

Contemporary Architecture Design of Clay Material-Ecological Alternatives for Individual Houses in the Sahara Desert

Abstract:

This work focuses on the new alternatives and technological solutions of clay architecture design for contemporary individual houses in the Sahara Desert. Clay considered as a natural and eco-friendly building material, moreover is now back in the new project because of his ecological and aesthetic benefits that attract the attention of increasing numbers of architects. Current researches efforts focused on increasing its resistance in order to make it competitive and contemporary material. The main aim of this study is to share and disseminate technological and technical solutions besides the new possible alternatives to the architectural design of contemporary individual houses by using clay material. The research methodology went through different phases that range from analyzing the historical experience of clay construction in the Sahara Desert and investigation of the new ecological and technological alternatives. The clay is a lower-impact building material in terms of energy performance, recycle, resources consumption, low-cost, sustainability, and all these factors make the clay material as favourable and excellent natural and contemporary material. The use of clay material with new techniques and machines technologies is an environmental and economic alternative for contemporary individual houses in the Sahara Desert.