

**Project for an Environmental Education Centre including the restructure of the Airale farmhouse**

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with the collaboration of Dr. Egle Bolognesi

The object of the thesis is the restructure of a rural building – the Airale farmhouse – as an Environmental Education Centre designed for children between the age of 3 and 15 years. The building is owned by the local authority and is located inside the Colletta Park in Turin.

The thesis is the result of a research conducted at various levels:

- ***physical survey of the building and historical research of its origins***

The building is in a condition of severe degradation following from decades of abandonment. This state of disrepair has been one of the reasons for a detailed structural survey and a photographic record: these could be the last documents collected before the collapse of the building. The historical research has been carried out through a literature and archive review in order to document the medieval origin of a part of this building, which belonged to Savoia's family until 1815.

- ***research and analysis of Environmental Education Centres existing in Italy and Europe; information collation by questionnaires and adoption of a theoretical model for the Environmental Education***

Our project has been very careful towards the values and the complexity of the environmental issues. To this regard information has been collected about the various experiences of Italian and European Centres. Only afterwards it has been prepared a questionnaire which has allowed us to value the many different existing realities using standard criteria. This information has been used to elaborate an educational model which forms the basis of the architectural project.

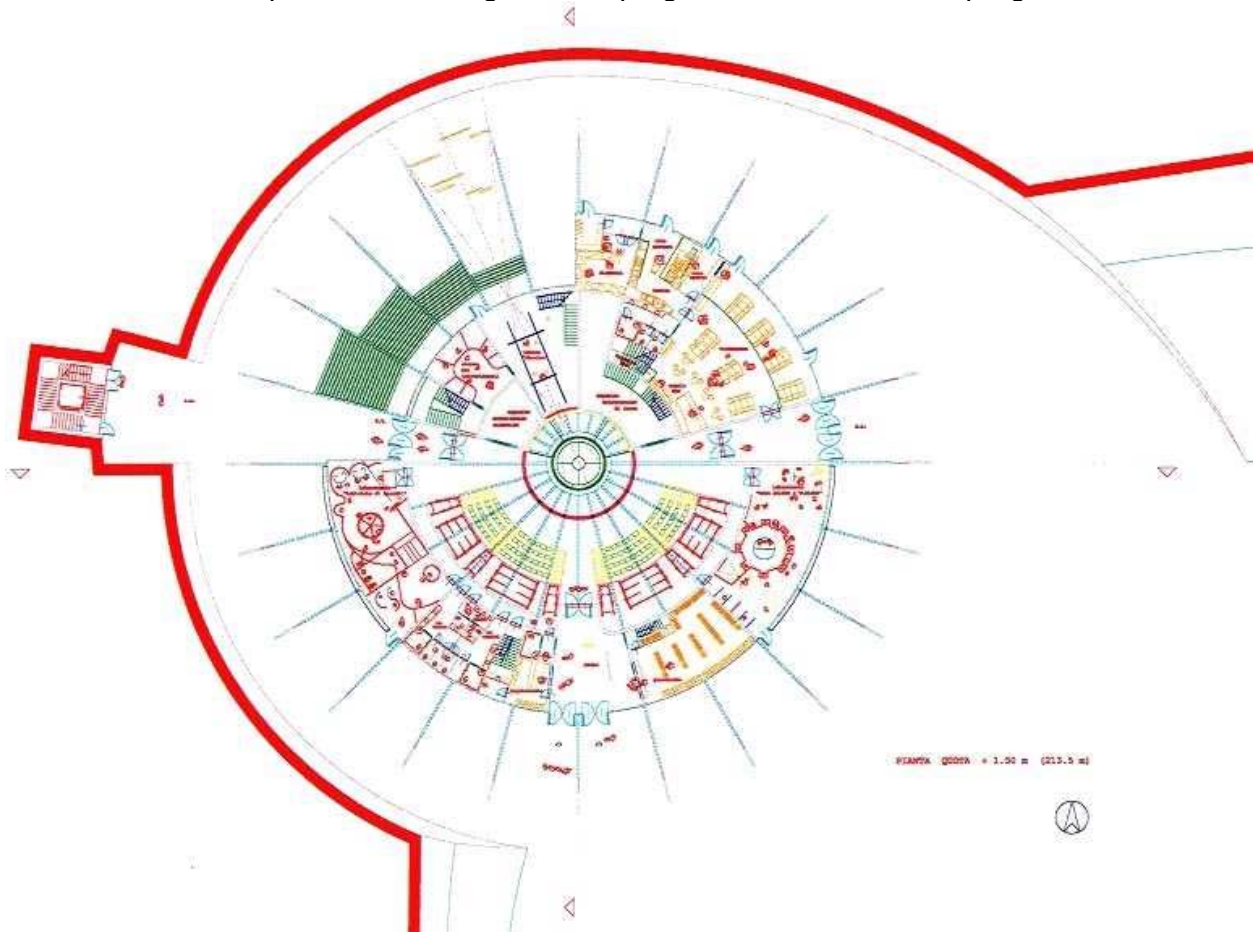
- ***drawing up of the educational program***

Along with the educational model, the educational program forms the preliminary basis of the architectural project. This program was drawn up through a collaboration with doctor Bolognesi, educationalist and director of a number of laboratories and kindergartens in Turin. The "Progetto Bambini" - a publication which contains the didactic programs of Turin's laboratories – has inspired the educational programs of the Centre, which was thought out as a structure that could be part of this existing net.

- ***conversion of the program into architecture***

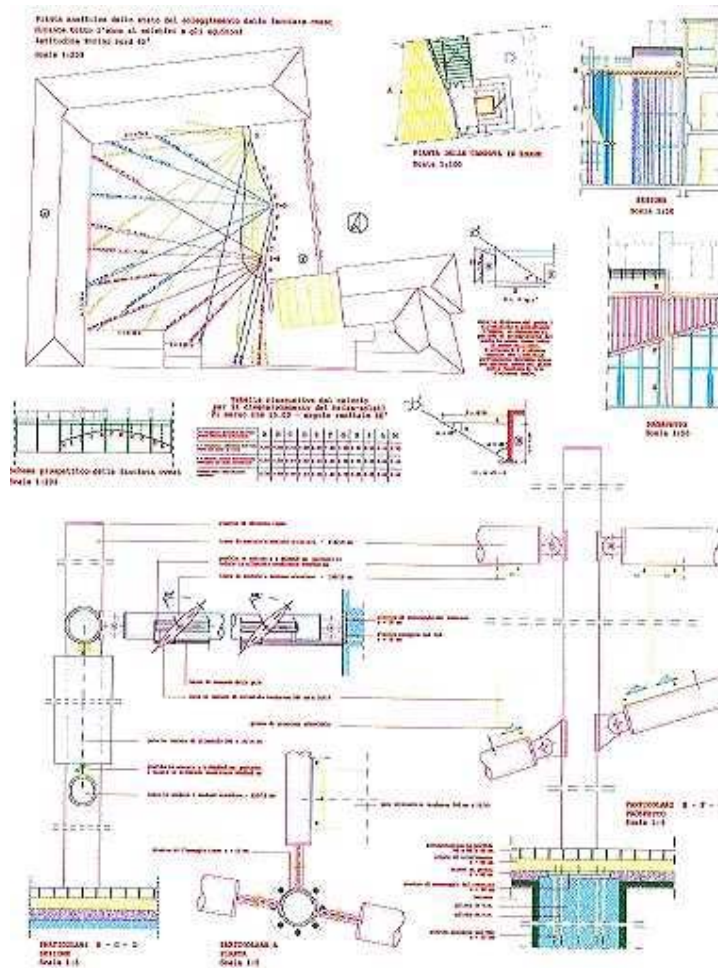
The Centre is organised as a net of laboratories: each laboratory is dedicated to a different theme, developing the relationship between the sensory perception, the environment and the architectonic form, the last of these thought of as a mediation between the project and the didactic plan. In one case – the Visual Laboratory "Lights and Shadows" (1) – the architectonic form generates the didactic plan.

This laboratory is a detached building situated in the Park 100 metres from the Airale, which has a solar clock inside with a dome shaped around it. The movement of the sun creates the shape of the building, this shape generates the didactic program.



1. Layout of the Visual Laboratory "Lights and Shadows"

The project gives particular importance to the study of solar movements (2) and to its influence on the environment, stressing this connection with the design of shapes linked to nature and sensory perception (3).

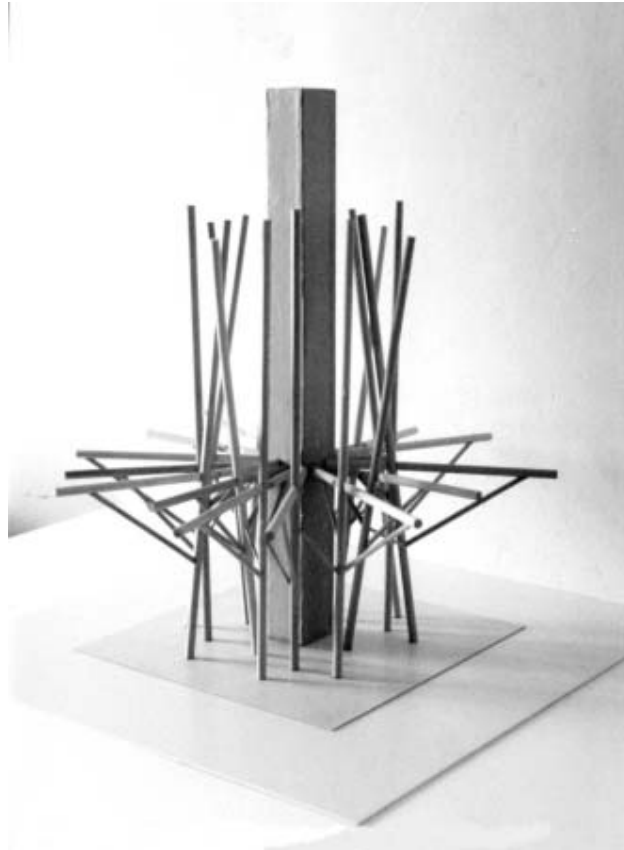


## 2. Calculation of the Airale farmhouse's solar lighting and *brise-soleil*'s structural details

The Centre is organised into a system that can be modifiable on different levels:

- *The farmhouse*: it is the result of transformations happened during centuries and at the same time is the "static" starting point of the project.
- *The Laboratories*: they are a "skin" renewable on a quite long term, a dynamic element which has to change according to different needs of the children, almost like an architecture inside the architecture. They use a language that doesn't try to imitate the existing building, their structure doesn't depend on the farmhouse's construction.
- *The interior design*: modifiable on a short term, which it can be a few months or some years. Strongly dynamic, it is thought out as a flexible scenography which can be changeable, allowing the children to take an active part in the use of the environment.

Finally the aim of the project is to create a space "belonging to the children" rather than being designed "for the children", under banner of **knowledge, making and playing**.



**3. Wooden model of the laboratories' "tree structure"**

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