

Materials Adaptable to the Tropics: A case Study of Cultural Centers in South-West Nigeria

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Abstract

Nigeria is a country located in the tropics and is subjected to issues like increasing global warming and climate change. In an attempt to solve this challenge, built environment are to be made resilient with the use of natural resources as a way to reduce maintenance cost and increase thermal comfort. In south-west of Nigeria, most cultural centres gradually go into extinction over the years which have been observed to be as a result of increased cost of maintenance among other things. To mitigate this, materials that is adaptable to tropical climate is to be adopted. Primary and secondary data collection methods were used in this study. This report premised its facts based on research conducted on suggested sustainable building materials. This study reviewed existing literatures and case study of existing selected cultural centres in the south-west of Nigeria to understand the effect of climate on the existing materials and the ones that can be adopted for the everyday use in the tropics. In conclusion, this study established that architectural design of buildings can be done to conform to the standard parameters of tropical climatic requirement in order to function autonomously in a passive manner.

Keywords: Adaptable-Materials, Adaptation Strategy, Climate, Passive Design, Tropical Climate.

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