



TEACHING-LEARNING-RESEARCH: DESIGN AND ENVIRONMENTS

- **Paper / Proposal Title:**

Moving from learning to doing: an educational experience of temporary tactical action

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- **Abstract (300 words):**

The paper describes an educational experience of tactical urbanism in the city of Torino (Italy) developed in the framework of a students' team called AUT (Autocostruzione Urbanismo Tattico), found at the Politecnico di Torino. AUT is a "place" to build architecture in a real environment through hands-on activities carried out by the students in cooperation with academic tutors and by involving a network of external stakeholders. The goals of the design-and-build activity are both immaterial and material: to practice a learning by doing approach and to experiment new solutions for the transformation of fragile urban spaces with low-cost but high-impact actions, through ephemeral and temporary architectures.

In this context, AUT participated and won a public call held by the municipality of Torino to activate underused green areas by organizing social and cultural events, joining a network of local actors such as associations, artists and activists.

The opportunity was given by the reopening of an historical social hub in the main urban park of the city that has been abandoned for years, creating a void in the urban tissue. By organizing a construction workshop with students and professionals, AUT built a site-specific micro-architecture - with function of physical and social requalification - to host different inclusive events (concerts, public hearings and meetings, talks, ...) creating a connection between the public space and its inhabitants.

This experience let the students take full responsibility of the process and learn how to realize and manage a small-scale project, how to harmonize architecture experimentation with technical aspects, being able to respond to real needs, to respect urban plans, transforming an exercise of design into a tactical civic action. By funding students' initiatives, Architecture Schools can have a proactive role in civic involvement, improving the quality of urban life as well as opening new opportunities to upgrade competences and to connect universities, professionals and communities.

• **Author(s) Biography (200 words each):**

Silvia Tedesco (1977), Ph.D. and Researcher in Technology of Architecture at the Department of Architecture and Design, Politecnico di Torino, Italy.

She teaches in the MSc degree course in Sustainable Architecture, Politecnico di Torino, especially in technological design laboratories. With their students she adopts problem based learning methods and challenge driven approaches with the aim, on the one hand, of experimenting with new teaching and learning modalities and, on the other, of providing answers to the real needs of the construction market.

She carries out research activities mainly related to: experimentation and prototyping of circular materials and products for the building sector starting from industrial waste of other sectors; integration of Nature Based Solutions in the project; defining strategies for outdoor comfort in urban public spaces.

She has participated in research projects on European funds, developed in collaboration with companies, aimed at industrial research and development of innovative technological materials and components for architecture.

She has coordinated technology transfer activities as a co-founder of Growing Green s.r.l., Spin off of the Politecnico di Torino, and she has patented a modular and eco-friendly Living Wall System.

She is author of scientific publications such as: "Experiment, develop and provoke: the prototype as an instrument of design" (Techne 18/2019); "All you can't eat: research and experiences from agri-food waste to new building products in a circular economy perspective" (Springer, 2019).

Elena Montacchini (1970). Associate Professor in Technology of Architecture at the Department of Architecture and Design, Politecnico di Torino, Italy.

Since the academic year 2002-2003 she has carried out her institutional teaching assignment by holding courses, as head teacher and lecturer within the Faculty of Architecture of the Politecnico of Torino, in the course of: Architecture and design - Master of Science in Architecture - Master of Science in Gardens, parks and landscape; since 2011 within the Collegio of Architecture, in the BSc degree program in Architecture and in the MSc degree program in Architecture Construction and City, Architecture For The Sustainability Design. She has also been involved in teaching in post-graduate specialization courses at other universities and public and private bodies.

The scientific activity has involved a role as coordinator and active participant in European, National and local research projects.

The research activity was structured around different thematic areas: energetic and environmental quality assessment of buildings and open spaces; integration of user psycho-emotional and social needs within the design; technological integration of vegetation in design; development, construction and monitoring of low environmental impact technical elements and products, including prototyping activities and enterprise start-up.

The results of the research are attested by several publications and by the participation and presentation of reports at national and international congresses and seminars.

Carlotta Gerbino (1994). Architect and co-founder of the AUT (Autocostruzione Urbanismo Tattico) student team. Graduated in 2019 with honor in Architecture Construction City at Politecnico di Torino (IT), with the Master's Thesis "Temporary Space: the fourth dimension as design tool".

Since 2019 she carried out didactic activities for students at Politecnico organized by AUT, such as the "DIY Architecture" Lectures with international guests like Collectif ETC (FR), Archistart (IT), Arch. Matteo Dondé (IT), and building workshops with experienced professionals such as Collettivo Orizzontale (Winners of the Young Italian Architecture Awards at Venice Biennale 2018). The team's building activities are always focused on didactic, social and cultural aspects characterized by a strong cooperation between AUT and local communities, which can be attested by the projects Tablò (temporary stage in Parco del Valentino, Turin) and Col-legno (didactic garden for the social community Orto che Cura in Collegno, Turin).

She acquired her building and design skills participating in different workshops held by Collettivo Orizzontale (IT) and Collectif ETC (FR), building temporary wood and iron structures for re-activating abandoned public spaces, with "Mulino" in Cuneo (IT), "Bahia Blanca" in Levice (IT) and "Arca" in Alba (IT).

She currently manages AUT's research, and works as architect in an Architecture Studio in Turin.

Tommaso Ferraris (1991). Architect and co-founder of the AUT (Autocostruzione Urbanismo Tattico) student team. Graduated with honor in 2019 at the Politecnico di Torino (IT). Author of the Master's Thesis "Temporary Space: the fourth dimension as design tool".

He has studied and worked in Spain, Finland and Argentina. He has a long experience in various design & build workshops, where he had the opportunity to work with internationally known architecture firms such as Orizzontale, Camposaz (IT), SPORTS collaborative (USA), Brett Mahon (IE), and more.

With AUT, among many activities, he carried on and led various design & build workshops such as *Tablò* (2019) and *Col-legno* (2020), small interventions characterized by a strong presence of the social aspect in the project.

Currently he leads AUT and works as an architect in Turin, where he designs and realizes structures with laminated wood and CNC machines.

He has a strong interest in the constructive aspect of architecture and firmly believes in the benefit of the learning-by-doing approach starting from the years of education.