

Architectural and environmental project of a center of meteorology located in "Malgrat de mar" - Barcelona

by Diego DeRinaldis

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The area of the project is located in Spain, in Costa Brava, at 60 Km East from Barcelona, a coastal area where there is the mouth of the Tordera river, between agricultural and natural skyline.

The project is a center of meteorology for the environmental and climatic control of the area, whose main purpose is investigating and studying the weather and all its physical manifestations on a local and a global scale.

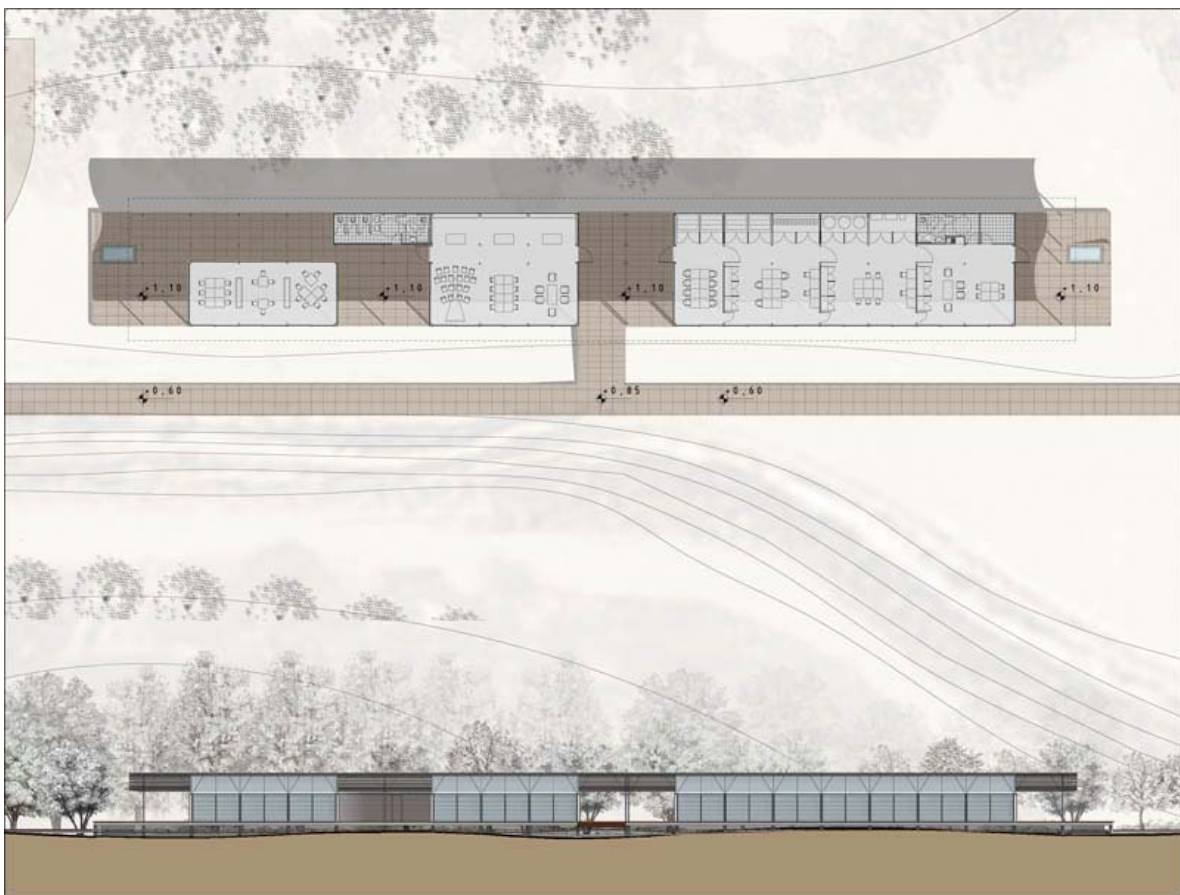
The investigation has been made through these three steps:

1. the first step leads to **the analysis** of the area that underlines the main characteristics, in order to be conscious of the different aspects of the environment and to respect the light balance of its extreme localization.
2. the second phase consists in **the organization** of the main functions of the center concerning its connections with the local, the national and international net systems. We have been studying different types of medium and small meteorological centers in Italy and in Spain.

- the third phase has been **the project** itself, whose main purpose is to fit perfectly both with the functional needs and its natural surrounding. The project is brought up by important strategies of eco-compatibility, thanks to a meticulous analysis of energetic resources.

The main purpose of the project has been the search of the best solution for the center, trying to emphasize the environment and all the little details that we could see and find on it. So we started our exercise working on the concept of "**observation**".

We defined a physical path that could join all the main aspects of the area, that we called "**horizontal observatory**": this element is a real observation plan that is softly posed on the land and moves through its main features, leading the visitor to the dune as the real and original elevation of the site.



The project

The area of the building is about 750 m² (84m length by 9m large) and is divided in two parts that are joint together through the main entrance: the first part is a private area, made by a single volume, while the second one is a public area which is divided in two different spaces.

The whole project is covered by one long light roof.

The back part of the building is facing the woods and the hills while the front part runs along the canal and the skyline: this facade runs along a footway that joins the fields, the

canal, the dune and makes a pedestrian walkway that can be considered an "horizontal observatory".

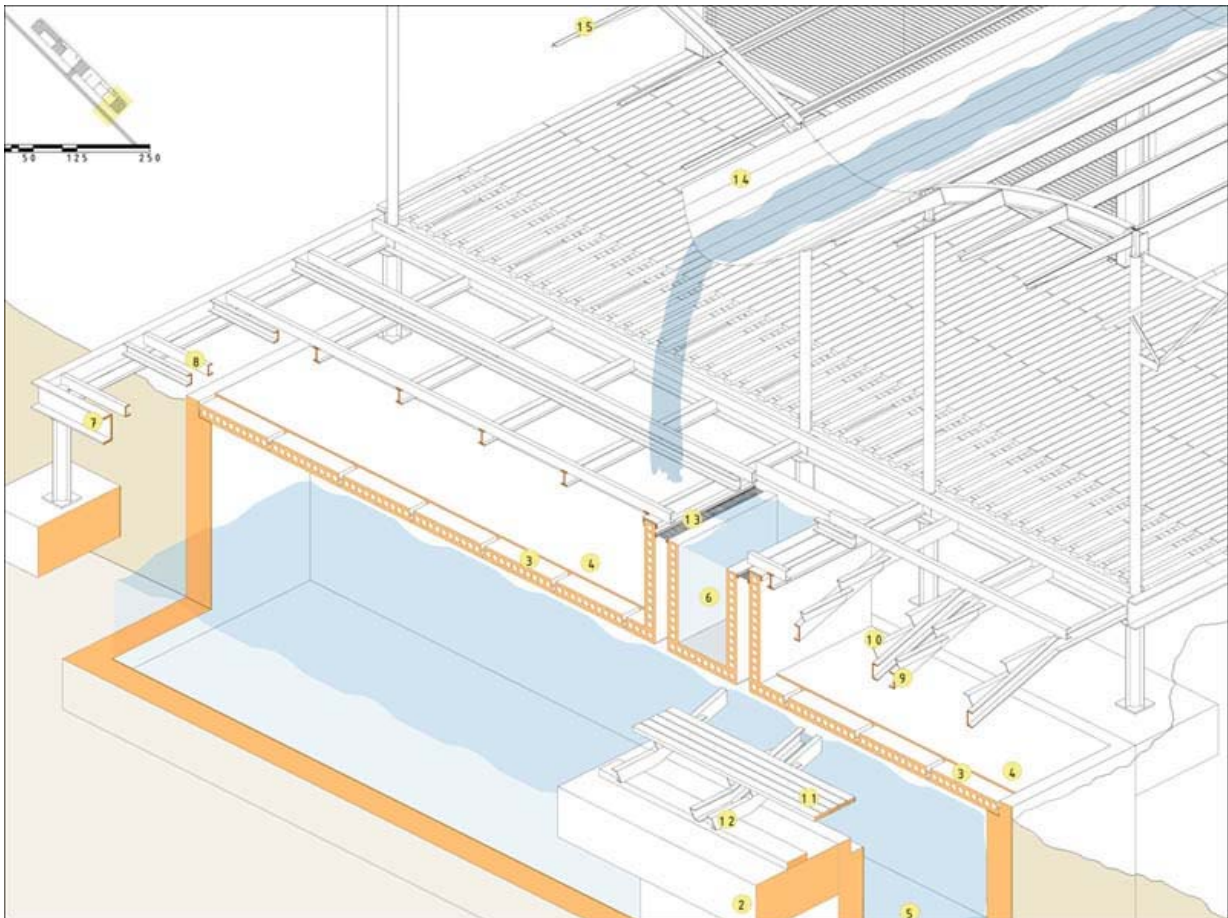
The inner structure is made by metallic porticos and sustain the two horizontal floors: a wooden and concrete platform and the curved metallic roof.
The long metallic pavilion follows the environmental forms and tries to establish a dialogue between its limits.

brief description of the experience

This work has been made between two universities trough an unofficial cooperation: the Faculty of Architecture of the *Polytechnic of Turin* and the *U.P.C. of Barcelona* (E.T.S.A.B.).

I had the chance to start my search during the workshop of the experimental site of *Cantercel*, in France (from which I moved my first steps toward the University of Barcelona), that was part of the activity program of the final course monitored by my professor *Mario Grosso*; this was also the theme of the work of "representation of the project" directed by *Evandro Costa*, monitored by my professor *E. Levi Montalcini*.

The project has evolved in different phases, that go from the analysis of the area to the program and the design of the building, that has been made studying carefully the works and the details of a great Australian architect, *Glenn Murcutt*.



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Here you can find the official link of the presentation of the project including my works:

<http://www.architetturafralestagioni.com/>