An Environmental Education Centre in the Wood, Venice, Italy

Project description by author

The project concerns the reclamation of 200 hectares of oak and hornbeam woods, which have vanished since the century, with the aid of a soil and water re-naturalization program. This project is proposed to be opened to the public.

The site, placed in the dry land of Venice has at present an agriculturally impoverished landscape which has been eroded by drainage interventions and intensive agriculture over the course of the last century. Agriculture, in some areas, has become a cost for society both in economical and ecological terms. This area, besides, is crossed by a lot of infrastructures so that the restoration of the wood is a kind of refund and will create a discontinuance for future expansion of urbanization.

This transformation, besides giving to residents of Venice, a new matrix of recreation spaces that are in touch with Nature, will also give many benefits to the environment. It will bring back the original Flora and Fauna, it will decrease the quantity of Co2 and other polluting products which are circulating in the urban area, it will reduce the hydraulic risk by increasing the containment capacity, and finally it will reduce the quantity of polluted products which flow into the lagoon.

This ambitious project is promoted by Venice Municipality through a thirty-year usufruct on this land belonging to a cultural foundation which will use this income to offer cultural services to the city.

The river banks, which were so geometrically canalized in concrete banks, have been re-drawn so that, where possible, the windings will be restored, new wetlands will be created, concrete eliminated and the bankside vegetation restored.

There will be long pedestrian and cycle paths which will enable people to cross these natural spaces and will integrate the areas of the project which are disconnected from the main infrastructure.

The project will also include two car parks, an environmental education centre and some rest area which will all be perfectly integrated with the landscape.

The only building inside the wood will be an example of the sustainability and eco-friendly of contemporary architecture.

This building is designed to be completely integrated in the landscape because it is conceived like a relief appearing from the ground. One floor is in the basement while the other has a sloping roof garden so the structure will have a very low impact on the area and the consumption of natural soil will be very reduced.

The building will be realized with ecological criteria obtaining interior comfort through the lowest energy consumption and will be a workshop about the possibilities of modern technology against the dissipation of natural resources of the planet without radically changing contemporary life.

Relevance to target issues (by author)

Quantum change and transferability

The innovative photocatalytic cement will be used. It is a special “self-cleaning” cementitious composition able to reduce the air pollution through a process activated by sunlight.

The building reaches integration with nature not using logs, as it usually happens with buildings inside natural parks, but using contemporary materials.

Ecological quality and energy conservation

Materials will be reinforced concrete and glass, both inexpensive, completely recyclable, durable, and needing not much maintenance.

The roof garden will shelter the structure and will allow considerable energy saving so that operating and maintaining costs will be reduced. The soil works as an insulating device in the winter warmth will be kept inside, while in the summer solar energy cannot go be.

Economic performance and compatibility

Innovation is proved by the special kind of acquisition of the land: the Municipality, instead of buying, has obtained a thirty-year usufruct undertake to realize a wood and binding future owners to that use. The whole project is divided in 8 areas and 8 phases of implementation so that public selection and also by the involvement of citizens in every step of the project through public debates.

Contextual response and aesthetic impact

The building is designed to be totally integrated in the landscape because it is conceived like a relief appearing from a meadow. The aesthetic impact will be very positive as it will not be evident from afar but it will appear like a surprise for the visitors along the pedestrian path. Like a cut in the ground a “dromos” turning round the building will give access to it.

The form of the space comes out from two different spatial flows become one building holding both exhibition and didactic spaces so flexible to be able to hold in future different functions. Natural lighting, coming from wide glass walls and from roof lights, will give quality to internal space even in the basement, while the employment of special re-usable rubber formwork will give aesthetic quality to finish concrete.

Further authors

Marina Orlando