

A Re-Evaluation of Green Architecture and Its Contributions to Environmental Sustainability

Authors : Po-Ching Wang

Abstract : Considering the notable effects of natural resource consumption and impacts on fragile ecosystems, reflection on contemporary sustainable design is critical. Nevertheless, the idea of 'green' has been misapplied and even abused, and, in fact, much damage to the environment has been done in its name. In 1996's popular science fiction film Independence Day, an alien species, having exhausted the natural resources of one planet, moves on to another—a fairly obvious irony on contemporary human beings' irresponsible use of the Earth's natural resources in modern times. In fact, the human ambition to master nature and freely access the world's resources has long been inherent in manifestos evinced by productions of the environmental design professions. Ron Herron's Walking City, an experimental architectural piece of 1964, is one example that comes to mind here. For this design concept, the architect imagined a gigantic nomadic urban aggregate that by way of an insect-like robotic carrier would move all over the world, on land and sea, to wherever its inhabitants want. Given the contemporary crisis regarding natural resources, recently ideas pertinent to structuring a sustainable environment have been attracting much interest in architecture, a field that has been accused of significantly contributing to ecosystem degradation. Great art, such as Fallingwater building, has been regarded as nature-friendly, but its notion of 'green' might be inadequate in the face of the resource demands made by human populations today. This research suggests a more conservative and scrupulous attitude to attempting to modify nature for architectural settings. Designs that pursue spiritual or metaphysical interconnections through anthropocentric aesthetics are not sufficient to benefit ecosystem integrity; though high-tech energy-saving processes may contribute to a fine-scale sustainability, they may ultimately cause catastrophe in the global scale. Design with frugality is proposed in order to actively reduce environmental load. The aesthetic taste and ecological sensibility of design professions and the public alike may have to be reshaped in order to make the goals of environmental sustainability viable.

Keywords : anthropocentric aesthetic, aquarium sustainability, biosphere 2, ecological aesthetic, ecological footprint, frugal design

Conference Title : ICA 2018 : International Conference on Astrobiology

Conference Location : Bangkok, Thailand

Conference Dates : January 18-19, 2018