The past year has witnessed bans on travel abroad and even within the same country, failure of airlines and travel agencies, and an end to the spread of B&Bs. Yet a predominant aspect is the fear of travel. There is no knowing whether tourism that was for many countries one of their economic mainstays will ever recover from the crisis. To be fair, domestic and proximity tourism, which were previously a lesser phenomenon, have been slowly restarting and helping to mitigate the impact on jobs and businesses in some destinations. Perhaps this is the time to wonder whether a new tourism would be possible after the pandemic, a tourism for the “sober enjoyment” of the man-made and/or natural landscape, through controlled exploitation of the resource: a tourism respecting the “delicate balance” between conservation of the natural environment and its use without destroying identity and local cultures. In this respect, many countries are currently trying to develop measures to build a more resilient post-COVID-19 tourist economy. Perhaps the future of villages at risk of depopulation will be consistent with this new kind of tourism. These include making plans to support the sustainable recovery of tourism, promoting the digital transition and moving to a greener tourism system, and rethinking tourism for the future (OECD, 2020).

Which scenarios for landscapes at risk in post-pandemic time?

If the pandemic, on the one hand, appears to be a certain herald of relevant changes in our way of living and relating to landscape, on the other hand it will produce great uncertainty. In this context, we might dare to ask ourselves about this issue and speculate on different and conflicting scenarios rather than pretending to provide certain solutions and easy formulas.

To date, there is still no certainty about when the emergency will end and its overall duration will reveal whether the pandemic will be a turning point, a diverter, or an accelerator of embryonic processes. In the first case, the pandemic as a turning point, all unrealistic developments become now possible. In the second case, the pandemic will strengthen existing tendencies and approaches: greater care and development of open and green spaces in the city; the transition towards slow mobility supported by suitable urban infrastructures; the use of NBSs to bolster risk mitigation, as well as climate change adaptation; a new type of tourism, no

more aggressive or oriented to a mere use of the place, careful to discover nature and culture of places, in a process that can give credit to the beauty of small villages at risk of depopulation.

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