



Tecnical Report

URBAN INTERVENTION ON MILANO PORTA GENOVA STATION

UNIVERSITY OF PAVIA

MASTER DEGREE IN BUILDING ENGINEERING AND ARCHITECTURE

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Analysis and Concept

Porta Genova station, fall into an interesting context in transformation. The project area is in the heart of a district settled in its forms to the east (towards the Darsena and the Ticinese); and livelier in the new interventions to the west (towards the street Solari and the areas of Savona and Tortona). The presence of water from the Naviglio Grande and the Darsena represents an element of merit, both as a historical testimony and as a potential for design of contemporary landscape and fruition. It is an overloaded area of activities and populations, which generate conflicts with times and ways of daily life, for intensity use of some spaces (the Sinigaglia Fair, nightlife or the Fuori Salone). The area has always played the role of a barrier, with a "noble" front - outcome of the associated Berutian project to the axis of via Vigevano and the Darsena - and an unresolved relationship between the square and Conca del Naviglio / via Arena; and a "back" to the historical industrial fabric dominated by the former Ansaldo, which shows signs of irreconcilability of the road network, in particular with the interruption of the axis of via Bergognone.

The work on the area starts by considering the main street that goes on the border of the project area, and from them the main directions are tracked. In correspondence of these points, there will be placed the public spaces that will be exposed later. The project area is now composed by an alternation of voids and full spaces, so a passage is built as an axis that cuts symmetrically the voids and the full. This path is then broke in correspondence of the public spaces and directed by letting the path touch the right and the left side of the project area alternately.

The project area could host a new square in continuity with the system of collective spaces. That area in the new project, will be located in correspondence of the station building. Here there will be two new squares: the first one that is the space created by the interjection of Corso Colombo, Vigevano and Casale street, will be a square more related to public transportation. That collective space will host the tram stop (that already exist) bus stop, car sharing and bike sharing slots and the access to the metro station. The second square is linked to the first one but more inside the residential context, it works by connecting the new cultural buildings with the office building of the project area, but also collects the energies that comes from Barbavara Street by creating a connection with Tortona street. The station, intended as a junction between spaces and functions that already characterize the former Ansaldo and the new "district", could be reused for cultural and exhibition functions, information and education. The main station building inside the area will be maintained and reused as exhibition and service spaces, in order to preserve the historical memory of the railway, and this building will be integrated by two new buildings on both his sides (north-east, south-west) that will host other functions by creating a unique cultural centre.

The residential area, will host an important percentage of social housing, aimed particularly at young people, and support for neighbourhood trade, connected with a market area, that could offset the overload of city users. In this part of the project area, there will be three residential building based on different typologies:

Linear houses;

Corridor houses;

Patio houses;

Short tower houses.

These building will develop on three floors, the ground floor will host some activities as social activities or offices, the apartments on the first and second floors, will have different characteristics based on the residential block. Then the third floor will host patio houses in all the three blocks.

The commercial zone spreads all in the central zone of the project area. These commercial buildings can be divided in two main blocks: the first one develops around a waterfront area, that collects together an important cycling connection with a bridge, an area that develops thanks to a slope that connects the Naviglio's water with the commercial space and some restaurants activities. The second block, is built as a commercial gallery, developed as a tribute of that important typology of commercial building really diffuse in Milan, especially in the centre of the city.

Intervention on mobility systems and public spaces

Porta Nuova station acts as a cut, that divides Tortona district from Naviglio District, with no connections inside. The goal of this project is to create a new hinge, that allows people to use this space as a passage, but with a lot of activities inside, that incentives social life and creates a new pole of attraction for all the district around. Particular attention is given to the eco-friendly mobility, considering the existing bike lane and pedestrian paths, and increasing them by connecting the district in different points. The bike lane will connect the two parallel streets (Alzaia Naviglio Grande and the streets next to Tortona district) by a passage through one of the green areas between the residential and the commercial blocks. These green spaces host two parks, one with kids' playground and old people soft mobility, one with sensorial gardens. By passing through this space, the bike lane goes near Naviglio, and starts rising by reaching a certain height (3 meters), that allows the normal using of Naviglio and the normal circulation of pedestrian under it. This bridge helps people have a new point of view of the Naviglio Area, and helps bikers reaching the bike lane on the north, that arrives to Giussani Park. Between the commercial gallery and the cultural centre, there are two green areas, the one on the right side of the main path, is a hidden sensorial path protected by two natural walls on both sides. The green area on the left has different small buildings, that are expositive pavilions connected to the museum. The last green area is on the northern point of the area and is useful as connective point with Giussani Park.

Project details

The Residential buildings are built with reinforced concrete structure. This structure is then covered externally by a self-supporting structure of black bricks. The external skin of the buildings, starting from the first floor to the roof is made of zinc panels. (golden zinc TECU). The frames (windows and doors) are made of aluminium with double chamber glass. The walking surface of balconies are made with WPC, in order to have less problems with manutention, because of sun and water exposition of the material. Some of the zinc panels are perforated in order to let the light go inside the main frames, but softly. The flooring inside the apartments are different in the various rooms:

The living room has travertino alabastrino stone plates, the flooring follows an alternance rule that follows the direction of the WPC paving, by changing the tone of the material (light stone and dark);

The bedrooms and the corridor has a flooring realized with parquet in European cherry wood;

Bathrooms are realized with porcelain mineral gres at the entrance and Gerusalemme stone for the rest of the surface.