

# Urban Regeneration Ecological Restoration Civic Resilience

**Cool City is a multidisciplinary research/action project that proposes urban experimentation aimed at achieving the following objectives:**

- **resilience to climate change - urban regeneration - urban re-naturalization - protection and increase of biodiversity**

The study focuses on the metropolitan area of Naples. It aims at the recovery of dispersed and no-longer-used water to mitigate the rise in temperature at a city level. Cool City aims at the improvement and re-functionalization of the abundant spring waters that have characterized the hydrogeological history of the Neapolitan city and that today are channeled into sewers or spills connected to the sea. In this regard, Cool City brings together expertise in the fields of urban design, air pollution, hydraulic systems, air conditioning systems, environmental engineering, biology, urban sociology, archeology and geology.

## The climate changes. And the cities?

Historical and consolidated cities react slowly and with great difficulty to changes in society and new lifestyles. At the same time, we find ourselves forced to find rapid and economical solutions to unique combat climate change to limit the environmental impact of CO2 emissions, evaluating interventions by focusing on the environmental factor and proposing appropriate solutions to urban and variable needs. However, how does one intervene to adapt the historical centers of European cities to the changed climatic characteristics? How can one operate effectively and in compliance with the pre-existing factors?

Cool City Lab proposes a debate on these issues, opening a discussion that involves various disciplines to analyze the multiple nuances of climate change and bring attention to the territory of Naples as a place of experimentation. Cool City Lab consists of lectures, round tables, guided tours, tutorials, collection of data, and in-field experiences aimed at the editorial production of the Water Atlas of Naples. It is a mapping of the dense network of waterways forgotten over time: rivers, streams, springs, and abandoned stretches of ancient aqueducts where the water continues to flow today.

In the current historical phase, characterized by climate change and exponential population growth, a careful evaluation of the available and necessary future resources is increasingly urgent to avoid extremely serious problems. These considerations, essential for most of the planet, find reasons to exist primarily in a highly urbanized reality like that of Naples. The metropolitan city is lacking in both green and blue areas; for this reason, it is struck by the peaks of the "heat islands" in the summer months. Cities can represent the fulcrum of climate action for the mitigation of temperatures. However, it is only through processes of knowledge and active involvement on the part of the inhabitants that we can effectively work to promote sustainable environmental policies.



www.coolcity.it

Cool City undertakes a virtuous and ambitious bottom-up path that kick-starts adaptation and resilience plans. The project starts with these considerations and initiates a pathway to stimulate local policies and citizenship towards a complete discussion on the benefits that a comfortable habitat can favor in human life.

Cool City Lab proposes multidisciplinary reasoning on the use of territorial water resources to guarantee sustainable environmental comfort, mitigate the consequences of climate change in cities and protect biodiversity. In this light, Cool City aims to meet the United Nations' sustainability goals (SDGs - Sustainable Development Goals). The Galli law (updated D.L.vo 11th May 1999 n. 152) defines "all surface and underground waters as a public good to be used according to solidarity criteria and whose safeguard is of common interest." Cool City proposes itself as a tool to spread the notion of water as a common good to safeguard the right of current and future generations to enjoy an intact environmental heritage. Cool City envisions the use of water that avoids waste and increases the livability of the environment, thereby ensuring biodiversity.

## Why Naples

Created between Vesuvius and the Phlegraean Fields, in a volcanic area that has been active for at least 47 Ka BP, the Bay of Naples has been inhabited since Paleolithic times when tectonic phenomena shaped a morphology congenial to animal and plant life.

At its founding, Neapolis could accommodate between 15,000 and 20,000 inhabitants and their needs were met by numerous springs that flowed within the perimeter of the city walls.

While right outside it, rivers and lakes allowed abundant harvests.

Naples represents a hybrid typology city that combines both North European and Mediterranean characteristics. Several formal and cultural layers are recognizable in the city, from the Greek-Roman times to the postmodern neo-kitsch: The antique center with its "ippodameo" masterplan based on "cardi" and "decumani," the medieval town with its districts (Borghii) and castles, the several urban expansions, the neo-classical edifices (the first classical style-expression after the discovery of Pompeii), the fascist visions such as the "Mostra d'Oltremare," the uncontrolled urban speculation after world war II and the built-up environment and the historical Neapolitan culture together represent a sort of concrete model of chaos theory applied to urban systems. In this light, Naples is one of the most provocative sites for research concerning contemporary urbanization. Every square centimetre of the city is frantically inhabited. About three million people move, consume and live in one of the most extensive metropolitan territories in Italy. Naples is dense. A peculiar density made up of different urban agglomerates yet it is still possible to describe it as a single homogenous identity.

The city is a world of colors, sounds, spatial and social interactions produced by sudden transformations and constant mutations of cultural fluxes.

The city continues to maintain a strong identity, while historically capable of absorbing very different influences.

**LAN**  
Laboratorio architettura nomeade  
ass. i.a. laboratorio architettura nomeade  
piazza de nicola 46-80139 napoli  
info@lanlab.org - www.lanlab.org  
tel. +39 081 4592420  
d.f. 9207670636

Studying and designing Naples is a way of participating in the challenge of sustainable urbanization. It is an ongoing process familiar to many other mega-urban structures like in Hong Kong, Capa, Mexico City and Los Angeles.

Cool City is a research focusing on contemporary urban materiality and it studies the relationship between public and private, the deterioration of abandoned areas, the potentiality of interstitial spaces, conflicts, tensions, auto-organizational expansions, residues, and occupations and the non-institutional character of many urban development processes.

## Cool City Lab Teaching Philosophy and Learning Outcomes:

LAN's workshops supply the tools to examine the precarious existence of the city and its potentially extreme transformations through experiential methods of analysis and design that challenge participants to confront themselves with the complexity of the context of one of the most fascinating cities in the world. The role of the learning process and new help students to become leading players in their projects by strengthening their ability to explore specific domains.

Cool City Lab will investigate climate, environmental, economic, social, scientific and cultural issues. With the assistance of the LAN support team, the students will acquire knowledge of these topics via an experiential approach, research, analysis, synthesis and design production. The "learning by doing" approach consists of understanding the role of a constructive definition that can be shown, discussed, examined, probed and admired and that cannot be reduced to the transfer of notions and knowledge.

The theory of constructivism helps to pursue the objective of teaching in such a way as to offer the greatest learning with the minimum of teaching. This allows the empowerment of students who quickly acquire a productive approach to learning and design in these forms of workshops.

The role of the teacher is in stimulating students to face first the individual own passions and interests and looking for a formalization from which the research will commence.

Within this framework, the teacher becomes a facilitator: learning and design in these forms of workshops cannot be reduced to the transfer of notions and knowledge. He/She does not give indications or answers but helps students to find their own path, stimulating their ability to explore various specific domains.