The Bio-Climatic Approach to Urban Public Space

A Thermal Evaluation of "Streets"

A Dissertation presented to the

Faculty of Architecture



for the

M.Sc. (Architecture) Examination

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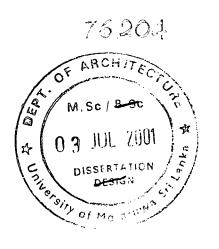
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Abstract

Public spaces are the heart of civic life in a city; the common ground where people carry out the functional and ritual activities that bind a community, whether in the normal routines of daily life or in periodic festivities. (Carr, et. al, 1992: xi). The physical environment of these spaces must encourage and accommodate the diverse activities that the citizens indulge in.

The success of urban public space is based on many factors, of which, the level of thermal comfort is seen as an important component. Although life in the equatorial tropics is largely an outdoor phenomenon, modern urban development has by and large failed to facilitate such living in a climatically pleasant manner. The approach then, should be an attempt to make the equatorial urban outdoors thermally comfortable.

The primary concern here is with the spaces in-between buildings, that strictly speaking belong to no building in particular.

The research establishes that;

- Shading or shaded areas of the urban outdoors have a distinct positive bearing on the thermal comfort of the people using these spaces.
- The orientation and the ratio of building height to the width of the space considered can be consciously modified in order to achieve the above
- Increased height to width ratio of the built mass increases the level of thermal comfort

University of Moratuwa, Sri Lanka.

This study is a research initiative that aims at developing urban patterns that facilitate climate-conscious urban design in the equatorial tropics, with special reference to the Sri Lankan context.

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