RECOMMENDATIONS FOR HOUSING PLANNING AND DESIGN IN THE
HOT-ARID REGION OF KHARTOUM

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Abstract

This paper presents some recommendations on the measurements that should be taken in the
planning and design of residential neighbourhoods and housing units from the thermal
environment viewpoint, and the procedures to promote such an environment at the planning
and design scales of housing.

The recommendations are based on a fieldwork conducted in the early nineteen nineties as a
search in theoretical, professional and users' perceptions of passive thermal performance of
the major residential trends in Greater Khartoum. For this purpose, some residential regions
were surveyed together with interviewing professionals from the public and private sectors in
one hand and the inhabitants of the surveyed residential units in the other.

The paper includes the main problems in planning and design of housing and their deviation
from the theoretical knowledge in housing, planning and design in hot-arid regions (Greater
Khartoum and the neighbouring areas) and the non-conformity of both the professionals and
inhabitants views in this respect.

Based on this, the paper presents general recommendations for residential planning and design
especially from the thermal environmental aspects and recommendations for some typical
samples in regions of Greater Khartoum and other recommendations for both professionals
and inhabitants for upgrading the thermal environment in new and existing residential areas.

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والقصير في توجهات المهندسين والمخططين في القطاعين العام والخاص وكذلك وجهة نظر السكان في هذا الشأن.

واستناداً إلى هذا تقوم الورقة بتقديم التوصيات العامة للتخطيط والتصميم السكني، من الناحية الحرارية خاصة، والتوصيات بشأن بعض النماذج المحددة بمناطق الخرطوم الكبرى المختلفة كمثال، وتوصيات حول توجهات المحترفين والمخططين والمهندسين وأخرى على مستوى السكان لإيجاد الحلول المناسبة للمناطق السكنية الجديدة من جهة، وترقية الأداء الحراري في المناطق القائمة من جهة أخرى.

**Keywords:** Architectural Scale - Planning Scale - Passive Thermal Performance - Perception - Users Level - Professionals Level - Theoretical Yardsticks - Region of Khartoum - critical season.

**References**


