



**UNIVERSITI PUTRA MALAYSIA**

**THE CHARACTERISTICS, CHANGES AND EFFECTS OF BUILDING  
ELEMENTS IN THE TWO-STOREY PUBLIC LOW COST HOUSING  
ON THE MALAY CULTURE CORE**

**ZAITON BT. ABDUL RAHIM**

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**By**

**ZAITON BT. ABDUL RAHIM**

**Thesis Submitted in Fulfilment of the Requirements for the  
Degree of Master of Science in the Faculty of Human Ecology  
Universiti Putra Malaysia**

**August 2000**



To all the inhabitants of the low cost housings in Malaysia

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in  
fulfilment of the requirements for the degree of Master of Science

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The culture core of the inhabitants has been found to influence the building elements in house design, especially in creating a supportive living environment for the inhabitant's lifestyle. The changes in the culture core of the inhabitants have also been found to influence the changes in the building elements. However, this is not the case in low cost housing because generally the inhabitants have no control over the design. Studies have shown that the low cost housing designs lack the cultural aspects of the inhabitants. The result is that the inhabitants have to adapt their culture core with the physical shell of the houses until modifications are done on the houses. In this process, some of the important aspects of the culture core were either compromised or lost. Using analytical review, content analysis and case study, this study analyses the characteristics, changes and the effects of the building elements on the Malay culture core in the two storey public low cost housing. Analytical review involves a detail analysis of the characteristics of the building elements in the traditional Malay house as the

baseline. Content analysis analyses the characteristics and changes in the building elements of the public low cost housing designs and finally six case studies were employed to evaluate the effects of the building elements on the Malay inhabitants' culture core. The results indicated that the characteristics and the changes in the building elements were not congruence with the changes in the culture core of the Malay inhabitants. The results also showed that the inhabitants were unable to practice their lifestyle according to the culture core. As such, the study suggested that the design of the low cost housings be improved by including the important aspects of the inhabitants' culture core.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia  
sebagai memenuhi keperluan untuk ijazah Master Sains

**CIRI-CIRI, PERUBAHAN DAN KESAN ELEMEN-ELEMEN BANGUNAN  
DALAM REKABENTUK PERUMAHAN AWAM KOS RENDAH TERES  
DUA TINGKAT KE ATAS BUDAYA ASAS MELAYU**

Oleh

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**Ogos 2000**

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**Fakulti: Ekologi Manusia**

Budaya asas penghuni rumah telah didapati mempengaruhi elemen-elemen bangunan dalam rekabentuk rumah terutamanya untuk mendapatkan satu suasana rumah yang menyokong gaya hidup penghuni. Perubahan dalam budaya asas penghuni juga didapati mempengaruhi perubahan dalam elemen-elemen bangunan. Walau bagaimanapun, perkara ini tidak berlaku dalam perumahan kos rendah kerana kebiasaannya penghuni tidak terlibat dalam proses rekabentuk rumah yang disediakan. Banyak kajian telah menunjukkan rekabentuk rumah kos rendah kekurangan nilai-nilai budaya penghuni. Kesannya ialah penghuni terpaksa menyesuaikan budaya asas mereka dengan fizikal rumah sehingga pengubahsuaian rumah dapat dilakukan. Di dalam proses penyesuaian ini, sebahagian dari ciri-ciri budaya asas yang penting samada dikompromi atau hilang begitu saja. Dengan menggunakan kaedah analisis ulasan, analisis kandungan dan kajian kes, kajian ini mengkaji ciri-ciri, perubahan dan kesan elemen-elemen bangunan ke atas budaya asas penghuni-penghuni Melayu yang mendiami perumahan

awam kos rendah teres dua tingkat. Analisis ulasan melibatkan analisis terperinci ciri-ciri elemen-elemen bangunan rumah tradisional Melayu sebagai asas rujukan. Analisis kandungan menganalisis ciri-ciri dan perubahan elemen-elemen bangunan dalam rekabentuk perumahan awam kos rendah dan akhirnya enam kajian kes digunakan untuk mengkaji kesan-kesan elemen-elemen bangunan ke atas budaya asas penghuni Melayu. Hasil kajian menunjukkan bahawa ciri-ciri dan perubahan elemen-elemen bangunan tidak selari dengan perubahan budaya asas penghuni Melayu. Hasil kajian juga menunjukkan bahawa penghuni tidak dapat mempraktikkan gaya hidup menurut budaya asas mereka dan sebahagian dari ciri-ciri penting budaya asas ini terpaksa di kompromi atau hilang begitu saja. Oleh itu, kajian ini mencadangkan agar rekabentuk rumah kos rendah di dipertingkatkan dengan mengambil kira ciri-ciri penting budaya asas penghuni rumah.

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## LIST OF ABBREVIATIONS

- |    |      |   |
|----|------|---|
| 1. | LRMD | Low Rise Medium Density                   |
| 2. | PLCH | Public Low cost housing                   |
| 3. | SEDC | Selangor Economic Development Corporation |
| 4. | TSLH | Two-storey Low Cost Housing               |

## **CHAPTER I**

### **INTRODUCTION**

#### **Introduction**

Chapter 1 is divided into two main sections. The first section introduces the background to the research and the second section describes the thesis.

#### **Research Background**

The emphasis on low cost housing in Malaysia began in 1961 when the government announced the creation of home ownership democracy (Abraham, 1979). The backlog in urban housing resulting from squatting in the 1960s and the rural-urban migration from 1970s onwards, resulted in significant increase in demand for more housing units. In 1968, in Kuala Lumpur alone, it was estimated that there were 20,000 squatter families, which accounted for 30% of its population (Ministry of Local Government and Housing, undated). As a result of the National Economic Policy that encouraged more Malays in the commercial sector, it was not surprising that about 68.3% of the total rural-urban migrates in the 1970s were Malays (Malaysia, 1979). Due to that, demands for housing are critical especially in the low cost housing units. It is estimated that by the year 2020, at least 65% of Malaysia's population would be urban dweller and a large proportion of



housing demands are from the low income groups (Ministry of Housing and Local Government, 1994).

Two problems arise from the housing situation, first, even though the government has made an effort to ensure the housing supply, the number of housing provided do not meet with the demand of housing of the low-income groups (Razali, 1993; Khor, 1981). Second, qualitatively, the type of housing provided has not been satisfactory as indicated by studies done on low cost housing, in terms of thermal comfort (Hui, 1999), actual family housing needs (Ahmad Hariza and Chow, 1998), space deficit (Husna and Nurizan, 1987; Leong 1979), comfort (Sulong, 1984) and social, cultural and religious needs (Tan, 1980). The second aspect is very important as it influences the quality of life and has a long term effects on the inhabitants.

The low cost housing designs has always been governed by economic constraint (Leong, 1979). The influence of the western models and prototypes can be seen in the local housing designs. The houses are generally built with minimum space standards as provided by the Ministry of Housing and Local Government without much consideration on the cultural aspects, which consequently resulted in the low satisfaction (Sulong, 1984), and adaptation on the living pattern and activity systems of the inhabitants (Tan, 1980). According to Lim (1981) and Vlatseas (1990), these prototype houses do not reflect the culture and lifestyle of the users. Building elements from the traditional Malay house, which are sensitive to the culture of the inhabitants, have very little influence on the present low cost housing designs

as suggested by Lim (1987), Vlatseas (1990) and Gurstein (1994). Lim (1981) further stated that very often, the users have to suit their lifestyle to the house. This has caused problems and disruptions to their livelihood and helps to erode their culture and lifestyles.

Housing is more than just the provision of “a roof over one’s head” (Turner, 1976, Parid, 1997). Studies have shown that the people’s cultural aspects, which consequently supported the living pattern and activity systems of the inhabitants, have shaped traditional houses. Tan (1980) further stated that in order to create a total living environment for the people, important cultural aspects of the inhabitants have to be given due consideration.

Ideally, housing designs should support the culture core of the people. The culture core is the living pattern and activity systems of the people, within a group of people (Rapoport, 1990). Aspects of culture core influences the house designs includes family structure, position of women, privacy, separation and social segregation, and the daily and occasional activities within the parameter of the physical environment, accepted as the norm for a group of people. In the context of public low cost housing in Malaysia, the important culture core of the inhabitants, particularly the Malays, who constitute the majority of the inhabitants as indicated in Appendix A, need to be identified and given due consideration in the designs. Studies has shown that the Malays migrated from the rural areas have brought with them their cultural and traditional institutions and means of social control, consequently formed integrated communities within the urban setting (Sen, 1979). As such

low cost housing designs should be able to support the culture core of the inhabitants in order to create a total living environment, which allows the inhabitants to maintain their cultural practices. Correa (1989) commented that it would be relatively easy for people to adjust the spaces to suit their own preferred lifestyle when housing pattern is sensitive to the social, cultural and religious determinants of our environment. However, in Malaysia, there is little or no definition given to the form of shelter, especially to the social, culture, spiritual and psychological function as pointed out by Tan (1980) and Zulkifli (1991).

Based on the studies and work discussed, there is a need to examine the aspects of low cost housing designs in relation to the cultural aspects of the inhabitants. Understanding of the relationship between the specifics of culture core and building elements of the housing designs would help to create a sensitive and supportive housing environment.

### **Research Problem**

Built environment is the visible expression of relative importance attached to the different aspects and the varying ways of perceiving reality. There is a link between culture and built environment in two senses. Firstly, the understanding of culture is important to the understanding of built environment, since the built environment is the physical embodiment of culture; and secondly, once built, the physical environment affect the culture and the way of life. Man may build to control his environment, but it is as

much the inner, social and religious environment as the physical one that he is controlling- the ideal environment in cultural terms (Rapoport, 1969).

Studies and work by Rapoport (1969; 1990), Correa (1989) and Sinha (1991) suggested that the culture of the people influenced the houseform as an important part of the built environment. Traditionally, the building elements are 'designed' to support the culture core of the inhabitants. According to Morris and Winter (1978), families judged their housing and other people's housing using certain culturally derived criteria known as cultural norms, which include the full range of rules that society promulgates in more or less formal ways to govern the way people live and behave (1978). They further stated that cultural norms are the standards by which the behaviour exhibited or conditions experienced by the members of a culture are evaluated as "good" or "bad". Newmark and Thompson (1977) stated that to remove people from housing that is closely related to their particular way of life is to disrupt an important touchstone for an integrated, well adjusted personality in that culture (Newmark and Thompson, 1977).

The form of housing design dictates the activities that can take place in it. It defines the space, which frames many of the activities that constitute primary relationships in the home (Kemeny, 1992). Newmark and Thompson (1977) further stated that in every culture, the form of the house, the layout of space, which is part of the building elements and the arrangement of furnishings and equipment influence the nature of the activities that can take place within its walls. Langers (1953), Rapoport (1969) and Brolin (1976) suggested that it is

the specifics and characteristics of the culture core that influenced the building elements particularly the arrangement of spaces, position and location of windows and supporting elements. A study by Lindberg, Garling, Montgomery, and Waara (1987) has indicated that evaluations on the aspects of housing quality were best predicted by their consequences for performing everyday activities, which in turn were highly correlated with beliefs about these activities and their roles in the attainment of important life values. As such, the home as a personal sphere must be designed to accommodate the natural everyday movement with few obstacles to the environment for it to be experienced as comfortable and satisfying. The emotions, which the universal aspects of housing problems stir up, proved its close association with deep human and cultural values (Turner, 1972). As such consideration on building elements, which directly effect the inhabitants' living pattern and activity systems is essential in any housing design.

All designed environments result in environmental changes, i.e. they are purposeful modifications of our physical surroundings (Franck, 1985). As such, there is a need to examine the cultural consequences of planned interventions as in the case of housing designs as to be able to judge their impact. The need is greater in the low cost housing where inhabitants are generally have limited economic ability to make changes to the housing units. A study by Sulong (1984) indicated that the lack of cultural consideration in the low cost housing designs, has resulted in the modification of majority of the houses as to produce a supportive living environment to support their living pattern and activity systems and not merely for aesthetic reasons. In

most cases the modifications involved the building elements such as changes in the space organisation which involved the addition of bedrooms and porch, relocation of stairs and changes in the position and characteristics of windows and doors. Considerations on the building elements in the low cost housing designs in relation to the culture core of the inhabitants would minimise future renovation and modification. Economically, it will reduce unnecessary changes on the existing designs.

In a plural society like Malaysia, the needs to accommodate the different community groups' cultural needs become more complex as the needs differ from each other. There is a need to study the individual cultural needs of each of the community groups in order to produce a supportive living environment for all. This research attempts to identify the characteristics of the building elements important to support the present culture core of the inhabitants, and to examine the changes and effects of building elements on the inhabitants. Understanding the characteristics of building elements, its changes, and affects on the inhabitants is important to help produce supportive low cost housing designs which are sensitive to the cultural aspects of the inhabitants.

### **Research Objective**

This study aims to examine the building elements in the low cost housing designs in relation to the Malay culture core. The specific research objectives for the study are outlined below: