



**POLITECNICO  
DI TORINO**

# Honors Theses

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**Master of Science in Architecture for Sustainability**

*Abstract*

## **Water in urban landscape: a sustainable project for the “Ex Artiglieria santa Cecilia” in Olbia**

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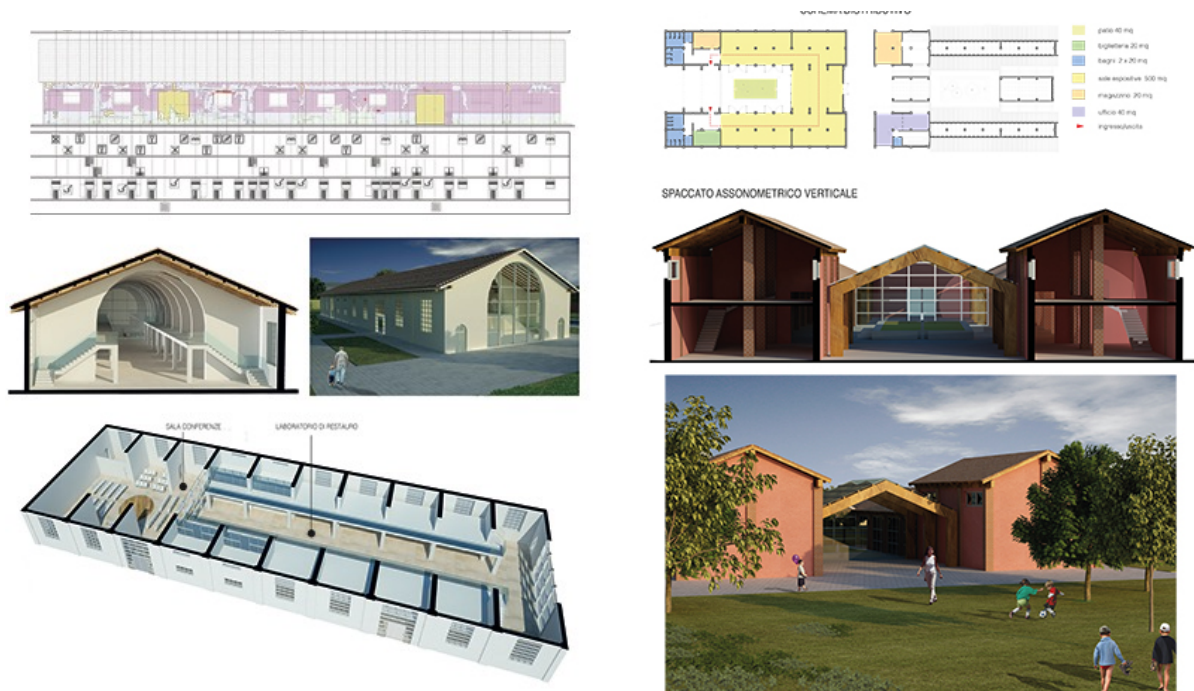
The premise of the vision that led us to the development of the thesis concerns the problems whose affects the Italian construction industry and the issues that concern the rampant loss of land that is not perceived as a finite resource. The speculation, produced by the relationship between the political and administrative power and the economic, should cease. In Italy there is a huge housing stock, the huge cultural value, historical and artistic state of complete abandonment, because we don't want to focus on the renovation of existing assets. The objective should be to intervene on the built instead on vacant land, so we can restar a sector which is suffering more than the others this time of crisis. On the thesis we work on a abandoned area located in the center of Olbia known as "Ex Artillery Santa Cecilia", in which, around 1915, were built several buildings craft stores, warehouses and military housing. The area is constituted as a total of 95,000 square meters and inside there are 14 crumbling buildings. This area is also affected by serious hydrological risks caused by the massive overbuilding of the urban conglomerate of Olbia. The results of this unbridled and not very sensitive construction to the environment have led to continuous flooding during the autumn months and compromise the safety of citizens. The result is the terrible flood of November 2013 that with 13 victims.



Water becomes an environmental and functional resource thanks to the help of the modern technologies and not : the project of the park introduces different mirrors of water of natural character (for the creation of dump areas extra river bed, fit to obviate the risks of flood and to create an important ecosystem of that river) and artificial (for the creation of tubs of harvest of the gray and black waters, here they will suffer a trial phytoremediation through the planting of aquatic arboreal kind, them they allow the purification of the water so that to be able to again be used).

To effect a program of territorial retraining increasing the collective usability, thanks to the restitution of a green lung situated in the city center. Through the restitching of the area with the urban context : numerous elements of fracture as the two rivers and the railway axle that lick up the park; inserting attraction elements for the collectivity like urban gardens and citrus grove, public green areas equipped; finally, inserting pedestrian and cycle path that connect the land to the other urban districts and they allow the entry and the fruition of the area.

To restore and to give a new function of the present buildings inside the land, analyzing the degrades, the possible interventions of restauration trying to maintain the characteristics and the native architectural of it. In particular, we are devoted to the planning of those of great constructive merit : the number 10 building, that currently used as crumbling store of important belonging archaeological recoveries and boats of Roman epoch. Creating a restoration school that can give back value to these important archaeological manufactured. The building 11/12 were a deposit of ammunitions destined to the Great War. The principal goal of the project for this building is that to create inside this an archaeological museum connecting this with the restauration laboratories and giving spaces for the exposure of the archaeological finds.



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