



Alpine Industrial Landscapes Transformation

Partners and Pilot Sites

- 1 Eisenerz Steiermark/AT
- 2 Borgo San Dalmazzo Piemonte/IT
- 3 L'Argentière-la-Bessée Provence-Alpes-Côte d'Azur/FR
- 4 Tržič Gorenjska/SLO

84 Vaucluse
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AGENZIA DI SVILUPPO

POLITECNICO MILANO 1863
DIPARTIMENTO DI ARCHITETTURA E STUDI URBANI

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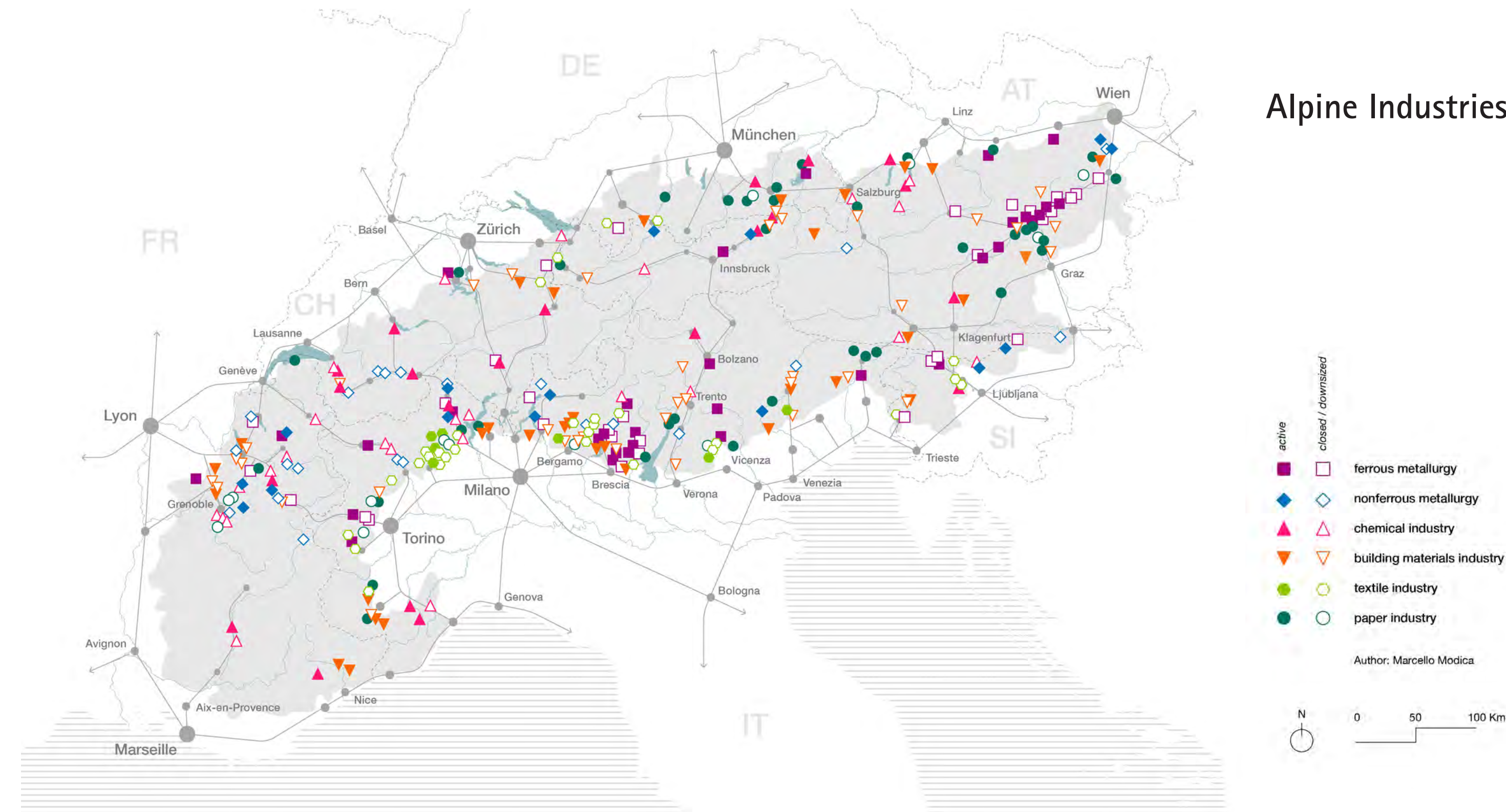
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0 50 100 Km

Base map: Interreg Alpine Space cooperation area



Alpine Industries



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trAILS

PROJECT HANDBOOK

ALPINE INDUSTRIAL LANDSCAPES TRANSFORMATION

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What is test-design and how it works

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Reconversion in fragile territories

In contrast to common opinion, industry has shaped the social and environmental features of many Alpine landscapes as well as the economy. The end of industrial production has not only left behind a "negative" ecological and functional footprint, usually extending beyond the individual sites, it has also marked the end of an age of wealth based on strong and reciprocal relationships between the industry and its community. The resulting multi-layered landscape, shaped by local culture and knowledge and framed into centuries-old topographies, is undergoing radical change.

The shutdown of industries has opened up a new phase, revealing all the limits and problems of functional reconversion in contexts that have been abruptly weakened from an economic point of view (the crisis of company towns), or in terms of society (the shrinkage of population) or the environment (the presence of contaminated waste inherited from previous production cycles). However, abandonment can be turned into an opportunity when the reconversion addresses three main issues or objectives: mitigating the effects of climate change, supporting sustainable economies, and improving ecological networks and ecosystem services.

Severe and ongoing climate change will increase the impact of risks from the natural world, in particular those related to water systems and flooding. In the past, water and its uses have shaped the production system throughout the Alps, being the driving force of except in the subclaus which defines many factories and, more generally, of these territories. The question today is how to combine the capacity to manage natural risks with the development of new economies.

With this in mind, fragile Alpine regions can be turned to real Living Labs for testing the European Green Deal, a plan

aimed at supporting technological innovation and responses to environmental crisis, including fifty actions, for a total of about 1,000 billion euros of investment (planned for the next ten years). Taking care of the region and its landscape heritage brings with its exciting new perspectives for employment by supporting enterprises and skills capable of dealing with social and economic changes. This also fosters the growth of a sustainable and locally oriented economy

Finally, the conversion of brownfield sites can be an opportunity to build strong ecological networks, where the active protection of large-scale green systems can help to enhance the specific characters of natural and historical landscapes, even creating new cultural and environmental geographies and itineraries. In addition, Alpine spaces have great potential to provide ecosystem services. Forests, in particular, play a crucial role in water and air purification, in preserving biodiversity by allowing animals and wild plants to evolve, and in climate stabilization.

An alternative approach

Over recent decades, the most complex and dynamic urban contexts have experienced a long, now completed, season of real estate-based projects. Similarly, even fragile areas of low-economic-intensity have often become the object of the ungoverned addition of plans and interventions, fundamentally lacking an overall vision and a general strategy. Starting from this awareness, the work on trALLs pilot sites has been based on a strong integration of the history and culture of local communities with the physical character of the local area. The intent was mainly to embed resilient options into real situations and existing constraints in order to meet the ambitions of local communities while supporting them in setting clear programmes. We are experiencing new living conditions, extremely evident in Alpine regions, where the effects of climate change and environmental fragility

figure 1: Roundtable discussion in Eisenerz

figure 2: Roundtable discussion in Borgo San Dalmazzo



are often combined with downward demographic and economic trends. In this framework, a design-based approach represents a suitable methodology for providing concrete support to a collaborative process able to coordinate many actors and actions. In this respect, design-based alternatives aim at showing a range of different opportunities and defining the related actions. Taking a design approach is also effective for embracing divergent perspectives and multiple points of view, providing for the communities a reference context with which they can identify. This approach indeed promotes the development of "collective capabilities". The conditions of uncertainty that today qualify space and time require new ways of conceiving design activities: the goal here is to outline contextual frameworks able to incorporate the long-term changes connected to urban and landscape

transformations. It is therefore not simply a question of focusing on different strategies produced by different design alternatives, but more of developing a process that identifies shared views for the future.

For this reason and to this aim, trALLs implemented what is known as the test-design procedure. Based on hard facts and data from the context, a series of design "explorations" are outlined by planners and designers from the partner universities, with the aim of showing a variety of possible futures for the same site. The proposals, as "test designs", are then screened by means of a comparison matrix, in order to select the most significant ones for discussion with local communities and stakeholders. In a two-day test-design workshop, the evaluation of the selected test

designs was conducted jointly by local and regional experts and synthesized in a set of mutually agreed planning recommendations. The main goal of the test-design procedure is to provide a platform to enable discussion, that is, as an operative framework to help local communities to evaluate performances in the regeneration process.

Providing usable knowledge

The aim of trALLs is to provide usable knowledge by outlining appropriate and sustainable strategies for the transformation of Alpine brownfield sites. This call for giving particular consideration to the character and meaning of research procedures and their outcomes. Some keywords helped to direct the focus:

1. *Trans-disciplinarity.* In the test-design workshop, each discussion table is composed of participants holding different knowledge, such as sociologists, public policy analysts, ecologists, landscape architects and planners, each with their own vocabulary and approach. This serves to make the process open and interactive by radically questioning the ideas on the table and even experiencing "cross-fertilization" processes. Certainly, this is not a simple operation, but it is the right way to discuss designs in an interdisciplinary manner.
2. *Listening to communities.* Interaction with local communities is fundamental. This is done constantly in the process through in-depth video interviews, meetings and planned individual conversations. We believe that one of the most interesting research outputs is this profound participation of local communities, which enhances their planning capabilities as well as their territorial responsibility.
3. *Providing generative knowledge.* The research is mainly intended as an opportunity to set a dialogue between different areas of expertise, and to generate from that

the design-based knowledge able to activate long-term transformation processes for deindustrialized Alpine communities. The test-design method is indeed meant to produce outputs that, thanks to their replicability and adaptability, can be easily transferred to other communities and territories.

Test design as a process

The test-design approach is an inclusive design process in which participation and confrontation can be practiced through different formats such as site visits, roundtables, workshops, dossiers, etc. As a starting point, an information and evaluation report with a multidisciplinary character and content – including socio-demographic, economic, spatial and environmental issues, legislation, planning constraints, etc. – is provided as a synthesis of the assessment phase. This report or dossier represents the "hard facts" with which the test design has necessarily to grapple. The test designs can be generated in various ways, for example through the direct appointment of design companies, consultancies or, as in trALLs, by means of higher education resources.

With regard to the latter option, the production of test designs for the project pilot sites has been developed by the partners universities in Munich, Milan, Vienna and Ljubljana through the direct involvement of landscape architecture and planning students. The test designs have highlighted and creatively reinterpreted the main features of the sites and the relationships with the context, here assumed as a necessary working condition. A selection of alternative test-design proposals was then carried forward, as a preliminary step to the subsequent test-design workshop with local communities and stakeholders. On this occasion, the design proposal was presented to the participants – local and regional authorities, associations, citizens' representatives, experts, etc.) and intensively discussed and evaluated with them. The purpose

of the workshop is to highlight the potential of the sites in terms of future development, starting from the identification of the site's key spatial, landscape and environmental assets and including their integration into existing redevelopment policies and strategies.

So conceived, the test design is a process of mutual understanding and learning, a valuable and unique occasion of dialogue (formal and informal) between different areas of expertise and different interests. The goals of the test-design workshop, which represents the core of the whole process, can be summarized as:

- to permit stakeholders and experts to meet around the same table, thus creating the best conditions for direct and interdisciplinary communication, as well as for an exchange of opinions, with full transparency, understanding and mutual trust;
- to identify and agree on the most important shared key issues for the future transformation of the site such as, for instance, increasing social infrastructures, fostering a more sustainable economic development, improving ecological and environmental systems, protecting and managing architectural industrial heritage and historical values;
- to provide concrete planning recommendations for the future of the site, as an output specifically designed for the communities involved.

The test-design method was developed by trialling this approach in all the four pilot areas, while adapting to the different contextual conditions and available resources. In Borgo San Dalmazzo and L'Argentiere-la Bessée, the methodology could be applied as planned, while in Eisenerz it was slightly simplified. Unfortunately, for the last pilot site in Slovenia (Tržič), the restrictions due to COVID-19 forced

the project to implement a hybrid test-design workshop with only the stakeholders and the local partners meeting on site. Ultimately, all the four experiences proved to be successful each in their own way: many opinions, reflections and constructive proposals were expressed and debated during the meetings. The main phases of the test-design workshop are:

1. Working tables

The aim of the interdisciplinary working tables – usually three in number, though the number can vary according to the participants, the characteristics of the sites, the complexity of the issues at stake – is to highlight the key issues for the proposed site transformation. Each working table focuses on one specific test design, selected from among the case system produced. In order to make it easier for everyone to discuss matters on a design basis, a set of helpful materials are also made available on the table: panels, assessment dossiers, the comparative matrix, aerial photos, maps of public or private properties and, in addition, a blank map useful for collecting or drafting ideas or proposals in a visual manner. The discussion is facilitated in such a way that each of the participants is required to focus on three different aspects:

- perceptions of the former industrial site in the urban and regional context;
- the issues focused on by the project as a result of the previous workshops;
- the needs/expectations/questions aimed at achieving a regeneration programme for the area.

The distribution of local stakeholders across the tables should be organized with the aim of mixing profiles and skills in order to encourage exchange between different

approaches, as well as to define by mutual agreement the priorities for intervention.

2. *Preparation of a strategic diagram*

The conclusions from each of the working tables are collected in a strategic diagram (a preliminary, visual outcome), to be later presented and explained to the other working tables. The strategic diagram is a synthesis of the key elements that emerged from the discussion, as well as the first draft for development guidelines.

3. *Synthesis of approaches, key elements and orientations collected during the roundtables*

As the last step of the workshop, the strategic diagram produced by each roundtable is presented to the plenary group (all the working tables reunited). The purpose is to compare the different outcomes and to summarize the different orientations emerging from the evaluation of the test designs. The strategic diagram indeed forms the basis for the definition of the planning recommendations, prepared after the workshop and representing the final outcome of an inclusive process.

Test-design workshop agenda

The success of the test design workshop is strongly tied to high-quality organization. Three useful steps in planning workshop events are:

1. *Select stakeholders*

The selection of the thematic expertise and local knowledge to be involved in the workshop must encompass political and administrative stakeholders, as well as representatives from the economic, social, environmental and cultural spheres.

2. *Set the working agenda*

The working agenda has to be as simple and as condensed as possible, possibly setting the workshop on a single full day to engage and involving the largest possible number of stakeholders.

3. *Plan times and methods of the test design workshop, such as:*

Morning session

Welcome and greetings; introduction of the stakeholders and participants involved in the workshop; introducing analysis and basic knowledge available for the areas; organization of working tables, arranged by theme or by type of stakeholder.

Afternoon session

Working session at the tables, using the test design on the table to spark discussion of the characteristics and impact of the proposed transformation; final presentation of the results in a plenary session; final synthesis (oral, perhaps with visual aids) of the aims proposed and the issues emerging, in order to figure out the planning recommendations.

The comparative matrix as a tool for selecting test designs

To select the most representative test designs for the workshop, a comparative matrix has been developed as a key tool. This is effective for two reasons: first it helps to break down the complexity of each design into essential, readable elements, and secondly it helps to directly and rapidly compare different proposals both as a whole and as single components. A first step is to identify the thematic layers through which the design needs to be read, mainly infrastructural, environmental and settlement systems. Simple graphics are preferred, to help non-experts to be involved in the reading process. The matrix is therefore created by placing the individual thematic layers along the Y-axis and

figure 3: Visual designer's drawings about the key results of co-design workshop



the different projects along the X-axis, which provides a three-way reading leading to different considerations and evaluations. Above all:

- in the grid, the reading of a single box permits an immediate assessment of the consistency or of the qualitative relevance of the project on the basis of a specific design element;
- reading horizontally permits a first evaluation of a specific topic used in the various projects;
- reading vertically helps in gaining an effective understanding of the overall project by breaking down its constituent elements.

Finally, the matrix should be considered as a frameworking tool that must necessarily be declined in the various regulatory, administrative and local realities in which the project is located. This involves a careful analysis of which components have to be selected before proceeding with the definition and construction of the matrix. In this way the matrix provides a comparative tool for different design proposals, helping to select the three alternative proposals used in the test-design workshop.

In the final roundtable, the shared outcomes of the discussion - common to the different working tables - are summarized in a report that will help in drafting the final summary diagram (key map), as well as in putting together the planning recommendations.

Annex 3 ::

Partner portraits

- 154 Technical University of Munich
- 155 BSC, Business support centre L.t.d. Kranj
- 156 University of Verona
- 157 Polytechnic University of Milan
- 158 Vienna University of Technology
- 159 LAMORO Development Agency
- 160 University of Ljubljana
- 161 Architecture, Urbanism and Environment
Council of Vaucluse department
- 162 E-institute, institute for comprehensive
development solutions
- 163 Registered association Styrian Iron Route





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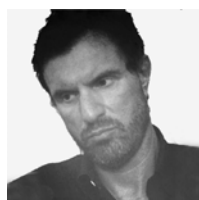
ITALY

The Department of Architecture and Urban Studies is a thematic and interdisciplinary research institution of the Politecnico di Milano, established in January 2013. The DASTU was selected among 180 Italian Departments and funded by the Ministry of University and Research (MIUR) for the period 2018-2022 as part of the "Departments of Excellence" initiative, focusing research on territorial fragilities. The Department carries out research, design experimentation and training activities in the field of architectural and urban design, spatial planning and territorial governance, urban policies, preservation and intervention on the built and natural heritage, historical and critical interpretation of architecture and the city. It is one of the most important research structures in Italy in the field of the disciplines of the city and territory, integrated in a strong international network of centres of excellence and open to different forms of co-operation with institutional and social actors at the local, national and international levels. DASTU is a member, among others, of the Association of European School of Planning (AESOP) and the European Urban Research Association (EURA).



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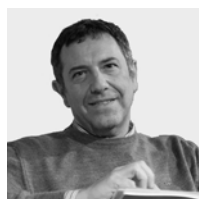
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