

System of permeable green facades with climbing plants.

Summary

Keywords: green facades, sustainable construction, climbing plants.

The green facades can be defined as plants integrated into the walls of the buildings, which is a form of union between architecture and the natural environment, a way of giving back green spaces stolen by highly densified urban developments.

The approach of this research consists in the development of a system of permeable green facades with Venezuelan climbing plants from the field of technology and construction, proposing an exhaustive review of the state of the art of green walls both in their construction development, environmental compatibility, advances in the sustainable field, installation techniques, characteristics of plant species, maintenance and costs in the market, in order to generate a classification of the types of green facade systems, through which their qualities are compared and analyzed, to elaborate an alternative architectural system that participates in sustainability strategies and criteria.

This work is developed from the sustainability premises that are disseminated in the IDEC-UCV from the research of Domingo Acosta and Alfredo Cilento Sarli, which highlight the notions and the idea of -building well from the beginning- (1), as a criterion that is based on understanding the construction processes from the design to the construction of the buildings, proposing improvements in existing architectural practices, providing them with a long service life, which entail the reduction of environmental impact.

Based on this premise we address the green facades, not only with the idea of achieving aesthetic purposes but with a view to obtaining constructive and environmental benefits that produce improvements from the project and technological aspect from local manufacturing in order to create green extensions in The envelopes of the buildings.

(1) Sustainable buildings: research and development strategies, Domingo Acosta / Alfredo Cilento Sarli IDEC / FAU-UCV, TECHNOLOGY AND CONSTRUCTION 2I, 2005.