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# CATALYTIC LIVING. CREATIVE MICRO-ACTIONS ON FRAGMENTS OF THE CITY AS A TOOL TO TEACH ARCHITECTURE

Lola Ottolini, Eleonora Bersani

*Politecnico di Milano (ITALY)*

## Abstract

Currently ongoing at the AUIC School of Politecnico di Milano, the Workshop "Catalytic living" is aimed at undergraduates of the Master's Degree - Course "Architecture-Built Environment-Interiors".

It is a multidisciplinary didactic experience that tries to raise awareness and motivate students with regard to their active role in the participatory re-design of collective urban spaces. In the current cultural scenario, deeply scarred by the effects of the pandemic, the idea that configuration of everyday places can actually affect both the quality of life of the people living there and the dynamics of creating a sense of community, even more essential today, has become much stronger.

Living is interpreted in its broadest sense, it is characterized by the attribute "catalytic", originated from the term "catalysis" which indicates, in chemistry, the phenomenon in which a substance changes the speed of a reaction. The formula "Catalytic living" is then associated with other keywords which define more specifically the scope of application, such as: micro-actions in fragile contexts, participatory actions, urban interiors, visual arts, learning from practice.

The educational experiences involving the students deal, in a participatory way with the involvement of local communities, with a series of design experimentations that lead to the tangible realization of small punctual works. These are aimed at reactivating collective spaces inside buildings or open spaces, laying in condition of environmental or social fragility.

These are creative micro-actions, able to trigger transformation processes that make such spaces immediately usable, stimulating in those who live there a process of knowledge, re-appropriation and care and suggesting new uses: "catalyst" projects, indeed.

The educational experiences are designed overcoming strictly academic boundaries and are organised on direct collaboration both with "Third Sector Associations", namely with cultural associations and artistic unions already operating in the area, and with Local Agencies willing to support the tangible implementation of the designed creative actions.

In general, these are micro-scale works that may be able to promote the implementation of informal, flexible and interdisciplinary practices, specific for a way thinking that considers the project as a temporary and experimental action.

Their limited duration in time, the articulation of creative micro-actions and the desire to involve as many people as possible, both in the design and in the implementation and dissemination of results phases, encourage collaboration between experts from different disciplines and enhance a mix of unconventional ways of expression.

This paper aims to share the first results of the workshop currently led by the authors and to outline a possible development strategy of this pedagogical approach which identifies in direct and concrete experiences a tool for an effective, albeit small, transformation of collective urban places. At the same time, it could be a tool to define and spread local identities-respectful modalities of intervention on urban micro-space. Furthermore, the actions investigated and experimentally proposed by the research are easily replicable since they are able to catch and decline the specificities of the different contexts in which they are inserted, and can represent a convincing example of good urban regeneration practices applicable to the several fragile fragments of our cities.

Keywords: urban activation micro-actions, participatory actions, creativity and experimentation lab, public open spaces, urban regeneration, cultural innovation.

## 1 INTRODUCTION

When planning the educational project "Catalytic Living", the Authors interpreted living in its broadest meaning, that is, "having a habit of a place" and characterised it with the attribute "catalytic", borrowing

the term "catalysis" from chemistry in order to investigate and identify the phenomena which might trigger and accelerate urban transformation processes that respect the places and people who live in the places to be redesigned. They then associated the "Catalytic Living" formula with other key words, such as micro-actions in fragile contexts, participatory actions, urban interiors, visual arts, learning from practice, so defining its scope of application in a more specific way.

The educational experiences proposed to the undergraduates of the Master Degree - Course in Architecture - Built Environment - Interiors at the Politecnico di Milano included, in participatory form and with the involvement of the local communities, a series of design experiments aimed at the concrete implementation of small-scale interventions for reactivating collective spaces inside buildings or outdoors, in fragile environmental or social conditions. These were creative micro-actions capable of making these spaces immediately usable, of stimulating in their inhabitants a process of knowledge and identification, a desire for re-appropriation and care, and also of suggesting new uses and further developments. "Catalyst" projects, indeed.

The proposed theme is one of the potential theoretical insights and one of the possible fields of design experimentation related to the more general subject of the architectural project as a possible tool for exploring and designing urban places characterized by fragility and/or physical and/or cultural marginality, in buildings and collective open spaces: a project framed in a broad vision of urban regeneration and social innovation, but that works on a small scale, trying to transform these places by implementing temporary micro-actions that reveal their vocations and potentials.

The findings of several preliminary studies [1] [2] make it clear that the elements which circumscribe the scope of investigation of Catalytic Living can be summarised in three key concepts: the temporary dimension of the projects, their location in fragile places, i.e. places that are capable of changing their status as a result of unexpected accidental events (<https://www.eccellenza.dastu.polimi.it/>) and the multi-level process of participation and involvement used for their execution. But what really stimulates the advancement of the research is the fact that for some years, and more and more frequently, this type of experience consisting of the redesign and transformation of urban spaces has already been used in many parts of the world, by collectives, committees, cultural associations and freely formed groups of citizens, with an increasingly documented success rate.

In general, the success of these projects depends on the ability of the promoters to engage people, residents and non-residents, in the different phases of the process, from its conception to its definition, to its realisation, and on the ability of the project to reveal, even if only for a short time, the potentials that a different use or design of the place can offer to the life of the resident community.

Purely by way of example and in an inevitable process of simplification, one notable example of the flagship experiences in Italy and other countries are the initiatives of the Boa Mistura Collective of Madrid, which uses painting to redevelop fragile and marginal environments, such as in the case of the LUZ NAS VIELAS project (<https://www.boamistura.com/proyecto/luz-nas-vielas/>) in the Favela Vila Brasilândia in Sao Paulo, Brazil. In 2012, this triggered a process of reactivation of the urban settlement, with the involvement of the resident community, and it is still active today. Another just as interesting experience is one developed thanks to the tenacity of two enlightened citizens, who since 2010, with the involvement of artists, students and artistic collectives, have been transforming a semi-abandoned village in the Sicilian hinterland, Favara, into the new FAVARA CULTURAL PARK (<https://www.farmculturalpark.com/>), a cultural centre dedicated to contemporary art. Last but not least, the projects of Orizzontale, in Italy, also deserve a mention. It transforms disused spaces through the participatory construction of temporary installations. One notable example is ICEBERG ([https://www.orizzontale.org/portfolio\\_page/iceberg/](https://www.orizzontale.org/portfolio_page/iceberg/)), which has animated the suburban neighbourhood of Marranella in Rome since 2017.

These experiences, as well as all those studied in the research phase of the educational project "Catalytic Living", are strongly influenced by the locations in which they are set, and it is precisely the physical characteristics of the locations and the reactions that their transformations trigger in the resident communities that define the original final forms of the physical spaces. Although they are site-specific, it is also true that their very simple conceptual structure is repeated almost identically and this is what makes them replicable from the point of view of the method used. This confirms the decision to continue along the line of research and design experimentation proposed by the Authors in the construction of a new didactic path in the training process of young designers.

## 2 METHODOLOGY

In the direct and concrete experience of students and teachers, together with local communities and their representatives, the pedagogical approach adopted by the Authors identified a tool for increasing their respective skills. At the same time, the tool also served to achieve an effective, albeit small, transformation of collective urban places and to build and disseminate methods of intervention for use on the urban micro-space that would recognise, respect and develop the local identities.

The deep meaning of the words pronounced by Mies van der Rohe in his inaugural speech as director of the Department of Architecture of the Armour Institute of Technology in 1938 was shared: "If teaching has any purpose it is to implant true insight and responsibility" [3]. In 1959, in the editorial that opens issue 234 of "Casabella-Continuità" [4]. Ernesto Nathan Rogers also underlines the risk of an architectural teaching approach not coherent with real life and invites his readers to graft their approach onto the world that lies outside the university, establishing relationships and synergies with it and innovating its tools to grasp the needs of a cultural context in continuous transformation.

The educational project "Catalytic Living" was built by venturing beyond the strictly academic boundaries in place, and structured based on the direct collaboration both with Third Sector bodies - in particular Cultural Associations and artistic collectives - that already operate on Italian soil, and with local authorities willing to share, support and accompany the concrete realisation of the planned creative actions. Generally speaking, micro-scale interventions were proposed to encourage the implementation of informal, flexible and interdisciplinary practices, typical of a perception of the architectural project from the point of view of temporariness and experimentation. The intent to encourage collaboration between experts from different disciplines and to promote a mix of skills and unconventional forms of expression was supported through the attribution of certain specificities to these interventions: their limited duration in time, the articulation of diversified creative micro-actions and the possibility of involving as many people as possible, in both the design and implementation phases and in the dissemination of the results.

In the educational project it was proposed to the undergraduates that they work by firmly interweaving research activities and design experimentation, in fruitful reciprocity. The first step was to investigate and collect designs of catalytic actions - regardless of whether they had been realised -, which might form a sort of repertoire of common references to be shared not only within the working group, composed of teachers and students, but also on a broader level, within the international scientific community and among those who, in the community, intend to undertake the de-signing of new experiences.

The lack of an organic corpus of documentation emerged from this first research activity: critical reflections on the theme of catalytic living are still few and far between in conventional dissemination channels, such as magazines or as a few fundamental books [5] [6], and are mainly spread through social or online platforms.

The identification of significant case studies, their analytical and critical interpretation and their systematization aimed to construct an Atlas of references, ordered according to five main thematic areas, each of which would direct the objectives and methods of action. These thematic areas were chosen on the basis of the results of previous preliminary research applied to the area of catalytic living by the Authors and, in particular: education/training, art, recreational/sporting activities, health/wellbeing and social agriculture. Then, in parallel with the start of the experimental design activity, each project team (for each thesis, one, two or three under-graduates) furthered the research applied to one or more thematic areas depending on the general strategy identified to trigger the specific process of knowledge, re-appropriation, transformation and care of the chosen territory.

## 3 RESULTS

One year after the launch of the educational project, which took place in September 2020 in the form of a Master Degree Thesis Workshop, results have been achieved both in the field of research applied to the theme of Catalytic Living, with the collection and critical interpretation of a significant number of case studies, and in the field of experimenting with designs of creative micro-actions. The latter are currently (September 2021) being perfected, with a view to achieving their concrete implementation in the coming months.

### 3.1 Upgrading the research applied to the theme of Catalytic Living

Following the research applied to the five thematic areas of Catalytic Living and the theoretical in-depth study that each project team carried out in line with its own general strategy of intervention, an "Atlas of Catalytic Living" was created. It was structured as a sort of open and implementable file, in which each catalytic urban micro-action experience is analysed on the basis of a format articulated according to criteria/questions that highlight the aims, processes and effects of the experience itself. Following its summary description in a brief abstract and the listing of the fundamental identifying data (title, designer, whether it was realised, when and where), it is presented through a few key words that specify its essential elements, a synthetic drawing that shows the final form of the physical space and an iconic image. The questions answered in the form identify the actors of the experience in the different phases (who is the main contact, who had the idea, who found the resources, who managed the project, ...), as well as the direct beneficiaries and the people involved in the project. They also clarify whether the experience is part of a network or whether it interacts with networks already active in the same place or with a wider network, what the catalytic action is, i.e. the action that triggers the transformation process, what the consequences of the catalytic action in transforming the physicality of the places are, what goals it sets and how it is actually deployed.



Figure 1. Pages from the "Atlas of Catalytic Living".

Launching the construction of the "Atlas of Catalytic Living" involves teachers and students in a project in the making, which is a preamble and support for the second phase of the didactic path, that of project experimentation. But above all it is an opportunity to contribute to the advancement of scientific research on an extraordinarily topical subject also with tools that are more in keeping with its actual nature. The Atlas is in fact managed through an interactive virtual padlet that enables the continuous updating and real-time dissemination of the research findings. It is a streamlined tool for sharing interdisciplinary knowledge and will soon become a real digital platform for hosting dialogue among all stakeholders.



Figure 2. Model page of the "Atlas of Catalytic Living".

### 3.1.1 Ten Master Degree theses

At the moment (September 2021), ten Master Degree Theses are being prepared by fifteen undergraduates, who have chosen to work individually or in groups of two or three people.

The territories to which the project activity was applied were Milan, Lodi, Lucca, Bologna, Venice and Riccò del Golfo di La Spezia, with the overall involvement of 2 public bodies, 7 third sector bodies, several Italian and foreign university training institutes and some local production companies. In addition to the two research phases described in the paragraphs above, the undergraduates took on investigations and field surveys, collected graphic and iconographic material and participated in round tables with local stakeholders. These activities were performed after they had chosen one of the places proposed by the teachers following the preliminary discussions held with public and private bodies in the months preceding the start of the Thesis Workshop, in order to structure the sharing of the project path.

For each place, and with the relative institutional contact people, conditions favourable to the effective project experimentation of the prefigured catalytic micro-actions were created. The undergraduates moved in different directions: for example, reactivating the space in front of a small church in the historic centre with a theatrical performance, setting up a small travelling museum to publicise the vibrancy of the local producers with the direct involvement of the latter, identifying in abandoned indoor spaces suitable venues in which the many small local associations could make their voices heard, designing a floating and travelling platform as a cultural space for communities aware that one was lacking, preparing gardens and courtyards to encourage educational experiences outside school. In all cases, the idea was to organise small "spark" events that could trigger the local identity rediscovery processes mentioned above. And the project strategy which each thesis would then develop in full was centred on these processes.



Figure 3. Three catalytic actions in Riccò del Golfo.

## 4 CONCLUSIONS

The teaching experience proposed in the Thesis Workshop "Catalytic Living" is part of the great ferment of proposals and actions that work through small gestures and small temporary installations in fragile urban spaces, in different locations around the world.

The coexistence of the work performed in the areas of research and analysis on the experiences in progress merged in the "Atlas of Catalytic Living", the experimentation in the field, with the realization of concrete micro-actions in the chosen locations, and the direct collaboration with the different interlocutors who live and work in those places configures the Thesis Workshop as a training opportunity that foreshadows the activities students will carry out, as professionals, once they have completed their studies. It also confirms that the experiences of Catalytic Living are an excellent example of good practices of urban regeneration applicable to fragile fragments of our cities.

Enhancing the "sensitivity" of those who are now studying and will later concretely operate on the collective space, is an essential challenge for anyone involved in teaching architecture. And enhancing this sensitivity means teaching them how to grasp, reveal and express the identities and specificities of the different places that they choose to design. It is about 'taking care', acting concretely, triggering

processes of transformation with small actions. It is also about identifying good practices to succeed in engaging those who live in those places every day in those redesigning processes.

It therefore means starting, on a small scale but in a concrete way, to become aware of universal themes related to the quality of life of people, a quality on which the characteristics of the physical space can have a profound effect and on which, therefore, the work of the architect can also have a strong influence.

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