

AN EVALUATION OF THE THERMAL ENVIRONMENT IN SOME HOUSING TRENDS IN GREATER KHARTOUM USING INHABITANTS RESPONSIVE PERCEPTIONS

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ABSTRACT

This paper presents an evaluation of housing thermal environment in the hot-dry region of Greater Khartoum. The aim is to try to introduce some practical recommendations for the betterment of the thermal performance of the house-units using passive means of cooling, i.e. without or with minimum use of mechanical/active means.

The paper starts off with a methodology for evaluation which is based on theoretical recommendations for testing the responsive perceptions of the inhabitants on the thermal performance of their house-units. Forty samples were chosen for this purpose from different classifications of the housing areas of the Three Towns of Greater Khartoum (Khartoum, Khartoum North and Omdurman). A detailed presentation of the fieldwork results follows showing, collectively, the inhabitants' reaction to the thermal environment.

Data analysis shows conformity or deviation of the results from the prescribed yardsticks of evaluation and the possible reasons of deviation, ending up with issues, conclusions and some practical recommendations for the promotion of the housing thermal environment in the studied region.

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