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ANTHROPOMETRIC DATA FOR STUDENTS IN THE TERRITORY OF PAPUA & NEW GUINEA

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ASIAN REGIONAL INSTITUTE FOR SCHOOL BUILDING RESEARCH

Anthropometric Data for Students
in
 THE TERRITORY OF PAPUA
and
 NEW GUINEA

HBRC

by: Mr. Chew Chee-Sun
Architect

المركز القومي لبحوث الإسكان والبناء

Housing & Building National Research

INTRODUCTION by:

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COLOMBO

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1. INTRODUCTION

1. At a seminar on "School Building Design and Construction in the Hot Humid Tropics" sponsored jointly by the School of Architecture and Building of Melbourne University and The Department of Education, Administration of the Territory of Papua and New Guinea, held at Port Moresby from 10 to 12 February 1970, it was noted that Mr. Chew Chee-Sun had commenced a study on the body sizes of the children of the Territory in order to improve the quality of data available to those responsible for designing schools and school furniture.

The work is now complete and is published in full after this introductory chapter.

Anthropometric data provides the start-point for all architectural design and in school design in particular it is of fundamental importance. Chairs, desks, laboratory stools and tables, chalkboards, cupboards, window heights, positions of door handles, light switches, heights of sinks, taps and a host of other building elements all depend, if they are to be correctly sized and located, on an understanding of the body sizes of the users.

For many years, most countries of the Asian Region used (in the absence of better information) anthropometric data for European or American children in designing schools. Very generally, we have established that Asian children are 12% smaller than European children and that, because of this, most of the school furniture in use in the Region was too large. A child sitting on a chair which is so high that the feet can hardly touch the ground, suffers great discomfort due to the weight of the leg pressing on and thus partly obstructing the popliteal artery at the back of the thigh. The child attempts unconsciously to relieve the pressure by movement which is described in a class of children as restlessness. This occurs some while after the lesson starts. If the chair is conventionally designed, the child may rock it slightly and, if as so often is the case, the wood of which the chair is made is unseasoned, the joints soon loosen and the chair becomes unusable.

This illustrates how in one simple case the lack of anthropometric data, necessary for the proper design of chairs, can disturb the teaching and learning process and also result in damage to furniture - often in countries which can ill afford replacements.