

EVALUATION OF THE THERMAL COMFORT OF STRUCTURAL CAST IN PLACE CONCRETE HOMES WITH CERAMIC BRICK INFILL

Bernardo Cabrerizo Barrientos

ABSTRACT

This work investigates on the thermal comfort of homes built with ceramic brick in terms of the climate of Cochabamba. The primary objective of this study was to generate a baseline for key variables regarding thermal comfort for ceramic brick homes in Cochabamba in order to propose passive design alternatives for the design and construction of homes. Selected homes in the subdivision of Cochabamba were evaluated for thermal with respect to relevant factors including the external environment, the indoor space, and human (user) behaviors and preferences. Through monitoring data, analysis and simulations their thermal behavior was characterized. Based on the results, architectural recommendations are made for designing thermally comfortable residences for the climate of Cochabamba.

Keywords: Thermal Comfort, Bioclimatic Architecture, Passive Design.