

The sea's museum at Port of Adelaide Enfield

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The thesis concerns the planning of a sea's museum located in the sea in front of the Australian city of Port of Adelaide Enfield, norther than Adelaide.

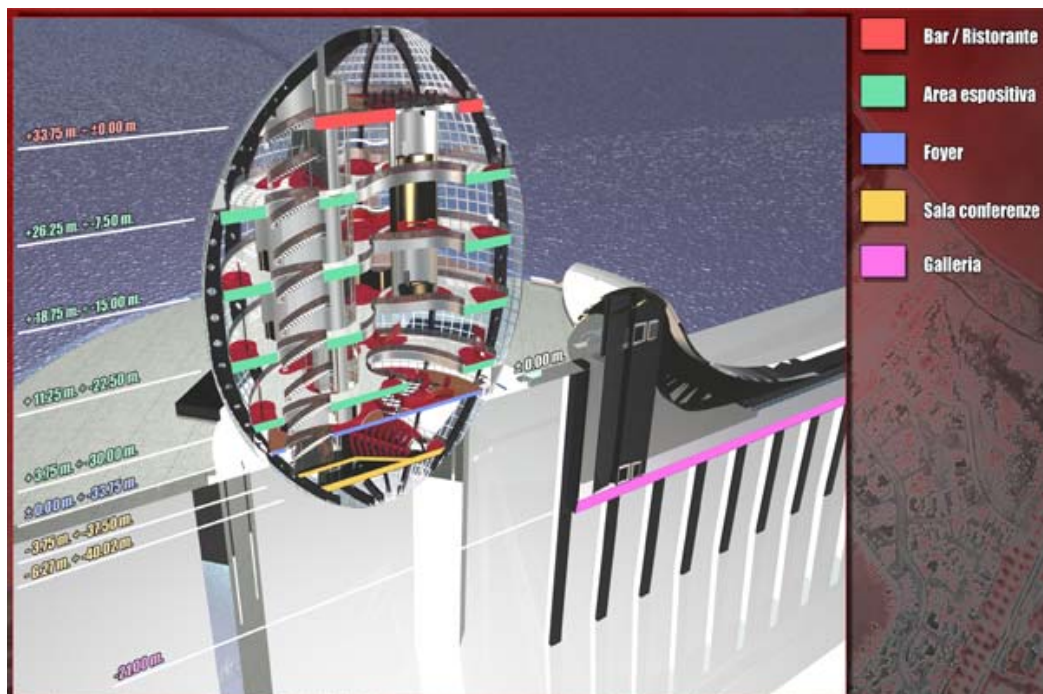
The project concerns a building for exhibitions based on the interaction with water. A fundamental step has been the possibility for the structure to move in vertical sense, dipping itself completely, except the higher level.

This would show the visitors interesting marine suggestions, showing them directly what they have learned in the area of the exhibition.

At the same time the museum becomes a place attended by researchers, because from the different dipped levels there is always a 360° sightseeing of the sea.

In order to guarantee accessibility to the museum a system of main and secondary roads has been provided. Particular attention has been given to the right position of the parking and of boarding towards museum.

The main structure has an egg's shape; it is realized with great vertical elements interconnected by a sort of grid that is composed by smaller elements that have the task of supporting the curtain wall in glass.



Distributive section

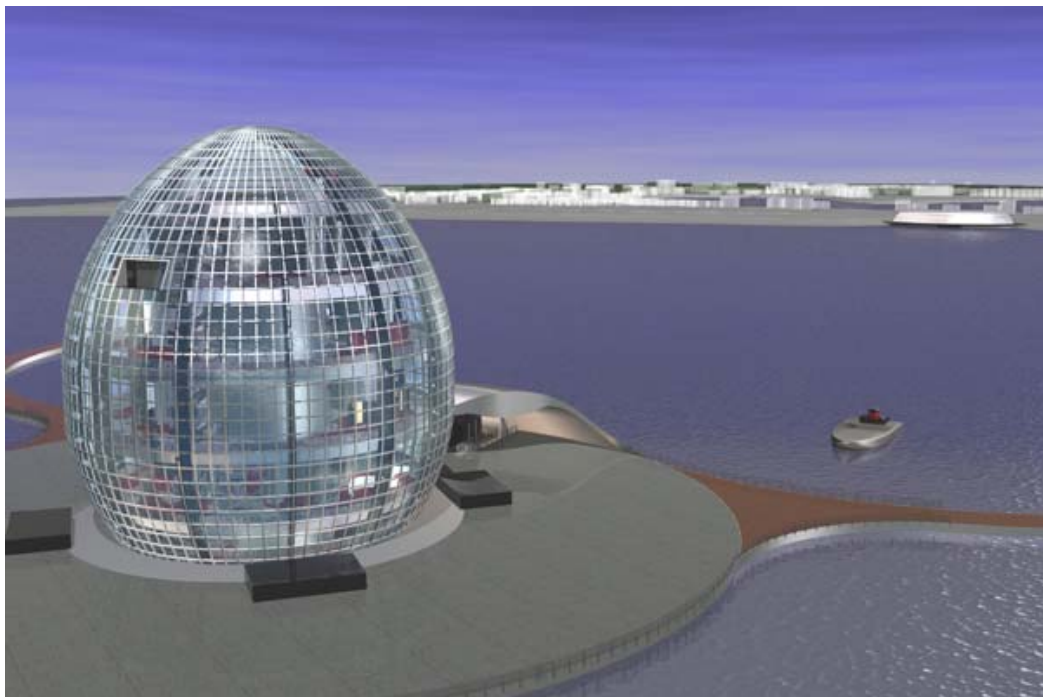
This structure is encircled by a great slab in reinforced concrete. This slab represent the point of arrival of visitors. They can arrive in boat or they can reach through the great and vocative submarine gallery that covers approximately 700 meters of distance from the coast to the museum.

In the first two levels there is a conference's room containing 240 places to seat. It is composed by four parts, in which the distribution is guarantee through five staircases. The access to this room is guarantee by one staircase and two elevators.

The level where there is the *foyer* is the lower one and you can reach it directly by the outdoor. This direct connection is motivated on a functional reason: to let people join the conferences even when the museum is closed.

There are other four levels of exhibition.

The main access to the museum is at the higher level, from this point you can appreciate in the best way the exhibition's visit. In the higher level there are also a restaurant and a bar: they are accessible by the outdoor when the "egg" is totally dipped. This kind of access give the possibility to enter in the restaurant and in the bar when the exhibition is closed.



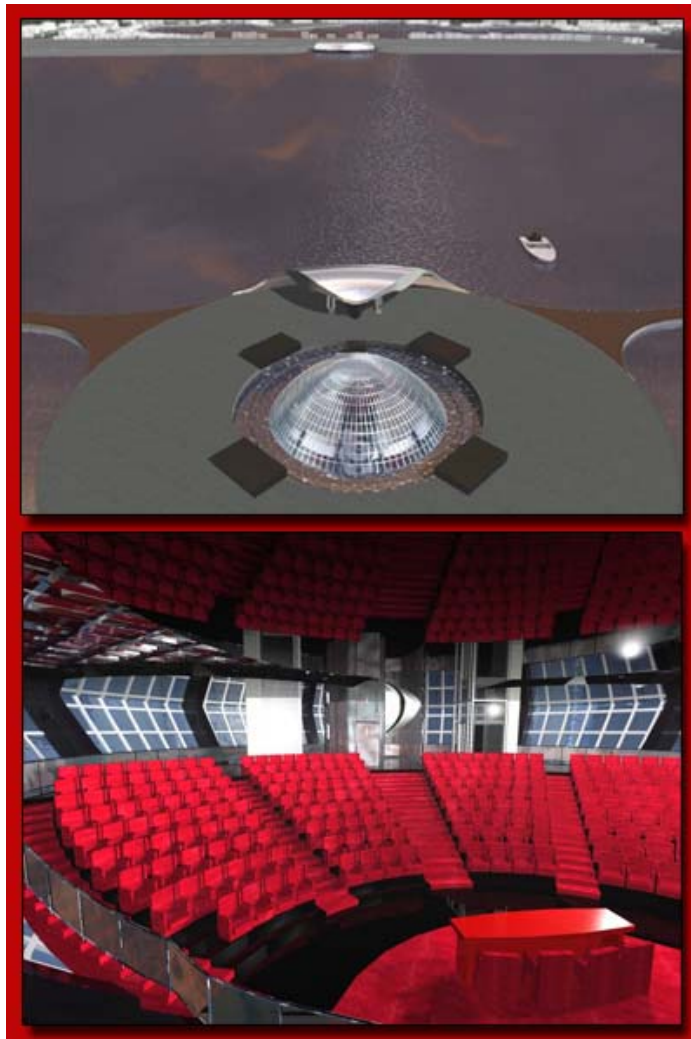
The museum in the higher position

A system of little elevators (pulleys, cables, pistons), situated on the slab, allow the vertical movement of this building.

An element with a crown shape transfers the weight to the movement system. This crown has the internal radius of 18 meters and it is linked by great elements that sustain the egg.

At this are linked 32 iron cables, divided in four groups; each one of these groups has 8 cables. These cables have the function of lift the building through a traction's force. The lower level, which contains the *foyer* and the restaurant can arrive at 33,75 meters under the sea.

When the “egg” is at it higher position, the restaurant is totally outside and it is at 33,75 metres higher than the slab.



The museum totally dipped and the conferences' room

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