

From urban district to eco-districts: implementing the digital and environmental transitions

Overcoming the sociological dimension of an environmental plan made of policies, models and practices that are not always effectively transferable to the local socio-economic context: this is the key objective of the work carried out by Mario Losasso, Roberto Bologna, Elena Mussinelli and Fabrizio Tucci in their study:

“From Urban Districts to eco-districts”, available at:

<http://www.sitda.net/biblioteca-sitda.html>



The study & its keywords

The climate and pandemic crisis have been disrupting the notion of separated categories between environment, health and humans with a subsequent overlap between the concepts of protection and safeguard. Hence the need to build a collective and shared knowledge to understand critical issues and design solutions capable of addressing the societal demand for quality and usability of the environmental spaces, to be tested and validated through simulations and experimental tests.

“In this site-based urban project, financed by the Italian Ministry of University, we made an effort to elaborate different levels of definition and technical analysis focused on the built environment and its surroundings, starting from the identification of emerging issues, considering the expectations and lifestyles of users. Ageing people represent a specific population target subjected to extreme vulnerability due to heat wave phenomena. Thus, the challenge for the eco-transition of urban district becomes also a challenge for healthy and active ageing, including specific qualitative-quantitative targets, that might represent a reference to check the conformity and appropriateness of the adopted solutions through "smart" products and services based on ICT, automation and AI technologies.” says Mario Losasso, who master-minded the effort at Federico II University.

This approach is in line with the interconnected Sustainable Development Goals of the UN Agenda 2030, implemented by the European Green Deal.

The results presented in the study: “From Urban Districts to Eco-districts” provide an operational support to translate some key principles in technical implementation on the ground, also underlining limits and opportunities of the solutions in the specific frameworks of Italian and European cities.

The case studies of Milano, Firenze, Roma, Napoli, Aversa and Reggio Calabria return an articulated cross-section of diversified urbanization conditions, within which not only peculiar environmental climatic criticalities are revealed, but also specific declinations of concepts such as periphery, periurbanity, urban decay; the dynamics of the historical formation of the sites and the ongoing settlement and anthropic pressures are also varied, as are the morphologies, the environmental and landscape characteristics, as well as the systems of relationship between consolidated fabrics, areas of recovery transformation and territorial context of large area, and between built and open space.

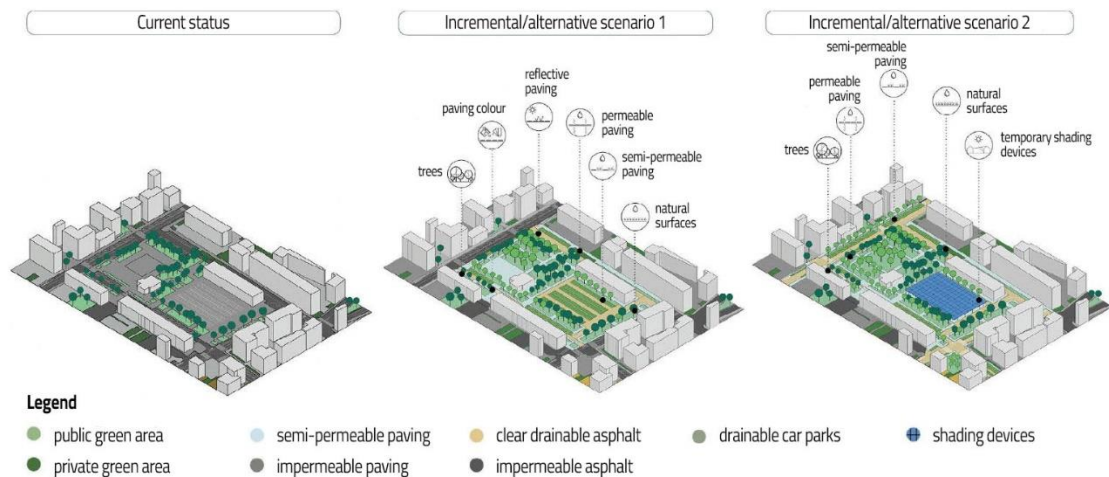


Fig. 33 - Area campione di piazza Togliatti nella sua configurazione attuale e nei due scenari metaprogettuali / *Case study of Piazza Togliatti: the existing situation and the two designed scenarios* (Source: Authors' elaboration).

An example of possible scenarios tailored on a sample location

The project coalition aims to create a thriving environment which promotes and implements environments that are smart, sustainable and healthy for persons and places, in line with Net4Age-Friendly COST Action and SHAPE network.

The team involves partners from six different Universities (Università degli Studi di Napoli Federico II, Politecnico di Milano, Sapienza Università di Roma, Università degli Studi della Campania Luigi Vanvitelli, Università degli Studi di Firenze, Università degli Studi Mediterranea di Reggio Calabria), that are connected with international organizations and networks such as CMCC – Centro Euromediterraneo sui Cambiamenti Climatici, University College of New York (USA), Université Paris-Est Marne-la-Vallée, University of Munich and Fondazione per lo Sviluppo Sostenibile.

The Principal Investigator, prof. Mario Losasso, added “we hope to ignite and inspire many more universities and other stakeholders to engage and support local and regional ecosystems for SHAPE environments”.

“The community is now focusing on the new Horizon Europe program as an opportunity to extend the collaborations and scale-up the model, addressing the challenges that hinder the transformation towards resilient ecosystems”, says Marina Rigillo, of Department of Architecture of Federico II University of Naples.