

Light Vertebrae
A modular system for the UIA pavilion 2008

by Erika Lami

Tutor: Cesare Griffa

Co-tutor: Chiara Aghemo

This thesis describes the design development of an “Info Point” for Piazza Castello in Turin, based on the UIA 2008 competition, which was launched in the occasion of the XXII International Congress of Architecture. The thesis focuses, before even studying the project, on the transformation processes of the city, which became the stage for international events like the Olympics, the World Design Capital and the UIA Congress.

At the time of the development of the thesis, the UIA competition had already ended. It has been therefore possible to examine some of the winning projects which, along with the study of the themes of the Congress and the World Design Capital, have partly inspired the design of the pavilion.

The concept comes from a quote of Dominique Perrault in an article of “*Il Giornale dell’Architettura*”. He argues that: *“The challenge consists of transfiguring the object that separates in order to substitute it with something that links, binds and creates interrelation and exchange; of imagining walls that are more than themselves, that is to say to create places of transition between the outside and the inside, between the public and the private, between the urban magma and the intimate sphere; of substituting the wall with an “in between”, a new kind of space, one that stimulates the curiosity of users, strikes their emotional being and, circumventing the filter of the intellect, directly touches their brain”*.¹

The thesis takes up the challenge through the design of the “Info Point” and it tries to reach beyond the concept of wall as a pure delimitation of an area, to convert it in an actual useful space.

An “in between” of the wall comes to life, thus becoming a mean of communication itself thanks to the light which, through our sight, reaches our brain immediately.

A wall is generally thought as narrow and long, but if we could cut it and then slightly change the cross sections through cracks and distortions it would generate many and different kinds of available spaces.

The project follows, in fact, this evolutionary path, from which it draws the geometries that generate the actual cross sections of the pavilion.

However, these geometries are very complex and the section has to be break down into smaller parts to be realized.

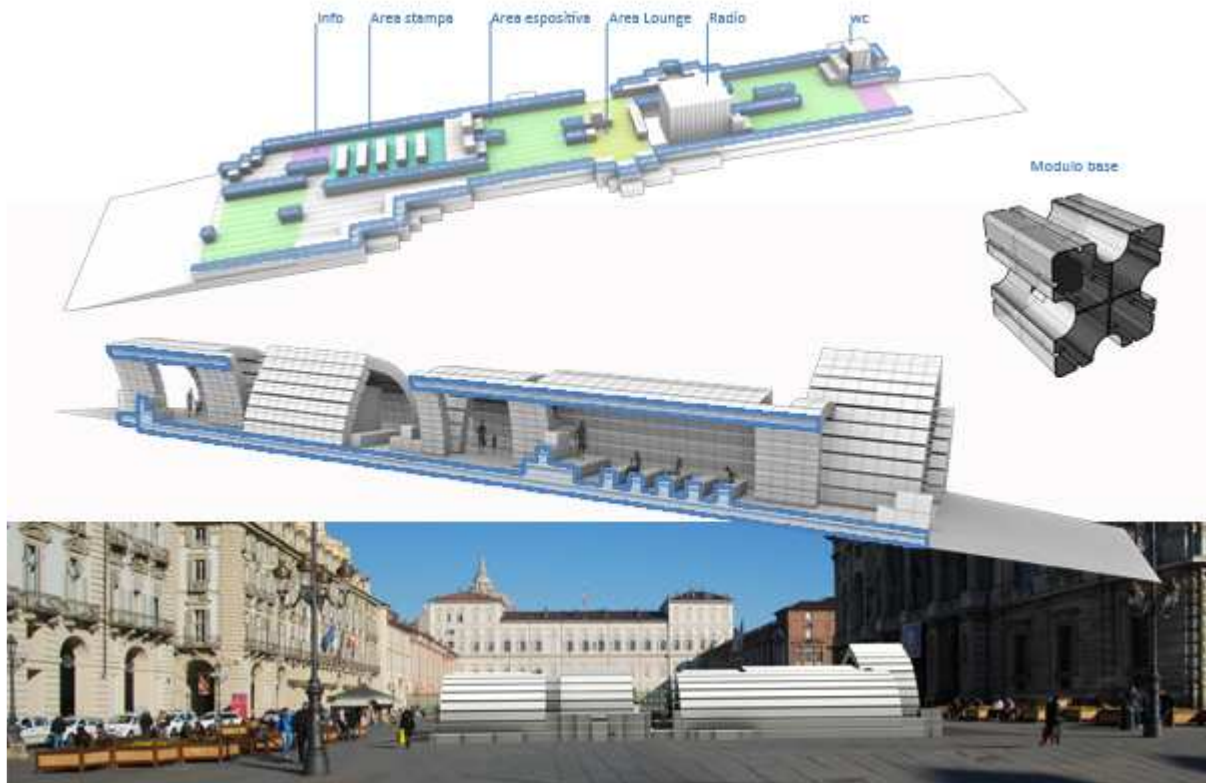
¹ Perrault Dominique, “The neutralisation of form”, *Il Giornale dell’Architettura*, Edizione speciale quotidiana, Umberto Allemandi & C., Torino, 1-7-2008, p. 12

An opalescent polypropylene form is designed for this reason and it composes all the desired shapes. Then, to make the construction self-supporting, we got our inspiration from the morphology of the spinal column, which is the framework of the body but still allows great flexibility and movement.

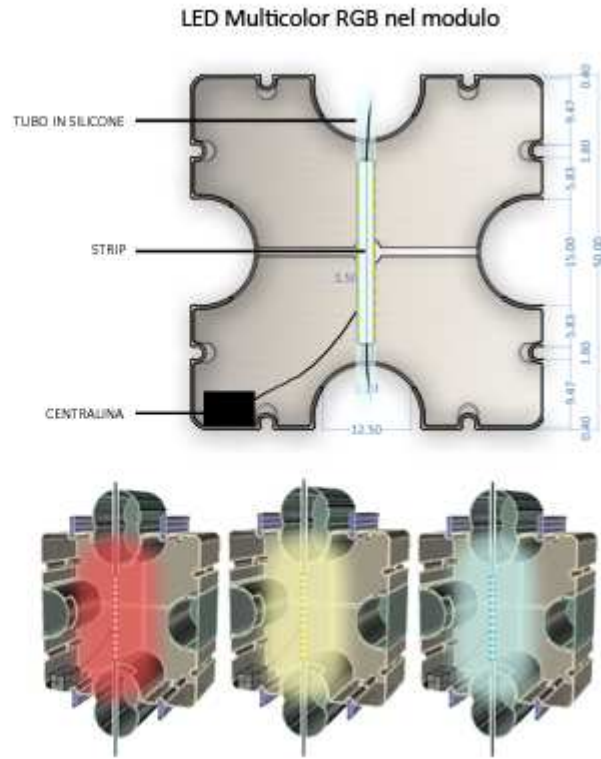
Each Info Point section has got the same spinal structure, which provides the building with stability and flexibility during the making of the various sections.

Just like a skeleton, each partition has vertebra modules (cubes of side 50 cm), connected by inter-vertebral modules (shaped like double-cylinders), strengthened by polypropylene and lightened up by LED strips Lelide (that represent the nerves) running in them.

Finally, each cube (which, in addition to composing the sections, allows the creation of seats), thanks to a special software (Epsilon Electronic System), can be lightened up and change its color independently from the others, becoming a sort of large *pixel* within a large pavilion-screen, on which images and written information are composed with a really minimal graphic that brings to mind the *Atari* console games, born in the '70s.



Plan, section, main module and day view of the pavilion



Interior views (accesses an press area) and LED Strip inside the module



The enlightened Info Point: night view

For further information, e-mail:
Erika Lami: erik.robby@tiscali.it
lamerika85@hotmail.com