DEGREE IN SUSTAINABILITY DESIGN

Abstract

“Clamps” into the clouds

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Our thesis originated from the idea of enhancing the Barriera di Milano area, in the wake of projects of urban renewal supported by city administration. So we decided to focus on Officine Grandi Motori’s surviving buildings.

At the beginning we based our efforts on research, looking for inspiration and models which could help us to develop a project with strong fundamentals.

Our first concern was the planimetry and for this reason we dealt with the park development right away: not only with formal aspects, as establishing a good relationship between built and natural environment; we also took care of choosing materials and vegetation fit for the purpose and the features of the area.

In our study area green spaces run low, so our project could have positive effects from this point of view. Along the whole perimeter we put a wood in order to both close off the residential area and reduce CO2 amount, improving citizens’ life and health.

As a result, we developed the idea of some buildings deep in the green area: houses with modern organizational structures, high technological level and natural elements. The final shape of our building was the tower one, mainly for two reasons: first of all, in order to maximize the public land, and then as opposed to the typical 20th century courtyard building. So this is what “Clamps into the clouds” really are: cantilevered elements, linear geometric shapes, materials at the forefront of technology.

Our aim was to develop a tower project provided with symbolic strength and magnificence.

To reach this goal, we draw inspiration from two models in particular: Tatlin’s tower (or the project for the Monument to the Third International) and El Lissitzky’s “Wolkenbügel” (Cloud-irons). Both of them have never been realized and were part of Constructivism, an artistic and architectural philosophy that originated in Russia at the beginning of 20th century. Furthermore, our tower also shows features from Metabolism, a post-war Japanese architectural movement that fused ideas about architectural megastructures with those of organic biological growth. Significant references in the context of Metabolism were definitely “Cluster in the air” by Arata Isozaki and Shizuoka Press and Broadcasting Center by Kenzo Tange.
With regard to the intended use of our towers, we ended up choosing a mixing of private use (only for residents) and public use (for residents and other people too). Each tower would host different public services at its base, in order to create new meeting points and breathe new life into the area. The central part of the towers, instead, is reserved to residential use.

The towers have an helical structure, resulting from the rotation of overlapped cubes. The building core, with a circular ground plan, hosts the stairwell and the elevator shaft. Each floor consists of three apartments, radially drawn with a 120-degree angle rotation between one and the other. At the top of the tower, there is a bioclimatic greenhouse for residents’ exclusive use.
Public services are located at the base of each tower and could be related to catering, spare time and sport: restaurant, gym, pub, game room, day care and multi-purpose space.
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