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Marcello Modica · Elena Solero



# **Brownfield Transformation in Fragile Territories**

An Interreg-Based Action  
Research



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ISSN 2191-530X ISSN 2191-5318 (electronic)  
SpringerBriefs in Applied Sciences and Technology  
ISSN 2282-2577 ISSN 2282-2585 (electronic)  
PoliMI SpringerBriefs  
ISBN 978-3-031-09082-0 ISBN 978-3-031-09083-7 (eBook)  
<https://doi.org/10.1007/978-3-031-09083-7>

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# Foreword: For a Contemporary Inhabitability of the European Alps

Fields of investigation and leading studies of important processes of industrial decommissioning have focused almost exclusively on cities and/or urbanised metropolitan contexts. They tend to reveal and prevail the urban dimension of regeneration programmes, projects and actions (Bondonio et al. 2005; Dixon et al. 2007; Hollander et al. 2010). Far from heavily urbanised and infrastructurally developed contexts, a host of different territories situated along the arc of the European Alps have been silently modelled by heavy industry (steelworks, mining, electrical and chemical plants). With an ecological and functional footprint much broader than their actual dimension, they modified different layered landscapes, almost always immersed in contexts of a rich history and beauty, inhabited by often closed communities, in many cases a result of their challenging topography and accessibility. Manufacturing activities and processes, together with a prosperous social era of factories-communities that generated and benefited from a robust social and charitable welfare (Galuzzi 2022), heavily conditioned local economies, societies and environments. Similar to urban systems, they were slowly exhausted over time, leaving behind decommissioned and abandoned landscapes, relics of a vast, broad and complex industrial modernity; the legacy of these decommissioning processes presents limits and problems for the adaptive reuse of contexts with varying conditions of fragility: economic (the closure of company-towns), social (the spaces of shrinkage) and environmental (polluting waste from manufacturing processes) (Galuzzi et al. 2020).

The European research *Alpine Industrial Landscapes Transformation (trAILS)*, funded within the Interreg *Alpine Space Programme* between 2018 and 2021, investigated this specific typology of decommissioning. Each country participating in the research (Italy, France, Austria and Slovenia) identified an area/district of a different original manufacturing typology (respectively in Borgo San Dalmazzo, L'Argentière-la-Bessée, Eisenerz, Tržič). They were then positioned within its multi-scale context of reference with the ambitious objective of reactivating economies, societies and ecologies, largely concealed and brusquely interrupted by decommissioning processes: a challenge for the regeneration of these territories, inspired by a mapping of decommissioned sites across the European Alps developed at the Technical University of Munich (Modica 2019), leader and coordinator of the

trAILS research group. A decisive role in structuring the coordination of the trAILS research was played by Udo Weilacher, Landscape Architect, Author and Professor of Landscape Architecture.

This emerging territorial question, and simultaneously a latent potentiality and resource, as clearly explicated in this book, documents not only places and processes, in-depth and with broad evaluations. It argues and proposes solutions for promoting inclusive devices of governance focused on promoting a new inhabitability of territories, suggesting the fragile spaces of the Alps as true operative laboratories for testing the *Green Deal* promoted by the European Commission (European Commission 2019). This is, especially, in relation to four aspects:

- the capacity for local communities to be an integral part of transformative processes of regeneration (Alessandrini 2019);
- regeneration as a tool for contrasting climate change (Magni 2019);
- a temporary and incremental approach to regeneration, also as a means for experimenting with new economies tuned to local contexts;
- the definition of scenarios of regeneration that enable economic and social forces as an antidote to the impossibility to forecast the future (Wade 2012).

## Enabling Local Communities

Community spaces are such only when communities interpret and model them. Processes of social innovation and bottom-up regeneration are fundamental resources for managing the complex changes that accompany transformations and a robust antidote to fragility. Fundamental for reducing the vulnerabilities of complex systems (Bertuglia and Vaio 2019), they are also an element for rehabilitating communities themselves (Vitale 2009; Blečić and Cecchini 2016; Vitillo 2022); not an abstract anti-fragility, but constructed from the specific historical, geographic, social and economic needs of territories and contexts, part of a process of social interaction implemented, together with the capital of a territory, to define appropriate local development. But how? Through the collective construction of pertinent biographies of resident communities, based on real needs that confront the concrete aspects of the life of communities and assist them in building programmes that reflect real situations and serve to orient actions. Consequently, supporting the enabling of local communities was an important and decisive part of the trAILS research, as described in different chapters of this book. This is due to the need to confront different legislation, diverse methods of organisation and inhomogeneous attitudes towards dialogue and participation, as the four experiences described in this book document so well.

## **Regeneration as a Project for Contrasting Climate Change**

Any project for the future operates with the unavoidable awareness of the need to incorporate climate change and natural hazards within programmes (Beck 2000) and adopt an approach consistent with the multi-scalar nature of risks (Russo 2015). We live in a new condition, particularly evident in Alpine environments, where climate change and natural fragilities, combined with degrowth/demographic and economic contraction, tend to be more visible.

Climate change, already dramatic, has made natural hazards more invasive. In European Alpine contexts, this is particularly true of water-related risks (flooding). Water and its use were the matrix of production in Alpine territories and the driver of historic factories. How can we contrast these risks while simultaneously promoting a new economic phase? By working in two different directions: searching for a new form of fluvial landscapes, designed to contrast conditions of risk, utilising materials and technologies with a low ecological-environmental impact (Acreman 2004); exploiting new remote sensing technologies, biochemical analyses, hydrological calculation and modelling (new hydrological sciences, ecological management). Regeneration programmes can thus drive new development, with particular reference to policies and actions to contrast climate change, the creation of diffuse and capillary ecological networks and the production of eco-systemic services: forests, in particular, more than simply being of value as landscapes and recreational spaces (Burkhard et al. 2012), can play a determinant role in managing water resources (purification of water and air), in maintaining biodiversity (refuge for animals and vegetation) and mitigating—regulating climate, thanks also to their capacity to capture and store carbon. Green and blue infrastructures (Arcidiacono and Ronchi 2020) can be interpreted as territorial devices that favour an ecological transition: reducing the fragmentation of natural habitats; restoring the conditions required by natural processes; increasing the level of biological diversity and auto-regeneration; creating corridors linking up with external habitats; increasing the level of resilience of the urban ecosystem by increasing the loading capacity and performance of the built and unbuilt environment, forming new environmental and historical-cultural geographies. This awareness became the foundation of the trAILS research and the guiding star of its work.

## **Favouring a Transitory and Incremental Approach to Regeneration**

In many Alpine contexts, rich with history, memory, environments and landscapes, additions would be out of place (Legrenzi 2022): it is sufficient to capitalise on and reveal what exists, focusing on and promoting territorial patterns and layers that demonstrate a capacity for resilience; landscapes that evolve from day to day, the result of bonds between the territory, community and historical-built capital that,



together with natural and environmental capital, represent a capital to be cared for (Marson 2016). We must patiently select resilient veins, assist, reveal and rediscover natural situations and expose and promote hidden values and lines of force, while seeking to incorporate them within a new and diverse order that begins with the knowledge and expectations of local and contextual knowledge. The system of signs and objects represented by cultural heritage express long-lasting territorial values, to learn from and to question, also with regard to the relations they establish with contexts of settlement and open spaces.

Breaking through once impenetrable barriers, such as those of old factories, presents a twofold potentiality: opening spaces once inaccessible to local communities, containers of memory and an environment that has recaptured its original spaces, recovering processes and forms that produce identity but also experimenting with new urban economies, testing possible lasting uses. The spaces we design must necessarily be temporary, non-specialised, poly-functional, hybrid and reversible. We must pursue a transitory approach to regeneration, rediscovering qualities, beauty and adaptability to change (Jullien 2012), as well as its necessary process-based forms.

In extreme synthesis, favouring a transitory and incremental approach to regeneration means to define design tools that can accompany the consolidation of lasting uses; working with the concept of a temporary and progressive identity, changing, shifting and always open thanks to its multiple and perspectival nature; utilising the concept of durability, intended as a contrast to material and functional obsolescence, capable of triggering processes through the centrality of community welfare spaces, true drivers of incremental regeneration. Regenerating and caring for the territory and landscapes also challenges us to identify new trajectories for the growth of employment, with the birth and reinforcement of industries that interpret socio-economic changes with intelligence but also for a new ecologically oriented production capable able to drive the development of small and medium-sized local enterprises, cooperative and social, innovative and sustainable (Secinaro and Biancone 2020), that look towards economies rooted in context.

One of the scenarios forecast by the trAILS research, though defined for the four different case studies, is represented by the activation of temporary uses (start-ups), which stimulate priority interventions capable of triggering processes for the partial reuse of areas through minimal actions to promote/constitute a pattern of environmental/landscape networks and a system of public spaces that open up towards places.

## **Constructing Scenarios for Enabling Socio-economic Regeneration**

The research, beginning with an understanding of reference literature and virtuous examples of participatory design and planning processes, and its interpretation put into practice by this book, indicates a sensibility and a feasible approach—more than

a rigid model to be followed a-critically—to the definition of scenarios of regeneration, for enabling local economic and social forces. This process is articulated in three steps, amply documented in this book: reconstructing the shared know-how of places (assessment); identifying approaches to listening in the form of participatory workshops (the test-design workshop procedure); and defining pertinent and sited guidelines (planning recommendations).

I will focus for a moment only on the latter. In my opinion, they represent the most fertile methodological legacy of the research. Design suggestions are expressed through the definition of essential principles to be respected and performance to be guaranteed in successive programming and planning tools. This is possible through the construction of development scenarios and verbal-visual guidelines. They must be the result of a collaborative model oriented towards the construction of an idea of the future required to coordinate actions, in the search for the difficult combination and delicate balance between freedom of action and business, and the unavoidable governance of phenomena. In extreme synthesis, enabling platforms that consent the free expression of societies and economies, interpreted through reference frameworks, intended as frames for possible actions (flexible and changing over time) that identify minimum patterns, able to recreate the continuity of geographic and historical-cultural environments and rooted in contexts; as well as lines of resistance defined by that nature and character of places (Eco 1997), real opportunities as well as systems open to possible events, beginning with keys for understanding, with contrasting and contradictory perspectives, though integral to a condition in which local communities recognise themselves and look with awareness towards their future, with care and passion for their local roots, and from a vantage point firmly rooted in our contemporary era. In relation to this aspect, the trAILS research, and above all its critical and fertile interpretation indicated by the authors in this book—and not only in reference to its replicability and transferability—offers interesting stimuli, spaces for discussion and further investigation yet to be filled.

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