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SECOND SCHOOL OF ARCHITECTURE
Master of Science in Architecture
Honors theses

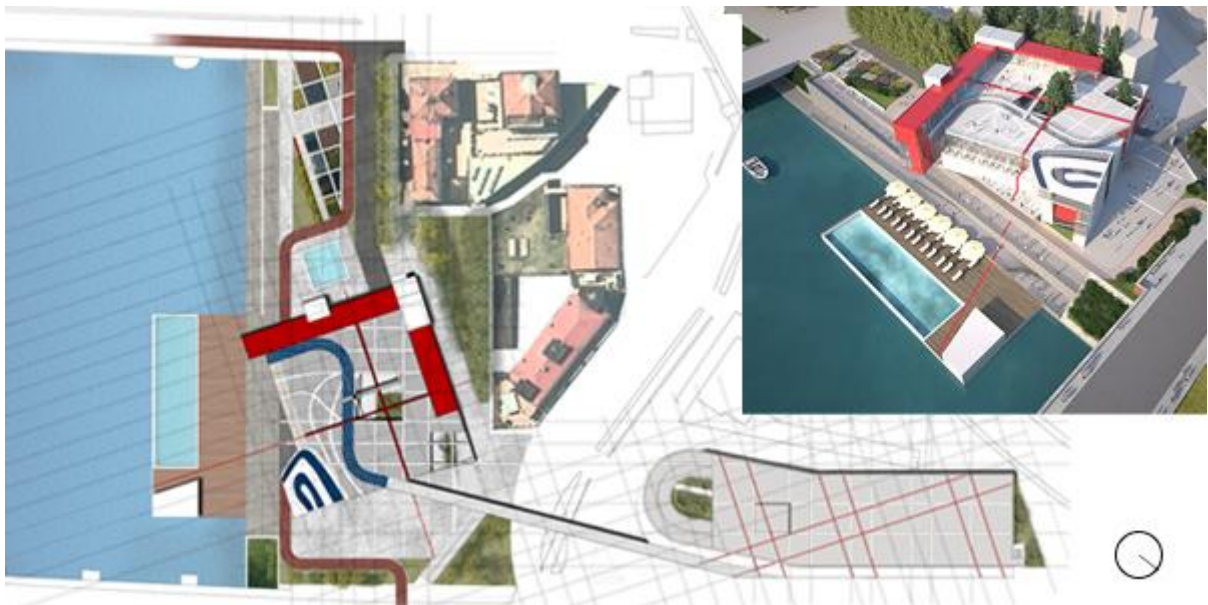
New multifunctional center in Moncalieri

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Moncalieri is a small city of piedmont region in the northern part of Italy. The project site is situated near the old town center and surrounded by the main connective roads which link this city to the other neighbor districts. The location also offers a considerable view on Moncalieri's hills and Castell. The main lot of the project is placed between two bridges of Moncalieri; New Bridge (Il ponte nuovo) and the Old bridge (il ponte vecchio) also called ponte Dei Cavalieri. Today this area, the former municipal slaughterhouse, is abandoned and covered with graffiti. Therefore, this potential site was chosen for the proposed multifunctional center of Moncalieri.



The building consists of three main functions, which can be categorized, in administrative, cultural, and services parts. The administrative part is dedicated to the offices of urban design & planning department of Moncalieri's district with additional archives while the cultural part provides a museum devoted to the history of the river Po and a library. The service section is composed of a restaurant, a bar and an assistant service part for cyclists who will reach the complex through the green cycle path all along the river Po. The multi-level car parking of this center is located on the northern part of the building which is connected to the main building through a pedestrian bridge.

The main concept of the project originates from the urban morphology study of the city. The map of the city reveals two different urban structures. The ancient part of the city has an irregular pattern with a complex road network, whereas, the suburban area, the result of a predestined design, has a reticulate texture.

The two important easily recognized axes, which are somehow perpendicular, are Pastrengo St. and road of Carignano. The other important axis consists of three parallel bridges which are perpendicular to the project's lot as well. The last axis to be considered is the river Po with its sinuous form.



According to what was implied before, two overlapping grills were created. One with a regular layout, extracted from the regular pattern of the city, provides the required space for the offices, library and archive in different levels. The other grill consists of irregular and organic curves, which remind the historic part of the city and offers the space for museum, restaurant and coffee shop. The S form Curve which crosses the building, completes the scene as it plays the role of River Po. It divides the two different patterns of the building and it functions as the passage of the museum. The whole composition reflects the same pattern of the real texture of the city and creates a patio in the center of the building.

The building is rotated about 20 degrees toward the castell of Moncalieri. A large plaza is provided on the roof where one can enjoy the overwhelming view of the castell and the hills.

The structural analysis is particularly focused on the cantilever where the cable stayed bridge was applied to guarantee the desired form. The cantilever is held by series of cables however, the weight load and other forces are transmitted to the ground through the main structure. Choosing a symmetrical structure eases this planning approach.



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