

POLITECNICO DI TORINO  
SECOND SCHOOL OF ARCHITECTURE  
Master of Science in Architecture  
**Honors theses**

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**International contest for planning young artists' house in Cordoba: a planning proposal**

by Valeria Surrente

Tutor: Valentina Donato

Co-tutor: Marco Perino

Research on contemporary housing involves considerations about some current issues:

- The connection between city and society and the city-community relationship. The city is indeed of central importance because it represents a development site of the life of the individual.
- Social changes and new family models characterized by migration and job flexibility of young employees;
- New materials and new construction techniques, and more precisely the increasing importance given to the sustainability. In turn, this justifies the importance attributed to the full life cycle of the building, including its removal.

These considerations led to the work exposed in the present Master thesis. It was inspired by the international contest (April 2011) "*Viviendas para jóvenes artistas en Cordoba*", which required a proposal planning of a rental residential building for young artists, linked with the Centro de Creación Contemporánea de Cordoba. The work's output should consist of two A1 tables.

The international contest defined a paradigm of an artists' residence characterized by four elements: intelligence, flexibility, sustainability, and accessibility. The possibilities left to the designer were restricted by the regulation of the sitting, known to be historically and socially degraded.

The proposed housing accommodates common spaces such as meeting spaces, laboratories and expositive areas and private spaces (place of intimate life), all planned targeting versatility as a peculiar aspect.

There are three types of accommodation proposed, to satisfy the demand of intellectually and socially active users. The definition of the spaces permits a good degree of independence, with spaces that could be unified or divided in several ways depending on the needs of the guests. The external aspect of the building manifests itself like a series of multiform fronts thanks to elements that can be opened by the users.

The solutions adopted derived from previous researches and studies on existing artists housings in Europe to understand the specific needs of the social category. Concerning the shared areas, much space was dedicated to green areas (garden roof and courtyard) that are the concept of the entire project. They were used not only for their positive contributions in liveableness, but also in view of their bioclimatic benefits.

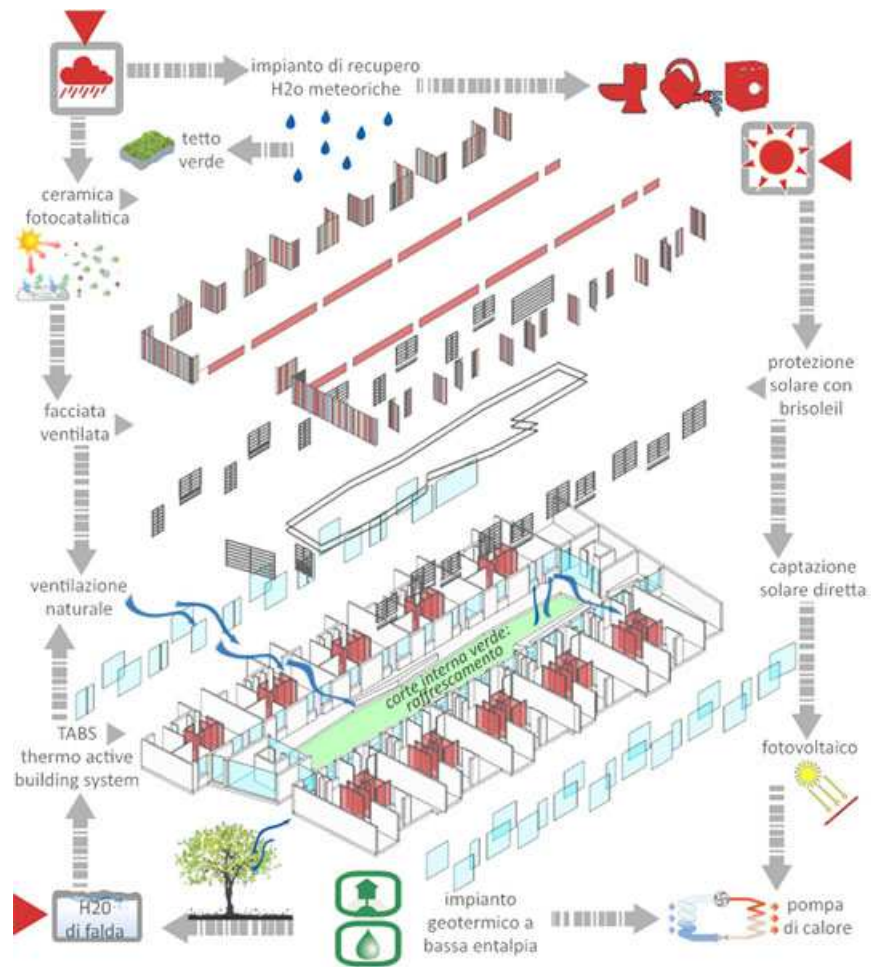


Sustainability was a fundamental characteristic of planning: the building was defined by its bioclimatic technologies. In some cases, solutions were analyzed only at a qualitative level. Conversely, calculations were performed and bioclimatic technologies were applied concretely: thermal and lighting analysis through software like Ecotect were performed; the results were exploited to define spaces, structure design and building envelope. Passive and active bioclimatic systems were introduced, too: contributions from cross ventilation for passive cooling, direct solar uptake and sunscreens, optimization of natural lighting, or active system such as photovoltaics, rainwater recovery system, geothermal plant using Guadalquivir's groundwater.

The Building envelope (oppose structure design) was studied in detail too, having in mind the goal of a low transmittance envelope. This was achieved proposing the use of a photocatalytic ceramic that depollutes the air, and that configures the aesthetics of the fronts with multiple colours.

Overall, the proposal planning and technologic suggestions characterize a building that is a living organism, constantly in evolution. The artistis' residence was designed to adapt its formal aspect to needs of its guests, and to collaborate with the surrounding environment.





For further information, e-mail:  
 Valeria Surrente: [valeria.surrente@gmail.com](mailto:valeria.surrente@gmail.com)