Ecological awareness and recreation reserve, Banderilla, Mexico

Project data

<table>
<thead>
<tr>
<th>Project group</th>
<th>Building and civil engineering works</th>
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<td>Client</td>
<td>Veracruz Government</td>
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<td>Project background</td>
<td>Public commission</td>
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<tr>
<td>Estimated start of construction</td>
<td>January 2012</td>
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Main author

<table>
<thead>
<tr>
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<th>Jorge Ambrosi</th>
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<tr>
<td>Profession</td>
<td>Architect</td>
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<td>Organization</td>
<td>Ambrosi Arquitectos</td>
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<td>City, country</td>
<td>Mexico City, Mexico</td>
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Further author(s)

1. Pablo Rodolfo Pardo, Architect, Pardo Cué Arquitectos, Xalapa, Mexico

Comment of the Holcim Awards jury Latin America

The jury welcomed the integrative concept, connecting landscape and architectural intervention with an educational dimension. Even though the constructions have no significant innovation, the buildings provide an appropriate grade of self-confidence and integration into the landscape at the same time. A further quality seen by the jury is the pragmatic realization of the approach, shown in the scheme in general and the proposition in regard to phasing and financing in particular.

Project description by author

La Martinica is a Natural Protected Area (NPA) located in the municipality of Banderilla, in the state of Veracruz, Mexico. It has an extension of 3ha of Mountain Cloud Forest, which is at risk due to the continuous city growth.

Our main concern is the way cities, citizens, and their environment are related, therefore the intention is to create a new way of approaching a specific natural area by providing ecological education.

The Ecology Center “La Martinica” project consists of a combination of landscape and architectural interventions:

- the landscape part, which integrates reforestation and hydrological strategies that could be replicable models for other cases in Mexico;
- the architectural part, which proposes the construction of four buildings to house different activities: Entrance/Office, Museum, Agro-Industry Workshops, and Lookout Tower.

Both parts of the project intend to make local residents acknowledge La Martinica as a lifestyle of environmental goods and services, instead of just a “green” residue within the city.

Relevance to target issues by author

Innovation and transferability – Progress

The Ecology Center (EC) accomplishes innovation by redefining what a Natural Protected Area (NPA) and its proper management should be: Instead of seeing these areas as the residual green spots that haven’t been touched by cities, this project suggests to benefit from them at the same time people learn about their value and preservation. The proposed reforestation and hydrology strategies can have multiple applications, which make them replicable and work as an example for other similar NPAs.

Ethical standards and social equity – People

EC intends to harmonically integrate the city, citizens and nature, by creating awareness and providing ecological education so that future generations will be more responsible to nature’s sources and their value. Some of the project’s goals are to involve local residents in reforestation activities and selection of the vegetation to be planted, in order to consider the forest not only as an ecologically valuable piece, but part of their cultural and economic environment.

Environmental quality and resource efficiency – Planet

Our goal is to create a landscape sufficiently robust in physical, ecological, and economic terms, to harbor inevitable changes over time; reestablish the original ecosystem’s processes, productivity, and environmental services, and reverse the damage processes with a continuous regeneration through reforestation and hydrology interventions. Reforestation generate young forest on the perimeter of the mature forest, plant representative trees of easy supply and fast growth, restart vegetation for long term growth and local commercialization, integrate paths across the forest to weave the diverse reforestation ribbons. Hydrology generate water bodies for rainwater capture to increase the local humidity, lower temperature, and benefit the surrounding biodiversity; use the stored water to produce local species in the nursery gardens, take custody of natural springs and wetlands to preserve them, and be a prototype of a proper water management methodology to be applied in other cases.

Economic performance and compatibility – Prosperity

The construction of the EC will be financed by the local government and public investment. The project is planned to be completed in three phases: Phase 1 – develop the general infrastructure of the park up to 30%, the Reforestation Project up to 60%, and Hydrological Strategies up to 80%. The main entrance, parking lot, exhibition center and other vital buildings such as the offices and specialized greenhouses will be completed in this phase in order to start generating the economic resources needed for the next phases. Phase 2 – The resources generated by Phase 1 will support part of the development of second phase, as well as its maintenance. Buildings, infrastructure, and hydrological interventions are completed to 100%. The Reforestation Project continues up to 90%, and other strategic architecture projects like the Lookout Tower will be completed. Phase 3 – The generated income from phases 1 and 2 will be used for the operation of EAC, as well as for a progressive reforestation.

Contextual and aesthetic impact – Prociency

EC landscape interventions were designed to enhance the existing natural environment by giving it a potential use and not looking artificial. Architecture interventions were designed to merge subtly in the context by using natural materials like stone and wood, and by gently adapting to site modifying it as less as possible. The project is an example of how artificially constructed interventions on natural areas can have a positive impact.