

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

Planning between the Mountains of Fire: Museum of Volcanology at Lanzarote

by Diego Avanzo, Matteo Sagaria

Tutor: Valentino Manni

Co-tutors: Michele Bonino, Alessandro Fantilli

The project area is located in a desert island where volcanoes dominate the landscape.

Designing a museum under these circumstances was the challenge set by the competition of ideas, IMOV (International Museum of Volcanoes).

The concept is based on three points:

Integration with the landscape

The architecture that we would to define is make of relation instead of object and dynamic spaces relational. In this sense, it's pretty close to the landscape project, which assumes the role of the project and enhance dialogue with the context that surrounds it. It was negotiate with the existing morphology, by maintaining contacts, sometimes contrasting with the context, in order to draw ideas from these relationships and contrast.

The concept behind the project becomes a relationship structure that assumes the task of defining new forms compared to the existing landscape.

The area is characterized by the plans and elevations of the volcanic cones and a sandy soil with colors ranging from sepia to black to reddish. The only two factors resulting from human activity are: the road, the Ruta de los Volcanes and the Restaurant El Diablo.

The project concept takes shape in the lines originating from the route and we want to consider sustainable technologies, such as south-facing wall is slanted so as to integrate solar panels and maximize efficiency. From these principles it rises from a large cone-shaped monolith carved floors reminiscent of the profile of a volcanic cone.



The conformation of the project area, the spatial organization and integration in a natural amphitheater, make the visitor through the space according to a virtual line of attraction towards the monolithic element that comes out of the ground as if to create a rift in sandy soil, it then creates a stress which becomes an attribute peculiar to the place.

The project ideally takes this line of strength in both composition and structural, both external and internal paths.

The cuts cover the walls and floors allow the insertion of a large open window above the natural light that filters overhead projecting internally that houses the restaurant and look out area. In this way, the space of Tierra del Fuego and Space Museum's become, in the perception of the visitor spaces that interact.

The walls of the building are clad in Cortèn that integrates well among the rocks and the surrounding sandy soils.



The museum as an attractor

The museum becomes an attractor in the multiple meanings:

cultural attraction - a museum with the aim of becoming a place to meet, debate and discussion;

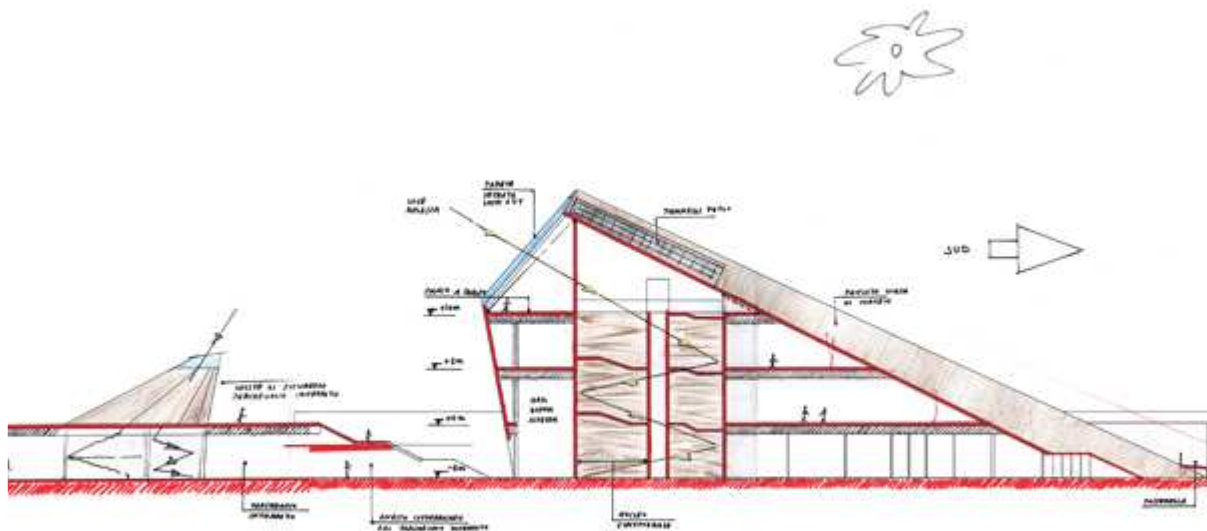
tourist attraction - a museum that will attract tourists by offering historical knowledge, technical and cultural knowledge, with physical and virtual exhibition space allowing for a direct interaction of the visitors.

Use of sustainable technologies

The environmental impact is one of the fundamental themes that have characterized the design process and determined the technological and aesthetic choices.

In this sense, the following technologies were used in order to use renewable energy resources and to maximize user comfort with the least possible use of resources:

- Ventilated facade
- Screens
- Natural lighting
- Photovoltaic panels
- Heat pump
- Cooling system / radiant heat
- Natural ventilation
- Recovery of rainwater
- Steel structure



For further information, e-mail:
Diego Avanzo: avanzo.d@gmail.com
Matteo Sagaria: matteosagaria@gmail.com