

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

Innovation and tradition. Bioclimatic complex in Perosa Canavese

by Michele Cirone, Paolo Corda

Tutor: Mario Voerzio

Co-tutor: Enrico Moncalvo

The whole territorial and architectural design process of the proposed work has taken into account the goal of the two factors fusion, the social one, linked to the concept of "village" residential, and the technical one, mainly linked to the use of a design process based on the bioclimatic theory.

These two dominant elements, once combined, prefigure themselves as the set of a precedent in the contemporary architecture landscape, reaching the goal to make perceive a residential multi-family and multi-functional intervention as a single element, containing itself applications and elements entailing the excellent bioclimatic functioning.



The use of a main street for pedestrian purpose brings philosophically and mentally to an old picture of neighborhoods of our cities, where inhabitants used the neighborhood and the common areas as spaces of aggregation and where children could play without the worry of hazards nowadays present.

Adding to this socio-psychological factor the use of principles and solutions ensuring the comfort inside the houses using a few resources, produced with renewable technologies from solar sources, leads to the creation of an unicum urban where common areas really are for everybody and the architectures draw livable and familiar spaces containing themselves extremely qualifying factors for a peaceful life.

All these peculiarities and characteristics have been mixed according to a rigid strict and well structured methodology applying the principles of bioclimatic design principles that is to say considering the environment in which the work is realized performed, analyzing in detail the climatic data and exploiting at one's advantage for their own benefit the natural features not variables.

This methodology allowed not to modify the characteristics of the today's environment, perfectly integrating the artificial work with the natural one.

This is also deduced by the arrangement and rebalancing of the green belt in the south area, able to create a frame of colours, scents and sensations to the new village.



The opportunity to design together with the residential portion also the public area multi-functional has given us the possibilityability of linking the historic centre of Perosa Canavese with the new village, creating a "hinge" formed fromby the continuationmain street extension into to the campaign countryside of the main street of the country leading to the new square of the "Sundial", a meeting place, break and refreshment, where seats and services make accessible usable and pleasant the area .

The public space of the square, conceived as a hollow inside the area, conceptually recalls the ancient Greek theatre, where intofrom natural slopes were obtained terraces, providing an open space with a series of seats useful to accommodate spectators in all outdoor performances.

The whole process was also evaluated in terms of bioclimatic theory, analysing shadows and evaluating to insertion of technical solutions to for improve the thermal conditions of the area, such as the fountain of the sundial, which combined with the water collection tank ensures the presence of humidity and therefore of cooling around it.

The analyses applied on urban scale were decisive for the evaluation and the execution of the detailed architectural project design architectural of the buildings. Also in this case the innovation was associated to the tradition, using traditional archetypes, such as: wooden truss and outer landing, and useful solutions for the bioclimatic purposes necessary to the building and technological elements.



The pursued and obtained result of the designing path process is a combination of approaches between merge of tradition and innovation approaches, resuming, revising and making contemporaneous and modern the traditional elements that, in some cases, modern society has cast aside.

For further information, e-mail:

Michele Cirone: mi.cirone@gmail.com

Paolo Corda: paolo.corda1@gmail.com