



POLITECNICO  
DI TORINO

# Honors thesis

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**DEGREE IN SUSTAINABLE DESIGN**

*Abstract*

**PROJECT PROPOSAL FOR A RESILIENT PUBLIC  
SPACE**  
**The Clessidra Park in Turin**

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The “Bilancio Deliberativo 2016” offered the opportunity to focus on that part of the city of Turin known as Clessidra, where the redevelopment highlighted the distance between the project and the reality.

The main factors that have left the construction site incomplete and highlighted the impossibility to realise the original project are the lack of funds as well as the rapid climate change. Every year climate change records break the previous ones and their tangible effects, such as heat and cold waves or cloudbursts, make us think about the relationship between man and climate change.

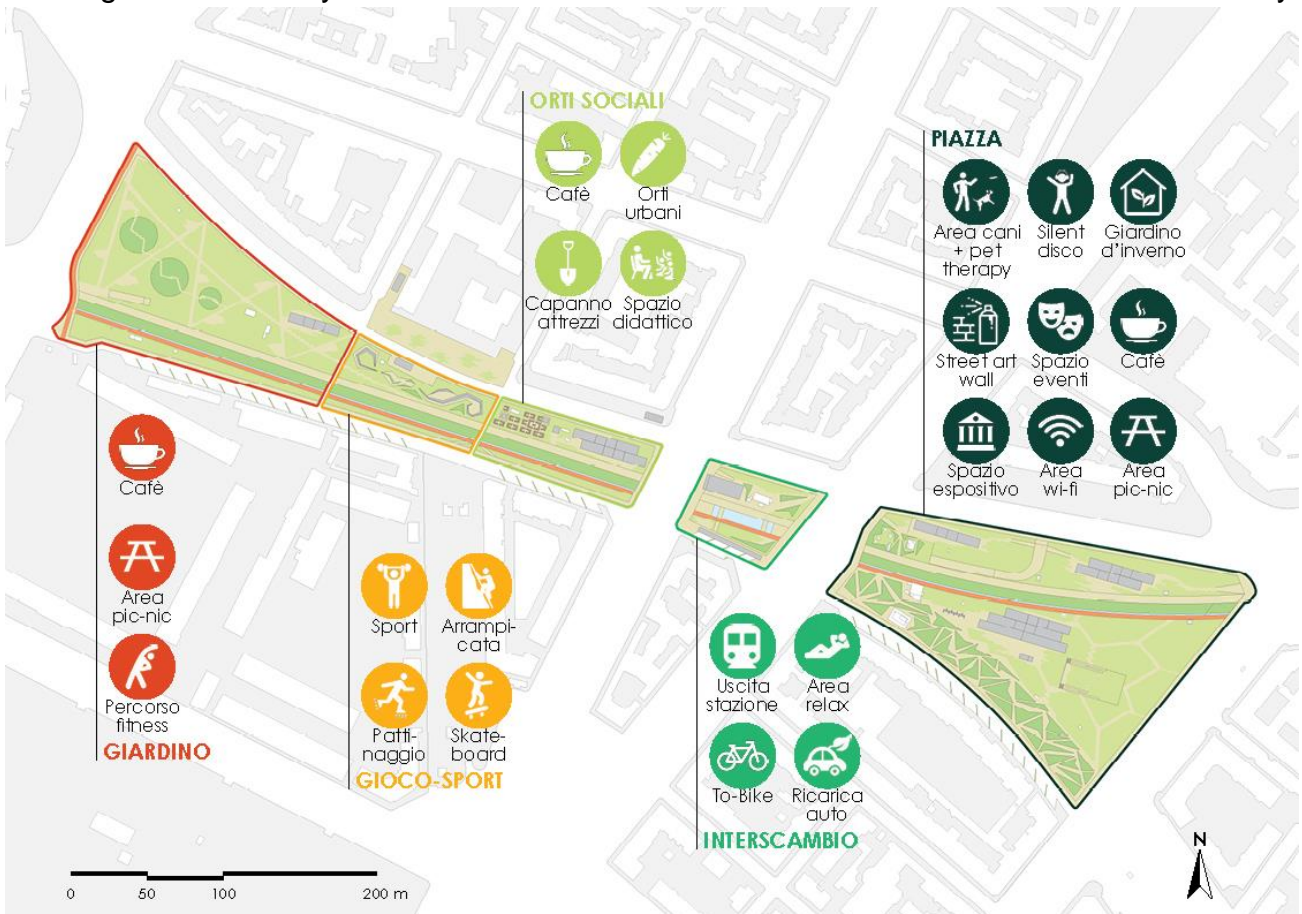
Despite many projects which do not pay attention to climate issues, this thesis focuses on urban microclimate providing a careful consideration about it.

The economic crisis and weather disruption are the sore points of a design that must include aspects of economic, environmental and social sustainability. Our approach is based on the principle of resilience as the only way to deal with this situation.

Nature can help us in our project, therefore we need to reintroduce it in our cities in order to reduce the effects of climate change. Resilient products allow us to operate effectively and in most cases with lower costs.

Unlike concepts such as energy saving, emission reduction and redevelopment, the aspect we focus on is poorly known even by the people responsible for the planning and the design of the built environment.

Starting from the analysis of case studies and extreme climatic events that have recently

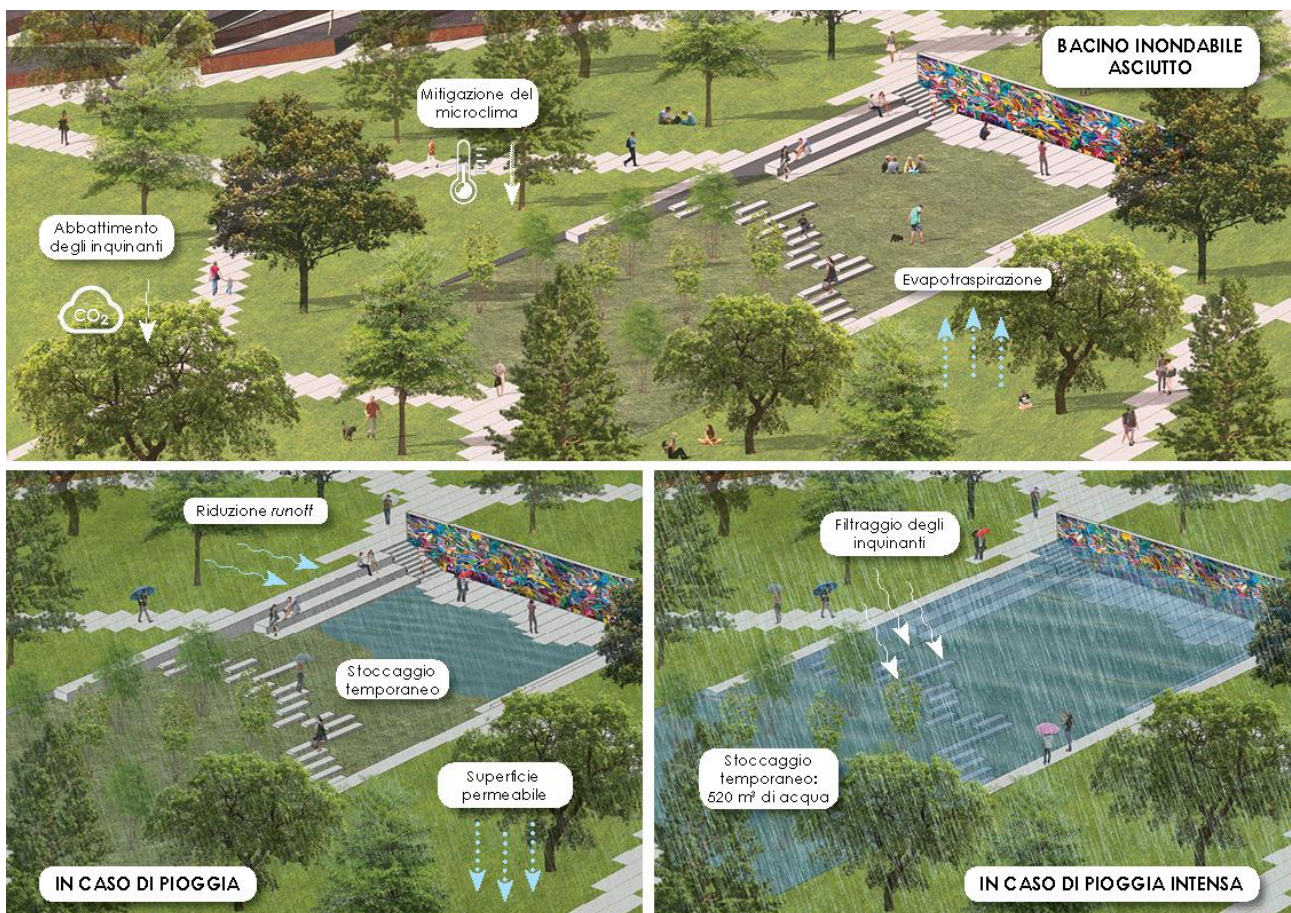




affected the international context, we have adopted planning strategies for mitigation and adaptation to climate, from the urban design to the detail scale.

The reintroduction of the nature in the urban environment allows us to deal with extreme events such as floods and heat waves and aims to reduce greenhouse gas emissions, directly responsible for global warming. Vegetation and water, which can be considered as real materials, help us improving the urban microclimate. Among the strategies adopted in the project we have permeable surfaces such as rustic and meadows, flower meadows and clay court.

Concerning water, it is possible to manage heavy rains through controlled flood areas as rain gardens, flood ditches and flood/drainage basins. These flood areas are vegetated spaces which can temporarily store a huge amount of water and then release it gradually.



The principles of sustainability employed in the masterplan have been also used in the building by applying bioclimatic criteria and water and energy-saving technologies.

In conclusion, the real innovation in this project is in its approach closely linked to the principles of nature that have been ignored for many years. Today we suffer the consequences of our attitude and, in order to avoid further economic and social losses, we must let our designers and politicians become more aware and educate them to this approach.



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