

A Discourse on Housing Based on Cultural Meanings in Malaysia

Thesis submitted for the Degree of
Doctor of Philosophy
In Architecture

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In the name of Allah, the Most Gracious, the Most Merciful

AUTHOR'S DECLARATION

The thesis is my original work and has been composed solely by myself

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Abstract

The central aim of the thesis is building a discourse on housing, highlighting the necessity to maintain quality through sustaining the cultural meanings, which originate from nature, cosmology, worldviews, and traditional values of Malaysian society. The thesis critically addresses the housing policies and strategies, in which the visions of quality are still very ambiguous. The Malaysian government has adopted a housing policy, which imposes homogeneity and similarity on the diverse multicultural ethnic societies that are affluent with indigenous knowledge, tradition and unique identities in their dwelling architectures.

The research approach is divided into three major parts, and the conclusion. The aim of Part One is to draw attention to the Malaysian housing phenomena and the thesis aspiration. The first chapter covers the country background and its social-cultural context. Despite the cultural diversity, the Malaysians possess a common attitude towards nature. The thesis identifies the philosophical notion of boundary, as a valuable intellectual tool in developing an indigenous model for housing. Boundary has subconsciously driven the formation of various cultural and architectural identities in the Malaysian indigenous dwelling environment. The second chapter continues the process of enlightening the housing discourse by clarifying the need to decipher the meanings related to housing, human perceptions, and aesthetics.

The second part of the thesis discourse establishes three chapters, which form the philosophical structure of the thesis. The aim of Part Two is to demonstrate the components of cultural meanings, which are the motivating forces responsible for the formation of indigenous dwelling architecture. For the purpose of the research, the study concentrates on the indigenous Malay society as the focus group. This part explores on the qualities originating from the indigenous worldviews of the Malay society, followed by identification of the characteristics of the indigenous model, including the notions of adaptation, sustainability and boundary. The end chapter of Part Two is an intellectual discourse, which supports the main components of the indigenous model.

Part Three is the empirical study, in which the author gains insights directly from examining people's perceptions, i.e. from the open-ended questionnaire survey and the indigenous dwelling typologies survey analysis. The aim is to explore the relationship between people and the qualities of living environment through the contribution of cultural meanings. The study enhances more on what the author have already done in the deductive part (Part Two). The outcome of the empirical studies

demonstrates the manifestation of these notions in different indigenous dwelling architectural typologies and works of art.

The conclusion chapter distils the information gained from the findings of both theoretical framework and empirical studies, by identifying the crucial domains for obtaining quality through cultural meanings in the living environment. It also provides recommendations concerning the future housing policy, strategies, planning, and design guidelines for housing in which the architects, planners and housing authorities are able to interpret, and implement in search of a national architectural identity for housing in Malaysia, which is tolerant, sustainable and unifying.

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DEDICATIONS

The thesis is dedicated to:

*My Beloved Husband, Nazri Mustapa
Son, Muhammad Ei'jaaz
Daughter, Ahdia Hasina Raeesa
&
My Dearest Family*

*.... For the enduring love, support, sacrifices, hopes and joy that you have all given
me....*

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1 Understanding the Context

1.1 Introduction

This chapter will highlight the background of Malaysia, studied in the thesis, in terms of its historical, social and cultural structure. The country's unique mixture of multi-racial and strongly religious society is challenged to find a balance between preserving the indigenous cultural ways of living and facing the demands of contemporary lifestyles. The researcher argues that the decrease of public awareness in the deep-rooted indigenous knowledge is one of the core issues of the predicaments. This notion hence becomes the origin of the research proposal as shall be described in this chapter.

The chapter concludes with the researcher's enlightenment to the Malaysian government and housing authorities about the significance of ontological boundary notion (refer Saridakis, 1999), as a positive design guide to create an indigenous model for housing in the country. The notion of boundary proposed by Saridakis (1999) provides many insights in understanding the need for the multicultural Malaysian society to maintain their individual cultural identities within the living environment. The author perceives this notion as a motivating guide for the research. The subject shall be explained in more detail further on.

1.2 Malaysia's Background

Malaysia is a country in South-east Asia, which is facing vast and rapid development in both its urbanisation and industrialisation endeavours. As a country in transition, between established and developing processes - and in the era of globalisation, interactive international communication and advanced technological developments - Malaysia is also confronted with similar problems faced by neighbouring countries and worldwide.



Figure 1-1 Landscape view of Kuala Lumpur City modern development

Source: the internet

The repercussions of rapid development are not always seen as positive progress. On the contrary, its impacts are quite often detrimental in terms of the social development and the society's cultural continuity hence identity.

In general, today, people have no control over their environment. The authority lies in the hands of the central government, developers, as well as built environment professionals who establish the contemporary representation of the housing environment. People, being passive receptors, are imposed to live in the mass-housing development, without first being consulted. The controllers of the built environment, i.e the developers and the designers assume that they have covered all the design aspects and requirements via their own interpretations. Housing developers strive for profit maximisation by cutting cost and time to build, while the government presumes that with the current approach of rapid development in high-density housing projects, it would be able to solve the issues of housing demand in Malaysia within a short term.

The author views that in one respect, the assumption is valid in terms of looking at it as an immediate solution for the high demands of housing supply. On the other hand, a home designed without any consultation with the end users always neglect to consider the essential aspect of meaning in a spiritual sense, aesthetics values, as well as accommodation for cultural, religious, or traditional activities in the living environment. Moreover, people are forced to endure the rigidity of an imposed environment, as opposed to the flexibility of traditional dwelling surroundings they used to have. In this light, the thesis argues that traditionally, the different cultural ways of living are visible externally (architecturally) and internally from the styles of dwelling designs to the surrounding living environments. In contrast, at present, the cultural manifestations are only visible within the domains of individual dwellings compartments. Even sadly, the opportunity to express cultural traits in the living environment is sometimes difficult to be implemented, due to the outlandish modern living design layouts imposed on people. In this light, the thesis questions, instead of people having to adapt to a rigid modern housing (which is adopted internationally), would it be possible to develop a model for home environments, which is designed to adapt to people's culture, and revitalize the practical solutions of housing issues and the living environment as been developed by indigenous and traditional resources?

From the statements above, the researcher has identified three main predicaments in contemporary Malaysian housing, which will be developed into the main focus of the thesis:

1. Development approaches – influences of modern, international world-visions and philosophies that are alien to the local context. – Shift of responsibilities in design and the development of the home environment;
2. Predicaments of identity – architectural, social unity – loss of local identity;
3. Changes of lifestyles – local cultures, traditional values, and sense of responsibility (socially, morally), the vanishings of traditions and cultural activities.

Hence, the thesis attempts to investigate and explore the missing elements in the contemporary approaches to housing design in Malaysia and developments that have led to such a predicament.

1.3 Social and Cultural Context



Source: the internet

Figure 1-2 Faces of the multi-cultural society in Malaysia.

1.3.1 The Origins of a multi-cultural society in Malaysia

In order to understand the context of the thesis, the researcher will introduce the social and cultural context of Malaysia, which led to the inception of the research study. In Malaysia, the evolution of a multi-cultural society began in the mid-fourteenth century, during the spread of the Melaka Sultanate Empire. Besides the indigenous tribes, the native inhabitants of the land include the Peninsula Malay societies and their ethnic descendants who migrated from the neighbouring countries, especially from Jawa and the Sumatera Islands of Indonesia and decided to settle in the Peninsula Malay land as well as Borneo Island in the very early times. They were mostly farmers and fishermen who normally lived in the plain paddy fields or next to the coast, whereas the indigenous aborigines normally lived in the forests and along the rivers.

The Malays and indigenous tribes are considered the *bumiputera*¹ (sons of the soil) of the land, as they are historically the native population who settled in the land long before the comings of the external immigrants. The Malays, through their traditions and civilisation throughout the history of the country have produced a very rich and unique living architecture as well as a way of life, which has embraced the teachings and principles of Islam for centuries.

The Malays are known for their skills in seafaring and art and craft works. At the time, the Malay world was known as the Austronesian world (see Figure 1-3), which covers the whole area of Southeast Asian countries up to the southern part of the Philippines. By far, the Malay language was known throughout the Asian region as the “*lingua-franca*” of the Austronesian world. Ridwan² claims that as “the” language conversed by millions of people in the Malay world, the Malay language also acts as the **cultural union**. This kind of string, according to Ridwan, “*does not recognise the boundaries of countries, races, nor tribes. The language union owned by the Malay language in line with the Malay ethnic culture societies.... In truth, the Malay language is one of the world’s languages, the universal cultural language, or the bind that ties the confederation, union, as well as brotherhood of the world’s population.*”

¹ The Malays earn the title *Bumiputera*, or ‘the sons of the soil’ because they were the first to occupy the Malay Archipelago. Archeological findings based on many Malay communities’ artefacts dated as early as 2500BC, point to the rightful claim by the Malay people of the land (Bahauddin et. al, 2004: 12).

² According to Ridwan, T.A., “*Bahasa Melayu: Peranan dan Nilai Moralisma Di Dalamnya*” (“*Malay Language: Roles and Moral Values Within*”) the Malay language is not just a communication tool, but also a social alliance, cultural language, educational language, political society language, as well as knowledge language.

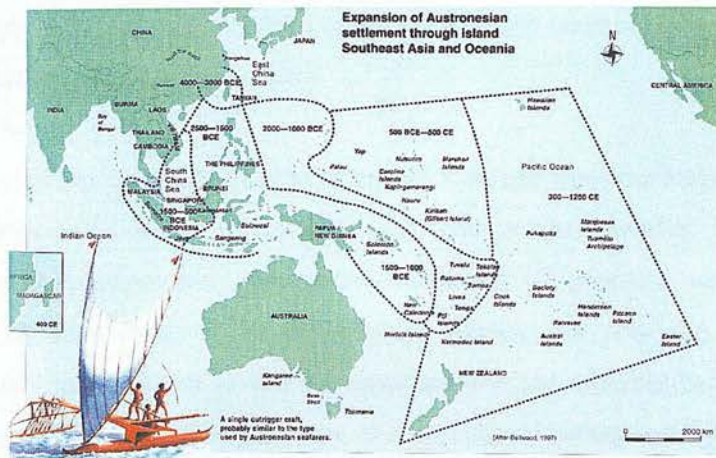


Figure 1-3 The *Austronesian* world

Due to the country's strategic location i.e., at the meeting point between east and west Asia, the Malay peninsula became a tactical spot as a trading port between the Indian and Arab merchants from West Asia, and the Chinese and Japanese merchants from East Asia. Ever since Melaka became the trading port, the Malay civilised land had flourished and fused itself with the external cultural and religious traditions of the foreigners. In fact, the religion of Islam were brought by Arab and Persian merchants and the locals accepted it as their faith and eventually, the religion spread throughout the country and to neighbouring Indonesian islands, as well as in Mindanou, the southern part of the Philippines.

During the British colonial era in the Malay peninsula, more southern Chinese and southern Indian immigrants were brought by the British as labourers to work in the tin-mining factories and rubber or palm-oil plantations respectively. These communities not only brought their own cultures into the country, but also their architectural lifestyles (for those who could afford to). Some decided to stay and settle down in the country and from then on, Malaysia became a multicultural society. Today, the majority of the 26.26 million Malaysian population³ consists of Malays, followed by the Chinese, the indigenous tribes, the Indian community, and finally, other foreign ethnic communities.

The multiethnicity of the country's ethnic population means there is also a range of social, cultural and well as religious or spiritual practices. The religious societies mainly practise the religions of Islam (primarily Malays), Buddhism, Confucianism, Taoism, Daoism, Hinduism, Christianity, and Sikh. 'Shamanism'⁴, an ancient religious, medicinal belief and practice is still being practised by

³ According to the latest Malaysian Statistic Department report, within the last three-quarters of 2005(update 20th Oct 2005)

⁴ The author selected two definitions of 'shamanism' from the web as:

- Shamanism is one of the oldest tribal healing traditions found in many cultures around the world. The shaman, in an altered state of consciousness, uses forms of journeying to spirit worlds, along with prayer and ceremony to connect with the spirit animals or totems of the client. It is through this guidance the practitioner helps their client find a state of balance and well-being.

www.footnotesforhealth.com/definitions.html

the tribal communities in East Malaysia. Islam is the official religion, but the country allows freedom of worship. Thus, one would find a variety of cultural ways of living as well as religious buildings in one place throughout the country.

Culture is innate in nature, embedded in the minds of societies from the beginning of civilisation. Every culture possesses a system to structure an order to their worlds. The system, always perceived as sacred, spiritual and a cognitive evolution of people's worldviews, has been transformed into physical forms such as dwelling places, the arts and crafts; martial arts instruments and many more. Barati (1997) mentions cultures are different because of their content and their structure and people need to be aware of their cultural perception "glasses" when looking at another culture – its symbols, people and structure (Barati, 1997: 265). The thesis shall attempt to tackle these issues in the following chapters as part of the indigenous characteristic of the housing model.

1.3.2 Attitude towards nature among different ethnic cultures in Malaysia

Despite ethnic backgrounds, religions, ways of living and so forth, which differentiate and identify the societies, the various traditions among ethnic societies in Malaysia share common values or appreciations in their attitude towards nature and the natural environment. The appreciation towards nature is apparent in their cosmological, symbolic as well as spiritual values and manifested in the arts and crafts, architecture and the built environment of each society. Barati (1997) asserts that in some philosophical ideas and particularly in the traditions of Eastern mysticism, existence has always been considered as a unified whole. ElFiki (2003) agrees, commenting that ancient societies of the East are known to have always been religious. The most significant feature of these societies is the holistic interpretation of the world (ElFiki, 2003: 26). Capra states that, "Although various schools of Eastern mysticism differ in many details, they all emphasise the basic unity of the universe which is the central feature of their teachings. The highest aim for their followers is to become aware of the unity and mutual interrelation of all things, to transcend the notion of an isolated individual self and to identify themselves with the ultimate reality" (Capra, 1983: 29).

The following section briefly illustrates the existence of common values and appreciation towards nature and the environment among the major cultures in Malaysia as manifested in their arts, architectures and the built environments.

▪ This is a "system of religious and medical beliefs and practices that centers on the shaman, a specific type of magico-religious practitioner...who specializes in contacting and controlling the supernatural." 1 Usually male, his main task is healing. Shamanism was originally centered in central Asia and Siberia.
www.religioustolerance.org/gl_sl.htm

1.3.2.1 The Malay cosmology and symbolism

Before Islam arrived in the peninsula, the Malays who were then animists, Buddhists and Hindus had always been producing art. Therefore, the philosophies applied in their arts were based on these religions, in keeping with the Malay devotion to the divine power of the Supreme Being. The interpretation of meanings in the variety of motifs, spaces and gaps between motifs were then designed based on the said religious beliefs. Traditionally, the artistic as well as architectural manifestations are a combination of the representation of animistic beliefs, and the assimilation of Hindu-Buddhist as well as Islamic ideologies. When the Malays converted to Islam, the symbolic meaning of any medium was changed to be incorporated with Islamic teaching, leading away from superstitious and supernatural beliefs (Jusoh).

The Malay arts and crafts as well as architecture have a very intimate relationship with nature. For instance, in some designs, plants are portrayed repeatedly in Malay art because they are believed to have the power of healing. The traditional Malay house is compared to the parts of human body and its various design elements possess many references to the spiritual, symbolic and cosmic meanings, as shall be investigated in the later chapters.

1.3.2.2 Chinese philosophy

According to Hamzah (2003), the temple, the kongsi building and the courtyard house are linked by *Fengshui*⁵, which are, in turn, dependent on the formations of nature and its anthropomorphic attachments. He adds that the Chinese traditional beliefs such as *Taoism*⁶, *Yin and Yang*⁷, Confucian principles and ancestral worship also denote that the nature's underlying role is as a driving force for the production of Chinese indigenous architecture. The *yin and yang* concept was reflected in the Chinese physical environment in many ways: for example, we think of the inside and outside of a building as two elements opposing one another and they work – or should work- in harmony together (Abdalla, 1998: 226).

⁵ The term literally means wind and water, but at a deeper level, it connotes an ancient Chinese geomancy tradition built on the notion that the form of land features, soil types, and the configuration of waterways could correspond with constellations and also hold innate and changing “auspicious” or “inauspicious” qualities (Chen, K., 1992).

⁶ It is an ancient philosophy, which also became a popular religion based on the patterns of nature and perceiving man and his nature as microcosms of the universe (Abdalla, 1998: 226). Taoism believes that man should reflect the balance and his place in nature should be in harmony (ibid).

⁷ This concept believes that all things in life have a unity of opposites.

ATTRIBUTES OF YIN AND YANG	
YIN	YANG
dark	light
female	male
passive	active
moon	sun
rain	sunshine
earth	heaven
water	mountains
winter	summer
cold	heat
tiger	dragon

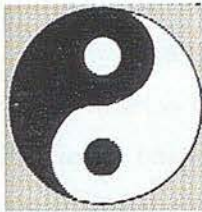


Figure 1-4 The Yin-Yang and their attributes

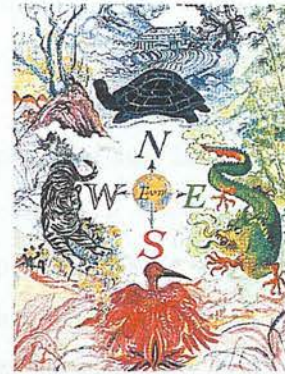


Figure 1-5. Animal symbolism in Chinese philosophy

Hamzah suggests that nature does play a significant role as the driving force behind the structure of indigenous architecture and its evolution. The author strongly supports his comment that, “Nature, coupled with a traditional system of beliefs and symbolic attachments, is able to locate itself an intimate position within the hearts of the end users; the intangible emotions evoked from memories and nostalgia derived from indigenous architecture are unique and unlikely to be reproduced under other circumstances” (Hamzah, 2003: p 60).

1.3.2.3 Indian Cosmogony⁸ and Cosmography⁹ in the Malay world:

Singaravelu (1970) finds some similarities between the main elements of Indian cosmogony theories and cosmography and the Malay world, as summarised below:

- The cosmogony theories emphasise the godly power characterised by the cosmic logic, and with reference to ancient water as the source of origin. The important nature of the cosmogony theories is that the universe of cosmos is described as an organised condition and it is not chaotic anymore: when a chaotic condition is transformed into an organised situation to survive in this world, it becomes a part of the cosmos. For instance, a pure untouched soil that has not been worked upon or lived by humankind is not part of the cosmos. Hence, when men explore and develop the land, the activity has the same characteristic as the act of transforming the chaotic condition into an organised state (Eliade, 1959: 9-11).
- The Indian and Malay world cosmography theories stress the attributes of continental, peninsular or islander, the seas and the mountains that suit both provinces’ geographical locations. The importance of these cosmography theories is that they are meant to provide a way, reference or guidance for the inhabitants and rulers in the earth world as comparative meaning, so that the role or functions and the ruler’s noble characters and his citizens can be interpreted as the reflection of God’s omnipotent qualities who created and protected the whole cosmos and entire living beings. Perhaps it is for this purpose that the ruler’s authorities would organise the city structure as a microcosm, with the existence of ditches and defence walls, which symbolise the macrocosmic sea and mountain range, and with the establishment of a

⁸ Cosmogony (theory of origin)

⁹ Cosmography (Depiction of cosmological structure)

mountain or hill, or a holy multi-level building like the mountain, in the middle of the city to represent the *Mahameru*¹⁰ mountain as the central axis of the cosmos (Heine Geldern, R., 1942: 15-30).

1.3.2.4 Similarities between Hinduism-Buddhism Symbolism and Islamic Symbolism

The Malay civilisation in the Malay Peninsula that reached its peak during the Malaccan Sultanate had established an relationship with neighbouring countries such as Thailand and Indonesia, as well as Indian and Middle Eastern merchants from West Asia, and also commercial and trading links the China in the East Asia. Apparently, there were three major worldviews and religions brought by the merchants that were assimilated into the local cultural and religious practices – Hinduism, Buddhism and then Islam. The religion had attracted the majority of the local Malay population who previously had practised animism, shamanism and Hinduism-Buddhism. Islam was adapted to the local culture as long as its traditions did not contradict with the teachings. For example, until this day, the Malays are still practising wedding ceremonies adapted from Hindu traditions.

Although, there are vast differences among the three religions, in the study, the researcher discovered that there are indeed some similar cosmological understandings among them that are actually based on the same symbolic representation, albeit that they differ in their interpretations. From the Islamic tradition the Prophet Idris, better known as Jawan (in the region) left two important symbols 5,000 years ago that still exist today:

1. The Shadow Play (“*Wayang Kulit*”)

Through this play, people were taught to appreciate that every move, speech and hearing sense are in fact God’s will. It made people realise the existence of Godly truth within themselves. With this sense of realisation, one would hold on to the reality of God, and would be safe in one’s striving for life in this world and in the next.

Shadow play is also an important symbolic representation of the Hindu Gods epic and mythology – Mahabrata and Ramayana. In the north-east coast of the peninsula, especially in Kelantan state and the Thailand border, shadow play was and still is a famous Buddhist cultural trait left by the neighbouring culture.

2. The Dragon

According to the book, “*Sulalatus Salatin*” (The Malay Annals) again, the origin of the dragon symbol in the Malay Peninsula is derived from the story of the Prophet Idris as being taken up to the heavens where he came across a gigantic seven-coiled dragon with each of its scales, each fin, and each of the thousands of branches of its tongues, were all worshipping God. The reason was to

¹⁰ *Mahameru* mountain is viewed as a cosmic mountain which acts as the cosmic centre and a link between the heaven’s world and the earth’s world (including the earth’s underworld).

make the heavens repent for being arrogant and to return to worshipping God alone. According to the book,

"The prophet then return to earth and relay the message to his uncle, Yafith, or Jamadagni, who asked him to draw the dragon on the muddy, but dry bare land. The uncle brought the symbol of repentant to China when he became the Chinese ancestor. "Snake Dragon" became the symbol of God. When it was coiled into a circle, it symbolised "the Divine's Encompassing Nature", and when it was straightened, it became "al-Tarik al-Mustaqim" (the Straight path) going towards Allah, the one God. When it was waved up and down, it symbolised the Jamal-Jalal characteristics, i.e. the simple versus difficult from the Divine's qualities. And finally, if the Snake Dragon entwined someone, it symbolised God's might that clutch each creature that could never escape from His grasp."

Then Jawan altered the form of the snake dragon by adding fangs, a moustache, four legs, sharp nails and other scary body parts to scare off the indigenous tribes that fought against them in the fight and it was called "Naga". He then named all his ancestors in South-east Asian, the "Dragon Nation."

Synchronically, the local Chinese in the land of China also believed that they were the "Descendants of the Dragons" from the "Land of the Dragon". It is an ancient belief that certain animals possessed the power to contend with nature's harsh conditions. This idea gave rise to totems that represented shared blood ties. Totemic tribes evolved, each tribe worshipped a different totem regarding it as a common ancestor, a guardian, able to provide food and to avert disaster.

The mythological source, http://leadingtonearts.com/SyncreticArt/DragonTango_info/DRResearch/ChinD.html describes that China's earliest mythical figures "Fuxi and Nuwa" were ancestors of mankind. Half-man, half-fish, they possessed human faces with reptilian bodies. In the myth, a horse-dragon with four hooped legs and curly hair on its back, could walk on water as well as fly. It gave a map of the Yellow River to Emperor Fuxi who invented the Eight Trigrams used for divination, thus forming the basis of the concept of "I'Ching".

Oracle bones of the Shang and the "I'Ching" were used to divine agricultural matters of when and where to plant, harvest or fish. The "I'Ching" refers to dragons as bringers of thunderstorms. The first hexagram of the "I' Ching" is "The Creative", the ascending dragon. Taoists revere the dragon as the spirit of "The Way" who brings eternal changes and guards the flaming pearl of spiritual perfection. The dragon is the guardian of the flaming pearl, spiritual perfection and is depicted coiling among clouds revealing only parts of itself.

This illustrates the existence of similarities and also the boundary in time and space that exists and persists to live within the three cultures. Muslim, Hindus and Buddhists in the country apparently

do share similar cosmological symbols that are deeply rooted from the genesis of each indigenous worldview.

1.3.2.5 Summary of attitude towards nature among different ethnic cultures in Malaysia

In summary, despite the many differences and tensions that exist among societies, the similar worldviews on nature are shared by the respective cultures, which are the main ethnic groups in the country that can be perceived not only as a unifying and bonding element to engage people to respect each other's boundaries, but can also be used as a reference for a local national identity for the built environment in general, and more specifically for the thesis study, for the country's dwelling architecture.

1.4 A Proposal for Unity

Within the various cultures, traditions and religions, there should be a shared perspective among Malaysian people that would be able to unite people. Fawizah Kamal (1983) identified the idea of unity in her article entitled, "Unity of Culture and Knowledge in the Unity of Design." She described her idea of unity as follows:

"Unity should not be taken in the sense that you lump it all together. No, it is unity in the sense that it should consist of opposite ends that complement one another. There should be balance, there should be tolerance and freedom, there should be movement, and there should be change and dynamism."

(Source: Kamal, 1983 in http://archnet.org/library/documents/one-document.tcl?document_id=4308)

In her views about the notion of unity in design, Kamal mentions that the elements or the essence of unity are balance, harmony, culture and design; they should be combined to give a solution to identity. In this light, the author also identifies some unifying elements in the multi-ethnic, multi-cultural society which include:

1. Meanings in the living environment.
 - a. Despite all the social, economic and political differences, the Malaysian community is mostly if not all a religious society. Hence, symbolism and symbolic meanings are vital in the culture, tradition and norms of the society.
 - b. Psychological impacts of the living environment on society's development are also vital to establish the personality and behaviour of each society.
2. Unique culture, traditional values and ethics.
 - a. Malaysian people, irrespective of their ethnic backgrounds, are traditionally rich with culture, tradition, and similar eastern moral and social values. Thus differences do not necessarily mean barriers, but they are, in truth, the boundary that unifies the diverse communities.

In the past, when people still had authorities to build their own houses, these tensions and opposition were the driving forces for people to develop and transform their indigenous dwellings and architecture. A house was the space for containment, the expression of meanings. Today, this is not the case anymore. This raises the question as to why contemporary housing fails to provide the similar satisfaction, contentment and a sense of belonging as did the traditional ones. Until the practicality and advantages of indigenous and traditional dwellings are exposed, people will not be able to realize how vital they are to maintain the sustainability of housing specifically and the built environment entirely.

1.5 The Inception of Boundary Notion As a Research Tool

The variety of differences in ways of living indicates man's natural tendency to exist in opposition to each other, and the need to persist and maintain their differences from each other. When the researcher was first introduced to the philosophical notion of boundary by Ms Saridakis (1999) in her first year of study, the notion intrigued the author to use it as an intellectual tool to help her develop the model for housing, mainly due to the significance of the notion to be tested against the multicultural society of Malaysia. Saridakis introduced her notion of boundary as **an inherited existential or ontological force that has consciously or subconsciously driven the formation of our environment** (Saridakis, 1999, p7). She postulates that boundary is an ontological force, which confirms, defines and reunites man with his environment by offering opposition, provocation or a change of experience. She uses the theoretical conclusions of boundaries as representation of the physical environment through the unique material existence of architecture. Only by maintaining the boundary¹¹ are people able to live in peace and harmony, hence there is unity in diversity. This is what the author believes should be the identity for living architecture for the Malaysian community. Chapter Four shall elaborate more on the notion of boundary (refer section 1.26.3). The model should become an alternative approach to current trends of architectural juxtaposition and international intervention that play a dominant part in the destruction of the architectural identity of the country's living environment.

Boundaries in their symbolic existence create and are created, unveiling the process of evolution in the urban world, identifying the system within and the dynamics of their opposition, whether natural, historic, spatial or social, thus generating a medium through which the experience of the human and physical boundary is reinvented (Saridakis, 1999: 8).

In the context of this study, **boundary becomes a positive invitation for diverse cultures to exist in opposition to each other but which could also unite under the same umbrella of understanding about nature** (see Chapter Two). It promotes the idea of tolerance and balance among people of different races and religious background. This in a sense, would promote the

¹¹ This is what Saridakis (1999) maintains as the ontological boundary in her masters thesis (see Chapter Two on Boundary)

sense of community living that the urban society desperately needs, not only to establish a sustainable living environment, but also to preserve the respective cultural and religious way of living of each community that is rich with values, deep-rooted knowledge and an appreciation of nature and the environment. Hence, the objective for this thesis is to establish what exactly are the motivations, i.e. the motivating forces behind the development of the society, its culture, traditions, architecture, etc. that will be discussed further in the later chapters.

The boundary - the differences, the opposition, the tension – shall be used to introduce the background study and to explore in depth the genesis of its existence within Malaysian ethnic societies, which will include indigenous cosmological world-views and cultures that have been transformed into the practicality of indigenous architecture and living patterns. The differences, which exist and persist within these cultures, are seen as positive and constructive elements that invite and engage people to be united and integrated. The author strongly believes that this notion of boundary is an indispensable resource to be pursued in developing a holistic housing model for the establishment of identity as well as sanctioning social unity in diversity.

1.6 Aim and Objectives

7.2.1 Main Aim and purpose of thesis

The main aim is to build a theoretical framework, which can be interpreted academically and/or practically by the built-environment professionals and the country's policy, as well as decision makers upon the future housing development approach towards a more sustainable prospect and identity building. Hence its goal is to **propose a housing model based on the cultural meanings and cosmological understanding**. The model here refers to the mental, abstract or framework that would generate the guidelines in housing design policy. In other words, it shall be used as an **approach** to interpret and actualise the formation of future housing designs and developments in Malaysia.

The purpose is to distil the message to the general public especially those involved in the creation of our built environment. It is intended to create awareness of the invaluable aspects of indigenous heritage, which has taught the multi-religious and multi-cultural society values, respect and commitment to preserve and maintain relationship with nature as a way of living.

1.6.1 Objectives

The objective of the thesis is to build a framework for future planning strategies of housing development based on cultural meanings and the cosmological understanding. The thesis attempts to discover the genesis of indigenous worldviews that have assimilated effortlessly into people's attitudes towards life and way of living for centuries, creating a naturally sustainable living for the community and its environment. It is also an attempt to explore and validate the researcher's claim that the traditional worldview of the environment, as the embodiment of values and meanings can

propose a sustainable strategy incorporated into the future development of housing in the country. In addition, the author strongly believes that under the mutual umbrella of nature the diverse multicultural and religious Malaysian society may be able to unite, hence establishing the identity the nation have been desperately seeking for. In order to realise the formation of the housing model to achieve the main aim of the thesis, the objectives of the research are:

- To determine the characteristics of the housing model;
- To decipher the significance of nature, culture and worldview as the underlying factors which determine the sustainability of ways of living, sense of belonging and responsive and quality dwelling architecture and living environment;
- To acknowledge and recognise the existence of boundary among people and cultures and the need to maintain it;
- To attempt to provide alternative solutions for the housing predicaments, in three key questions:

1. **Development approaches** [the influences of modern, international world-visions and philosophies that are alien to the local context. – the shift of responsibilities in design and development of the home environment.]

What should be the most appropriate development approach for the new or future urban development and housing in particular to be more responsive towards the environment and people's culture?

2. **Predicaments of identity** [architectural, social unity – loss of local identity]

What is the correct term or interpretation for a national architectural identity for the built environment in this country?

3. **Changes of lifestyles** [local cultures, traditional values, and sense of responsibility (socially, morally), the vanishing of traditions and cultural activities.]

How can housing be developed to create a balance between the changing lifestyles and maintaining the sustainability of cultural ways of living?

1.7 Scope of the Thesis

The author acknowledges that the multi-cultural society of Malaysia has a lot to offer the thesis study, in relation to nature, and worldviews towards the living architecture and the dwelling environment. This is because Malaysians are mainly a religious people who enrich their lives with principles and values provided by their religions, philosophies and traditions. However, the thesis limits itself to base the housing model on the cultural meanings and the cosmological understanding of the indigenous society, so as to make the study more manageable. Hence, it would be most accurate to concentrate on the indigenous living environments of the native ethnic groups. Another reason for the choice is also because it is more practical and more manageable to handle a study on smaller groups. It would also enable the researcher to be more specific in her approach towards the study.

There is evidence that the wealth and richness, from an economic point of view, of many housing developments have failed to meet people's satisfaction in terms of the quality, hence, the focus of the thesis will be on achieving this quality in designing and developing dwellings for people to settle in and that they could feel attached to. The author believes that the reason lies in the lack of attention to deep embedded forces and values, such as beliefs, cultures, religion and cosmology in contemporary decision-making. Only by establishing and recognising the qualities and boundaries between various societies, will the outcome of housing product be able to benefit the whole of Malaysian societies.

1.8 Organisation of the thesis

The thesis has three parts and the conclusion. Part one is the thesis introduction to the background of the study and its context. Chapter One describes the contextual phenomena of housing and the living environment in Malaysia, its cultural structure, followed by the researcher's enlightening to the local government and housing authorities of the significance of boundary, as a positive invitation to the formation of a housing model based on people's cultural meanings, and cosmological worldviews in the country. Chapter Two presents a general discourse on housing and its situation in Malaysia and other developing countries, as well as the issue of responsibility, the elucidation of the meanings of the terms of house, home and housing, and also the notion of people's perception and their experience of the dwelling environments.

Part Two comprises of three chapters, which form the theoretical framework for the thesis. Chapter Three explores the qualities of indigenous Malay worldviews in the context of the thesis study. By establishing the indigenous qualities from this chapter, the next chapter introduces readers to the characteristics of an indigenous model for housing based on an understanding of cultural meanings and cosmological worldviews. The indigenous characteristics in Chapter Four are also associated with the concepts of "Adaptation", "Sustainability" and "Boundary". Chapter Five, then attempts to elucidate various scholars' theoretical and intellectual views about the relevant characteristics that support the indigenous model. Hence, Part Two is also described as the Philosophical Structure (core structure¹²) of the thesis.

Part Three of the thesis is the empirical study, which is divided into two chapters – the questionnaire survey analysis and the indigenous dwelling survey analysis. It acts as the identity, i.e., the embodiment (surface structure) of the deep (core) structures in the built environment. Chapter Six, i.e., the open-ended questionnaire survey is split into a compilation of survey responses and the analysis of the responses. The analysis of the responses is then sub-divided into categories (aspects, objects and activities), dimensions and personal profiles. The methodology used in this chapter is adopted from Dr. Ujam's (Aspinall, P. and Ujam, F.; 1992) open-ended questionnaire qualitative analysis method. It attempts to explore more deeply people's perceptions,

¹² Please refer Chapter Five on this topic.

attitudes and appreciation of their dwelling design, environment, inherent worldviews and the challenges they face amidst contemporary tensions and pressures of lifestyles changes, globalisation, and sustainability of cultures. The researcher attempts to interpret the findings with reference to the first part of the thesis. The chapter concludes by illustrating that there is indeed an innate tendency for the Malay society to maintain the continuity of their culture, their relationship with nature and their boundary between themselves and the multicultural society, in order to secure balance and unity within the diversity of cultures within the country.

Chapter Seven analyses a selection of the indigenous architectures and living environment throughout Malaysia according to regional divisions. The objective is to illustrate the significance of nature – the cosmology and symbolism - worldviews, as well as the tradition in the production of indigenous living architecture. The author starts by assembling and recording information of various types of indigenous traditional housing typologies so as to gather as much information about changes, transformation and evolution through time as possible. For the purpose of the thesis, however, the research only selects the most prominent architectural and historical examples – one each - from four regions of the Peninsula and one indigenous tribe dwelling sample from East Malaysia. The chapter attempts to illustrate the dominant role of culture and tradition in the production of physical manifestations of the indigenous built environments around the country. It also attempts to decipher the existence of cosmology and symbolism in the arts and architecture of indigenous dwellings and ways of life that have a close relationship pertaining to nature. Another objective is to relate the repercussions of contemporary housing development in the country towards people, their cultures and the environment. It also traces the genesis of indigenous Malay dwelling architectures, which originated from the neighbouring countries where one can find symbolic similarities as well as cultural boundaries.

It concludes by clarifying the thesis's claim that indigenous dwelling architectures are indeed the manifest representation of deep-rooted values and the perception of nature, sustainability and the balance between man's and ecological development; as well as the existence and persistence of symbolic boundaries manifest in each typologies among different regions, albeit from the same ethnic origin (the Malays) – which is actually a necessity to ensure the harmony and unity of opposing traditions that simultaneously value the same entity –the nature. Under the circumstance, from a wider perspective of a multi-cultural society, boundary is indeed a very significant force for each culture to maintain its cultural identity and hence, national unity. Evidently, the indigenous dwelling architecture and its living environment possess all the characteristics and motivating forces to develop the housing model based on cultural meanings and cosmological understandings.

Chapter Eight is the conclusion chapter in which the research reviews the findings from the discourse of the previous chapters. It provides recommendations according to different levels – individual, dwelling, neighbourhood and national - towards developing a indigenous model for housing in Malaysia based on the cultural meanings. The chapter also emphasises on the

significance of the boundary notion in creating a national identity for the Malaysian housing design and development. .

The table below illustrates the structure of the thesis according to chapters:

PART ONE		PART TWO			PART THREE		CONCLUSIONS
CHAP1	CHAP2	CHAP3	CHAP4	CHAP5	CHAP6	CHAP7	CHAP8
Thesis Background	General Housing Discourse	Qualities of Malay Worldviews	Characteristics of the Model	Theoretical Support	Questionnaire Survey & Analysis	Indigenous Dwelling Survey Analysis	Conclusions & Recommendations
Understanding	Context	Theoretical	Framework &	Reviews	Empirical	Studies	Conclusions

Table 1-1 Structure of the thesis according to chapters

1.9 Conclusions of Chapter One

The diversity of ethnicities, religions and cultures inevitably do create tension and sometimes, opposition among the communities. This phenomenon is apparent in the division of political and economic distribution according to ethnic background. The Malays empower the political authority, the Chinese uphold their economic/commercial power, while the Indians reserve their non-committal attitude (Bahauddin et. al, 2004: 13). Under the circumstance, an immense tolerance and rational judgements of each community are vital in order to uphold the Malaysian spirit so as to strengthen the communities' tie for the purpose of living together in peace and harmony. Boundary¹³ as an ontological notion, appears to be a positive invitation for the society to unite and build a national identity in general, and particularly, in the context of the study, the local architectural identity for the living environment.

Ideally, societies, no matter how diverse they are should be united within the multiplicity of race, religion, or cultural background. The research will identify the roots and resources from which the author gains insights to build a housing model, which is compromising, tolerant and unifying. Initially, the idea is to explore the various aspects of the different living environments of the major cultures that will actually have an impact on the model. However, due to the broadness of the research scope, its horizontality and time as well as resource limitations, the study's main focus is on the 'Bumiputera' (native) ethnic groups i.e. the Malays and the indigenous tribes.

The researcher recognises the common values towards nature and worldviews shared by all Malaysians as an aspiration for research, with regard to the current dilemma of searching for a Malaysian housing identity, as well as the degrading environmental and social phenomena due to a generally irresponsive urban and housing planning development approach in the country.

Housing, or alternatively (the term that the author prefers to use when referring to people's homes), the "living environment"¹⁴, is the best place to promote unity for its community, as it is the

¹³ In the context of the thesis the term boundary is referring to the ontological definition used by Saridakis (1999) – see Chapter Two.

¹⁴ In the author's opinion, when one uses the term "living environment" it reflects a much more responsive characteristic than the conventional term, housing for a residential neighbourhood.

foundation for communication. Once people have reached a compromise about nature, responsibility, and interdependence in one's particular neighbourhood, one would hope this would create a sense of belonging among people. Hence, the diversity of cultures assimilated into a culture can retain the underlying boundaries but also, generate identity. Therefore, it is the hope of this thesis to:

- **Create a balance between sustainable physical development (in housing) and society's development;**
- **Strengthen the cultural continuity in order to build a national identity for living in the future. Hence the present and future living environment with a sense of belonging, must be shaped towards that main aim.**

There are obviously many ways to open a discussion on the topic of indigenous or vernacular architecture, as many previous scholars have done. However, this thesis is not entirely about ways of building indigenous dwellings, or methods of construction, or the necessary elements or building materials, or even about the environmental benefits of the built forms as have been conventionally discussed when the word indigenous architecture or vernacular architecture comes up. Having said that, the focus of the thesis is on the implicit roles of deep structures underlying the physical manifestations of these indigenous or, in some sense, the vernacular living architectures. In other words, it studies the meanings, the values and the beliefs that are innate in the Malay society's mind and how they react, adapt and respond to them, which leads to the production of the indigenous built forms for all to see and enjoy.

The thesis argues that this factor is the crucially missing element, which truly needs the attention of contemporary built environment professionals, the decision makers in housing policy and development, such as the government authorities and the developers – both public and private – to comprehend, and to realise their significance and to actually adopt the values into their design considerations and approaches.

2 General Discourse on Housing, Meanings, Perception, & Aesthetics

2.1 Introduction

This is the second chapter of **Part One**, which is the “*Thesis Background and Its Context*”. The chapter aims to enlighten the readers about the flow of the theoretical framework in Part Two of the thesis. It is divided into two main sections, i.e.: (1) A general discourse on the conditions of housing in Malaysia and developing countries, followed by scholars’ views and suggestions in support of the thesis notion, a review of the effect of the shift of responsibility in the built environment upon home owners. The second part discusses the meanings of the notions of home, house and housing, and aims to clarify the terms and also to appreciate the value of their meanings. The discourse continues with perspectives on human perception, cognition, and schemata including aesthetics notions towards the environment as part of the process of transformation, which result in the visual manifestation of the built environment. This leads to an exploration of the qualities in the indigenous worldview of the Malay society that are responsible for the formation of the design and architecture of the arts and dwellings’ environment, in the following chapter.

2.2 The Contemporary Housing Crisis in Malaysia and Other Rapidly Developing Countries:

In this section, the author will include a number of scholars’ perspectives about the housing phenomena in Malaysia and other rapidly developing countries, which have contributed to the inception of the research proposals for the thesis.

An incident occurred during a Muslim Malay family’s wedding party on the street¹⁵ in front of the rows of terraced-link houses (front-to-front and back-to-back) commonly found in contemporary Malaysian housing estates or some term it as a residential neighbourhood, when a group from the Hindu community in a funeral congregation was trying to pass by the street, which eventually triggered racial arguments and tension. What has gone wrong? Who’s to blame? Perhaps, instead of finding someone or something to blame, possibly one should try to find the root of the problem from the housing design point of view itself. Perhaps something could be done at the very beginning of the housing project that would avoid such incidents from happening at all? This is just one example of the dilemma facing the contemporary living environment that is, housing in Malaysia and some Asian countries.

¹⁵ It has been the tradition for the Muslim Malay society to have their wedding party at home. Normally, the eating venue for visitors extends to the exterior compound of the houses. Unfortunately, due to limited space available in the contemporary housing estates in many towns, particularly the urban areas, people usually have no choice but to use the road in front of their houses for the occasion. This situation most of the time causes some traffic congestion due to the closing of the road. However, in some cases, people do choose to hold their wedding parties at the multi-purpose hall within the residential neighbourhood, or for those who are more financially secure, they would host their wedding parties at hotels or the like.

Ahmad Sanusi Hassan (1999), in his article entitled, "Malaysia: the Search for Sustainable Housing Development", claims that the growth of modern housing developments in Peninsula Malaysia has had negative impacts on the sustainability of the rain forest, as well as the degree of social satisfaction of the residents of housing estates. His research also **supports the re-adoption of traditional patterns for housing development and the enhancement of environmental sustainability in Peninsular Malaysia by asserting that traditional patterns are the only alternative that could provide positive levels of social satisfaction** [the thesis emphasis]. Furthermore, Hassan (1999) stressed that **housing policy should support the approach to provide housing which embodies traditional patterns of living suitably adapted to modern urban conditions**. Hassan discovered that the terraced house type – which is the most common housing type in urban areas – indicates the highest negative level of social satisfaction.

His finding is supported by M.Tajuddin M. Rasdi, the author of "Housing Crisis in Malaysia: back to a humanistic agenda". He relates that the first idea of terraced houses originates from the 'working housing mindset' as a result of millions of people migrating from their traditional agricultural way of life into the big cities for better job opportunities from the 19th century industrial revolution in Europe, i.e. during the British Colonial era in the country. It was popular only because it complies with the adopted Western codes and regulations and is constructed using bricks due to their durability in any weather (A.S. Hassan¹⁶, p5).

Pakistan-born architect, Arif Hasan who was also a member of the AKAA Steering Committee for two cycles (between 1989 and 1995) comments that, "Most of the Islamic world was colonized by European nations in the 19th and early 20th centuries. After their independence, the colonial states adopted welfare state or 'socialist models' on which to base the development of their own societies. These models were intended to provide for physical and social needs of the urban centres. Both failed to deliver because they were not compatible with the political, social, economic, demographic and cultural realities of the societies to which they were applied. Consequently, the urban environments in most Islamic countries have deteriorated." (Hassan, A., 1998)¹⁷

Rasdi (2003) asserts that when the type of housing was first built, there were poor amenities and no public communal space. Worse still, today even though all these are included in the housing estate, many are either uncared for, or un-used. He also claims that the idea of a 'worker housing mindset', which created mass housing, large open spaces as well as public amenities to house the 'worker', has invented the monotonous housing development, whilst the huge public spaces have alienated the homeowners from their own neighbourhood. This phenomenon is evident even today with the

¹⁶ http://www.sustainablesettlement.co.za/docs/a21_hassan.pdf

¹⁷ reference: Hasan, A. (1998) *Pragmatism and the built environment*; the Aga Khan Award for Architecture, June 1998.

gigantic size of fields, mosques, community halls as well as the long double carriageways. (M.Rasdi, M.Tajuddin, 2003: 2-3). He argues that the mindset of the “worker housing” relates to the condition of capitalism, in which the developers create the idea of ‘homes’ for investment. Housing has become more of an ephemeral place of dwellings for families. There is no sense of belonging. The idea rips away any sense of community living, or even family building from the modern families. The result, people become more and more individualistic and private.

In support of the thesis enquiry, Rasdi (2003) suggests that the idea of community comes from **deeply rooted religious and cultural values which most of us inherited from our families** originally from ‘*kampung*’ (village) environment. The ‘*kampung*’, he states, is more than a physical and a geographical entity, but also a political and cultural institution. Rasdi also stresses that living separate and individual lives in congested modern housing means there will always be threats of crime, climate, cultural tensions and accidents. Hence, he proposes that, “*socially and politically we must find the true centre, humanistically [...] we must rethink the idea of community and technologically [...] we must rediscover the formula of ecological balance.*”

His proposal is supported by Rapoport (1969) who implies that the **traditional housing may therefore be much more adaptable – if not in fact desirable** – than has been assumed, and housing attitudes in developing countries should possibly be adjusted accordingly; and also, Mr. Frank Lloyd Wright, the renowned architect, who remarks, “*We will never have a culture of our own until we have an architecture of our own taste, It is something that we have knowledge concerning. [...] The good building is not one that hurts the landscape but is one that makes the landscape more beautiful than it was before that building was built*” (Meehan, 1987).

Tan Soon Ming’s paper in *The Collision of East and West Symposium*, 1995¹⁸, realising about the **loss of national identity in Malaysian architecture, argues for a return to a culturally rooted architecture** [the thesis emphasis]. He claims that since Malaysia was founded in 1963, modern architecture was superimposed upon the local Malaysian conditions. He comments that a multi-cultural, multi-racial state country like Malaysia needs to determine its national identity. In his words he states, “It is time to shift from a fetish for architecture of the global culture, and for Malaysian architecture returning to an examination of the local architectural culture and the core culture of Malaysia for its future development”.

The European Science Foundation (ESF) 1997 workshop suggested that future studies dealing with dwellings ought to **consider the diachronic aspects, in making use both of sources from the past and of comparative analysis of contemporary forms** [the thesis emphasis]. This would

¹⁸ reference: <http://web1.arch.hawaii.edu/events/apca/EW95.htm>

require focusing not only on the dwelling, but also on its structural and conceptual relation to other functional types, such as meeting houses, field huts, granaries, etc. (R. Schefold, P.J.M. Nas & G. Domenig, 18 - 21 June 1997, Leiden, The Netherlands, ESF Workshop¹⁹).

The strategic planning of vision 2020 demands strenuous development in all areas – economic social, political, as well as spiritual aspects. According to the Agenda 21's proposals on Human settlement (ref: <http://www.un.org/esa/agenda21/natlinfo/countr/malaysia/social.htm>) on:

1. Decision-Making: Legislation and Regulations:

"The Environment Quality Order of 1987 identified 19 categories of development activities that require environmental impact assessments [...] A conservation clause is included in every development project agreement so as to strengthen environmental control and preventive measures [...]"

"Much construction has been based on inappropriate standards. Attention is now focused on developing standards appropriate to tropical and local conditions. Current policies support sustainable construction industry activities [...]"

The above statement clearly indicates the need for a better construction standard and the future development approaches – in this case, housing – to resort to indigenous resources that can offer long-term sustainable solutions as well as a domestic architectural identity for the country's housing phenomena.

2. Decision-Making: Strategies, Policies and Plans

"Malaysia is formulating a National Urban Policy to ensure a more organized urbanization process and well-integrated rural-urban development linkages. The main objective of Malaysia's housing policy is to give emphasis to the provision of adequate, affordable and quality housing for all Malaysians."

The policies and plans suggest general guidelines that should be implemented by local authorities and decision makers of the urban and built environment, specifically in the housing industry to actually provide **adequate, affordable and quality housing for all Malaysians**, in which case, they have not been fulfilled to this day.

The comments and Agenda 21 sustainable designs policy do play a part in contributing to the notion of a research enquiry that attempts to discover and reveal the invaluable attributes of the indigenous resources either being manifested in the physical forms or, deep-rooted within its

¹⁹ The workshop titled 'Transformation of Houses and Settlements in Western Indonesia: Changing values and meanings of built forms in history and in the process of modernization', sponsored by the European Science Foundation and co-sponsored by the Royal Netherlands Academy of Arts and Sciences (KNAW) and the Research School CNWS, Leiden, was organized in the context of a four-year research project titled 'Design and Meaning of Architecture and Space in Western Indonesia'. This Dutch-Indonesian cooperation project is being carried out by the Institute of Cultural and Social Studies of Leiden University and three Indonesian counterparts from the University of Indonesia, the Gadjah Mada University, and the Bandung Institute of Technology. Organized by the Institute of Cultural and Social Studies and convened by Prof. R. Schefold, Dr P.J. Nas and G. Domenig, Dipl.Arch.ETH, the workshop was attended by 23 anthropologists, sociologists and architects from Australia, Canada, England, Germany, France, Indonesia, The Netherlands, Singapore, and Switzerland. The meetings took place in the International Centre of Leiden University, an old building in the heart of the city that also features an attractive open courtyard and a cafeteria and thereby contributed to the pleasant atmosphere that was appreciated by all participants

worldviews, so as to be able to maintain the characteristics that are vital for resolving the issues of today's housing predicaments.

2.3 The Scholars Views on Housing Which Support the Need for the Thesis Proposal

The following discourse illustrates the impending needs for change in the contemporary paradigm in housing provision, which evidently has not been successful in responding to people's cultural-religious-traditional needs, which are, in fact, the important motivations for people's aspirations and satisfactions for living.

Pallasmaa (1995) comments that architects, including himself as architect cum Professor of Architecture, University of Technology, Helsinki, Finland, are only concerned with the physical aspects of dwellings design such as its physical structural framework, and order as an architectural manifestation of space that they seem to be unable to touch upon the more subtle, emotional and diffuse aspects of home. The dwelling has its psyche and soul, in addition to its formal and quantifiable qualities (Ibid, 1995: 131).

According to Rapoport (1969: 49), the idea of the house as a social mechanism, so strong in traditional cultures at least, may no longer apply with as much force in a society with the formalised and institutionalised control systems of today, albeit the link between culture and form that never fully disappear - the house and its use still tells the young much about life and the attitudes expected of them, such as formality, informality, and neatness; where the silent language²⁰ still speaks. He suggests that **social and cultural factors, rather than physical forces, are the most influential in the creation of house form [the thesis emphasis]**. This, he says is an important reason for turning to primitive (indigenous) and vernacular building for a first look at house forms (Ibid: 58) [the thesis emphasis]. He adds that today's constraints are different but no less severe. These constraints, according to Rapoport, include those imposed by density and population numbers, and the institutionalisation of controls through codes, regulations, zoning, requirements of banks and other mortgage authorities, insurance companies, and planning bodies; even today the freedom of the designer as form-giver is rather limited (Ibid: 59).

Primitive man's primary worldview is of harmony with nature rather than conflict or conquest; the concept of man/ not man in primitive societies is above all one of mutuality (Rapoport, 1969: 76). The general attitudes of respect and reverence for the site mean that one does not browbeat or rape it (or nature in general) but work with the site [The thesis emphasis]. Buildings fit into the landscape and express this attitude through the choice of siting, materials and forms whose forms not only satisfy cultural, symbolic, and utilitarian requirements,

²⁰ The term is used by E.T. Hall

but often are so much a part of the site that it cannot be imagined without the dwelling, village or town. **Such qualities also reflect the presence of shared goals and values, a clear and agreed-on purpose, and an accepted hierarchical structure of house, settlement, and landscape, as well as direct response to climate and technology** (ibid: 76).

One of the reasons **why contemporary houses and cities are so alienating is that they do not contain secrets; their structure and contents are conceived at a single glance** (Pallasmaa, 1995). Just compare the labyrinthian secrets of an old medieval town or an old house, which can stimulate our imagination, and fill it with expectation and excitement to the transparent emptiness of our new cityscape and blocks of flats (Ibid: 140). He cites the psychologist Edward Edinger (1973) who wrote that “Symptoms (of an illness) are, in fact, degraded symbols, ... Symptoms are intolerable precisely because they are meaningless [...] It is meaninglessness which is the greatest threat to humanity.” This meaningless is a hypnotizing emptiness and absence of locality and focus, the existential vacuum, has become a recurring motif of contemporary art [...] the total isolation of man, disrobed of all signs of individual identity and human dignity (Ibid, 1995: 143).

Pallasmaa also suggests that **authentic architecture should represent and reflect a way of life, an image of life [The thesis emphasis]**. However, he claims that **today’s architectural avant-garde has deliberately rejected the notion of home**. He quotes Peter Eisenman (1987) who stated, “Architecture must dislocate [...] without destroying its own being, while a house today must still shelter, it does not need to symbolise or romanticise its sheltering function, to the contrary: such symbols are today meaningless and merely nostalgia.” Pallasmaa also criticises that beyond the rejection of issues of domicile, **today’s avant-garde architecture has all but abandoned the problems of mass housing, which was a core issue of the Modern project** (Ibid, 1995: 145). **This loss of horizon and sense of purpose, and shortening of perspective, has turned architecture away from images of reality and life into an autistic and self-referential engagement with its own structures. Simultaneously, architecture has distanced itself from other sense realms and become a purely visual art form** (Ibid: 145).

Pallasmaa (1995) views that architecture could either tolerate and encourage personalisation or stifle it. Based on this, he divides architecture in two, the first is architecture of accommodation which facilitates reconciliation; based on images deeply rooted in our common memory, that is, in the phenomenologically authentic ground of architecture; and provides the condition of homecoming. This contradicts with the latter, i.e., the architecture of rejection, which attempts to impose by its arrogant and unchangeable order. It manipulates images, striking and fashionable, but which do not incorporate personal identity, memories, and dreams and inhabitants, and is more likely to create architecturally more imposing houses (Ibid).

McIntyre (2003) in his paper discusses work in progress with an indigenous housing association in Central Australia, which builds on and extends a 2-year policy and planning project that identified the need for systemic intervention across organizations at the local level. According to him, the

participatory governance approach is adapted from a healthy cities/settings approach that maximizes the multiplier effects of working across sectors and disciplines: This approach can assist in (i) systemic thinking and informing interventions so as to avoid making changes that do not consider the wider implications, (ii) enhancing an understanding of the linked nature of social and environmental concerns, and (iii) developing problem-solving strategies based on ontological and epistemological awareness. In summary, **McIntyre (2003) also argues that the social, historical, cultural, political, economic, and environmental context, in which organizations operate needs to be considered in housing designs for the future.**

Matei et al. (2002) claimed in the article, *Skipping over stages - Is cultural identity still needed? (CLUJ - transitional architecture)* that it has been 50 years of stagnation, of typifying in housing (mass-housing). He claims that **there is indeed an absence (of at least 20 years) in reaching the architectural expression of the urban individual house**, a limitation of information until suspension. He suggested the following must be accomplished, in order to create as an individual, knowing that you belong to that identity knowing the value of that identity in the world's heritage:

1. First, it must be restored the mentality of the people regarding the necessity of work of the architects. The architect is not only necessary for community, but also imperatively useful and other professions cannot replace his work as a profession.
2. Aesthetical education and high culture can stop the spread (proliferation) of bad taste and kitsch. Unfortunately, some architects themselves proliferate a sort of ambiguous eclectic, often senseless, and those are the second generation of architects (the older ones) who graduated from the former communist schools.

Younger architects are advancing rapidly in the profession, but many of them are **using forms that are borrowed from western civilization** and of course, **the result is not adapted to our culture, or to our technology**. How dangerous it is, for instance, the use of misunderstood minimalism for a society, which has just been through excessive typifying (as a way to deal with the "housing industry") and **a society that now has not the technical ways and the refined spirit to deal with such an architectural language.**

3. The stages that must be acknowledged in the process of architectural creation would be:
 - a) To know - to compare and to acknowledge;
 - b) To know yourself (to know your place, your limits, your potential, structure, character, specificity);
 - c) To connect with your own culture - to accept it with its limitations, with its values, meaning to find your own identity.

(Source: Matei A. et al, 2002: 649-654).

Rapoport (1969) asserts that the house cannot be seen in isolation from the settlement, but must be viewed as part of a total social and spatial system, which relates the house, way of life, settlement, and even landscape. Man lives in the whole settlement of which the house is only a part, and the way in which he uses the settlement also affects the house form (ibid: 69). Rapoport (1969) delineates two traditions of concentrated settlements:

- The whole settlement is considered as the setting for life, and the dwelling is merely a more private, enclosed, and sheltered part of the living realm;
- The dwelling has essentially been regarded as the total setting for life, and the settlement, whether village or city, as connective tissue, is almost “waste” space to be traversed, and secondary in nature.

Within the thesis context, the indigenous Malay traditional dwelling setting falls into the first type of settlement. Rapoport (1969) explains that the distinction between the two types of settlements may be due to written or unwritten laws, which limit the behaviour patterns in the different domains – public or private – by prohibiting some and allowing others. This is an expression of a worldview and other attitudes, and is one in which a culture is linked to the way people use space. In the same way, the distinction may be due partly to the effect of religion on social attitudes and family, and hence on the separation of domains (ibid: 70).

Rapoport (1969: 73) states that houses, settlements and landscapes are the product of the same cultural system and worldview, and are therefore parts of a single system. He accentuates that therefore, it is important to see the house not only in relation to the basic dichotomy of settlement types as a setting for life and their variants along the total space-use scale, but also as part of the specific system to which it belongs. He also suggests that the attitude towards nature and the site would be an important aspect of the creation of house form, or its modification by the site, and that the relation of man to landscape is the first aspect, which needs to be considered (Ibid: 75). Rapoport examines the classifications of such attitudes in terms of the I-Thou and I-It relation, which historically, takes three forms:

- *Religious and cosmological*

The environment is regarded as dominant, and man is less than nature.

- *Symbiotic*

Here, man and nature are in a state of balance, and man regards himself as responsible to God for nature and the earth and as a steward and custodian of nature. According to Rapoport, citing J. B. Jackson from University of Berkeley California, this view is still prevalent in Calvinist Switzerland and explains the careful use of the landscape in that country.

- *Exploitative*

Man is the “completer” and modifier of nature, then creator, and finally destroyer of the environment.

He further explains that in the first two forms, nature and the landscape are a *Thou*, the relationship is personal, and nature is to be worked with, while in the third nature, it is an *It* to be worked on, exploited, and used. This form indicates a basic change, no matter when it occurs – chronology does not affect the basic argument (Rapoport, 1969:75).

2.3.1 On the Issues of Responsibility

The issues of responsibility in the built environment in general and particularly in the housing environment are mainly caused by the centrality of the authoritative management of the built environment itself, which does not include the people, i.e. the end users. Jamel Akbar (1984), in his book, *Crisis in the Built Environment* dedicated major parts of the book to illustrate that most, if not all, principles in traditional environment unified responsibility is in the hands of high residing party. He states, "Parties are autonomous. Autonomous parties also reflect to each other through shared elements in the possessive or permissive form of submission such as party walls, water sprouts, and overpasses". The four forms of submission delineated by Akbar (1984) are: (1) Unified²¹, (2) Possessive, (3) Permissive and (4) Dispersed.

He also claims that **the main difference between the traditional and contemporary environment is the percentage of owning parties who control**. The percentage is much higher in the traditional built environment than today's centralized cities, in which large numbers of people neither own nor control. People who neither own nor control are irresponsible and dissipate resources of the society (Ibid). He suggests that there are three claims of party, which are: *Ownership, Control and Use*. In the traditional environment, interventions by authority are occasional and not implemented through regulations that meant to be followed by all users. Situations were based on local agreements, not government's (prescriptive) regulations. Modern regulations, replace agreements with regulations (ibid). Akbar also stressed that the shift of responsibilities had endless disastrous consequences in the sense that the control of the built environment from individual to central authority may result in the effects below:

- i. In the shift of elements from one form of submission to another, e.g., the dead-end street, shifted from *Unified* to the *Permissive* form of submission;
- ii. A change in identity of parties: the state's intervention in leasing properties changed the identity of the controlling party from the lessor to the authority;
- iii. Owner use but does not control –e.g., he cannot build on it – a simple rule dispersed control of property that was traditionally in the unified or possessive form and outside the property line;
- iv. Interesting attitude of decision makers is that they develop regulations and then refer to them as principles that should not be changed, regardless of their validity;
- v. Authorities controlled properties through building permits. Gradually building permits were coupled with regulations. Now, particularly everywhere, the owner must present a set of drawings to obtain the permit. Therefore, the aesthetic values of permit givers are imposed on permit users. During building, the owner could not make any changes other than what was granted in the permit. This rule discourages builders from improving their designs. Indeed,

²¹ According to Akbar, property in a unified form of submission can better accommodate individuals' changing needs than other kinds of properties. Being free to change their physical environment, the users realise its potential and do explore it, thus resulting in endless subjective environments. Unexpected results from centralised control in the built environment is its limited ability to accommodate users' diverse needs, leading to an environment whose potential remains largely unrealized (Akbar, 1984: 185).

owners often saw errors when they saw the building on site in 3-D, but they could no longer make changes.

Akbar (1984) also claims that contemporary authorities aim to produce an organised environment. This is done in two ways, one is by providing an infrastructure, governmental facilities and public places; and another is by controlling the built environment through regulation (ibid). In view of the first form of organisation, i.e., providing an infrastructure – Akbar claims that there is evidence in which the municipalities have made vast improvement of the streets and squares, where the term beautification is well known among officials. He states, “On the other hand, society’s wealth is spent on public places – that are least used by the inhabitants – these spaces are in the depressed form of submission, since they are used by the public while controlled by municipalities. In the traditional environment, most if not all plantation and landscaping were found inside the heavily occupied area – private properties”.

Akbar also said, that the innate tendency among humans is to take better care of one’s own property than the property of others. In traditional autonomous synthesis, authority did not take care of spaces it did not own or control, but rather distributed tasks to residents (ibid). Akbar (1984) derives a list of principles from the traditional autonomous synthesis as below:

1st principle: Everyone participated in the building and maintaining major public elements for the benefit of the entire community.

2nd principle: Tasks of general public interest, but which were not considered crucial, were divided among concerned parties.

3rd principle: Each party is responsible for the mess it creates. Mess resulting from private properties is obviously the responsibility of owners and they should eliminate it.

4th principle: An element used by a specific group of people should be maintained by them.

2.4 The Meanings of Home, House, and Housing

Akbar, however, does realise that such redistribution would probably not work today because of the mentality of those judging the system. Authorities today will never accept this position because today’s users are neither aware of the built environment’s problems nor do they have the financial capacity to deal with them (Akbar, 1984). This phenomenon occurs because Akbar claims that the users’ wealth is not in their own hands, claiming that interventions originate from the central local authorities that isolate users and take away their responsibility, develop in ignorant and powerless individuals. Traditionally, users were informed and were aware because they shouldered responsibility (Ibid). On this note, he suggests that if traditional principles of maintaining the environment were applied today, providing an infrastructure would be the residents’ responsibility, because they are the ones who need it. Its maintenance would also be their responsibility because they are the ones who cause the mess. The authority’s responsibility would be minor. In this scenario, the infrastructure is in unified form of submission (Ibid).

Akbar (1984) argues that the crisis of the modern environment should not be blamed on the growth of population and shortage of resources. **“Education, not housing projects, is the best**

investment for a society's wealth. E.F. Schumacher⁷¹ emphatically makes the point that through education, organisation, and discipline a society can overcome poverty, not through immaterial such as lack of natural resources, capital or infrastructure” (Akbar, J., 1984: 185). He claims that they are simply the result of placing elements in a dispersed form of submission, claiming that abolishing traditional principles of ownership and revivification created land speculation. This crisis will never be solved until the form of submission and pattern of responsibility is changed (Ibid).

He also suggests that **if we are convinced that traditional physical forms were the best solution for users, then attention to process that generated those forms will bring us closer to a better environment.** Responsibility suggests itself as a way of looking at the environment as a process and not merely a product (Akbar, 1984). Referring to tradition, Popper states that “(j)ust as the invention of myths and theories in the field of natural science has a function – that of helping us to bring order into the events of nature – so has the creation of tradition the field of society.” (Ibid: 200). Popper argues, “So has a theory of responsibility in understanding the ontology of the physical environment and its creators.”

Responsibility and control should be shared among the individual, society and the local authorities at some degree, while to a certain extent, both responsibility and control should be given to the home owners to motivate them to adapt, develop and transform their dwelling environment in response to their cultural and cosmological meanings, with provision that the environment that they are creating respect the natural and surrounding environment and the communities within the neighbourhood. This would ensure the sustainability, identity as well as harmony of the whole society.

2.4 The Meanings of: Home, house, and housing

Having discussed the many facets of housing predicaments and crises, it is as important to understand the meanings of the term home, house and housing, as well as to decipher the aspects of human perception, cognition and aesthetics towards the living environment. This section shall explain more on these topics in order to enlighten readers about the following chapter, which shall explore the world of the Malay society and its indigenous worldviews.

The living environment may be understood architecturally as either a home – where people feel it belongs to: a house – where people reside, live, eat and sleep and isolate or socialise themselves; or a housing estate or residential neighbourhood – a constrained area designed and built for a group of people to live, socialise and/ or interact with each other. These are actually the visual manifestations of people's worldviews, and traditions, i.e. their cultural knowledge of the world (environment) they live in. It is imperative to explore the meanings of these terms in order to

⁷¹ E.F. Schumacher (1973) *Small is Beautiful : Economics As if People Mattered*. New York, pp. 167-168.

decipher their characteristics, values and impact on people, before one can actually begin constructing the indigenous model for a contemporary living environment.

2.4.1 Home

2.4.1.1 The definition of Home

The author views that Juhani Pallasmaa's²² definition of home, *as a cultural interpretation tool* is the most significant revelation to the objective of the study. Pallasmaa describes the dwelling, or the *house as the container, the shell for home*; whereas home is *an expression of the dweller's personality and his unique patterns of life*, consequently, the essence of home is closer to life than the artefact itself.

The essence of home is what Pallasmaa describes as a diffuse and complex condition, which integrates memories and images, desires and fears, the past and present. A home, in his sense, is also a set of rituals, personal rhythms and routines of everyday life. He also stresses that a home cannot be produced at once; it has its *time dimension* and continuum, and it is a gradual product of the dweller's *adaptation* to the world (Pallasmaa, *Identity, Intimacy & Domicile –Notes on the Phenomenology of Home*, 1995: 132-133).

2.4.1.2 The Concept of Home

Benjamin (1995: 295) in his after-word comments further on research issues on confronting the home concept and delineates five aspects of meanings of home as follows:

i. As a word

The early connotations of this term are unlimited to the exclusively physical habitation itself, but include concepts of dwelling and affection.

The descriptive use of the word: Scholarly literature from ethology to theology has used the term to describe a place of either regular residency of an origin for the ritual of return, either in the literal physical sense, or physically, covering the mythological and therapeutic uses of the concept.

ii. As a juridical term

According to Birkeli (1932) and Carlsson (1935), from the era of early Nordic law, home is defined as the domestic territory of a dweller, started at the boundaries of the farm and it became more sacrosanct as one came to the house, until one reached the high seat itself, the seat of honour and the ritualistic place of passing down the rights to the farm. Today, the home is defined as a term in modern law dictionaries, and although it has lost some of its sanctions against violent intrusion by strangers, the territory of home is still a legally binding definition to this day (Black, 1979).

iii. As a condition in psychiatric research

²² The author of, "*Identity, Intimacy, and Domicile- Notes on the Phenomenology of Home*" from the book, "*The HOME: Words, interpretations, meanings and environments*" (ed) David N Benjamin, David Stea (1995); England: Ashgate Publishing Limited.

The psychic aspects of the home concept mentioned above, are related to the study of homesickness, a condition with symptoms characteristic of emergency emotional behaviour, the prerequisite for its existence being the absence from home (McCann 1941, 179-180).

iv. *As a cultural phenomenon in the individual and collective life of diverse human groups*

Several different cultural groups from all over the world may or may not have had lexical cognates, or the same concept, hence, they use the general notion of the English home to communicate in the global media.

Gullestad (1993: 131) recognises the basic duality of *the concept of home*, saying, “*hjem*” (home) brings together in one not in both the idea of a place and the idea of a social togetherness associated with this place. Benjamin (1995: 253), citing Gullestad, wrote that the term thus, **describes a phenomenon as having both material and intangible social, emotional, moral and spiritual connotations [the thesis emphasis]**. On this note, Benjamin (1995) describes home as an important setting for domestic life, and in turn, it symbolises this setting. Supporting this statement, Gullestad (1984: 18) wrote that for Norwegians, it is essentially, “the frame of family life together,” since it is the domain of activity field for selected social occasions, which contribute to an elaboration of essential family values: the unity of family, common work, togetherness, identity, self-realisation, good motherhood, and the validation of the individual (mostly the female, motherly), personality (Gullestad 1984: 18). Furthermore, he adds that **home, as a framework is a physical and abstract structure within which we conceive of and interpret both domestic life, and activities outside the home [the thesis emphasis]**. It is thus a nearly total frame for our early development and later life that members of distinct cultural groups create (Benjamin, 1995: 298).

Benjamin regards the home-as-state-of-mind as being a metaphor, and not part of the actual definition (Ibid, 1995: 298-299). According to him, the home is that spatially localised, temporally defined, significant, and autonomous physical frame and conceptual system for the ordering, transformation, and interpretation of the physical and abstract aspects of domestic daily life at several simultaneous spatio-temporal scales, normally activated by the connection to a person or community, such as a nuclear family. It is thus the autonomous interpretation of domestic life, and that, which is interpreted. He also stresses his concern over the trend in the use of simplistic definitions of the western home (i.e., such as home = house), to help in studying and designing domestic space for a non-western clientele (Ibid, 1995: 299). He suggests that perhaps **the real contribution of the home concept is that it gathers together the physical and mental aspects of our environment and domestic family life into a conceptual space that we know [...]** It links the environment and the rituals of daily life, showing that they are consequential for one another. Thus, it is a concept badly needed in today’s world where very few acknowledge or manifest any sense that one’s own construction of settlement and striving for comfort in the home has any bearing on the degradation or destruction of the natural premises for a healthy life (Benjamin, 1995: 303) [The thesis emphasis].

The 1997 European Science Foundation (ESF) workshop entitled, “*Transformation of Houses and Settlements in Western Indonesia*”, summarised that the recent changes in the process of urbanisation directly affect the way contemporary living environment is presented. **In order to describe the recent changes, it seems necessary to base the start of changes in the dwelling environment to the established types of the traditional or indigenous houses. Although new houses that replace traditional ones may differ in form, material and design, this does not necessarily mean that the social and ritual use of space and the symbolic associations would have to change, too, and at the same time** (R. Schefold, P.J.M. Nas & G. Domenig, in 1997 ESF workshop) [the thesis emphasis].

2.4.1.3 The notion of an “Ideal Home”

Gaston Bachelard (1969) introduces the notion of a *oneiric house* – the dream house of the mind in *The Poetics of Space* (1969) which deals with the psyche of space. Pallasmaa (1995) asserts that the characteristics of the *oneiric* house are culturally conditioned, but on the other hand, the image seems to reflect the universal constant of the human mind. He claims that modern architecture has forcefully attempted to avoid or eliminate this oneiric image, which consequently leads to the rejection of history along with the psychic memory attached to primal images. The obsession with newness, the non-traditional, and the unforeseen, has wiped away the image of the *oneiric* house from our soul. Hence, we build dwellings that satisfy, perhaps, most of our physical needs, but which cannot house our mind (Pallasmaa, 1995: 133).

2.4.1.4 Identity of Home

On home and identity, Pallasmaa considers *home as a projection and basis of identity*, not only of an individual, but also of the family. Further, he adds that in homes, the mere secrecy of private lives form the public eye and also structures social life. Hence, home delineates the realms of intimacy and public life (Ibid, 1995: 137).

The image of home, according to Pallasmaa (1995) is related more to the emotional impact, which is related to an act, not an object or a visual or figural element. Consequently, the phenomenology of architecture is founded on verbs rather than nouns: The approach to the house, (not the façade); the act of entering, (not the door); the act of looking out of the window, (not the window itself); or the act of gathering around (rather than the hearth or the table as such), seem to trigger our strongest emotions (Ibid, 1995: 136). Pallasmaa (1995) proposes three types of mental or symbolic elements of home as:

- i. Elements which have their foundation at the deep unconscious, bio-cultural level (entry, hearth)
- ii. Elements that are related with the inhabitant’s personal life and identity (memorabilia, inherited objects of the family)

- iii. Social symbols intended to give certain images and messages to outsiders (sign of wealth, education, social identity, etc.)

From this, he illustrates that the structuring of home as a lived institution differs from the principles of architecture. A house composed by the architect is a system of spatial hierarchies and dynamics, of structure, light, colour, etc., whereas home is structured around a few foci consisting of distinct domestic functions and objects. The following types of elements may function as the foci of behaviour and symbolisation: front (front yard, façade, the urban situation), entry, window, hearth, stove, table, cupboard, bath, bookcase, television, furniture, family treasures and finally memorabilia (Ibid, 1995: 140).

2.4.2 House

2.4.2.1 Definition of A House

Marc (1977) the author of “*Psychology of the House*” linked the built-form of a house of the early men to a mother’s womb. “A house whose form man first conceived inside his mother’s womb..... To build a house is to create an area of peace, calm and security, a replica of our own mother’s womb, where we can leave the world and listen to our own rhythm; it is to create a place of our very own, safe from danger” (Marc, 1977: 14). He also claims that the house was a ‘common ground’, i.e, it contains everything, the source of everything, and potentially could hold everything. To this common ground, which reflected in his memory the unity of life in the womb, man came in search of rest, tranquillity and harmony (ibid: 14).

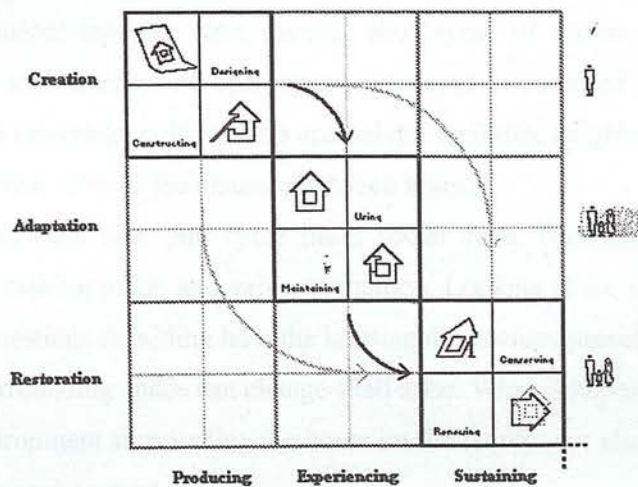
Rapoport (1969) suggests that the house is an institution, not just a structure, created for a complex set of purposes, because he says that building a house is a cultural phenomenon, its form and organization are greatly influenced by the cultural milieu to which it belongs (Rapoport, 1969: 46). In terms of the concept of a house, he claims that from the beginning, the house is understood as more than a shelter, its “function” is more than a physical or utilitarian concept. The religious ceremonial has almost always preceded and accompanied the foundation, erection and occupation of a house (Rapoport, 1969: 46).

“Societies and individuals attach significance to their houses that relate to their value systems, ranging from personal identification with the home, to the cosmic symbolism of the dwelling, its location and orientation.... We have seen that, in the process of building, in the organisation of space, the subtleties of details, even in the disposition of domestic articles and the patterns of daily use, the dwelling has significance. Sometimes explicit, sometimes wholly implicit, this may be expressed in built form and details, in spatial organisation, or through sacred and secular symbolism and decoration. But in every case, these factors reflect the behaviours, customs and beliefs, and the hierarchies, values and aspirations of the members of the cultures concerned” (Oliver, 2003: 261).

On the classification of forms of houses, Rapoport (1969) emphasises that the socio-cultural aspects need more attention than the physical aspects. He explains that only when the identity and character of a culture has been grasped and some insights gained into its values, then, its choices among possible dwelling responses to both physical as well as cultural variables become much clearer (Rapoport, 1969: 46-47). By this, Rapoport means that the specific characteristics of a culture – the accepted ways of doing things, the socially unacceptable ways and the implicit ideals – need to be considered since they affect housing and settlement form; this includes the subtleties as well as the more obvious or utilitarian features. He strongly believes that it is often what a culture makes impossible by prohibiting it whether explicitly or implicitly, rather than what it makes inevitable, which is significant.

2.4.2.2 The life process of a house:

A house has a big impact on its occupants' lives. In order to decipher its significance on people, it is perhaps necessary to first understand the life process that the house is going through, which is neatly summarised by Islami (1998) in the diagram below:



The life process of a house
This responds to the people's states and creates different activities.

Source: Islami, 1998: 95

Figure 2-1 The life process of a house

Source: Islami, 1998:95

The figure Figure 2-1 above illustrates Islami's (1998) description of the stages and period during a building's life, i.e., the house. This process involves three states of human motivation, i.e. 'creation', 'adaptation' and 'restoration' whose functions are either 'producing', 'experiencing', or 'sustaining' (Ibid: 95). The activities needed for each processes are, 'designing', 'constructing', 'using', 'maintaining', 'conserving' and 'renewing' which are in fact, a starting point of another process (ibid).

2.4.3 Housing

Housing is a noun - originating from the word house – used to describe a group of houses or accommodation in which people live together in a certain neighbourhood. The thesis stresses the importance of distinguishing the meanings of terms ‘housing’, ‘house’ and ‘home’ because deciphering the meanings of these terms is crucial for anyone involved in designing a sensitive and responsive housing design and development approaches.

According to a Malaysian’s thesis report at <http://www.geocities.com/CollegePark/Classroom/8711/bab2.htm>, housing is defined as a series of houses combined or united in a certain residential setting. It claims that people want to live in groups or clusters. It is human nature to want to live within a society. Within the housing criteria, is included a number of sub-categories of houses with all the physical public amenities such as convenience shops, schools, and others. Within the housing neighbourhood, the communities live in clusters and socialize among each other. The same source also provides an outline of the characteristics of housing:

- i. A house is normally chosen to be near the workplace.
- ii. A house to be built, must be based on family as well as an environmental dimension.
- iii. Environmental dimension: includes size, number and layout of rooms, building materials, object configuration, total number of open space compared to enclosed space, the ration of glassed and non-glass materials, colour, shop and school facilities, neighbourhood quality, the relationship with external view or the distance between houses.
- iv. Family dimension: includes size, life cycle limit, social class, communication style, work distribution, decision making polar, and value orientation. Looking at the link between the two sets of dimensions, questions regarding how the housing dimensions possess family interaction as well as how the surrounding space can change shall arise. What is important here is not only the impact of the environment surrounding the house on the family, but also the family’s action to change the housing environment.

According to various web definitions of housing below, housing is defined as:

- i. Structures collectively in which people are housed (wordnet.princeton.edu/perl/webwn).
- ii. A house in its most general sense is a human-built dwelling with enclosing walls, a floor, and a roof. It provides shelter against precipitation, wind, heat, cold and intruding humans and animals. When occupied as a routine dwelling for humans, a house is called a home (though animals may often live in the house as well, both domestic pets and "unauthorised" animals such as mice living in the walls). ...(en.wikipedia.org/wiki/Housing)
- iii. Housing is a term used for buildings or other shelters in which people live (www.ots.treas.gov/glossary/gloss-h.html).

The thesis argues that housing should be approached based on cultural meanings, worldviews and identity. Thorkild (2006) supports this view in his case study in Denmark, which shows that some

lifestyle factors are significant for explaining the choice of residence. The main conclusion is that disposition - personal tradition - strongly influences the choice of residence, despite post-modern theories emphasizing the decisive influence of cultural emancipation and personal realization (Ibid).

2.5 Perception, Cognition and Schemata

This section will discuss on the elements that are responsible for the process of transformation that produce the visual manifestation of the built environment. Perception, cognition and schemata are the elements of cognitive psychology, which according to Abdalla (1998) is one of the best-known theoretical models, which explains how “transformation” changes things from one form to another.

2.5.1 Perception

In general, perception is the experience we get by means of our sense organs; thus, we talk of visual perception when using our eyes, auditory perception when using our ears, and so on (Abdalla, 1998). According to him, the term “perception is commonly used in a number of different ways. It can refer to responses of the nervous system to external stimulation (sensation), or to primitive awareness; and it can also refer to more complex and higher-level thought processes (cognition) [ibid: 306].

Environmental perception is achieved through the senses (vision, hearing, touch, smell, and taste), and some believe that (expectation) is a sixth sense (Abdalla, 1998: 305). Eysenck (1984) defines perception as a processing activity of which the individual is consciously aware; that the environmental perception through the known sense is a relatively effortless process for most of us. Whereas Bloomer (1976), views perception as a type of information processing in which sense data are used to form internal representations (cognitive schemata or maps) of the outer world, which then assist in directing behaviour. Barati (1997) interprets that perception is the stage of awareness about the “self” and the external world through the different sense. As well as sensing, perception includes the process of evaluation of the environment (Barati, 1997: 252). Perception is the way in which people understand, structure and learn the environment and use mental maps to negotiate with it (ibid).

Another significant group of theories explaining visual perception says Barati, are those related to “prototypes”, or as some theorists prefer to use, “schema”. Barati (1997) believes that prototype or schemata theories are most relevant to the discussion of people-culture-built environment interrelations (Barati, 1997: 254). He claims that perception is a matter of discovering what the environment is really like in order to adapt to it. Eysenck (1994) argues that although perception can be incorrect because it is affected by hypotheses and expectations, the way people perceive the environment is one of the main sources of cultural knowledge about the environment, including the relativistic meaning of its elements.

According to http://en.wikipedia.org/wiki/David_Hume, Hume (1748) believes that all human knowledge comes to us through our senses. Our perceptions, as he called them, can be divided into two categories: ideas and impressions. He defines these terms thus in his *An Enquiry Concerning Human Understanding*: "By the term impression, then, I mean all our more lively perceptions, when we hear, or see, or feel, or love, or hate, or desire, or will. And impressions are distinguished from ideas, which are the less lively perceptions, of which we are conscious, when we reflect on any of those sensations or movements above mentioned". He further specifies ideas, saying, "It seems a proposition, which will not admit of much dispute, that all our ideas are nothing but copies of our impressions, or, in other words, that it is impossible for us to think of anything, which we have not antecedently felt, either by our external or internal senses". This forms an important aspect of Hume's skepticism, for he says that we cannot be certain a thing, such as God, a soul, or a self, exists unless we can point out the impression from which the idea of the thing is derived (ibid).

2.5.1.1 Factors affecting Human Perceptions

The thesis views that a housing model based on the understanding of cosmology and cultural meaning requires respect for social, ethnic and cultural boundaries among people of multi races and religions for each and every individual as well as a society itself because everyone (society) is unique and have their own values and reasoning in evaluating their natural and built environment.

In his thesis, Abdalla (1998) argues that humans' views of the physical environment, natural and man-made, are deeply affected and influenced by many factors and considerations such as motivations, human age and sex, the physical setting and climate, as well as people's lifestyles, where culture is the most effective factor in conditioning their environmental perception and values. He enlists a number of factors that affects how people of different cultural backgrounds, experiences, social and cultural values perceive their worldviews and the built environment:

i. Effects of age

On the individual scale, age plays a critical role in the perception process. Each stage of ageing has its own physiognomy and outlook. In infancy, for instance, a baby is probably more discriminating in qualities of sound than in visual images, mainly his response is highly sensitive to touch. The elderly pay more attention to information channelled through the peripheral receptors of the eye, which magnify movement. By the time sense organs weaken, the world perception contracts, not only because their senses lose acuity but also because their future is curtailed (Tuan, Y., 1974).

ii. Effects of sex

Man and woman are not arbitrary distinctions, the physiological differences between them are very clear. Generally, the human male is heavier and more muscular than the female. Man, having less

fat in the tissue, is more sensitive to cold than a woman. The woman's skin is more delicate, softer and more sensitive than that of man, above all, she is more responsive to tactile sensations. Smell sensibility with adults is more acute in girls than in boys. But of course, there are exceptions to these general rules (Ibid).

iii. Effects of climate and physical environment

People can develop their perception acuity in the course of adapting to the environment. For example, Eskimos are able to travel a hundred miles and never lose their way, they are just guided by the direction and smell of winds, and by the feel of snow under their feet. They have more than twelve different terms for the various winds, and the same for the kinds and conditions of snow (Tuan, Y., 1974). On the other hand, for people in the desert, in order to be good hunters and gatherers, man must develop his perceptual senses to a high degree especially his eyesight. For example, the Bushman of the Kalahari desert has successfully responded to the challenge of the harsh environment. He can tell immediately how long it is since an animal, bird or insect has passed. He can also identify any animal by their physical presence and by their subtle script in the sand. To these people, the desert is not featureless or empty as it may seem so to us, they have wise knowledge of their own territory, they know every stone and bush, every spot and they have usually named every place in it where they may find food (Ibid).

iv. Effects of culture

Besides all that has been mentioned, perception is affected by traditions, customs, education and lifestyles. It is mostly affected by culture where the word "culture" includes all of these aspects. Man, since his early age, starts learning about the world. An infant develops its body coordination by moving about, touching things, discovering the reality of objects around him and the structuring of space. All of these activities begin to be governed by adults (parents) by telling stories, choosing toys, having conversation and explaining things and facts, therefore, it seems very clear that his activities and explorations are increasingly ruled by such cultural values (Tuan, Y., 1974).

2.5.2 Cognition

According to Neisser (1976), cognition is concerned with our preferences and the criteria through which we make choices, and it is the activity of knowing: the acquisition, organisation, and use of knowledge. Barati (1997) adds that it is the mental store by which culture is gathered, sifted and held. Abdalla (1998) adopts Shouksmith's (1970) definition of cognition, i.e., "memory, mental imagery, comprehension, moral sentiments, aesthetic appreciation, suggestibility and judgement of visual space" by interpreting that cognition is the link between man and his environment. It is considered as knowing the environment and making it meaningful (Ibid). He adds that such a place, for instance, can also be imagined as appropriate for a certain activity and as having some meaning after it is perceived as a physical setting. In his words, he briefly summarised that "*cognition is*

those processes by which man acquires, transforms and uses information about the environment and about the world in general".

Rapoport (1977) relates that cognition is involved with learning, recording and organising information. Its purpose is to clarify the environment by simplifying it and limiting it into definable parts, to recognize things in the environment in terms of similarities and differences. But people select only certain qualities of information rather than gathering it all together (ibid). Cognition is therefore also involved in evaluation, preference and choice; cognitive structures prepare the perceiver to accept certain kinds of information rather than others (Rapoport, 1977).

Barati suggests that cognition and perception are dependent on each other, i.e. they work together. Neisser (1976) and Rapoport (1977) both agree that there is a network of relationships between perception and cognition and therefore, actually, it is very difficult to separate cognitive and perceptual process.

2.5.3 Schemata

Eysenck (1994) defines a "schema" as *a structured cluster of concepts; usually, it involves generic knowledge and may be used to represent events, sequence of events, perceptions, situations, relations, and even objects* (Barati, 1997: 260). Barati suggests people's understanding and remembrance of events is shaped by their expectations, which are obtained through a series of experiments. The most commonly used construct to account for complex knowledge organisation is the schema (ibid).

The concept of 'schemata' is related to one of the most significant theories about the human mind identifying the people-environment interconnection (Barati, 1997: 261). Jencks C (1969) claims that the way people can perceive the world depends on the concepts that he already has i.e. the 'schemata', which determines perception.

Barati argues that these schemata are not based on intrinsic information, but are the results of a gradual process of data-gathering information, gaining experience, and through cultural symbols. He elaborates that the relationship between culture and schemata is tied into the whole cultural structure (Ibid, 1997: 263). This means culture can be found both in people's minds and their surroundings. Further, he suggests that the external environment in different ways is already "culturalised" in that it holds and manifests cultural verbal and non-verbal symbols. When children learn (Barati, 1997: 264), they are learning to perceive and recognise their particular environment through meanings and symbols, they are necessarily dealing with a culturally affected environment. Their mental structures, i.e. schemata as they develop, therefore, are strongly influenced by the local culture and its related environment (ibid).

2.5.4 Aesthetics

Abdalla (1998) believes that people perceive and appreciate the world in terms of its symbolic sense, meanings and values, but it is quite difficult to separate the form from the symbolic aspects which reflect the cultural attitudes and satisfy the human needs for aesthetics, simply because aesthetic experience is the result of an interaction between man and his environment (ibid).

In general, many scholars define aesthetics as a “theory of beauty”. More descriptively, the term “aesthetic” derives from the Greek *aisthanesthai*, which means “to perceive” and *aestheta* “things perceivable” (Porteous, 1996). Cold (2000) relates that according to Gyldendal’s encyclopaedia, aesthetics is defined and explained as “the knowledge which derives through the senses; scientifically it is about beauty in art theory”. Oliver (1997) describes the aesthetic as the affective aspect of communication, the dimension that enlivens feeling, exciting the pleasure of the senses. While the term aesthetics is a synonym for the word ‘beauty’, which is also a notion of quality. Bakar (1997: 3) interprets it delicately, “Beauty, in its true nature is a quality that is non-measurable and non-quantifiable. It is at once a spiritual and an intellectual quality whose reality transcends the physical objects in which it may manifest itself”. In other words, physical beauty has no independent existence of its own. It is the manifestation of the radiation of a higher kind of beauty, namely spiritual or intellectual beauty (ibid). He adds that the idea that beauty is essentially intellectual in nature was, of course, widely held in traditional societies and civilisations.

Cold (2000: 197-198) suggests four main areas of aesthetic knowledge in the history of aesthetics, i.e.:

- i. Knowledge which is derived through the senses of things perceivable
- ii. Knowledge of the nature of beauty
- iii. Knowledge of theories of criticism in the arts
- iv. **The “hidden” unconscious knowledge developed through evolution**

It is the fourth area of aesthetics knowledge that is the main interest of the research. Aesthetic knowledge on an individual and cultural level is developed through learning in everyday life as well as creating, studying, teaching, evaluating and researching in the area of aesthetics, the arts and architecture (Cold, 2000: 198). According to her findings (ibid: 200), some scholars posit that environmental preferences are learned responses, shaped by cultural values and each individual’s life experience. She reasons that a preference may be that we are learning more about the influence of unconscious processes guiding our preconscious behaviour.

Cold (2000) also suggests that on a concrete and conscious level, survival and aesthetic preferences today appear to be totally independent of each other, but our relation with nature and the natural environment, however, appears to be more crucial for our well-being and health than we previously imagined. She adds that on an abstract and symbolic level, some of the mechanisms of connection between survival and aesthetic perception may still exist and unconsciously guide our preferences

and behaviour. Cold views that **Kaplan's preference model**, may be a gateway to understanding our preferences for unity, wholeness and coherence and for variation, complexity and novelty. Stephen Kaplan's cognitive preference model (1987) was produced as below:

	Understanding	Exploration
Immediate	Coherence	Complexity
Inferred, predicted	Legibility	"Mystery"

Figure 2-2 Kaplan's "Cognitive Preference Model" resource: Kaplan (1987)

2.5.4.1 Experiencing Aesthetics in the Built Environment

Ujam (1987) identifies two main sources of information that can be used to perceive the external world and consequently, in constructing the cognitive schemata. The first is the useable information, which can be obtained directly from the environment (Ibid). This is the information that we receive through our senses directly from the surrounding environment into our nervous systems. We experience visual aesthetics through the act of perception (Abdalla, 1998: 285). Abdalla commented that interpretations that give us meaning for what we see, go beyond this type of perception, which leads to the second source of information suggested by Ujam (1987), which is based on past knowledge or the experienced knowledge encoded in the brain. Abdalla (1998) calls it the aesthetical experience, in which he defines it as an evaluation process as much as an instinctive response, it not only depends upon the visual stimuli from the environment but also the environmental cognition which could be related to values and symbols.

In relation to the thesis context on cultural meaning, aesthetical experience is also based on the cultural experience itself, because culture produces values and symbolism, its physical manifestations are mainly the interplay of symbolic expressions. In this view, the author quotes Altman (1980), "*Environmental cognitions are truly psychological in that we interpret the environment and we are selective and incomplete in our portrayal of it. We receive information about the environment from our senses, we process and recognise it in ways that are meaningful to us and to our lives, and the results are represented in and carried about in our minds. What is meaningful, consistent, and appropriate is, of course, heavily influenced by our cultural experience*".

Lang (1987) classified three kinds of aesthetical experience in the built environment. They are (1) Sensory aesthetics, (2) Formal aesthetics, and (3) Symbolic aesthetics. The first originate from sensation, in which the aesthetics is referred to the pleasurable-ness of the sensations perceived from the external environment in the forms of colours, sounds, textures, and odours. Abdalla (1998) claims, the natural environment is the dominant source for experiencing sensory aesthetics, and Fathy (1971) agrees by saying that, "Designers often imitate nature in their works and that is probably more common in pre-industrial societies. They copy nature not only because they are interested in the natural forms or colours, but also because it means something to them, it has

symbols and reflects their beliefs in the cosmos". This notion exists most prominently in many aspects and principles of the Malay arts and architectural designs, as shall be discussed in the next chapter.

Formal aesthetics is usually associated with the appreciation of forms, scale, rhythm, and sequences of the visual world. It deals with the appreciation of forms, shapes, and lines, but without denying the roles of sonic, olfactory and tactile experience in a person's appreciation of the environment (Abdalla, 1998). Its values are related to the structure, pattern or order, in other words, the system of the relations, which exists in these structures (ibid). Lang (1987) suggested, the formal aesthetics are based on two concepts which are (1) two dimensional proportions, and (2) the three-dimensions in the form of serial visions of the built environment, and how people perceive the visual relationship of building organisation and spatial patterns.

Abdalla (1998) points out the importance of climate (or ecology) in determining the shape of the urban form, building forms, orientation and the organisation of the physical environment. He states, "The building forms – especially, in terms of the visual aspects- are strongly affected by roofs, walls and facades which formulate the enclosure of space. So, climate is an essential factor in shaping them".

Thirdly, the symbolic aesthetics, which are embedded in the associated meanings of the environment that give us happiness and satisfaction and permit us to understand the hidden dimension of the architectural language (Lang, 1987, cited by Abdalla, 1998: 288). In this view, Lang (1987) describes symbols, as the result of a cognitive process, whereby an object acquires a connotation beyond its instrumental use. Meanings of objects are derived from what an observer inputs to them. Objects could be environmental elements, persons or any material artefacts (ibid).

In ancient civilisations, symbols have been used extensively in built environmental designs. At the time when people's worldviews are deeply connected with nature and its metaphysical interpretation of the world, the buildings' forms or city plans are designed to satisfy symbols, which Abdalla (1998) suggests, is for a world which they believed was divinely protected and ordered. There are numerous symbolic examples in ancient architectural buildings as mentioned by Abdalla: (1) Greek temples – are situated facing towards the rising sun. Builders have also repeatedly used forms that suggest the structure of the universe: sky-like domes, for example, or towers that "lift" men closer to their gods (Rykwert: 1964). Rykwert also claimed that the high towers visible from a long distance have also been used to mark especially significant sites. Such towers also sometimes have a further symbolic role: to act as a so-called "sky towers" supporting the heavens as in the Chinese pagodas (towers) – their projecting roofs represents one of the stages that Buddhists believe lie between each earth and paradise (Ibid).

The thesis recognises that the existence of the sensory aesthetics and the symbolic aesthetics, of the aesthetical experience in the built environment have not been entirely justified in the contemporary worldview of architecture in general, and in housing in particular, in contrast to the formal aesthetics. Lang (1987) supports this by asserting that modern architecture has been affected by several theories that consider function, technology and economy before human values and aspiration. For many architects and designers, architecture is just a machine, since the issue of culture, traditions and symbolic meanings have been neglected. Abdalla (1998), however, feels that aesthetic pleasure is one of the highest manifestations of mental performance, there are values associated with aesthetical experience. He argues that architectural aesthetic is not an abstract art; it seems impossible to have a specific formula or any kind of description of architectural aesthetics. In this light, Lang commented, *“The science of aesthetics is concerned with: (1) Identifying and understanding the factors that contribute to the perception of an object or a process as a beautiful or, at least, a pleasurable experience, and (2) Understanding the nature of the human ability to create and to enjoy creating displays that are aesthetically pleasing”* (Lang: 1987).

In relation to the built environment, symbols are (according to Abdalla, 1998) a non-mechanism that people use to communicate messages about themselves, their history, social status, and worldviews. Today, buildings based on ancient symbolic plans retain their power to affect our emotions, not only through the skill that their builders showed in their construction, but also perhaps because the ideas that their forms symbolise can still call up a response in us (ibid).

2.5.4.2 Summary Conclusions of Aesthetics

Bakar (1997) argues that the destruction of the arts (aesthetics or beauty) is caused by the modern scientific and technological culture that we have cultivated, and a mind-set that is dominated by them. He claims that modern science, as shaped by its mainstream philosophy, is only interested in studying things that are measurable and quantifiable, adding that anything that cannot be embraced by its quantitative methods of study, is deemed unimportant. Because of this, modern science has become reductionistic, i.e. at the hands of modern science, non-physical reality has become reduced to physical reality and physical reality has been further reduced to its measurable and quantifiable aspects (ibid). Consequently, **the outcome of this philosophical and scientific reductionism is the impoverishment of the cosmos and of our natural world as well as the human soul.** Our human and built environment too quantitatively speaking has become impoverished in the process, although quantitatively speaking it has been greatly enriched by modern technology and its mass products [Bakar, 1997].

Aesthetics itself is an intangible value that cannot be grasp by anyone who has no knowledge of it. In Santayana’s (1896, in his first major publication of *“The Sense of Beauty”*) philosophical view, aesthetic is a value, and like all other values, beauty exists only for living creature with particular sense, impulse, and interest. However, the aesthetic element should not finally be abstracted from the practical and moral function of things, the aesthetic may heighten other values, it cannot replace

them or render them insignificant... consequently, an inquiry into aesthetic is concerned with sensibility, with the origin and condition of aesthetic values, with the relation of such values to other aspects of life, and particularly with the nature and elements of our aesthetic judgements (ibid). In this context, the thesis suggests aesthetics can be recognised as one of the intrinsic qualities possessed by the indigenous Malay world-views that have been translated into the physical form of arts, architecture and the built environment of the indigenous society.

2.6 Conclusions of Chapter Two

Contemporary crises in Malaysia's housing are the result of irresponsible planning and design approach towards the local contexts of the living environment. In line with the thesis arguments, many scholars are suggesting that the best solution for most of these problems are to revert back to the traditional pattern of living environment and community living; as well as to decipher the deeply-rooted religious and cultural values inherited throughout the centuries that are responsible for the production of the culturally rooted living architecture in Malaysia.

Responsibility and control should be shared among the individual, society and the local authorities at some degree, while at a certain extent, both responsibility and control should be given to the home owner as motivation for them to adapt, develop and transform their dwelling environment in response to their cultural and cosmological meanings. Social-cultural factors do mostly influence the form of living architecture in Malaysia because architecture IS a reflection of the way of life. The approach towards development, specifically in housing should be in harmony with nature rather than conflict or conquest. The contemporary local built environment professionals and the housing policy makers should decipher the meanings of the terms home, house and housing in order to appreciate the values of their meanings in the creation of a responsive and appropriate housing design and development. It is important to recognise their differences and the depth of their meanings towards people so as to recognise their characteristics in order to shape the model for the future living environment.

The aspects of human perception, cognition, schemata and aesthetics that shape the visual manifestation of the living environment are as vital to be comprehended as the meanings of the terms for home, house and housing. These elements of cognitive psychology can provide invaluable information that can never be accessed through conventional interpretation for they are the embedded knowledge developed through time and space, hence, forming the cultural meanings and cosmological understanding, that are the core structures of the society's intellectual worldview. The next chapter shall highlight the qualities of the indigenous worldviews of the Malay societies that are embodied in their tradition, art and architecture.

3 Qualities in the Indigenous Worldviews

3.1 Introduction

The scope of the thesis is limited to the indigenous communities and their dwelling architectures. For the purpose of the study, this chapter focuses on the indigenous worldviews of the Malay society, although in the later chapters, the study does include other indigenous societies in its empirical survey and analysis. By concentrating on a single ethnic society (which apparently is divided into a number of ethnic origins) it is more tenable to develop an understanding of an indigenous society and the underlying forces, which identify the society and its built environment. This will enable the researcher to establish the general characteristics of the model for housing based on cultural meaning and cosmological understanding, which shall be discussed in depth in the next chapter.

The chapter attempts to explore more deeply into the genesis of the indigenous arts and architecture of the Malay society, in order to decipher the origin of the community's cultural worldview and its significance on its dwelling designs and living environments. The Malay community is one which practises the religion of Islam, while simultaneously, it also sustains its cultural and cosmological traditions that are parallel with the teachings of Islam. However, in tracking the evolution and development of indigenous Malay worldviews, it is imperative to recognise that the indigenous intellectual framework is divided into three stages of development, i.e. from animism/ shamanism era, to Hindu-Buddhism dominion and finally to Islam. The reader should also be able to notice the existence of boundary among these three types of worldviews. The thesis stresses the importance of recognising the significance of the religion, tradition and cosmology as deep-rooted embedded forces responsible for producing indigenous and sustainable representation of domestic architecture within the society.

Symbolism and meaning in the architecture of indigenous dwellings are vital for the Malay community to decipher the relationship between man and god, man and nature. Symbolic representations of the traditional Malay arts and crafts illustrate the existence of aesthetics, quality and values in this workmanship, which are highly significant to the way the Malay people behave and lead their lives. How people interpret their worldviews are imperative in deciphering the reasons i.e. the meaning behind the manifested forms of dwellings in a variety of patterns. Through this understanding, only then can one produce contemporary dwelling design closer to the context of home. Based on the qualities of indigenous Malay worldviews in this chapter, the following chapter shall develop the characteristics of the model for housing.

3.2 Malay Defined

There are many definitions for the term 'Malay' as stated in the following:

In general, Ariffin (2001) describes 'Malay' as a term that denotes almost all the inhabitants of the Malay Archipelago, Formosa (now Taiwan) and the Philippines and some of the tribes of Indo-China (i.e. Campa) (Ariffin, 2001 Quoting Winstedt, 1947/1961b: 4). In broader terms, Ariffin denotes that the Malay world is claimed to include Madagascar on the west, the Southeast Asian Archipelago at the centre, and groups of Micronesian, Polynesian, Melanesian islands on the east in the Pacific. However, the term Malay is specifically used to identify the civilised Malays from Sumatra, Indonesia and the Malaysian Peninsula. Christian Pelras (1993: 687-690) defines Malay (according to both ethnic background and geographical boundary) in seven levels of definition:

1. Those settled in the Malay Peninsula who speak Malay and practise Islam as their religion, also called the Peninsula Malay;
2. Including Peninsula Malays but also those living in both East (Sabah and Sarawak in Borneo) and West Malaysia (Malay Peninsula), known as Malaysian Malays;
3. There are also Malays who settled outside Malaysia, like those in neighbouring South-east Asian countries; these Malays are called the 'original Malay';
4. Other Muslim people who are able to speak fluent Malay and yet are strongly bonded to their ethnic identity, such as the Minangkabau and Javanese, called the 'Malay races';
5. The people of South-east Asia who are Muslims and use Malay language as the lingua franca;
6. The Malay-speaking non-Muslim people of this region; and finally,
7. The people of South-east Asia who speak one of the group of Austronesian languages.

3.2.1 Malay Civilisation

Windstedt (1961b) describes the term 'civilised Malay' is employed by anthropologists to elucidate a group of Malays who discarded indigenous animistic belief and primitive customs, and accepted a formal religious doctrine – Islam – and lived in a systematic manner, according to its teachings (Ariffin, 2001: 9). Pelras (1993: 687-688) delineates the definition of the "Malay Civilisation" from specific to its broadest meaning, according to his interpretation as below:

1. Which concerns the Peninsula Malay citizens who speak Malay as the mother tongue language, and are Muslim practitioners, whom are then known as the "Peninsula Malay";
2. Which concerns the Malaysia residents (east and west) who speak Malay as the mother tongue language, and are Muslim practitioners, who are then known as the "Malaysian Malay";
3. Which concerns the whole South-east Asian inhabitants (be it in the Asian continents and/or in the Southeast-Asian islands) who speak Malay as the mother tongue language and practise Islam as a religion, who are then known as "Pure Malays". This involves those who reside in Thailand, Singapore, Indonesia and Brunei;
4. Embracing the rest, besides the groups that have just been mentioned above, as well as those who converse in one of the dialects close to the Malay language (such as the Minangkabau language, Banjar language, Jakarta/Betawi language) and who practise Islam as a religion; the

whole of this group are then called “the Malay races”;

5. Which concerns the Southeast Asian inhabitants (be it in the Asian continents and/or in the Southeast-Asian islands) who are Muslim practitioners and use Malay since before the independence, whether as the intermediary language or as the language of literature. This encompasses the whole Islamic nations of the Malay Archipelago, whom are then called “Islamic races of The Malay Archipelago”;
6. Which concerns the districts whose inhabitants, who are practising any religion, who use the Malay language either as the mother-tongue language, or daily language, as a replacement for the indigenous language, or as a formal language, who are then referred to as “the Malay states”; and,
7. Which concerns with the Southeast Asian inhabitants who use one of the languages of the Austronesian cluster, which entirely shall be called “The Malay World”.

Hence, the “Malay World”, in its broadest definition, denotes that the world encompasses a sense of unity, which is based on many aspects as Christian Pelras (1993) suggests, “the languages of its inhabitants belong to the same group, i.e. the Austronesian language, many of the cultural aspects are the same or similar because they originate from the same ancestors, but there are also similarities due to the same influences, because this world, the international relationship has been going on the whole time and active until the influences experienced (be it those that came from external, or which came from certain parts of the Malay World) as well as the developments cannot be separated from one to another” (ibid).

3.2.2 Malay Characteristics

3.2.2.1 Identity of the Malay

Malay characteristics are the ‘identity’ of the Malay ethnic society. It is the embodiment of a society that holds on to the laws and principles of its religion – Islam, and its intimate relationship to nature in all aspects of daily life. The characteristics, which the researcher recognises as mediums of transformation within the society, are the language, attitude (manners and etiquette) and religion.

The Peninsula Malays is a civilised society, which possesses a courteous and cultured way of communication in its speech and customary etiquette. The Malay language as the lingua franca in the Southeast Asian world has become the unifying element of the diverse ethnic societies within the Malay world. Language acts as a tool as well as a boundary for transformation of the deep structures of the society into the manifest forms of arts and architecture.

Map 2: Limits of the Austronesian Language Family (Map by Val Hill, ANU, courtesy of Peter Bellwood)

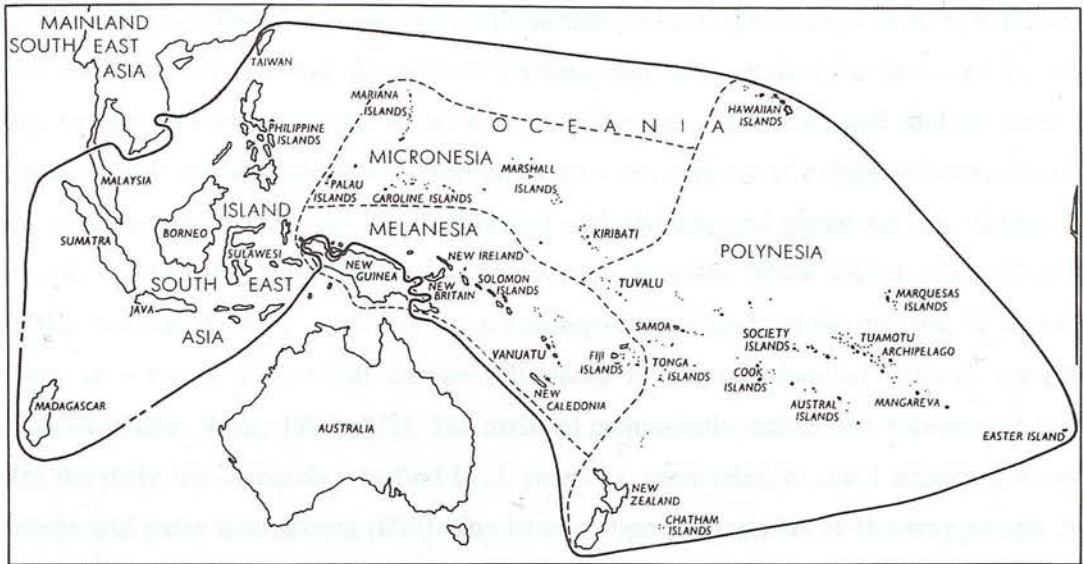


Figure 3-1 the Austronesian Language Family

Source: Waterson, 1997:13

The Malay society's attitudes and demeanour are based on kindness; good deeds, good manners, discretion or common sense; disposition or character; kindness, wisdom and sensibility. In general, they are also humble, reserved, respect the elders and one another, and they are polite. It is also a Malay cultural practice to welcome and honour guests to their homes. The Malay language, attitudes as well as religion are the mediums of cultural and traditional transmission (the innate forces of the deep structures) responsible for the production of the visually manifested forms in the environment i.e. in the realm of art, and architecture.

3.3 The Malay Worldviews: Evolution and transformation

3.3.1 Origin, Development and Civilisation of Malay culture

In Peninsula Malaysia, the evolution of worldview transformation can be categorised in three chronological developments: the first, the animistic, shamanistic worldview, then the arrival of Hinduism-Buddhism epistemologies and finally, the Islamic tradition brought by the Arabs, Persian and Indian merchants through trading as well as missionaries.

The renowned German philosopher, Martin Heidegger once wrote, "Whatever and however we may try to think, we think within the sphere of tradition." (Yen Mah, 2001: 10). The author believes that in order to digest the relationship between the past, present and future, it is imperative to decipher the underlying principles, which have been the innate forces (deep structure) of the Malay worldview. This would allow one to decipher the evolution and significance of deep embedded forces, which are responsible for transforming the intangible world into tangible forms and structures, namely the built environment.

Historically, the Malay people were originally seafarers with a succession of warrior traditions. The society is blessed with artistic skills in arts and crafts manifested from mutual interaction with

nature. Socially, the society is polite and humble, open and welcoming to guests with honour and charm. The Malay culture as an open system transforms its structure through its acceptance of new, external elements, for example, the Islamic teaching that had enriched the values of its internal existing system in many aspects, such as ways of living, art, architecture and so forth. But, according to Wan Abdul Kadir (1994), for the Malays, the concept of culture as understood by its people or lay people has always been connected with the arts and games aspects (Kadir, W.A., 1994: 274). Kadir (1994) defines the concept of culture as the whole aspect of ways of living within the community of the given culture. It encompasses all kinds of construction of community members as a result of material culture substances to the non-material cultural constituents productions (Kadir, W.A., 1994: 277). The material components include the necessary equipment to fulfil the daily life demands – to find food, weapons, ceremonial or ritual activities, as well as the artistic and game instruments (ibid). The latter component consists of **the way people think, their values, attitudes, world-view and philosophy born from innate, transmitted knowledge and human experiences in facing daily life** [the author's emphasis].

The Malays live by the rules of *adat* (tradition) (Zainal Kling, in “*Adat: Collective Self-Image*” in Images of Malay-Indonesian Identity, 1997: 45), which refers to **the indigenous body of knowledge and law of the Malay world**. It may determine how people should act and respond to one another, present oneself among members of society, and many other aspects of life. By referring to this statement, the thesis shall elaborate more on tradition in the following section, as it also plays an important part in determining the principles and values that establish the physical embodiment of indigenous architecture of the society.

3.3.2 Islamic religion and its influences in the Malay Worldviews

(Thought system) and As a Way of Living (Culture and Tradition)

Culture as an open system is a dynamic process. It keeps developing and changing by absorbing external constituents that may contribute to the enrichment of its system. In other words, it exists and develops in parallel with the growth and development of its society. In the dynamic process, Kadir (1994) suggests that there are two types of changes: one, the change within the society, another, is the change brought by external influences.

In the context of the Malay culture, Islamic teachings and perspective play important roles in determining the underlying principles of the Malay culture. Islam as a universal religion for all humankind was overwhelmingly accepted by the Malay society, which was then practising the animistic, or Hindu-Buddhism religions when it first arrived in the country. Its values and principles have since become the focal point of reference in all aspects of life to determine the society's worldview. The religion has also contributed to the Malay civilisation during the reign of Melaka Sultanate Era. Under the circumstance, it can be said that the Malay culture blossomed through the enrichment of the Islamic religious principles i.e., the Quran [The Book Of Knowledge

revealed by God through the angel Gabriel to the last Prophet Muhammad (pbuh)] and Prophet Muhammad's (pbuh) 'Sunnah²³' that have become the society's fundamental guiding principles. Islam is not a religion produced by the culture and people therefore, it is Islam that produces culture not the other way around (Kadir, W.A., 1994: 281).

This confirms the general misconception that Islam is manifested through the culture of a particular society, which leads some people to generalise that the culture of a certain Muslim community reflects the whole teachings of Islam, when there may still exist some existing aspects of the particular culture that contradict with the real teachings of the religion. In actual fact, the culture of a society is mainly influenced by the religious thoughts and principles. Every culture is unique, according to its own regional and historical background, no one culture or society is the same. Having said that, the universality of Islam as guidance for the whole of humankind, which actually recognises the boundary among cultures, enables it to assimilate and fuse together with individual cultures (as long as the cultural activities are in parallel with the teachings of the religion), hence creating a sense of unity for the diversity of cultures around the world.

3.4 The Malay Tradition

As mentioned earlier, the Malay tradition is understood as **the indigenous body of knowledge and law of the Malay world**. The main principle of the Malay tradition is based on this saying, "Adat bersendikan syarak, and syarak bersendikan kitabullah" (Tradition is based upon syaria', syaria' is based on the Quran). In other words, the Malay's indigenous body of knowledge and law of the Malay world are ultimately based on Islamic laws and principles. Hence the Malay culture is directly related to Islamic cosmology, in which the relationship between man and man within the sphere of the Malay ethnic cultural community and the cosmos is based on the principle of tawhid (unity) [Ridwan, in Harun (2001)].

The following illustrates an example of a Malay tradition in one of the Peninsula states that had been established in Negeri Sembilan. It is necessary to mention here that the objective is to identify and reveal the deep-rooted intangible forces within the community that are responsible for the physical existence and manifestation of the arts, built-environment and all aspects of the community's life. In this tradition for instance, the cosmological manifestation of the custom is derived from the custom's principles.

3.4.1 Concept of tradition in the Malay culture

This section attempts to illustrate the cosmological manifestation in the "*Hukum Adat Perpatih*" (Perpatih Tradition Laws) as an example of tradition in one of the indigenous Malay community in the Peninsula Malaysia. The *Adat Perpatih* (Perpatih Custom/Tradition) is a 'Code of Life'

²³ This is known as the model practices, customs and traditions of the Prophet Muhammad pbuh., which can be found in both Hadith and Sirah.

practised in West Sumatera, Indonesia and by the majority of the Malay community in Negeri Sembilan²⁴ and at the Naning district in Melaka (Selat, N., *Cosmological Manifestation of the Perpatih Tradition Law in the Malay Cosmology* by Harun, Y., 2001: 88). The cosmological manifestations of the custom is found in the custom's precept i.e., its proverbs, simile and sayings (ibid). Originally, the *Adat Perpatih* community was a peasant society that depended on land and their own endurance, thus (Harun, 2001) most of its principles are based on nature's organisation and structure.

3.4.1.1 The Concept of Tradition in *Perpatih* Tradition Law:

For the *Perpatih* Tradition community, the concept of tradition is divided into four categories with apparent meanings as listed by Selat (Harun, 2001: 89):

Tradition that is a natural tradition

This is natural order that cannot be changed or disturbed or threatened by the humankind, example:

The traditions of hens and rooster are to crow
The tradition of the cow is to moo
The tradition of the horse is to neigh
The tradition of sharpness is to wound
The tradition of water is to be wet
The tradition of fire is to burn

Tradition that has become a custom

This is the main principle that is the essence of the existence of *Perpatih* tradition, for instance, the family system that is based on tribe and heirloom soil. Also included in this term is the execution of the traditional law that is just and equal without status prejudice. Thus, the emergence of the proverb:

"Let the son/ daughter die rather than let the custom die."

This implies that the law or the principle of life cannot be compromised, even if the one who commits the wrongdoing is one's own son or daughter.

Tradition that is made into a custom

This is the law that is produced by mutual agreement by all parties, from the leader to the ordinary members of the community. Apparently, in the tradition there are also some laws that are not fundamental but flexible and can be changed, according to certain circumstances, for example:

The old, renewed
The decayed, fixed
What's good, used
What's old, thrown out
If long, cut
If scanty, lengthened
Exceeding, don't be excessive
Decreasing, don't be useless

²⁴ Negeri Sembilan is one of the 13 states in Malaysia, located on the south west coast of Peninsula Malaysia, south of the state of Selangor and north of the state of Melaka.

Ceremonial tradition

This is known as the formal event held during a certain ceremony. For example, the wedding ceremonial tradition, which involves traditions such as making discreet enquiries, getting engaged, having henna applied, “bersanding” (where the bride and bridegroom sit next to each other on a decorated seating platform as a display for all to see the newly weds in their wedding attire) and so forth. This custom is flexible and varies from one place to another, as described below:

Sekali air bah, (Once the water flood,)
Sekali pantai berubah (Once the beach changes)

The ceremonial tradition can be demolished without interrupting the social system of the Perpatih Custom itself. Normally, the ceremonial tradition is done to display status, demonstrating that the practitioner is sensitive and capable of copying the changes that happen, besides hoping that the simultaneous side events shall excite the main event that takes place.

3.4.1.2 Functions of the Laws of Tradition

The laws of tradition are handed down through verbal transmission from one generation to another giving the *Perpatih* tradition of community its framework for thought and deeds:

Life is surrounded by tradition
Death is surrounded by soil

Each law of tradition is based on common sense, appropriate with the society living in a community. It is also structured in accordance to nature’s orderliness. The proverbs and sayings within the Perpatih Law is filled with analogies that are sourced through nature, as well as nature and the whole of existence and its benefits are God’s creations:

Bamboo shoot grows at its knot
Coconut grows at its eye
A bud blossoms at its tree stump
The stumped is cut down

Therefore it can be said here that in the Perpatih Law community, there is no contradiction between tradition and Islam. Instead, the Islamic religion has completed the Perpatih Law.

Syaria supports tradition,
Syaria is supported by (Allah) God’s Book of Revelation (the Qur’an);
Syaria cites,
Tradition uses.

Muncak dies in pain,
To the field carrying the chopping-knife;
Both his thighs were wounded,
Tradition and conditions at Minangkabau;
Like the bamboo and the bank of the river,
Dependent on one another.

From both similes, tradition and Islam, they seek for the right path, asking to do good deeds and prevent from doing evil. *Perpatih* Tradition Law emphasises the existence of harmony within its community.

3.4.1.3 Principles of Values within the Perpatih Custom System

In order for the harmony to exist within its community, the laws or tradition also provide its community with a value system to follow and uphold. The example below examines on the value system, which exists in the Perpatih Tradition

Value Categories Based on the Harmony Tradition Within the State

Selat (Harun, 2001 [et al.]) asserts that the significance of harmony is permeated in two important aspects that are also the essence of a social system and the *Perpatih* tradition community's 'Codes of Life' i.e., within the individual self, as a member of the society and in the community that produced and drafted the sense of unity. For the individuals, they are equipped with values that are deemed as noble and pure in the Perpatih Tradition. Value categories of Perpatih Tradition Law include:

i. Budi (Kindness)

The importance of kindness within oneself in Perpatih Tradition can be seen in the following custom's simile and quatrain:

*A multi-level island ascends
Leaving behind the inter-node and the knot
A dead tiger leaves behind its stripes
A dead elephant leaves behind its trunk
A dead man leaves behind his merits (name)*

*Yang kurik itu Kendi*²⁵ {The dotted one is 'Kendi'},
Yang Merah it saga {the red is 'saga'²⁶}
Yang baik itu budi {the good is Kindness}
Yang indah itu bahasa {the beautiful is language}

The above quatrain conveys a meaning that regardless of one's good looks and handsomeness, if one does not have good manners one will still looks bad in the eye of the society (http://www.karyanet.com.my/knet/bahasa/kamus_peribahasa/index_peribahasa.php?alpha_abjad=y).

Pulau Pandan jauh ke tengah {Pandan Island is far in the middle (of the ocean)}
Di balik Pulau Angsa Dua {Behind Angsa Dua Island}
Hancur badan di kandung tanah {Dissolved body enfolded by the soils}
Budi yang baik dikenang jua {Virtuous Kindness shall be reminisced}

²⁵ Kendi is a name of a bird (in Malay, it is called *burung gajah* {*Numenius phaeopus*}, *lurung pisau raut* {*Numenius arquata oientalis*}).

²⁶ 'Saga' is a name for a bright red seed, local forest plant in Malaysia.

ii. *Malu* (Bashfulness)

The value of bashfulness is closely related to the value of kindness. An individual must be bashful, not only to himself, but also to one's society. If he is found guilty of contravening the Perpatih Law, therefore not only one is he shamed and loses his dignity, but his family and tribe would also have to bear the humiliation:

Anak orang Kota hilalang, {the son of Hilalang city,}
Hendak lalu ke pekan Baso, {was about to pass the town of Baso,}
Malu dan sopan kalaulah hilang, {If bashfulness and politeness disappear,}
Habislah rasa dan perasaan. {cause the feelings and emotions to vanish.}

An individual must prioritise the society's best interests rather than his own. Therefore one must know how to be responsible to oneself:

Berjalan perliharalah kaki {When walking, take care of your feet}
Berkata peliharalah lidah {When talking, take care of your tongue}
Kaki tertarung, inai padahnya {If your feet slipped, henna²⁷ is the consequence}
Lidah tertarung, emas padahnya. {If your tongue slipped, gold²⁸ is the consequence}

iii. *Timbang Rasa* (Empathy)

The third is the sympathy value. One must have this value to prepare oneself as a good member of the community. This attitude can only be owned if a person puts oneself in another's shoe before an action is taken towards the one who is to be acted upon, as the saying goes:

Yang elok dek awak tu {what may seem good to you,}
Setuju dek orang hendaknya {May it is the same with the others (people within the community);}
Sakit dek awak sakit dek orang {if something makes you hurt, others feel it too,}
Lemak dek awak lemak dek orang {fattening for you, fattening for others too.}

Apart from the three categories of value as above, (Selat, N., *Cosmological Manifestation of the Perpatih Tradition Law*) the 'Perpatih Tradition' community also collectively practices values of life that not only are beneficial but which also strengthen the existence of harmony among them. The situation can be illustrated in its value system as below:

i. Mutual assistance Value:

In the traditional Malay peasant society, the tradition of mutual assistance is part of its daily life. For instance, a paddy-field farmer is unable to start his agricultural work if other farmers do not join him in the paddy field. Even though he could clear his portion of the field on his own or with the help of his family, he may not be able to control the insects' attacks, birds and swine and other animals that might damage his field. Selat (Harun, 2001: 95) claims that humankind may never cease to exist completely without the help of family and his neighbours. In the Perpatih Tradition, this situation is clearly described by the tradition's simile:

²⁷ Henna here does not literally means the henna plant/ powder, it symbolises the blood as a result of a foot injury because of the slip, also a symbol of pain.

²⁸ Gold here symbolises the high value or price to pay when one does not control what one says, for example, where what you say causes hurt to someone else's feelings.

Berat sama dipikul {the heavy burden, shall be carried together};
Ringan sama dijinjing {the lightweight, shall be lifted together};
Yang tidak ada sama dicari {What's missing, together we find}
Sama sakit sama senang {Together we feel the pain, together we reap the benefits}
Ke bukit sama mendaki {to the hills, together we climb}
Meluruh sama menuruni {Going down the hills, together we slide}
Sama menghayun sama melangkah {together we swing, together we make the steps}
Jika khabar baik diberitahu {if there is good news, be informed}
Jika kabar buruk serentak di datangi {if there is a bad news, simultaneously, we confront it}
Jika jauh ingat-mengingat {If far apart, remember one another}
Jika dekat temu menemui {when we are near, visit one another}

ii. Equality Value

Selat (Harun, 2001: 96) mentions that in order to create a sense of harmony and social unity, the Perpatih Tradition practices equality. Each individual does not only have a chance to express his thoughts for mutual benefit and harmony, but one is also encouraged to let out one's feelings in an attempt to find a solution to a particular problem. According to the tradition:

Duduk sama rendah, {Siting down, the same level}
Berdiri sama tinggi {Standing up, the same height}

Jika dapat sama laba {one's gain, is everybody's reward}
Kehilangan sama rugi {one's loss, is everyone's loss}
Yang ada dimakan bersama {what's available, we eat together}
Hati gajah sama dilapah {the elephant's heart, together we skin}
Hati kuman sama dicicah {the germ's heart, together we dip}
Tertelangkup sama makan tanah {If one accidentally overturns, together we eat the soil}
Terlentang sama menadah embun. {If one accidentally leans on one's back, together we collect the dew}

iii. Loyalty Value

Loyalty, according to Selat is also a value that is perceived as superior to the community that lives within a cluster or group. Selat (in Harun, 2001: 96) emphasises that without loyalty, the community and its country can never be calm. This is due to the fact that a lot of time and energy would be lost fighting the enemy within the community itself. The loyalty value also includes the willingness to follow orders from higher authorities, parallel with the principle:

Di mana bumi dipijak, di situ langit dijunjung {where one lands on earth, there will the sky be lifted}, meaning, wherever one lives, one will obey the laws of the place. The Tradition's proverbs says:

Adat bersaudara, saudara pertahankan {the custom of brotherhood, the brothers shall defend (maintain)}
Adat berkampung, kampung pertahankan {The custom of community living, the community shall defend (maintain)}
Adat bersuku, suku pertahankan {The custom of clusters, the tribe shall defend (maintain)}
Adat bernegeri, negeri pertahankan {The custom of having a state, the state shall defend(maintain)}
Sepakat pangkal selamat {Unite, is the base for security}
Sengketa pangkal celaka {Dispute, is the base for disaster}
Hilang adat kerana janji {Custom is lost because of promise}
Hilang pusaka kerana buatan. {Heritage is loss because of actions}

Bila bersemenda di mana-mana suku {When any tribe become in-laws (related)}
Sahlah kata adat {indeed, the custom is right}
Air orang disauk {others' water, one scoops}
Ranting orang dipatah {others' branches, one breaks}
Adat orang diturut {others' custom, one follows}
Di mana bumi dipijak {Where one lands on earth,}
Di situ langit dijunjung {there, the sky is lifted}
Masuk kandang kerbau menguak {enter cow's pen, "moo!"}
Masuk kandang kambing mengembek {enter goat's pen, "baa!"}
Bagaimana adat tempat semenda, dipakailah. {whatever the custom at the in-laws, one would abide its laws}

iv. Unity Value

Selat (Harun, 2001: 97) asserts that a society can never be stable and peaceful without employing the unity value. He stresses that the strength and hierarchy of the society's prestige are based on the cooperation and closeness felt and experienced together. In the Perpatih Tradition, the society's unity is as delineated in the following simile (Selat, N. in Harun, 2001: 97):

Seikat seperti sirih {A bundle, like betel leaf}
Serumpun seperti serai {A cluster, like lemongrass}
Seciap seperti ayam {cackle and cluck like the hens}
Sedencing seperti besi {jingle and tinkle like the steel}
Malu tidak boleh diagih {bashfulness (shyness) cannot be shared (divided)}
Suku tidak boleh dianjak {tribe cannot be thrust}
Melompat sama patah {jump, together we break}
Menyerudup sama patah {senaking, together we crack}
Jalan sedundun {walking together}
Selenggang seayun {one sway, one swing}

3.4.2 Summary of the concept of Malay tradition

The concept of tradition, its laws and the principles of values of the traditional Perpatih society is an example of the meaningful living system that is deeply embedded within people's minds. **This understanding of the concept of tradition, its principles, and a value system are well absorbed into Malay society's understanding and its attitudes to the physical built environment. Hence, their perception, cognition and schemata of the environment would refer to these dimensions as their main guidance for the physical embodiment of indigenous architecture and the built environment.** In this particular society, Islam and tradition is inseparable, as the saying goes, "Adat bersendikan syarak, syarak bersendikan kitabullah" (Tradition is based upon syaria', syaria' is based on the Quran). In other words, one can say that Islam and tradition can be understood as **the indigenous body of knowledge and The Law of the Malay world, or the deep-rooted intangible forces within the community, which are responsible for the physical existence and manifestation of the arts, the built-environment and all aspects of the community's life.**

3.4.3 Tradition of crafts in the Malay society

3.4.3.1 Tradition in arts & crafts and architecture

Since before the beginning of Malay civilisation during the Malaccan Sultanate era in the 14th century, the Malays have developed numerous skills and expertise in arts and craft works, ranging from architectural motifs and decorative elements in wood carvings, *batik* and *songket* attire for the royals and the lay people, woven materials for domestic necessities, as well as metal and silver works for instruments, as well as decorative elements.

Before the arrival of Islam, sources for craftworks were based on the flora and fauna species in the forest or villages. With the arrival of Islam, the patterns and designs responded to the religious requirement, i.e. avoiding any direct representations of animals (fauna) in the products. In agreement with Hamzah's (2003) quote, "The Malay culture and Islam are intrinsically bound to one another", the author also acknowledges that the Malay crafts tradition has been profoundly influenced by the spirit of Islam assimilated within the worldview of the local artisans. Haider²⁹ establishes the motivation of Islamic craft as the following:

i. Metaphysical

Man's vicegerency on earth is one of the primordial objectives of his very reason to be. The created attributes of man and his "Covenant of Cognisance" with his Creator at the very scene of genesis, gives him the metaphysical potential to be the Divine Maker's Hand in this "craftshop of Existence". Through "purposeful making", man becomes trans-rationally aware of his own nature as being "made" and leads him to search for the One who Made him. With his wilful intentions and conscious acts, disciplined within the axiological framework of Islam, man establishes his Distinctness and wins his station as the most "honoured among the creations".

ii. Aesthetic

It is reported that the Prophet, at his return from the "Nocturnal Journey to Heavens" said: "Verily God is Beautiful and Loves beauty". Now one accepts the ontological Majesty and Beauty of God, but how does one identify the beauty that God Loves? To imply that God Loves the beauty of His own "Handiwork" makes it a cyclical situation that would mask the wisdom of the Prophet's words, Creation is a system of "signs" of God. It is a sensory manifestation that veils the quintessence of Divine Beauty.

The beauty that He Loves has to be the one that is wilfully made and offered to Him by man, the lone free agent among His creations. And the act of "wilful making and offering" assumes the cognisance by the believer of One Worthy of Belief, as well as the ability to distinguish what is within and without the "Aesthetic Pleasance of God". Such are the emotions that underlie the creative intentions of the Muslim craft men.

²⁹ (Haider, G (1990), *Craft: Tradition in Islam* (article from "Arts: The Islamic World, Vol. 5, no 2 Summer 1990, issue no. 18; London: Islamic Arts Foundation)

iii. Devotional

God created mankind so that among them there could raise forth those who recognise Him, remember Him, seek His Beneficence and devote their beings to his Will. Believers vie with one another in piety, the devotional commitment that permeates the very breath and the heartbeat of their existence. This pervasive remembrance and subservience becomes a phenomenological testimony of the creation's cognisance of the Creator. It is little wonder then that the calligrapher ritually purifies himself as he lifts the pen to scribe the Revelation; and that every knot that is tied to make a prayer carpet carries the intention and anticipation of a thousand prostrations and supplications. The highest expression of Muslim craft remains a devotional act.

iv. Praxic

Islam is a life-enhancing way and enhancement is seen as directed action within an ethical framework. Man makes an offering to God by offering his self, his knowledge and his craft to his fellow man. In an atmosphere of ethnic driven socio-economic **transactions, the nature of an object starts to take on a meaning beyond its mere objectiveness and materiality.** They have become essential bridges between intentions and actions, Objects that have a direct supportive role in bringing the individual closer to his cognisance of God and helping the multitude, become a vital element in community life such that under Islamic legal and behavioural discipline, this constitute s the core of the Muslim craft tradition.

Haider (1990) claims that Islamic craft, if imagined in its true spirit today, would seek the ethic implied by the four perspectives, i.e.: metaphysical, aesthetic, devotional and praxic.

3.4.3.2 Summary of the Tradition of Crafts in the Malay society

The value system within the Malay Perpatih Tradition includes kindness, bashfulness, empathy, mutual assistance, equality, loyalty as well as unity values. These values, embedded within the worldview of the Malay, are important in determining the quality of the Malays' characters. In the model, these values become the elements of deep structure of the Malay community's worldview that contribute to shaping the forms of the dwelling environment.

The boundary and domination of tradition encompass the unity between the individual and society, and its concept of fairness. The cosmological manifestation of the Perpatih tradition here is found in its similes and proverbs, which cover the laws of the tradition, economy, political as well as social affairs. These attributes and point of view, confirms the need for the existence of boundary for the sake of unity and the continuity of tradition for the sake of cultural as well as environmental sustainability in the dwelling environment.

The author strongly believes that understanding the very essence of Malay arts and crafts, based on the motivations of Islamic craft principles, would clarify the necessity to understand the cultural needs of a society in order to develop a responsive dwelling architecture that truly defines the community's way of living.

3.5 The Malay cosmology

3.5.1 The Genesis of Indigenous Malay Cosmology

Cosmology or a philosophy of the world is humans' perception (worldview) of the universe (Soelaiman, 2001: 104). As God's (The Creator of the universe) creatures, man is not at liberty to divorce his/her relationship with God, with the environment as well as with other human beings. Human relationship with the three substances is reflected in the perception (attitude), behaviour as well as daily manner of actions. In the traditional society, the connection is very tight and the organisation, as well as the methods of building the relationship become the society's tradition even though it is unwritten, it must be abided by the whole community members (ibid).

Arbi (1997: 58) asserts that if in the West, the epistemology on cosmology began in Greece, in the East – China, India and Persia have brought huge investments in determining the characteristics of the Eastern cosmology. Within the region of the Malay archipelago, each ethnic tribe has its own indigenous cosmological interpretation (Arbi, 1997: 59), those that can be explored through its most important source are the myths and legends based on oral tradition. The natives who used to rely on animistic and shamanistic beliefs also adapted their culture to the (then) newly found religions. The influence of Hinduism-Buddhism is a major part of the Malay indigenous cosmological ideas about the world. The discussion on this topic includes cosmological ideas before and after the arrival of Islam in the region.

3.5.2 Indigenous Cosmology within the Malay Archipelago:

This section explores the similarities and differences of the indigenous cosmological manifestation surrounding the Malay Archipelago and the Peninsula Malay cosmology itself. Before the arrival of Islam, the cosmological concepts and manifestation in the region were based on animistic or Hindu-Buddhism beliefs as described briefly below:

3.5.2.1 The three level cosmic world concept

Abdul Rahman (1995: 12) relates that indigenous Malay cosmology in general emerges from the dualism cosmic premise i.e. between the upper-world and the lower world, which are represented by the sun and the earth, and so forth. Waterson (1991: 93) quoted by Arbi (1997: 59, also summarises that from most indigenous belief systems in the Malay Archipelago, there is an obvious common element, i.e., the three 'levels' cosmic concept. The upper-world perceived as sacred is the gods dwelling place; the middle-world is the ordinary people's dwelling place, and the lower world is for the animals, and other lesser creatures' deities. This belief is influenced by the Hindu cosmology system which divides the cosmic world into "triloka" (three worlds), i.e.: "Ilavrita" (The kingdom of heavens), "Bhumi" (the earth realm) and "Tala" (the realm beneath the earth).

3.5.2.2 The Cosmic Mountain concept

Abdul Rahman (1995: 28) identifies that the cosmic mountain concept does not only exist in Hindu religion, but also in the Buddha-Mahayana religion. In the “Malay Annals” it was recited that three of Raja Suran’s (King Suran) princes are the Gods’ descendents who descended from the Siguntang Mahameru Mountain (Arbi, 1997: 59).

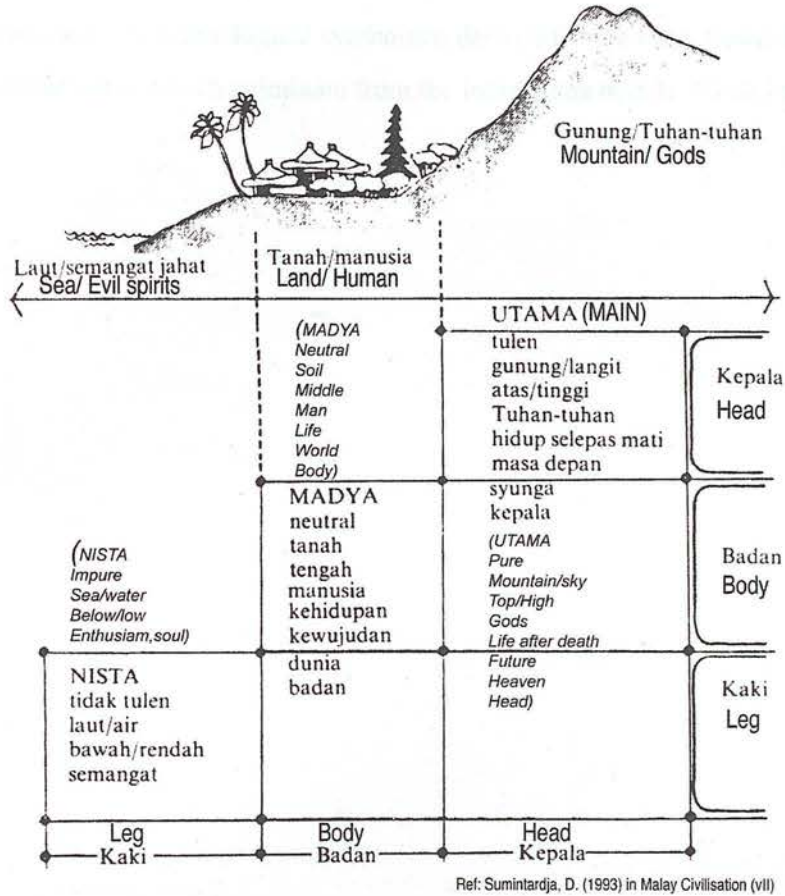



Figure 3-2 The cosmic human relationship with God and nature Source: Malay Civilisation (vII)


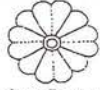




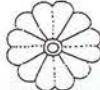
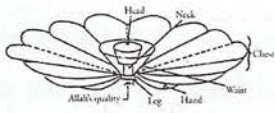
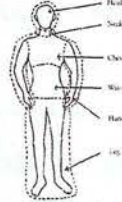
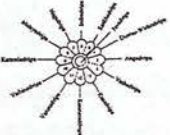
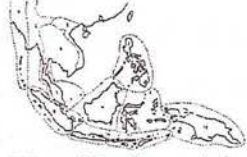
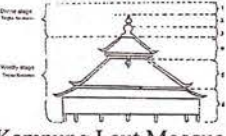
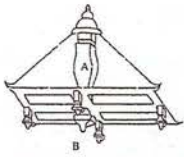
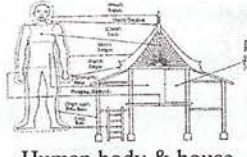
Figure 3-2 above illustrates the example of the cosmological relationship among the mountain symbolising God, the land (which represents human) and the sea (which represents the evil spirits). In relation to the human body, the mountain stands for the head, the land signifies the body, and the sea represents the legs.

The symbolic Malay cosmological facts obtain their source from “Sulalatus Salatin” (The Malay Annals) notated by Tun Sri Lanang. In Islam, the second prophet of one true God, called Idris (from Arab origin), or “Osiris” of the ancient Greek meaning the “King of the Transitional World”; also known as “Ousir” by the ancient Egyptians, whereas the Romans called him “Pluto”, symbolised as the “King Beyond the Earth”. In this region, he was renown as Raja “Aftabul Ardz” (Lord of the Earth) whose name originated from Arabic culture. In the Malay mythology, his ancient name is “Jawan”, Maharaja Anthabogo (from Ananthabhaga), which means “Maharaja Naga Pemikul Bumi” (The Great Dragon King the Earth Bearer). The name Jawan is popular among Malay ancestors. He was also called Aswathaman and later was called “Wan Empok”. The

people of Cham called him “Vichitrasagara”. After the country’s embrace of Islam as the main religion for the indigenous (traditional) Malay society, the former religious symbolism, such as the lotus flower of the Hindu-Buddhism religion was replaced with the Islamic cosmological concepts as summarised by the author in the table below. The said ruler from Sriwijaya of Jawa Island, Indonesia brought the symbolic meanings of lotus flower to the Malay Peninsula. Source: Mohamed, 1997 in Islamic Cosmology in the Malay Art.

Table 3-1 below illustrates the cosmological symbolism derived from a lotus flower based on the indigenous Malay worldviews, which culminate from the indigenous beliefs, Hinduism-Buddhism as well as Islam

Symbolic of	Symbolic of	Symbolic of	Symbolic of
 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>	 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>	 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>	 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>
 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>	 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>	 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>	 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>
 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>	 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>	 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>	 <p>Eight petals of lotus flower Symbolic of eight directions of the universe</p>

<p>Symbols of God</p>	 <p>A symbol of man's faith With God (Allah)</p>	 <p>Complete Lotus form (front elevation) whilst the essence of God exists beyond it</p>	 <p>Lotus stem as a symbol of the Essence of God</p>	 <p>Flower bud as the symbol of Muhammad's light</p>	 <p>A lotus flower that blossoms into a symbol of the great universe</p>
<p>Symbols of Human Body</p>	 <p>Flower bud symbolises Adam's body before the soul was inserted</p>	 <p>A Lotus flower symbolises a human's personality</p>	 <p>A lotus flower represents a complete human being from head to toe</p>	 <p>A human body as symbolised by the lotus flower</p>	
<p>Symbols of Nation</p>	 <p>A lotus flower as the symbol of South-east Asia</p>		 <p>Map of South-east Asia according to Raja Ahmad's concept</p>		
<p>Symbols of Architecture</p>	 <p>Kampung Laut Mosque, illustrates the levels of belief in God and levels of (nature, quality)³⁰</p>	 <p>the <i>buah buton</i> symbolising the link between heaven & earth</p>	 <p>Human body & house relationship</p>		

Source: Mohamed, 1997 in Islamic Cosmology in the Malay Art.

Table 3-1 Symbols of Lotus Flower from Sriwijaya, adopted from Nakula's "The Use of Symbols in Cosmology and Art" and modified by author

3.5.2.3 The Lotus flower

The lotus flower motif in the traditional Malay arts, crafts and architecture originates from the Hindu-Buddhism religion, in which it is the holy flower. According to Yatim (2001), the flower motif is used as the decorative element for the Aceh gravestones. The shape of its stem is found at the bottom part or the "feet", the "body", "head" or the top part of the gravestones. Meanwhile, the blossomed lotus flower motif or "crown" in a stylised form, adorns the head part, or the top parts of the gravestones. There is a variety of ways in which the lotus leaf form is used. There is the round shape lotus, similar to the Egyptian Lotus (*Lotus Aegyptia*). A lotus with leaf, which has a pointed

³⁰ This definition is translated from the Malay word, "kealaman" [root word: *alam*] which means quality, nature, kind character natural (a common word), Ref: <http://www.asiamaya.com/dictionary/kealaman.htm>

end, is from the blue Egyptian lotus type (*Nymphaea caerulea*) and also, lotus from the Southeast Asian countries (*Nelumbo nucifera*). Meanwhile, the triple sepal poles that are found at the “feet” or the bottom part of the Aceh gravestones is the lotus shape more famously known as the “bird’s foot trefoil” [Ibid].

Yatim adds that the lotus tree is the apparent elements in the religious buildings in Egypt. The Egyptians views that the lotus flower is holy and symbolises virtue and purity, which carries the same meaning for the Pre-Buddhism arts. The lotus flower symbolism had been directly borrowed by Buddha from Brahmanism in which it represents birth and death. From the beginning of 200 BC onwards, the lotus had been extensively used in the Buddhist monuments. With the spread of Buddhism influence to the far eastern countries and the Southeast Asia, the lotus symbol had been used as decorative element for the religious buildings in the countries [Ibid].

3.5.3 Cosmological manifestation in Aceh Tradition

This section attempts to illustrate an example of cosmological manifestation in one of the Malay ethnic societies, the Aceh community, as it has a lot of similarities with the Malay tradition. According to Soelaiman (2001: 103) in the Aceh society, tradition and religion cannot be separated as both are likened to the essence and the characteristic. He adds that the teachings of Islam as the main religion are essential for the Aceh community such that many aspects of life and culture must be understood with the Islamic values. Tradition and natural signs also have a very close link because nature is within the sphere of society’s life. Under this circumstance, within the Aceh tradition **there exists a variety of manifestations about the environment or the cosmos, which become the guidance for Aceh people in their daily activities** (ibid).

Originally, the main occupation of Aceh society was agriculture (and fishing for those who lived along the beach) and these sources of livelihood have a close relationship with nature. Therefore, so many cosmological manifestations connected to the agricultural life are expressed in the tradition and in the literature of the indigenous Aceh society (Ibid: 104). In his conclusions, Soelaiman (2001) says, looking back to the past is essential in order to improve our view of the future. Through our observation of the philosophy instilled within the various indigenous (traditional) societies’ cosmological manifestations, he suggests that there must be some that have positive values, and some, which have negative values when put in today’s and the future’s contexts, Soelaiman delineate two aspects which he thinks might need to be given some attention:

1. There needs to be an arrangement to compile the cosmological manifestations from various regions within the Malay Archipelago so as to decipher the philosophy of the Malay society. He claims that the philosophy of life, which is accustomed to nature, may perhaps be investigated from the various Malay cosmological manifestations to be used to resolve a number of problems in the sphere of contemporary modern life (Soelaiman, 2001: 121). In his

words, “Indeed, the cosmological manifestation of Aceh community has a lot of similarities with the Malays’ cosmological manifestations in Malaysia”;

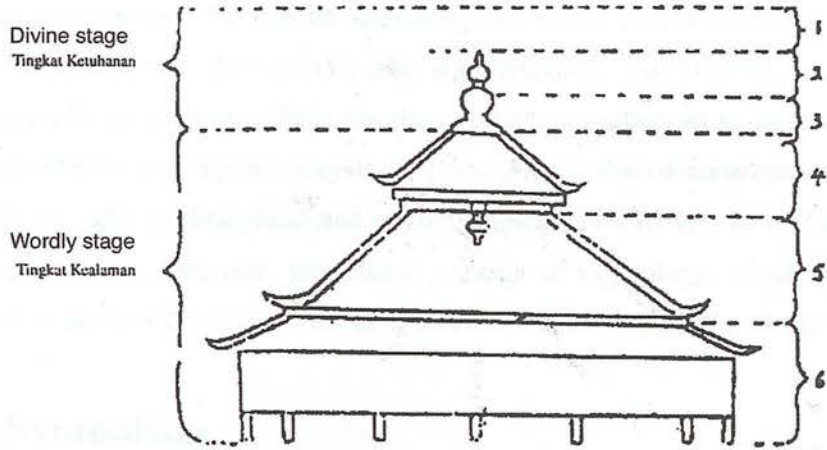
2. **The cultural tradition is so rich, but unfortunately, the majority of today’s young generation are not aware of their cultural-traditional knowledge.** Because of this, Soelaiman stresses that **the transformation of cultural-tradition is so crucial so that the younger generation is not detached from the roots of their own tradition in order to ensure that the cultural tradition itself does not become extinct.** Under the circumstance, the positive aspects of cultural tradition, including the many cosmological expressions within the Malay society, need to be made a part of the school life as well as family life.

3.5.4 Cosmology in the Malay arts & crafts and indigenous dwelling architecture

Indigenous architecture in the Malay Archipelago is manifested in the variety of traditional house forms. The varieties of forms (Arbi, 1997: 60) are more symbolic than functional and represent a part of a complex symbolism order within the traditional architecture. The forms are used as methods to create a “sense of place” for oneself (ibid). This is the fundamental reason as Arbi (1997: 60) relates, that the traditional architecture is the embodiment of cultural manifestation in the physical form and reflects the needs, motivations, values as well as enthusiasm of the community, which supports the culture. It is not merely a provision for a sheltered space, which responds to the influence of climatic factors, but it actually creates social spaces and symbolism – the spaces, which represents and develop the world view from the creator and the dwellers (Waterson 1991: XV, 91).

According to Ariffin (2001), the concept of *alam buana* (or *benua*, *banua*, *buwana*; meaning region, or ‘the realm of a place’) and *alam rumah* (meaning ‘the realm of a house’), distinguishes between the two spatial and terrestrial dimensions, that the subject to the law of the universe (*alam buana*), and that of the inside of a house, which is subject to the lordship of man (*alam rumah*). He adds that this concept is not unique to the Malays because it also appears in other traditional societies. Building a dwelling place is the act of providing the cosmic man with a place to reside (ibid):

“Traditional architecture, especially that of the temple in general and the mosque in particular, is also an image of the cosmos of man taken in his cosmic dimension, the body of man is the temple wherein resides the spirit (roh), just as is cosmos, which is animated by the same roh [...]” (Nasr in Ardalan and Bakhtiar, 1973: xii).



Source: Mohamed, 1997: 50, in *Islamic Cosmology in the Malay Art*

Figure 3-3 The “Divine” and worldly stages symbolised by the roof in the indigenous dwelling architecture.

Waterson (1991: 91-95) identifies the domination of cosmological ideas in the traditional architecture through the division of house components and through the orientation of the house and the dwelling location (Arbi, 1997, in *Art and Cosmology: Islamic Cosmology in Malay Art*: 62). According to Waterson, the structural construction of traditional houses is composed of three parts: the basement (cellar), the body of the house and the roof, which are representations of the three-layer cosmic concept. Other ethnographers have discovered the similar three-layer cosmic house division from different parts of the Indonesian islands, which confirm Waterson’s findings. From this finding, she sums up that it is the norms for the whole of the Malay Islands, either implicitly or explicitly, that reflect the cosmological ideas of their indigenous societies. Dumarcay (1990: 1) suggests that the structure of indigenous house(s) is not merely for practical purposes, but more importantly, it is to provide self-confidence for its occupant(s). The spaces designed for the house are the first step towards the organisation of the universe, whilst the different architectural elements reflect the cosmogony in a variety of forms (Arbi, 1997: 60). For the house to be properly positioned on earth, its orientation is ensured to suit the ‘cardinal points’³¹.

3.5.5 Summary of the Malay Cosmology

This section introduces cosmology as an important characteristic, derived from the indigenous worldview of the Malay society, which has a very strong and profound influence in the society’s interpretation of the world of nature, reflected in the world of the physical and social environment, particularly, the living environment, which includes art, architecture, traditional, social and cultural ways of living. It also demonstrates that only an indigenous cosmological perspective includes nature as part of living creatures like the human beings. For example, the indigenous Aceh society’s intimate relationship with nature as described by Soelaiman (2001: 120), by treating it as part of them (human beings) it creates a moderate attitude towards life – think moderately, act moderately and solve life situations moderately. This philosophy controls the Aceh people to adapt

³¹ ‘Cardinal points’, according to Van Ossenbruggen, is the Hindu cosmological concept in spatial order, which possesses four cardinal points and one central point. However, Waterson (1991: 95) discovered that the concept did not originate from the Hindu cosmology but actually overlapped with the existing indigenous cosmology. This is because the use of the term “centre” with double meaning (centre of universe and centre of the stomach) has already spread widely in the archipelago language world, including the places where the Hindu influence had never arrived.

them selves with nature instead of acting on something that would disrupt nature. In the effort to care for their own lives as well as the society's sake, simultaneously, care is also taken for the sake of the rest of nature's living creatures. Thus, the thesis views cosmology as an important attribute of the indigenous model for housing in Malaysia. The next chapter shall discuss cosmology further, from both modern scientific, philosophical and epistemological perspectives, as well as traditional and Eastern perspectives in particular, the Islamic concept of cosmology, which possesses the strongest influence in the manifestation of works of arts and architecture for the Malay society.

3.6 Malay Symbolism

In the world of architecture and the built environment, man's interaction with nature can be recognised through symbolic representations of arts and crafts. The traditional Malay society has indeed had a very deep attachment to nature in daily interactions between the community and the environment. Among others, the famous arts and craft in Malaysia is the 'awan larat', 'batik' and 'songket', the woven mats, Islamic calligraphy and (metal) silverworks. The following section will explore the many facets of traditional Malay arts and crafts, which are created by acts of human consciousness of the natural environments, and the Creator, translated into images rich with beauty, elegance and perfection; refinement and humility, as a symbol of cultural manifestation.

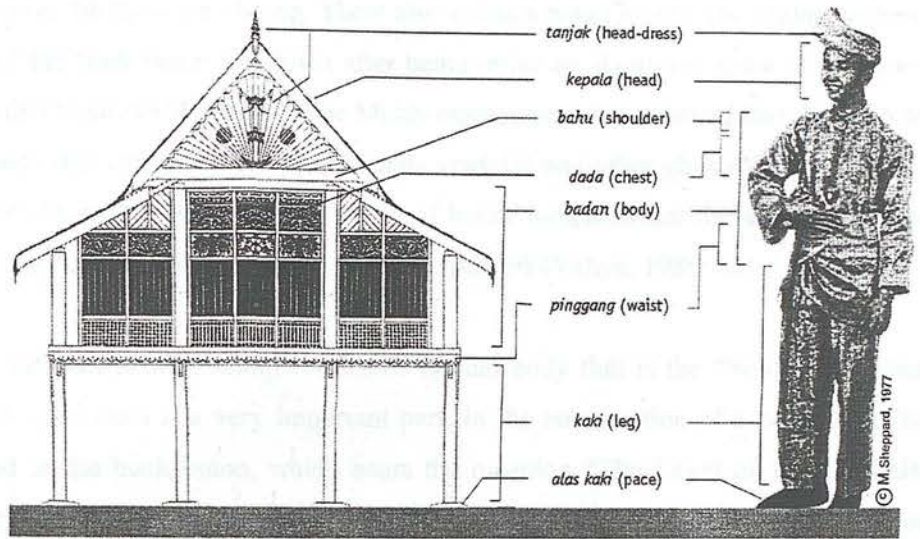
3.6.1 Symbolism in Indigenous Malay architecture

3.6.1.1 House as a symbol of a Microcosmic World

In the indigenous Malay society, the philosophy of life that is oriented to the Essence of God (Allah) is the popular folk philosophy. This, Nakula (1982: 43) says is the philosophy that creates a unique identity in the Malay architecture. Many studies of the indigenous and vernacular world of architecture and the living environment support the notion that the house is a symbol of a microcosmic world for the majority of the indigenous or traditional societies across the globe. In the context of Malaysia, the author adopts Mohamed's (a.k.a. Nakula) descriptions of the Malay house as a symbol for microcosmic world in his article, "Islamic Architecture – Its Application in Malaysia (1982)", according to the categories that he has delineated below:

The house and its owner

The house symbolises human, i.e. no other than the owner himself. It is an expression that comes from the depth of the owner's heart. In other words, the house is the owner's manifestation or revelation in the form of wooden materials. The house can be said to be a copy of the owner; or as the 'cover', whereas the owner becomes the 'filling' inside it, or even the house as the 'mould' and the owner as the 'content' of the mould itself.



Source: Ariffin (2001)

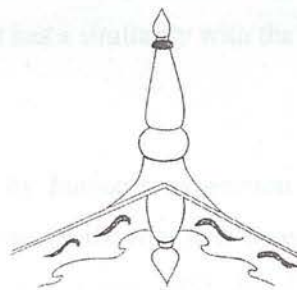
Figure 3-4 An illustration of the relationship between a house and the human body

The closeness of the relationship between the house and its owner in the perception of the indigenous Malay worldview is illustrated by this comparison: the owner as the ‘soul’, and the house as its ‘body’. Therefore, Nakula (1982) stressed that structurally, the house must also pursue the owner’s structure(s). Should there be any craft that symbolises God’s (Allah) knowledge at some parts of the house, then His wisdom is no other than the expression of God’s Intelligence from the depth of the owner’s heart. In the same manner, should the house possess certain aesthetical values, then the aesthetical elements are no other than expressions that have been embedded in the inner soul of the owner.

Meanings behind the components of the house that are analogous to human body parts

The human symbols that are applied to the house are as follows:

a. *Buah Buton (Head dress)*



Source: Yahya (1995)

Figure 3-5 The “*Buah Buton*”³²

The use of buah buton in the traditional Malay house has a lot of symbolical meanings. It is closely related to the belief system that encompasses the concept of Nature and Divinity (Yahya, 1995: 81). The buah buton is a symbol of the firmness of the Malay society’s Islamic faith. Its design represents that has the same function as the gravestone in the graveyard. The wood signifies that the body is embedded within it. It also implies a meaning that from a form of a certain building

³² A vegetal embellishment applied to the end of a suspended vertical structural member such as the *tunjuk langit* (king post) (Syed Iskandar, 2001; 284).

humans are always on the move and living. There also exists a belief among the Malay community that if the wood of the buah buton fell down after being strike by lightning, some misfortune will hit the whole family (Nasir, 1986: 18-19). The Malay community also believed that the buah buton has a magical source that can chase away the female vampire and other ghosts from crouching on the top of the roof (Hamid, 1988: 185). This type of belief indicates that the animistic influence among the Malay society has still not been entirely scraped off (Yahya, 1985: 81).

The architectural element if often compared to the human body that is the “head”. The head for human beings (microcosmus) is a very important part. In the construction of a house, the “head” part is symbolised as the buah buton, which bears the meaning “The Level of Truth (Reality)”, whereas the empty space on the top symbolises the Essence of Allah (God), which naturally cannot be pictured (Mohamed, 1985: 56).

The *buah buton* is at the second stage in the Divinity Philosophy level for the Malays. This echelon is the rank in which a personality who becomes the reality for the whole universe that is the *Muhammadiyah Reality* (Truth), i.e. the Truth of Prophet Muhammad [pbuh]. This hierarchy is symbolised by the *buah buton*, which is placed at the top. Therefore, it is an echelon, which establishes something that characterises or appear to the Divine Essence that is characterless and faceless. This level is called the ‘*Wahdah*’ level, whereas the *buah buton* that is placed at the lower part and bigger than the *buah buton* at the top part is called the ‘*Wahidiyah*’ level, which symbolises the level where the birth of the many realities of everything from the Muhammadiyah reality (Mohamed, 1986: 39). The shape of the buah buton that seems small at the top and grows bigger towards the bottom also demonstrates the Malay’s understanding towards the concept of “The” Creator and its creatures. The growing part towards the bottom represents the vision of the world that is full of filth. The shape that is becoming circular is going towards the Eternal Divine Truth (AbdulAziz, 1979: 50). This concept has a similarity with the Roof concept (Yahya, 1995: 76-80).

b. The Roof (Head)

The design of the roof is caused by human’s expression of obedience and love towards the creations of the universe. The character of the roof that is vertical reaching the skies, symbolically embodies the journey towards Divinity (Jasmon, 1983: 35). For more elaborate explanation on this topic please refer to Chapter Seven.

c. The two arms (*Pemeles*)

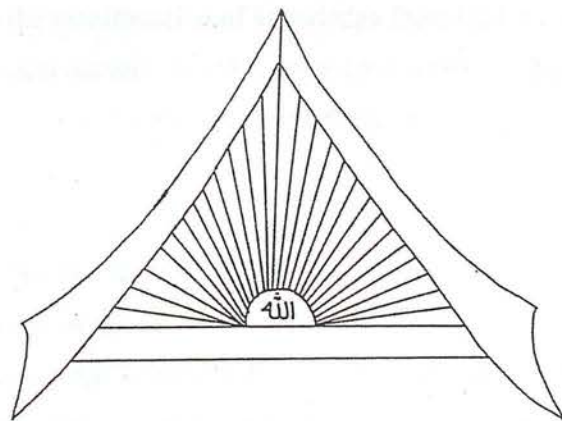
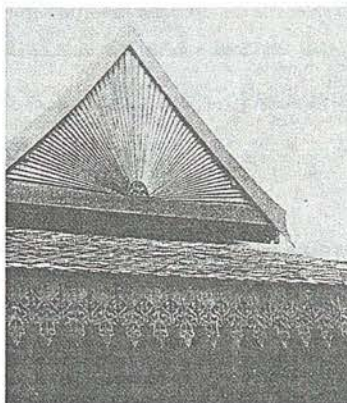


Source: Yahya (1995)

Figure 3-6 Pemeles (barge board) compared to the Arabic letter, **ي** in an inverted position.

The *pemeles* has the function as the enclosure for the edge of the roof railing in order to prevent the roof from being ripped off by the strong wind and it also covers part of the roof on top of the '*tebar layar*' (Yahya, 1995: 83). According to Abdullah Mohamed, the *pemeles* is equivalent to the two human's arms. This part of the body is placed below the head or the 'world of reality (truth)' in which the two symbols of Allah's (God's) attributes i.e., the essences of '*Jamal*' and '*Jalal*' are emitted from the right arm and the left arm respectively. Both are called "*Pemeles*". The term "*pemeles*" means "the decorator", in this case, it is symbolising the Essence of The Creator (God) i.e., His attribute as "THE" Protector. This part also has two other meanings. First, is the confirmation of the existence of Allah as the one and only God and denying other creatures as equivalent to Allah (god). Secondly, the *pemeles* is believed to have Godly strength to guard the safety of the house and its occupants (Yahya, 1995: 83). In this regard, the shape of the *pemeles* is symbolised as the combination of the Arabic letters, Lam and Alif in the inverted position (as shown in the figure above), which signifies the two meanings. With the confirmation of "*there is no god except Allah*", all kinds of ghosts, the devil and other dangerous spiritual elements would not dare to enter the house (ibid).

d. The chest (*Tebar Layar*)



Source: Yahya (1995)

Figure 3-7 The '*tebar layar*' and the diagram of the *tebar layar* with the shape of sun and an inscription of the word "Allah"

This part has a particular philosophy and symbolism in the Malay society's belief system, especially in Kelantan (Yahya, 1995: 84). In the traditional Malay community, the '*tebar layar*' is associated with an opening for a spiritual space, whereas in terms of architecture, it functions as the air ventilator (Yahya, 1995: 83). According to Abdul Halim Nasir (1988: 60), the use of the '*tebar layar*' is very popular in the construction of the Malay houses in Kelantan and Terengganu, especially for the "Bachelor House" and the "Twelve-columns House". The term '*tebar layar*' is also called '*tubing layar*' by both east coast states. The word *tubing*, means slanted or tilted, whereas *layar* maybe inspired by the boat's sail that is triangular in shape. This perspective is based on the main occupation of the Malay community in Kelantan, especially for the coastal residents, which is fishing. Therefore, the '*tebar layar*' becomes the symbol of their socio-economic discipline (Yahya, 1995: 84-85).

Yahya (1995) adds that the phenomenon has a similarity in terms of the belief concept in the home architecture with other districts in the Malay island, for example, in the Small Sunda Island, and the 'Boat Culture'. The cultural specialists assert that what is meant by the 'Boat Culture' is the orientation of the society's thought system (worldview), which believes that the source of life is in the sea, and the boat, is the instrument to return to the place of the ancestors that is as a symbol of communication, as said by Djauhari Sumintardja (1989: 681- 682) that is:

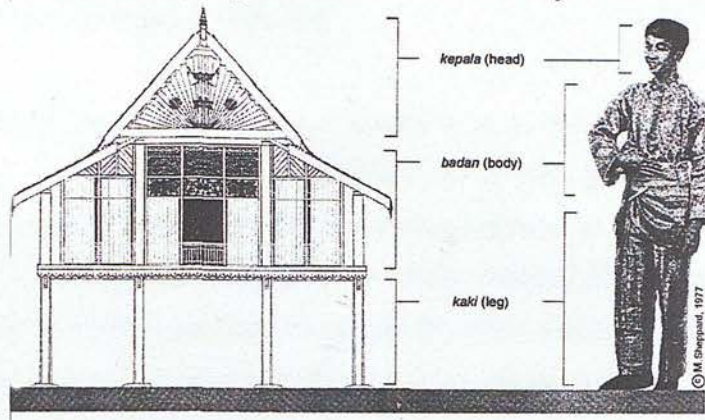
"From the playpen for the baby to the coffin, the shape is like that of the perahu (boat). So is from the crown of the roof of the house to the adornment of the women's eyebrow, the shape is that of the perahu (boat). The names of the components of the house are characterised by the names of the components of the boat (the walls = the sail; the front part = upstream; the back part = the ship's stem, the main column = the sail's column). The staircase, and the thick hard base of the house are also shaped similar to the perahu (boat)."

On the contrary, Abdullah Mohamed (who is also known as Nakula) views that the '*tebar layar*' is equivalent to the human's chest. Based on the philosophy of the 'Reality Philosopher', the process of existence of Allah's Knowledge from the '*sir*' (secrets of the inner eyes of the heart) or the 'world of reality' to the 'physical (real) world' are through three stages: (1) Allah's Knowledge, (2) the incarnation within the heart, and (3) the materialisation at the physical world (Mohamed, 1985: 61). The philosophy of the incarnation or the manifestation of knowledge from God's wisdom into an individual's heart and towards the physical material world is embedded within the Malay house because it is the duplicate of a human, i.e., the microcosmic world that is equivalent to human being (ibid).

In addition, Mohamed (1985) postulates that the level of Allah's wisdom that has embodied the heart of a man is the same as the knowledge of the homeowner that personifies the room i.e. the heart of the house. This means that the knowledge within the heart is said to be at the chest of the inner soul, i.e., it becomes a concept or the shadow within a person's idea. In this light, the inner soul for a house, the place where the concept or the shadow incarnates, is termed as '*tebar layar*' or '*tuban layar*'. The word *tebar* or *tuban* means the white water that breaks from a woman's womb

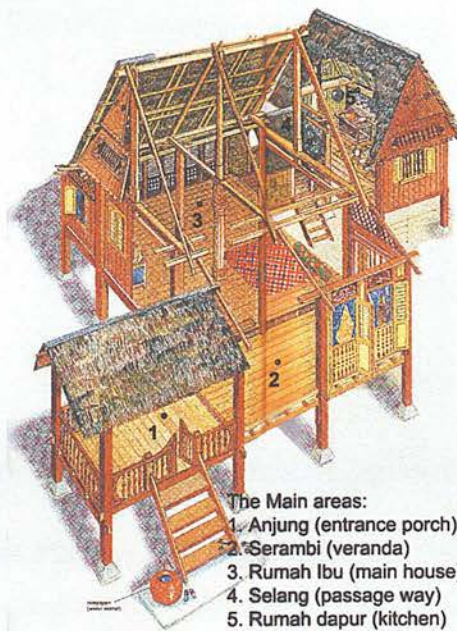
before the baby is born, whereas the word *layar* is the same as the curtain or shadow puppet's screen, the place where the shadows of the puppets are created. In other words, this means that the word *tuban* represents the origin of knowledge in the physical world or the shadow of knowledge before the birth of the shadow of the knowledge (Mohamed, 1985: 62).

e. The stomach and the heart (the parts in-between *Tebar Layar* and floor).



Source: Ariffin (2001)

Figure 3-8 Anatomy of the house showing the parts of the human body: head, stomach (body) and leg



Source: Fee (1998, Vol5)

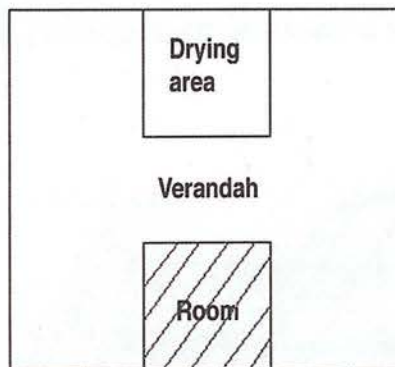
Figure 3-9 The axonometric drawing shows internal rooms division

The Heart (the Room)

The room is part of the 'Main House' area that is an enclosed space where the homeowner plans for everything. The room is also equivalent to the human heart (refer Figure 3-9) because, it is in the room that the homeowner achieves his inspiration and plans for the worldly and eternal lives. Moreover, it is from the heart that an idea emerges and shall be executed by the individual. Therefore, both heart and room have similarities in terms of their functions, i.e., the former empowers the whole of the human body, and the latter, as if it has the power over the entire house. The house is assumed as the body, whilst the homeowner is the soul, and the commander of the room is the homeowner himself (Ibid: 87).

The room is also normally being divided into two parts i.e. one towards the right side, and another towards the left side. The division is a symbol of the Jamal and Jalal attributes within the heart, i.e., the good characters and the bad characters that are always striving to make the heart to toss and turn or changes its condition (Mohamed, 1985: 72). This view attempts to illustrate that it is from the main house that other spaces are established, or from the stomach part, there is a liver that will shape the residents' actions (Yahya, 1995: 88).

The '*anjung*' (entrance porch or verandah) is usually used as the space for the males to do the housework such as weaving the basket, cobbling the net, or making the fishing net, and so forth. This is the space to greet the male guests, to relax during nighttime as well as the place to chat with friends (Omar, 1979: 37). Therefore, the function of the entrance porch is mainly as a gathering space and the place for family members to discuss the plans that have been made in the room. Although its existences is more towards the functional use values, indirectly, it also symbolises the way of life and the society's socio-culture that emphasis on tradition and the community living customary ways of living (Yahya, 1995: 89).



Source: Yahya (1995: 88)

Figure 3-10 The three-level system in the traditional Malay house

The room and the '*anjung*' (in this case refers to verandah) are two main parts of the structure of the traditional Malay house construction (Yahya, 1995: 87). Its construction is connected to the functional values towards fulfilling the community living requirements as well as fulfilling the customary traditional values and beliefs of the community itself. When studied deeper, there exist a lot of symbolism in these two spaces. According to Yahya, the rooms and '*anjung*', if compared to humans have functions close to the function of a stomach, and if viewed from inside out, the system is comprised of three horizontal levels, i.e., the room, the '*anjung*' (verandah) and the drying space (see Figure 3-10).

3.6.1.2 Meanings behind the other elements:

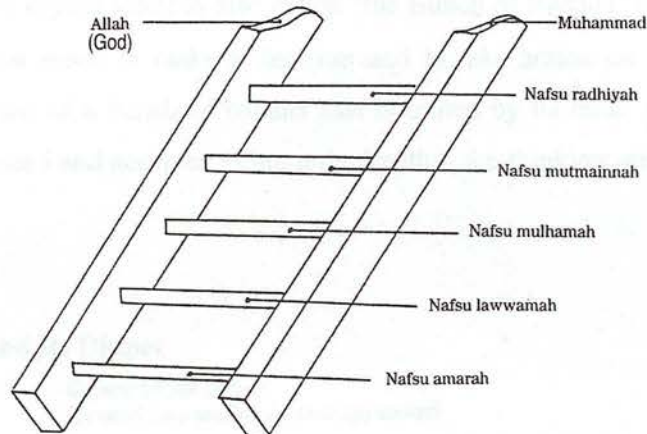
The door and the staircase

Both are two main basic elements in the architecture of the traditional Malay house. They exist together and have interdependent functions between one another. Their existence is also based on the tradition and beliefs (Yahya, 1995: 89).

The staircase and the entrance door into the house are normally situated at the front. Although the position of the staircase may be slanted to the side, the entrance door always maintains to be at the front, because according to the traditional Malay belief, such a position is deemed more polite (Hamid, 1988: 184).

Jasmon (1983: 31) mentions, the staircase is part of the leg of a house, comprising of the mother stair and the child steps. The mother stair holds the child steps both from right and left in which this represents Muhammad (peace be upon him) and Allah³³. Allah and Muhammad maybe different in the pronunciation but are the same in reality that is always permanently in singularity. The notion of reality of oneness embodies the concept of unity (ibid). He adds that the child steps represent the world that departs from its mother and symbolically they embody the stages of worldly desires one goes through in order to reach the closeness with Allah.

The staircase



Source: Yahya (1995: 92)

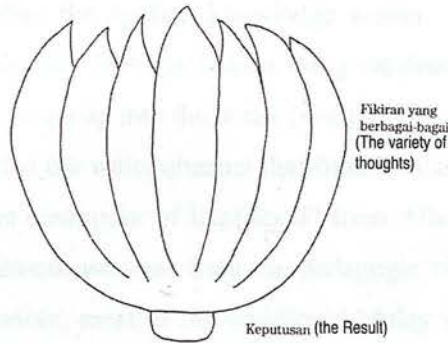
Figure 3-11 Symbolism in the staircase

The steps and small world symbolise the five levels of Self (Nafs), beginning with the lowest desire, Nafs Ammarah (the soul or conscience prone to evil) that lures someone to perform evil deeds. The second step is Nafs Lawwamah (reproaching self) that repents oneself after the immorality has occurred. This is followed by the third step, which represents Nafs Mulhamah (the inspired self) that inspires oneself to do good deeds. The next step symbolises Nafs Mutmainnah (calm and tranquil self), which has reached the phase of tranquility, leaving the misery and surrender oneself to God's destiny. Finally, the fifth step representing Nafs Radhiyah (the

³³ Refer Mohamed, Abdullah (1982: 82) *Islamic Architecture: Application in Malaysia in the International Conference on Islam and Technology*

contented soul self) that has reached contentment with Allah (God) in every aspects (Mohamed, Abdullah, 1985: 81). This is the highest level of Self (Nafs) that is of the prophet Muhammad (pbuh).

The Bunch of Banana

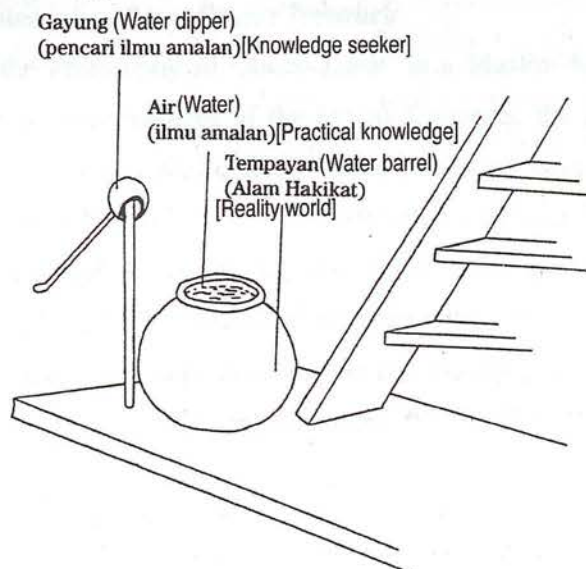


Source: Yahya (1995: 98)

Figure 3-12 The shape of a bunch of banana symbolises diversity of thoughts united by its base

The symbolism of Allah’s essence also exists in other elements of design of the traditional Malay house such as the drying area, ‘*bendul*’ (cross beam), and so forth. With reference to the drying area, Yahya (1995: 98) describes that it is symbolised as the place where the owner of the house decides on things to do upon stepping out of the house through the flight of steps. According to the Malay philosophy, the drying space is also called “the Bunch of Banana” (Figure 3-12) based on its function as the last place to make a decision and to take action on. This terminology is a symbolic representation of a bunch of banana that is united by its base, similar to the bunch of thoughts being suggested and accepted being united within the thinking process in the drying area (ibid: 99).

The Water Barrel and Its Dipper



Source: Yahya (1995: 100)

Figure 3-13 Symbolism, behind the earthen water barrel and its water dipper

Figure 3-13 above shows the water barrel and the water dipper that function as the cleaning instruments for the occupant(s)' bare feet upon entering the house. It also has a symbolic meaning in connection to the religious concept. Yahya (1995: 99) explains that the water barrel represents the hidden treasury or the "Reality World". The water in the barrel symbolises the "applied knowledge"³⁴, which originates from the reality world that can bring man towards the essence of Allah. The water dipper embodies the applied knowledge seeker, i.e. the owner of the house himself. Hence, the act of cleaning the feet symbolises the good deed to clean the soul. After the cleaning act, then only the owner steps up into the house (ibid).

In addition to this, Yahya adds that the water channel that functions as the rain water flow channel from the roof represents the "the downpour of livelihood" from Allah. From the economic view, water is interpreted as the livelihood, whereas from the pedagogic view, it represents knowledge (Mohamed, A., 1985: 85). Therefore, most of the traditional Malay village community prefers to contain the rainwater from the roof's water channel as it is believed to bring beneficial meanings (Yahya, 1995: 100).

3.6.2 Symbolism in the Malay Arts and Crafts

3.6.2.1 The 'Awan Larat' (Curvilinear fretworks) in Woodcarvings

Definition of Malay curvilinear fretwork

According to the *Glossary of Malaysian Culture*, 'Awan larat', i.e. the curvilinear fretwork (in Malay woodcarving, specifically in dwelling architecture) is a carving design based on flora (plants) that has principles and a specific philosophy that its shape is chained – beginning from one point and developed until it fills the space. Wanpo³⁵, explains that the specific philosophy means the messages or positive advice about the Malay community's culture as well as the Malay belief about the concept of God, i.e. the hidden message behind the principles of 'Awan larat' (Saiful R. N., 2000: p16)

The principles and philosophy of curvilinear fretwork

According to Wanpo, the Philosophy of 'Awan Larat' is a Muslim Malay artisan's method of interpreting and conveying the messages of the Divine Concepts, the positive aspects of Malay community values and the fundamental concept of the reality of the world, besides the obvious reasons for creating beautiful works of arts. As Malay culture and Islam are inseparable, he elucidates that the existence of Islamic philosophy in the Malay woodcraft is a must since the religion only rejects the production of worthless or meaningless designs but not beauty. He adds that the philosophy cannot be seen, but can be felt through the institutional dimension and through this, humans can feel the existence of the Divine Essence (Saiful, R. N., 2000: p 16).

³⁴ The "Applied Knowledge" here is obtained from the Holy Quran or Hadith (the Prophet's sayings) [Yahya, 1995: 99]

³⁵ The real name of Wanpo is Wan Mustafa, the son of Wansu bin Othman, renowned in the world of Malay carvings art.

The preliminary philosophy is an extract from the stalk/stem element that illustrates the evolutionary process of the world and human life itself, which develops from the branches of leaves, flowers and fruits. Elements of leaves, flowers and fruits represent victory (Saiful R. N., 2000: p58). The starting point of '*awan larat*' design must begin with a circular knot, called '*kepala kala*'. Basically, *kepala* means to begin and *kala* means time. *Kepala kala* hence, means every creation except God (Allah) has time and beginnings that can be known to man such as date of birth, date of marriage, date of death and so forth.

The same expert says, that there are three main styles of '*awan larat*' that visually hide the source of the point of origin where the fretwork begins: the '*awan larat beribu*' (the curvilinear fretwork has a mother), the '*awan larat berpasu*' (the curvilinear fretwork in a vase), and the '*awan larat sorok punca*' (the curvilinear fretwork hiding its source) bear the meaning that even though the day of existence of some of God's (Allah) creations cannot be traced, such as the incidence of the sky, the earth, the moon, the sun, the heavens, hell, judgement day, and the preserved tablet (Lauh-i Mahfuz), one must strongly believe their existence do have their beginnings, that is, from nothing to being (Saiful R. N., 2000: p59). He continues to say that indirectly, the philosophy denotes the pioneering characteristics only possessed by God alone.

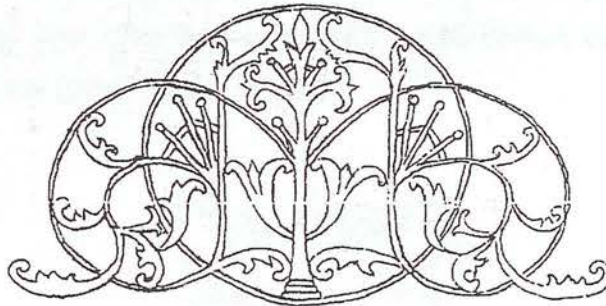
Wanpo adds that the ending elements (of the leaves, or flowers, or fruits) must not '*stab*'³⁶ other elements in the '*awan larat*' design for the elements represent the community, and a community must not '*stab*' neighbours, friends, among the nation nor other nations. The malicious characteristics must be avoided in a community living environment. Further, he explains that from the technical point of view and carving procedure, the collision among elements' ends would defect the composition of the elements, thus, the beauty of the carving would not be accomplished (Saiful R. N., 2000: p59).

In order to carve the stalk or stem element, each second stalk or stem must come out of the first, and the same step is required for the third stalk or stem and so on. Wanpo says the reason is to warn people about the need to maintain the harmony of Malay civilisation, in which the young must respect the old; the less knowledgeable must appreciate the scholars and so forth. It also means that every step of success must begin from the bottom, following the custom of its own culture. The coiling stalks that cling to each other symbolise a mutual agreement, i.e. the unity of the Malay community. Hence, the effort and the conformity are symbolised by the union of two leading stalks of the '*kepala kala*' (beginning time) (Saiful R. N., 2000: p 59).

³⁶ '*Stab*' in this sense means to mistreat or exploit others.

Sometimes, a piece of leaf called ‘*sebar dayang*’³⁷ is carved to cover the beginning of a new stem coming out of the stalk branch. The new stem represents the development and success that begins from the fertility of the first stalk. Nevertheless, success is not to be boasted by showing off, hence, the ‘*sebar dayang*’ leaf that covers it is a symbol of humility (Saiful R. N., 2000: 59-60).

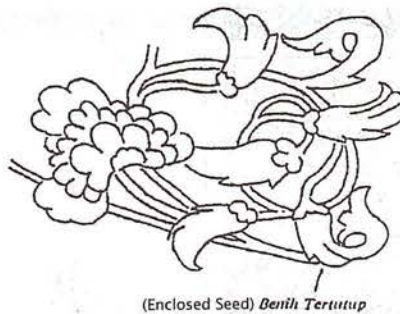
In addition, the empty space between the elements is intended to balance the carving in order to maintain its beauty. The empty space embodies a source for human to think and contemplate the Divine Essence. A similar concept in between the empty spaces and the filled spaces illustrates the balance between the physical and spiritual that must be sustained (Saiful, R. N., 2000: p 60). Below are some examples of wooden curvilinear fretworks (‘*Awan larat*’) done by the local carvers, which are based on the natural flora creations and some of their symbolic representations:



Source: Mohamed, 1997: 52, in *Islamic Cosmology in the Malay Art*
Figure 3-14 The bean's tendril tree carvings



Source: Mohamed, 1997: 53, in *Islamic Cosmology in the Malay Art*
Figure 3-15 The carvings above a staircase's door



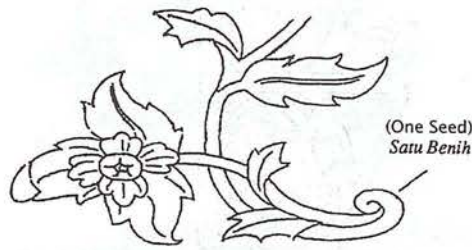
(Enclosed Seed) *Bentil Tertutup*

Source: Mohamed, 1997: 54, in *Islamic Cosmology in the Malay Art*
Figure 3-16 The Enclosed Seed

Figure 3-16 shows that the seed is enclosed by a leaf until there is no similarity with the visible

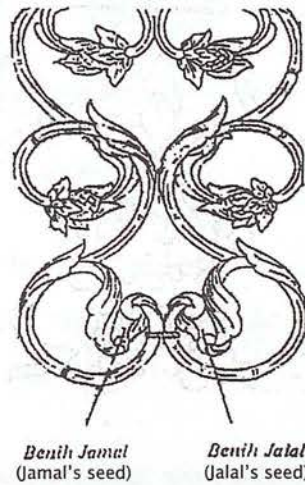
³⁷ ‘*Sebar dayang*’, according to Wanpo’s resource, the photocopy draft of the ‘*Mengukir kegemilangan Lalu*’ (Carving the Glory of the Past) is a piece of cloth that is normally used by the castle’s court maidens to clean the castle’s equipment.

phenomenal world, without knowing from where it comes, it is the same as the “dot within an idea” in the Western concept.



Source: Mohamed, 1997: 54, in *Islamic Cosmology in the Malay Art*
Figure 3-17 The Manifest Seed

A manifest seed (Figure 3-17 above) represents the birth of the universe from “One point”, according to the West Asian view. From the seed emerges a world divided into two characteristics of ‘*Jamal*’ (Divine beauty) and ‘*Jalal*’ (Divine majesty)³⁸.



Source: Mohamed, 1997: 55, *Islamic Cosmology in the Malay Art*
Figure 3-18 Two Manifest Seeds

Figure 3-18 above illustrates two seeds, which symbolise the birth of the world from both divine characteristics of Jamal and Jalal, but which are in harmony that produces such ‘exquisiteness’.

³⁸ *Jamal* indicates Divine beauty, ease, and expansion. The manifestation of the imminence of Allah, glorious is He, His mercy by which we come to know Him through Divine qualities hidden in human qualities: mercy, intimacy, peace, guidance. The Jalal and the Jamal are the complementary poles of the path, His two Hands in which the seeker's heart is held. Reference: <http://www.suficenter.org/Practices/glossary.html>

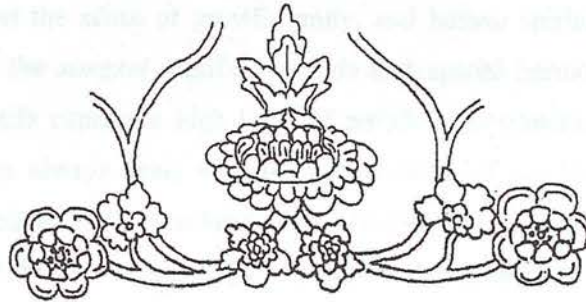
• *Jalal* denotes the Divine majesty, rigor and contraction. The manifestation of the transcendence of Allah and His dissimilarity toward creation. "There is no thing like unto Him." His Jalal qualities include greatness, power, holiness and might. When the seeker is in a Jalal station, his heart is contracted and he can but cry to his Lord.

Reference: <http://www.suficenter.org/Practices/glossary.html>



Source: Mohamed, 1997: 55, in *Islamic Cosmology in the Malay Art*
Figure 3-19 Seed in the form of a vessel

Figure 3-19 shows the birth of the world from one seed, which within it contains both divine characteristics from a vessel.



Source: Mohamed, 1997: 56, in *Islamic Cosmology in the Malay Art*
Figure 3-20 Seed in the form of a flower

Figure 3-20 demonstrates the birth of the world from the ‘*Jamal*’ (Divine beauty) characteristics symbolised by the flower, but within it contains both ‘*Jamal*’ and ‘*Jalal*’ (Divine majesty) delineations that emerge in the manifest world.

3.6.2.2 Summary of Symbolism in the Malay Arts and Crafts

In conclusion the existence of the philosophical elements of ‘*awan larat*’ not only establishes the characteristics and principles of values, hierarchy (order) and balance in its creation, but more importantly, the same principles or rules also apply to the society in the real, practical world. The curvilinear fretworks or the ‘*awan larat*’ demonstrates whole aspects of the aesthetical experience in the built environment discussed in Chapter Two of the thesis. Hence, it is sensible to say that the existence and continuity of ‘*awan larat*’ fretwork, is vital in the creation of a housing model in the country, not only for its functional purposes as a daylight screen and ventilation instrument, but more imperatively, because of the deeper meanings that the carvings represents for the occupants, the community and the nation as a whole.

3.6.3 Symbolism in Malay *Songket* and *Batik* designs

The *Songket* and *Batik* are both important parts of the Malay traditional garment or formal occasions’ attire. The author’s intention in this section is to present the significance of Malay *songket* and *batik* designs in the Malay community as they closely relate to Malay cultural identity and also to distil the symbolic messages contained in each design so as to decipher their meanings.

Bahauddin et al. in his paper explores the Malay cultural identity and ethnicity through the symbolic expression of 'songket'. He denotes that 'Songket' is a Malay word, which means to bring out or to pull a thread from a background cloth or to weave using gold and silver thread (Nawawi). In weaving terms, it means to inlay a gold thread or an extra waft (Serian).

Historically, the 'songket' represents a symbol of royalty, the rulers of the people in Peninsula Malaysia. The 'songket' weaving flourished during the period of Malacca Sultanate Empire in the 15th century when Malacca was the trading port for traders from the India and Arab world in the west and China in the east. [Bahauddin, A., & Abdullah, A, http://www.uclan.ac.uk/business_services/conferences/conferences/tourisms/songket.pdf, (14/04/04)].

Bahauddin et al. asserts that the sense of growth, unity, and human spirituality associated with animism was expressed in the *songket* motifs. He adds that spatial harmony, balance, rhythm, repetition, and sizes of motifs express a high level of artistic achievement. The arrangement of motifs in a Malay art piece always deals with *the appreciation of the Malay people of God's creation. The way to appreciate God's creation is by looking at and into nature to find answers to human existences* (Su³⁹) (Bahaudin et al., 2004: 3). Before Islam arrived in the peninsula, the Malays who were then animists, Buddhists and Hindus had always been producing art. Therefore, the philosophies applied in their arts were based on these religions, in keeping with the Malay devotion to the divine power of the Supreme Being. The interpretation of meanings in the variety of motifs, spaces and gaps between motifs were then designed based on the said religious beliefs. Thus, traditionally the *songket* motifs are a combination of the representation of animistic beliefs, and the assimilation of Hindu-Buddhist as well as Islamic ideologies (Ibid).

Plants are portrayed repeatedly in Malay art because they are believed to have the power of healing. The art pieces, the bamboo shoot motif was located within the folklore, long before the coming of Islam. When the Malays converted to Islam, the symbolic meaning of the bamboo shoot was changed to be incorporated into Islamic teaching, although, leading away from the superstitious and supernatural beliefs (Jusoh). However, the folkloristic beliefs regarding bamboo shoot motifs still remain deeply embedded in the Malay culture. This is because most of *Malay historical texts combined facts with myths, legends and folkloristic beliefs* (Osman, 2000).

Below is a list of local plants, spices, traditional flowers, fruits, fauna, elements of nature, traditional foods, as well as court objects used as motifs in the 'songket' and their symbolic meanings as presented by Bahauddin *et al.* (2004: 4-12):

▪ **The 'pucuk rebung' (bamboo shoot)**

It represents *Gunung Sari* (Mount Sari) or the universe in a triangle shape (see Figure 3-21). The motifs in *pucuk rebung* express *the beauty of the universe as they are derived from 'something*

³⁹ Su refers to the Supreme Being as Allah, the Muslims' God.

beautiful' (referring to the Divine Essence of God). The 'universe' is depicted in a triangle that is divided into four areas as described below:



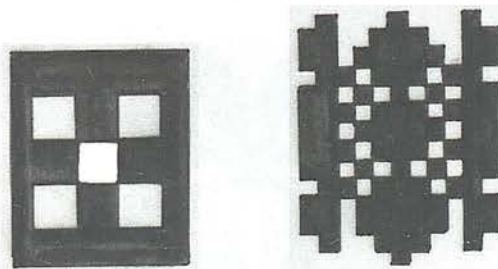
Source: Bahauddin *et. al.* (2004)

Figure 3-21 *Pucuk rebung* motif

- i. *Alam Syahadah* (universe) – at the bottom of the triangle visible to the naked eyes, signifies the reality or physicality of the world/universe, in keeping with the understanding of human nature.
- ii. *Alam Mithal* (unseen world) – the middle portion designates the unseen and less understood world/universe.
- iii. *Alam Arwah* (spiritual world) – the degree of understanding of human kind towards this world is basically minimal.
- iv. At the apex and confined to a small dot is the *Zat Allah* (Divine Essence) and the place for Divine Power and Supreme Being which is beyond human intelligence (source: Mohamad, 1984).

▪ Spices

Cloves and Star Anise (see Figure 3-22), which both have properties of medicinal values and renown from their fragrance, are principal motifs supporting the bamboo shoot and to balance the composition of the pattern.



Source: Bahauddin *et. al.* (2004)

Figure 3-22 Cloves motif (above left) and Star Anise motif (above right)

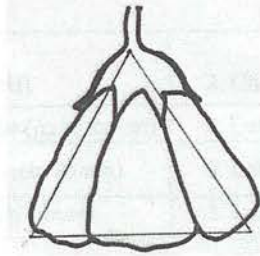
It is believed that their motifs act as an 'invisible' boundary defining the outline of bigger motifs and in most cases, defining motifs of bamboo shoot (*Jusoh*).

▪ **Traditional flowers**⁴⁰

Most of the flowers portrayed in the songket motifs have sweet-smelling fragrances, small to medium in size, white and cream in colour and they also possess some medicinal assets. These flowers are normally used in the Malay custom of ‘*mandi bunga*’ i.e., scented bath. Traditionally, the Malays use seven types of traditional flowers that were believed to have a special effect in revitalising and rejuvenating the users.

Nature in Malay society has always been a reflection of the creation of the Supreme Being⁴¹ as described in the metaphors. Traditional flowers in the ‘*songket*’ motifs have always been used as a reminder for the Malays to resort to nature in order to comprehend the Supreme Being’s borderless resources.

A flower connected to a stem symbolises the strength of a thread to the teaching of Islam (see Figure 3-23). Loss of faith in Allah, the Supreme Being, destroys the belief of the people in their faith, causing them to go astray (Jusoh).

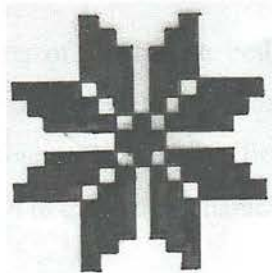


Source: Bahauddin *et. al* (2004)

Figure 3-23 Diagram of an upturned flower

▪ **Teratai (Lotus)**

Lotus is the ‘mother’ of all flowers as far as the people of Southeast Asia are concerned (Mohamad, 1984). The interpretation of *teratai* (see Figure 3-24) illustrates the deep strong religious beliefs embedded within the Malay traditions and customs.



Source: Bahauddin *et. al.* (2004)

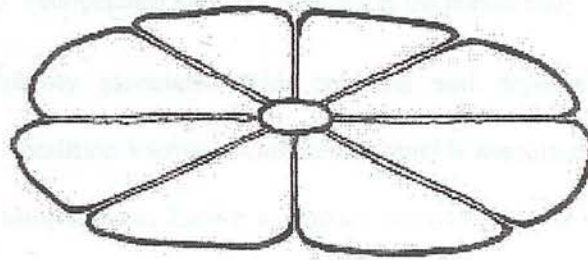
Figure 3-24 Eight-petalled lotus motif

⁴⁰ The flowers are bunga tanjung (*mimosops elengi*), bunga kenanga (*canagium odoratum*), bunga cempaka (*michelia champaca*), bunga cina (*gardenia augusta*), bunga melur (*jasminum sambac*), bunga kemboja (*plumeria acuminata*) and bunga mawar (*rosa spp*) (Ariffin Jusoh, 1997).

⁴¹ Supreme Being has always been referred to as the existence of the “Divine Power” in animism, Hindu-Buddhism and Islam.

Although its illumination has changed through the process of adaptation, its motif shape remains the same. The *teratai* (lotus) motifs appear in *teratai pecah empat* (four-petal lotus) and *teratai pecah lapan* (eight-petal lotus) (Yin and various songket weavers).

The lotus petal symbolises levels of being, as the lotus has always been associated with the Malay culture and religions (Mohamad, 1984). In the current context, the lotus is associated with Islamic beliefs strongly linked to the Malays. Diagrammatically, the circle that holds the lotus petals together represents the '*kalbu/kalbun*' (trueself) (see Figure 3-25).



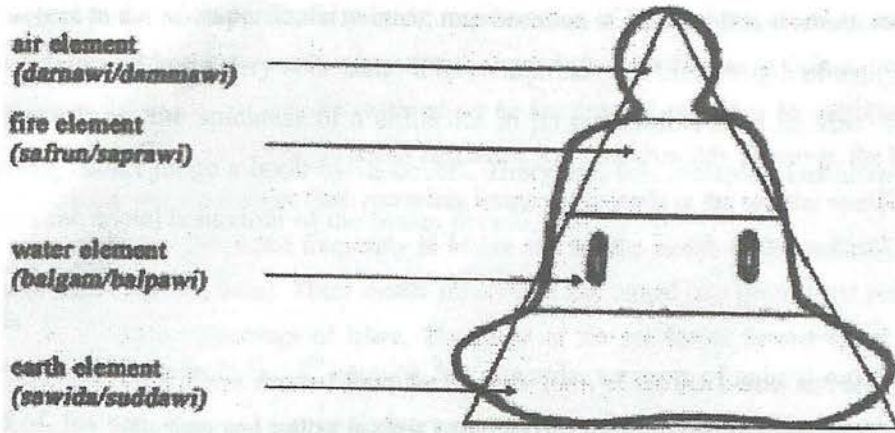
1. Forehead (<i>dahi</i>)	2. Chest (<i>dada</i>)
3. Right shoulder (<i>bahu kanan</i>)	4. Left shoulder (<i>bahu kiri</i>)
5. Right elbow (<i>siku kanan</i>)	6. Left elbow (<i>siku kiri</i>)
7. Right leg (<i>kaki kanan</i>)	8. Left leg (<i>kaki kiri</i>)

Source: Mohamad (1984)

Figure 3-25 The human body parts in relation to the eight-petalled lotus

This representation holds the functions of the body. The *kalbu/kalbun* (trueself) is situated in the heart of a human and can only be reached or touched through *rasa* (feelings) (Ibid). The feelings and the other eight parts of the body in total, made up nine parts of the human body where the *rasa* (feelings) is connected to the stem of the plant. In humankind, the *rasa* (feelings) is linked to the power of the Divine Being through his devotion in a spiritual relationship (Ibid).

The eight-petal lotus symbolises the parts of the human body. The functions are reflected as follows, describing how the human body parts have to work together in order to give their fullest devotion to the Divine Being (Ibid). The four-petal lotus signifies the four elements of earth, water, fire, and wind (see Figure 3-26) in relation to the human character (Ahmad).



Source: Mohamad (1984)

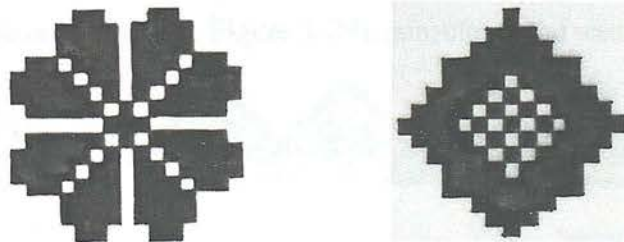
Figure 3-26 Four-petalled lotus and elements in the human body

- i. The earth element – stability associated with coldness and dryness. It is considered *sawida/sudawi* (black).
- ii. The water element – slow condition known as *balgam/balpawi* is associated with coldness and wetness.
- iii. The fire element – quick temperament known as *safrun/suprawi* (yellow water) is associated with hotness and dryness.
- iv. The air element – moderation known as *darnawi/dammawi* (blood) is associated with hotness and wetness.

These characters must co-exist in balance and harmony in the human body. Lack of an element will result in an unbalanced body, causing sickness. Traditional medicine practitioners believe that using natural resources such as flowers for medicine will, apparently, heal the sickness through the process of rejuvenating and revitalising, thus bringing balance to the human body.

▪ Fruits

The most common used are based on the *tampuk manggis* or *tampuk semesta* (both mean mangosteen) and *buah cermai* (cidda acida, a scientific name for the fruit) (see Figure 3-27)



Source: Bahauddin *et. al* (2004)

Figure 3-27 Mangosteen motif (above left) and Cidda acida motif (above right)

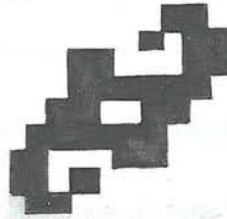
Mangosteen is used to imply judgement of a person's character from the Malay proverb: "Black is the shell, but sweetness lies inside". It is reflected in the contrast of colours between the black skin and the white fleshy pulp. It also symbolises the *pelita hati*, which means a reflection of one's feelings or one's inner self as related to the human spiritual state ("*Dawa*"); and suggests the purity of heart in one's relationship with the Supreme Being.

Buah Cermai (cidda acida) is particularly intriguing because of its size. It is a small acidic fruit that is yellow in colour and has a very sour taste. It has a similarity to the strength of a chilli, described in the old proverb as 'the spiciness of a chilli lies in its taste rather than its size' similar to the Western saying, 'don't judge a book by its cover'. Therefore, this metaphor has always been used to characterise the social behaviour of the Malay people.

▪ Animals

After the arrival of Islam from the 8th century AD onwards, any sort of animal representation was disapproved of. Instead, images of animals were recreated in design such as the songket motif. The most frequently portrayed motifs are the cockerel's tail and sea horses (Husein). These motifs are stylised and turned into geometrical patterns aligned with the teachings of Islam.

The shape of the sea horses (*unduk-unduk laut*) (see Figure 3-28) motif was derived from the intricate form of the sea horses and associated with the fishermen and sailors on their seafaring journeys.



Source: Bahauddin *et. al* (2004)

Figure 3-28 *Unduk-unduk laut* (sea horses) motif

The creature possesses some medicinal properties. The Malays also believe that sea horses have the ability to ward off evil spells; thus, dried sea horses are traditionally hung on the door for such task, a well-known animistic belief (Ibid).

▪ Elements in Nature

The awareness of God's beautiful creation is reflected in the manifestation of the motifs of natural elements such as the mountains, waves (see Figure 3-29), rain, cloud, and water.



Source: Bahauddin *et. al* (2004)

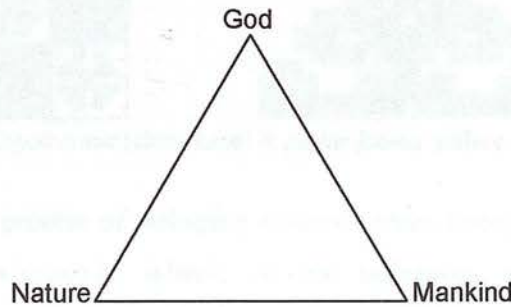
Figure 3-29 Above left: *Ombak* (Ocean waves) & above right: the mountains motifs.

The motif of a mountain emphasises a strong Buddhist influence. The Buddhist religious teachings enforce a strong animistic belief that magical and spiritual powers existed in the elements of nature. Thus, the elements in nature became the symbols, and sources for creation in art forms (Ismail).

The mountain, in Buddhism, links the worlds, *servng as a channel of communication between the realms of existence. The tip of the mountain is the focal point for such interchange* (Snodgrass).

The Buddhism faith was strengthened by the Hindu myth that *the chariots of the gods, the sky travellers, alight upon the summit of the world's mountain* (Ibid). This was believed to be the point of contact between man and the Gods. *The summit of the cosmic mountain is not only the highest point of the earth; it is also the earth's navel, the point at which the creation began* (Eliade).

Islamic belief expresses that the tip of the mountain is an abstract location where one can find God but only through looking into nature and understanding it. The concept of communicating with God through the tip of the mountain is also applied in the architecture of the mosques (see Figure 3-30). Physically, a dome that points upward serves the same function as when applied in a Buddhist temple (Yatim).



Source: Author

Figure 3-30 The symbolism of a mountain in Islamic belief

The motifs taken from nature symbolise the notion of growth, spiritually and physicality. They allow the process of nurturing life and seeking perfection. Nature represents the vehicle for humankind to use in trying to decipher what faith and religion have to offer by achieving the 'higher' level of spiritual beings. However, the beliefs of the Malay people have interacted with several religious beliefs before assimilating the Islamic belief. Myths and superstitious beliefs starting in the animist and Hindu-Buddhist periods and became intertwined with the Islamic religious beliefs. Therefore, it is the blend that characterises the Malay people.

▪ Traditional foods

Foods become part of the *songket* motifs in the form of their moulded shapes and ingredients required to produce them. Most of them require a mixture of brown sugar, coconut milk, and flour as contained in *kuih madu manis* (honey sweet cake) and *potong wajik* (glutinous rice sweet cake) (See Figure 3-31).



Figure 3-31 *Kuih madu manis* (honey sweet cake) & *potong wajik* (glutinous rice sweet cake) motifs

In order to understand the importance of the foods, the ingredients must be analysed. *Any single ingredient is tasteless without the others* (Dawa, 1997). Foods represents the participation of a

community and preserve unity; the repetition and combination of motifs indicate the idea of, “*united we stand, divided we fall*” and the strength of communal activities.

▪ **Court objects**

Motifs derived from court objects depict the favourite game for royalty. They are the symbols of a ruler’s power (see Figure 3-32). They depict the traditional establishment of the Malay political system (associating spirituality with Divine Kingship), a largely agrarian economy and a social system expressing communal activities.

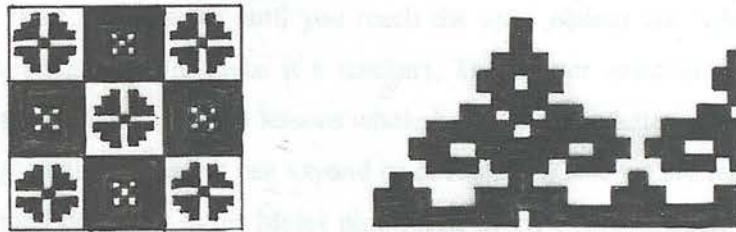


Figure 3-32 *Tapak catur* (chess base) & *pagar istana* (palace fence)

These motifs also indicate the process of reshaping cultural values through the assimilation with Hindu-Buddhist values, and ultimately, Islamic cultural influences, combined with animist traditions. The flexibility of accommodating foreign ideologies in the songket motifs agrees with the concept of cohesiveness of *a form of art to combine and oppose to become a system of multiple references* (Firth). The motifs signify that the Malay culture today is a product of assimilation that already allowed the process of assimilation and transformation of cultural identity.

However, cultural identity in the songket motifs will remain culturally Malay as ‘*the cultural change involves modified social patterns, but not all social change produces cultural change*’ (Davis). The concepts of ‘growth’, ‘sense of unity’ and ‘human spirituality’ will remain a part of the cultural identity in Malaysia that satisfy the requirements of exhibiting cultural identity pressured by the tourism promise of wealth.

3.6.4 The Significance of the Arts & Crafts in Indigenous Malay

Architecture for the Model

Malay arts and architecture are the prominent mediums for the physical embodiment of the deep embedded forces of this culture and its worldviews. The relationship between the artisans and nature, and God closely bind the culture and keep it intact; it can never be detached, except through force. Therefore, a true understanding of the insights of Malay arts and architecture is vital for developing a future housing or development concept based on the innate values and cultural meaning.

In his view about the Malay world of art [specifically the carvings and fretworks], Mohamed, A. (1978) aka Nakula relates that, “every world begins with the seed (man ‘becomes’ from the husband’s and wife’s seeds); the trees, its seeds from the kernel, or sprouting into branches;

supples, i.e., not boosting upwards; bowing downwards, but does not weaken the appearance” (Ismail, S.Z., 1987 interview). His statement carries a deeper meaning of the life and artistry of Malay carvings, which materialises the world of flora and fauna.

Ismail (2002) in her article attempts to elucidate that the ‘soul’ of carvings is responsible for bringing life from two-dimensional art into a three-dimensional form. The soul or carvings that she refers to are the territory of the mind, which, according to her, encompasses the emotional pulse, the Malay’s spirit and soul. She relates it to the old Malay quatrain philosophy – ‘*berguru ke padang datar*’ (learn from your master until you reach the open plains) and ‘*alam terkembang jadikan guru*’ (the expanding world, make it a teacher). The former quatrain means, if one is learning from a master, one must learn the lessons whole-heartedly. The latter illustrates that from the moderate and simple environment, it can expand or develop because we are learning from the world. This is what Ismail describes as the Malay philosophy of the **rational world and kindness**, which adopts everything from the creations of the Supreme God. It is from the universe that attention is focused, explored and learnt (Ismail, 2002).

Another important insight of Malay art, is that the name of the artist or craftman should remain anonymous. The art masterpiece is perceived as everyone’s i.e. its ownership is shared by all. It is therefore carved, and placed in spaces that can be appreciated together, be it in the palace, the mosque, ‘*keris*’ (Malay dagger) and other cultural instruments (Ismail, 2002). This illustrates that modesty, humility are parts of the value system of Malay society, which prioritises the community’s pride or benefit, rather than individual’s interest. In this particular case, beauty (quality) is treated as everybody’s (the society’s) own, NOT by the individual artist him/her self. It is the art masterpiece that is alive and gives motivation to the wearer of the one who keeps it (Ismail, 2002).

3.6.5 Summary of the Malay Symbolism

The work of art plays a very significant role in revealing the human’s spiritual connection with the Divine concept into a manifest expression of harmony, symmetry, hierarchy and balance. People today, even the Malays themselves seldom understand the meaning behind the ‘*awan larat*’ except for its beauty, its uniqueness and perhaps its creativity.

This, the author believes is due to a lack of knowledge of cultural background due to the deteriorating continuity of such creative skills, diminishing the culture of traditional knowledge-transfer through (society) verbal transmission, and also, the lack of exposure or formal education through school programmes or the media and multi-media programmes. Hence, this section has explored aspects of the ‘*awan larat*’ and has distilled its significant role in establishing an architectural identity for the housing environment of the local society.

3.7 Establishing the qualities

3.7.1 Qualities of Indigenous Dwelling Environment

Marc (1977) argues that today, architecture in reality has ceased to exist, except for its concept. In his words, the architecture, drained of its substance, has become a container without content, mere packaging. By transforming our monuments into museums, we have relegated architecture to a cult of the past (Marc, 1977: 32). The thesis recognises this phenomenon poses an urgent need for today's built-environment professionals to re-evaluate their understanding of architecture in its true sense, and to revive its true meaning, i.e. from their own local environmental backgrounds. Masaud (1996) stresses the importance for architects of the need to understand that people express archetype in architectural form, among other physical symbols. They also attempt to express their personalities and aspirations through the environment they select for themselves (Masaud, 1996: 233).

Architecture is the manifest product of culture as the embodiment of the deep structures that are inherited and embedded in the worldviews of the indigenous traditional societies. In this thesis, as part of the indigenous characteristics of the housing model, architecture is acknowledged, not only by its physical or visual forms, but also more importantly, by the deeply-embedded symbolic meanings and its cosmological and spiritual interpretations of man's relationship with nature, God, and the environment. The aim is to establish the indigenous qualities portrayed by the traditional vernacular⁴² architecture in this region. Rudofsky (1964) has actually identified and presented the qualities of regional vernacular architecture that conveyed a sense of well being in his book "Architecture without the Architects". These qualities included human scale, great views and visual richness (Oliver, 1997: 14).

In this light, Chapter Seven (the indigenous dwelling survey and analysis) would attempt to explore and demonstrate the qualities of the indigenous dwelling architecture and its living environment, hence achieving the main aim of the model, that is, to demonstrate the manifestation of the indigenous cultural meanings, which portray the identity and cultural continuity for a particular community and the society as a whole.

3.7.2 Summary Conclusions of Establishment of the Qualities

Identifying the qualities embedded within the indigenous worldviews and dwelling architecture of the Malay society presents the opportunity for us to discover the intrinsic values hidden within the physical image of the Malay arts and architecture. It also offers the ability to distinguish and recognise the tangible and intangible forces that actually exist together, which are inseparable, and

⁴² It is inevitable that the term vernacular architecture is included to the indigenous model.

in unity, and which, in the end result, provide the meaningful identity, ingenuity and originality⁴³ of the manifest indigenous Malay arts and architecture, as part of the criteria for the housing model.

3.8 Conclusions to Chapter Three

This chapter presents an overview of the indigenous worldviews of the thesis focus group, i.e. the Malay society. It explores into the many facets of the indigenous worldviews, which stem from interaction and appreciation of nature, namely, the interconnectivity between nature, culture, worldviews and the environment.

Cosmology, symbolism and meaning in the architecture of indigenous dwellings are vital for the Malay community to decipher the relationship between man and god, man and nature. Symbolic representations of the traditional Malay arts and crafts illustrate the existence of aesthetics, quality and values in this workmanship, which are highly significant to the way the Malay people behave and lead their lives. Understanding how people interpret their worldviews are imperative in deciphering the reasons i.e. the meaning behind the manifested forms of dwellings in a variety of patterns. Through this understanding, only then would one be able to produce contemporary dwelling design closer to the context of home. These are, in general the ingredients of cultural meanings embedded in the social and cultural structures of the indigenous societies in Malaysia. The following chapter shall elaborate more on the characteristics of the indigenous model for housing, based on the qualities of the indigenous worldview of the Malay society in this chapter.

⁴³ The meaning of the term here is adopted from Ardalan and Bakhtiar (1973: 10) i.e.: It is the realisation of an original concept, not the transitory originality of an individual's personal vanity. Prerequisite to originality is the ability of the artist to "see", his identification with a primary purpose, his willingness to follow laws laid down by tradition and to avoid all that is superfluous and non-functional (ibid: 10).

4 Characteristics of the Indigenous Model

4.1 Introduction

The previous chapter gave an overview of the indigenous worldviews in the context of the thesis study, which is of the Malay society. This chapter attempts to define the characteristics of the housing model, namely nature, culture, worldviews and environment. They become the main components or characteristics of the model for housing, based on cultural meaning and cosmological (symbolic) understanding. The main characteristics are also linked with the notion of adaptation, sustainability and implicitly, with the ontological notion of boundary - as an element of unity - that promotes a positive invitation for multiple cultures to exist and persist with their cultural differences but to live in harmony with each other. Each characteristic shall be introduced and explained generally in a more scholarly discussion. The following chapter shall elaborate more about theoretical supports and reviews of the main components of the model.

4.2 Identifying the characteristics of the indigenous model:

The term model used for the thesis study represents the **abstract structure**⁴⁴ or framework for the housing model. The intention of the model is to create a framework (specifically) for housing that would produce a quality living environment, as well as to identify for Malaysia a contemporary built environment in general. The following diagram illustrates the composition of the model:

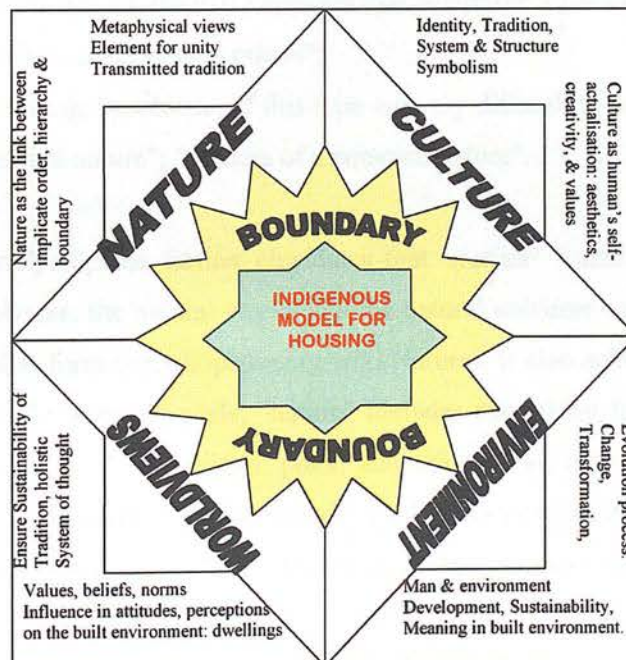


Figure 4-1 The Composition of the Model

Source: Author

⁴⁴ An **abstract structure** is a set of laws, properties and relationships that is defined independently of any physical objects (ref: http://en.wikipedia.org/wiki/Abstract_structure).

4.2.1 Nature

4.2.1.1 Nature defined

Nature is the umbrella of the thesis study, it is the source and motivating force towards the development, evolution and transformation of worldviews, culture and tradition of a society, particularly in the East. It is understood in many ways among many cultures - according to its context, regional forces and influences. In the context of the thesis, nature is the umbrella for the framework of the indigenous model for a living environment in Malaysia. Hence it is vital to explore the many different facets of nature and its relationship with man and the environment in order to make the best possible interpretation in the process of establishing the theoretical model for the entire thesis. The brief introduction about nature in this section attempts to accomplish a broad understanding of nature from both eastern and western scholarly perspectives.

Firstly, the reader is invited to view the many definitions of the word '*nature*' from contemporary web resource definitions. According to the wordnet.princeton.edu/perl/webwn, nature can be:

- the essential qualities or characteristics by which something is recognized; "it is the nature of fire to burn"; "the true nature of jealousy";
- a causal agent creating and controlling things in the universe; "the laws of nature"; "nature has seen to it that men are stronger than women";
- the natural physical world including plants and animals and landscapes etc.; "they tried to preserve nature as they found it";
- complex of emotional and intellectual attributes that determine a person's characteristic actions and reactions; "it is his nature to help others";
- a particular type of thing; "problems of this type are very difficult to solve"; "he's interested in trains and things of that nature"; "matters of a personal nature".

The wikipedia free encyclopedia further elucidates that '*nature*' - also known as the material world, the material universe, the natural world, and the natural universe - as all matter and energy, especially in its essential form (en.wikipedia.org/wiki/Nature). It also acknowledges that "nature" is the subject of scientific study. In scale, "nature" includes everything from the universal to the subatomic. This includes all things animal, plant, and mineral; all natural resources and events (hurricanes, tornadoes, earthquakes). It also includes the behaviour of living animals, and processes associated with inanimate objects - the "way" that things change (en.wikipedia.org/wiki/Nature).

Besides the normal conventional definitions of nature elucidated above, perceptions of nature also vary from traditional or indigenous Eastern or Oriental philosophies and attitudes towards the term. The following briefly describes the significant views of nature from the religious and philosophical perspectives of main cultures in the country, namely, the Malays, the Chinese (Taoism, Buddhism) and the Indians (Hinduism, Buddhism). According to the Hindu tradition, there can be found a metaphysical doctrine concerning nature along with the development of many sciences in the

bosom of Hinduism, some of which, in fact, influenced Western science through Islam (Nasr, 1968: 88).

In the indigenous culture and ways of living, all aspects of life possess a very strong and intimate relationship with nature. In general, nature consists of infinite phenomena and physical systems such as climate, weather, rainfall, temperature, wind, topography, landscape, vegetation and so on (Masaud, 1996: 110). At a closer look, as suggested by Masaud, nature actually exists through people's interpretations and ideals, taking the form of symbols and myths. The general view is that changes, both in the ecological systems of nature as well as from thoughts and beliefs about nature, will lead to changes in the status of the other components which would also affect the balance in the system (Masaud: 110-111).

It is imperative to justify the significance and implications of nature within the culture and built environment that support the purpose of this study. Therefore, the following chapter shall elaborate on the perspectives of nature and its relationship with man as well as with the environment. First, we shall look at the Eastern scholars' interpretation of nature, and then we shall look at nature from the metaphysical points of view.

4.2.1.2 Attitude Towards Nature in the Far-Eastern Religions

In the eastern cultures as well as indigenous societies, the attitude towards nature, i.e. the natural creations such as mountains, trees, rivers, soils etc. are still dominated by their indigenous worldviews, philosophies and religions. Al-Attas (2000: 113) interprets that nature in itself is not a divine entity, but a symbolic form, which manifests the Divine⁴⁵. He states, "Indeed, in the sense we have conveyed, all nature, and not just a tree or a stone, proclaims the sacred to those who see the reality behind the appearance". This, in the author's opinion, is a powerful primordial force innate in people's lives throughout the evolutionary process that is still maintained intact in today's society. Nature hence, is a vital element or force in the manifestation of culture in the forms of the arts and the built environment for the society. It is therefore imperative to decipher the roles of nature in the formation of an indigenous model for the contemporary housing environment in Malaysia.

The Chinese philosophy

In China, people's beliefs are based on Confucianism and Taoism whilst in Japan, Shintoism is the major religion (Nasr, 1994: 5), which is much more closely aligned and related to the Shamanistic beliefs. Confucianism is based on a view of nature in which the laws of nature and the laws of human existence are really the same, a theme which is, in fact, also central to nearly all other traditional religions' understanding of nature (ibid). Nasr adds that the 'Tao' of nature and the

⁴⁵ In the traditional cosmology and cosmogony, the various levels of cosmic existence begins with the Divine as the source of the cosmos (Ardalan & Bakhtiar (1973: 7)

'Tao' of human life are the same, which is also true for Confucianism. The Chinese word '*li*' applies to nature as well as to man, and to be natural is to live virtuously (ibid). The 'Yin-Yang' is the symbolic representation of duality in nature – hot-dry, male-female, inside-outside, etc – as Ardalan et al. (1973: 63) indicates, its symbol reveals how each retains the complement of the other inwardly.

Islam

In Islam the inseparable link between man and nature, and also between the science of nature and religion, is to be found in the Quran itself, the Divine Book which is the Logos or the Word of God (Nasr, 1998: 94). The *Qur'an* refers to the phenomena of nature and events within the soul of man as *ayat* (literally signs and symbols), a term that is also used for the verses of the *Qur'an* (Nasr, 1998: 120). The phenomena of nature are seen as 'signs' of the Author (God) of the book of nature when one reads it. Moreover, he adds, the *Qur'an* depicts nature as being ultimately a theophany which both veils and reveals Allah (God), the forms of nature are so many masks that hide various Divine Qualities (Nasr, 1998: 120). Nasr (1998: 119) comments that the Islamic view of nature and the environment presents a precious reminder of a perspective mostly lost in the West today and it is based upon the sacred quality of nature in the universe, created and sustained by the One God of Abraham, to whom Jews and Christians also bow in prayer. He adds that the Islamic view of the natural order of the environment has its roots in the Qur'an, which is the central theophany⁴⁶ of Islam, in that the Qur'an addresses what is primordial in the inner nature of men and women; hence Islam is called the primordial religion (*al-din al-hanif*) (ibid).

According to Nasr (1998: 121), the traditional Islamic views of the natural environment are based on this inextricable and permanent relation between what is today called the human and natural environments and the Divine Environment which sustains and permeates them. He adds that the *Qur'an* alludes in many verses to the un-manifested and the manifested worlds ('alam al-ghayb wa'-shahada). The visible or manifested world is not an independent order of reality but a manifestation of a vastly greater world which transcends it and from which it issues (ibid). This view of nature - as delineated in the *Qur'an* and accentuated by the *Hadith* and *Sunnah* of the Prophet (Nasr, 1998: 121) – consequently, harboured a great love for nature among Muslim followers all over the world, manifested in their literatures, arts and so forth.

⁴⁶ A **theophany** is a visible manifestation of God usually restricted to the Old Testament. God has appeared in dreams (Gen. 20:3-7; Gen. 28:12-17), visions (Gen. 15:1-21; Isaiah 6:1-13), as an angel (Gen. 16:7-13; 18:1-33), etc. There is a manifestation known as the Angel of the Lord (Judges 6:20f.) and he seems to have characteristics of God Himself (Gen. 16:7-9; 18:1-2; Exodus 3:2-6; Joshua 5:14; Judges 2:1-5; 6:11). (source: www.carm.org/dictionary/dic_t.htm)

~ A physical manifestation of God as a person or messenger (angel), a pre-incarnate appearance of Christ in human form, called "the Angel of the Lord." (Gen.16:13, 17:1-3,18:1, 32:30; Ex.3:2) (source: www.calvarychapel.com/redbarn/terms.htm)

~ (Greek: theos + phaneia, "god-showing") An appearance of a goddess or god to a human being. Examples: The Hindu god-man (avatar) Krishna appearing to Arjuna in Chapter 11 of the Bhagavad Gita; the Hebrew god appearing to Moses at Mount Sinai in the burning bush (Exodus 3) and again at Sinai with the giving of the Law (Exodus 19) (source: www.nmhschool.org/tthornton/world_religions_working_definiti.htm)

The Islamic hierarchy of knowledge is integrated by the principle of unity (*al-Tawhid*), which runs an axis through every mode of knowledge and also of being. The various fields of knowledge in Islamic civilisation such as the juridical, social, theological science, as well as Gnostic and metaphysical are all derived from the source of revelation i.e. the Quran. On each level of knowledge nature is seen in a particular light. For the jurists and theologians (*mutakallimun*) it is the background for human action. For the philosopher and scientist it is a domain to be analysed and understood. On the metaphysical and Gnostic level it is the object of contemplation and the mirror reflecting supra-sensible realities. There has been thought throughout Islamic history an intimate connection between gnosis, or the metaphysical dimension of the tradition, and the study of nature as we also find it in Chinese Taoism (Ibid: 94).

Summary of the Eastern views of nature

This section elucidates that the Eastern religions such as Islam and the Chinese philosophies possess deep connection with nature and its significance in cultivating their worldviews of the environment. It also demonstrate that religions, acting as guidelines and principles or laws for the humans to follow acknowledge the importance of nature as part of the human existence in this world that should be respected and exist in harmony and together with people's development, personally as well as holistically.

4.2.1.3 Metaphysical Perspectives of Nature

In western philosophy, the study of metaphysics deals with the first principles of reality and with the nature of the universe. From this epistemology, it branches out into two categories as below:

Ontology

Ontology has been defined as a branch of metaphysical study, which focuses on *the essence of being* in various disciplines. The discussion on this topic is limited to its brief definitions and interpretation for the sake of an epistemological understanding of the term, for further elaboration of the topic would go beyond the scope of the thesis. The word 'ontology' has been derived from the the two o/ntwj(ontos) meaning "to be" and lo/goj(logos) meaning "word." Ontology is the **science or study of being** (www.two-age.org/glossary.htm). In the context of the thesis, ontology is best described in its philosophical meanings.

The Wikipedia free encyclopedia from the web mentions that in philosophy, **ontology** (from the Greek *όντος* = part. of *ειναι* = *being* and *λόγος* = *word/speech*) is **the most fundamental branch of metaphysics. It studies being or existence as well as the basic categories thereof**—trying to find out what entities and what types of entities exist. Ontology has strong implications for the conceptions of reality. This is in accordance with the definition of ontology described by www.carm.org/atheism/terms.htm as **a study of the nature of being, reality, and substance.**

From a metaphysical point of view, there are several views pertaining to the term “ontology”. (wason.home.mindspring.com/TDW/Glossary.htm) describes it as **a branch of metaphysics concerned with the nature and relations of being**. Similarly, Sheffield University’s philosophical department defines ontology as **a branch of metaphysics concerned specifically with what (kinds of) things there are** (www.shef.ac.uk/~phil/other/philterms.html). Metaphysics is customarily divided into ontology, which deals with the question of how many fundamentally distinct sorts of entities compose the universe, and metaphysics proper, which is concerned with describing the most general traits of reality (www.levity.com/mavericks/glossary.htm). The web source, philosophy.wlu.edu/gregoryp/class/fall02/313/glossary.html also describes ontology as **a branch of metaphysics, or a sub-discipline of metaphysics, which *investigates the fundamental kinds of entities and relations which hold between them***. The ontological commitments of a theory—ie, what kinds of entities a theory assumes to exist; eg, the ontology of Cartesian dualism is different from that of eliminative materialism.

In its simplest meaning, the web source www.willdurant.com/glossary.htm, describes ontology as **a study of the ultimate nature of things**. The web source (www.adamranson.freemove.co.uk/critical%20concepts.htm) says ontology is **a branch of philosophy focusing upon the *origins, essence and meaning of being***, and a third definition asserts that it is **a metaphysical study of the nature of being and existence** (www.cogsci.princeton.edu/cgi-bin/webwn2.1). A similar term defines it as a branch of philosophy concerned with the **study of being, of reality in its most fundamental and comprehensive forms** (www.atf.org.au/papers/glossary.asp), whence another source says ontology is that branch of philosophy that is concerned with **the study of Being (existence) itself**. (www.apologetics.org/glossary.html).

Cosmology

Of the two metaphysical views of nature, the cosmological concept of nature is more prevalent in the art and architectural manifestations of the focus group ethnic community in the thesis study. Hence, there is a need to elaborate the concept in the following discussion from the points of views of both modern and traditional or some might say, western and Eastern philosophies on the concept of cosmology.

In the modern epistemological worldview, cosmology is another branch of metaphysics, which is derived from the Greek word: "cosmo" meaning universe; and "logos", meaning study. It is **a belief about the structure of the universe**. Many religious texts have a pre-scientific view of the make-up of the earth, the solar system and the rest of the universe (www.religioustolerance.org/gl_c.htm). Within the scope of this thesis, cosmology is understood as **the study of the structure, origin, and evolution of the universe** (www.enchantedlearning.com/subjects/astronomy/glossary/indexc.shtml).

Different from cosmogony, which is concerned with origins, cosmology is essentially a branch of philosophy that is concerned with the universe as a totality, integrating both physics and metaphysics. In modern science, however, cosmology is primarily concerned with the universe, according to contemporary notions of physics. In Greek, cosmology literally means "the study of the cosmos." (www.apologetics.org/glossary.html). More precisely, the definition of cosmology in the perspective of Seymour-Smith⁴⁷ (1986: 55) is **a belief system that is connected with the characteristics of the universe or cosmos**. The belief system perhaps consists of a postulated structure, organisation and the works of nature, the supernatural world and the human social world.

Osman Bakar (1997) of University Malaya, in his article, "The Importance of Cosmology in the Cultivation of the Arts," comments that we are not truly civilised until we have cultivated both arts and sciences. However, **in order to achieve the highest level of human civilisation, both arts and sciences must develop in unison and attain a balanced progress** (Ibid: 1). He maintains that the primary aim of the cosmological sciences is to demonstrate the "cosmic unity"⁴⁸ and thereby to demonstrate the supreme truth of "divine unity" (Tawhid at the highest level). The role of cosmology here is to help explain the idea of the cosmos as a divine work of art, which is meant to serve as the prototype of all human arts (Ibid).

Cosmology from the Islamic perspective

According to Bakar (1997: 1), Islamic perspective of cosmology is contrary to the modern view of cosmology that is constrained to the known human knowledge, based on visual experience and scientific framework, as he sees the modern destruction of the arts has occurred mainly through a curious kind of neglect – in the form of the modern scientific and technological culture that we have cultivated, as well as by our mind-set (worldview framework) that is dominated by such a kind of science and technology. By this he means that we have been cultivating science and technology that is excessively quantitative in character. Rene Guenon, the French philosopher and scholar of comparative civilisations supports this postulation in his statement that, "In the half of this century that the times in which we must live must be called the "Reign of Quantity"". This demonstrates that we are living in an age in which quantity rules over everything else. This is indeed true and manifest in the world of the built environment especially in the contemporary scenario of housing in many parts of the world, including Malaysia. Looking at things around us, we cannot but come to the conclusion that our aesthetic consciousness, our sense of beauty, is too dim and weak to manifest itself in our human environment (ibid: 2).

Further, Bakar (2001: 2) asserts that the Islamic cosmos encompasses both spiritual creatures that cannot be established through scientific research. This is in accordance with his statement that in

⁴⁷ Seymour-Smith, Charlotte (1986), Macmillan dictionary of anthropology / Charlotte Seymour-Smith: MacMillan.i

⁴⁸ By "Cosmic Unity", Bakar (1997) means the interrelatedness of all things in the cosmos. God wanted to reveal his unity or what amounts to the same thing, His beauty. So He created a beautiful cosmos that exhibits unity in variety or multiplicity (ibid).

Islamic civilisation, ‘cosmos’ contains specific reference to God, in that the Islamic scholars defined cosmos (al-‘alam) as the assembly of all “things except Allah” (ma siwa Allah). In 1997, Bakar stated that, “It is in the traditional civilisation such as Islam that there was a complete unity of the arts and sciences, as well as a balanced development and progress between the two types of knowledge” (Bakar, 1997: 1). Unity was achieved by the common philosophical foundation, namely a common metaphysics, a common cosmology shared by both arts and sciences (Ibid).

Bakar also stresses that we need to distinguish between traditional cosmology⁴⁹ and modern cosmology. He asserts that **one needs traditional cosmology to develop and nurture aesthetic consciousness and its values**. Due to the fact that the traditional view of reality is multi-layered and hierarchical, Mukhtar (1997: 71) quoting Nader Ardalan and Laleh Bakhtiar’s “Sense of Unity”, maintains that traditional cosmology presents a picture of a universe which has various levels; these levels of cosmic existence begin with the Divine as the source of the cosmos, and come into being in an arc of descent which finally reaches the earth⁵⁰. These levels are presented and seen by Islamic philosophers as different realms or planes (Ibid). From the same resource, Mukhtar (1997) translates the cosmological concept of a human being as a microcosm, the traditional cosmology as the macrocosm and the combination of both realms into the diagrams below (see Figure 4-2):

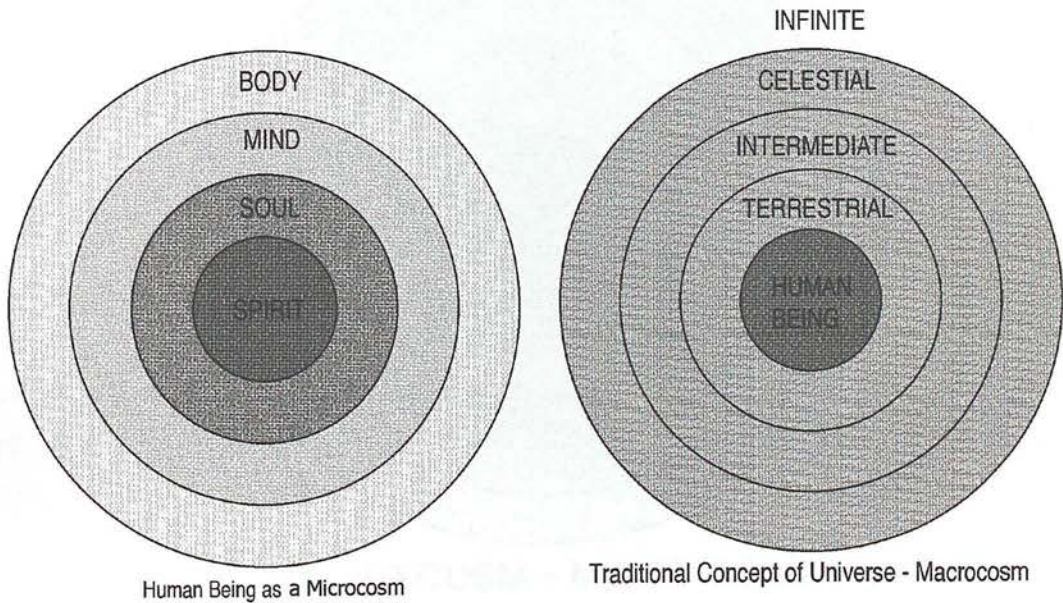


Figure 4-2 The above diagrams show the Islamic cosmological concept of human being as a microcosm and the universe as a macrocosm

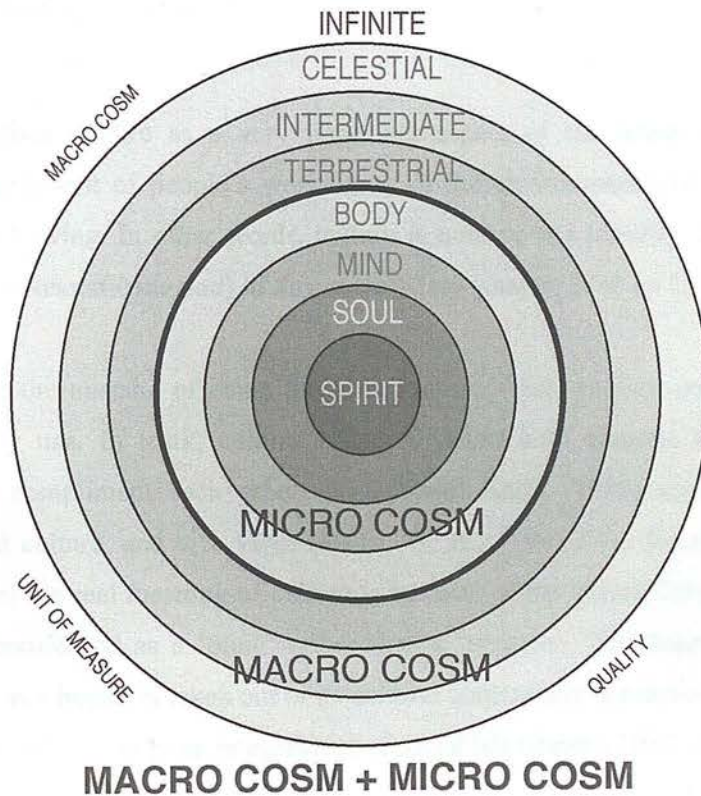
According to the above diagrams (Figure 4-2), the levels of the universe are termed as *infinite*, *celestial*, *intermediate* and *terrestrial* planes. The terrestrial planes are the gross, material, corporeal and physical phenomenal world, the plane on which human beings exists, in daily life (Mukhtar, 1997: 72). Man being a microcosm reflects the same levels of reality, which are present

⁴⁹ By traditional cosmology, he refers to science which deals with the origin and end of the cosmos, its structure and fundamental constituents, the interrelatedness of all its parts, and its spiritual or symbolic significance.

⁵⁰ Refer Ardalan, N & Bakhtiar L. (1973: 9).

in the macrocosm but through the law of inverted analogy, the highest in the macrocosm is reflected in the deepest or innermost core of man. Like the cosmos, man is multilayered and this can be understood through correspondence. The **body** of man corresponds to the *terrestrial/corporeal* world, his **mind** (and psyche) correspond to the *intermediate* psychic realm and created⁵¹ part of man's **spirit**, which comes forth from the *celestial* domain (ibid: 75).

Mukhtar (1997: 74-75) comments, "Architecture is determined by an interaction between man and his world. The inside and the outside, the subject, which knows the world, which is the object of knowledge. This world of nature i.e. of physical realities is also the world in which man lives and unfolds his possibilities [...] as man stands between the sensible and the intelligible worlds". Since he is placed at a central position in the universe standing on the axis of existence between creator and the created world, he has both a qualitative as well as quantitative understanding of the universe and is able to achieve a balance between material world and spiritual world (Naumana, 1986).



Source: Mukhtar (1997: 85) in *Islamic Cosmology in the Malay Art*

Figure 4-3 The above diagram shows the result of the combining the Macrocosm and the Microcosm

This section describes briefly the need to understand the relationship between man and the Universe, as Mukhtar (1997) states, the macrocosm compliments the understanding of the microcosm, the man and vice versa. In this context, he concludes that it becomes easily comprehensible that **traditional man will create a built environment, which is in harmony with**

⁵¹ Numerous Muslim thinkers have treated the spirit as created but also refer to an uncreated aspect, which in a way, reflects the "Infinite" or "Divine" (Mukhtar, 1997: 75). The famous hadith, "He who knows his himself knows his Lord" alludes to this fact (ibid). Similarly, the Quran refers to signs (Ayat) of God inside man and the Universe (Haider, Gulzar "Cosmology, Islam and Architecture" – Theories and Principles of Deisgn in Architecture of Islamic Societies, Aga Khan Press: Karachi

his nature and based on the same principles, which are operative in the natural world around him. Hence, the thesis argument is that only by understanding and actually interpreting this aspect of cosmology, can today's built environment professional be successful in creating an aesthetically pleasing dwelling architecture as well as maintaining the sustainability of one's culture and the natural surrounding environment. Hence understanding (traditional/ indigenous) cosmology is very significant for the indigenous model for contemporary housing in Malaysia.

Summary of metaphysical views of nature

Ontology and cosmology are part of the metaphysical views of nature that exist within the eastern communities' cultures and religions. These kinds of knowledge are innate and embedded within each eastern society for centuries, and have been practised in many eastern traditions from one generation to another. In this context, the Malay society, who are mainly practising Islam as the religion or way of living, possesses many of the cosmological worldviews of nature, which has been discussed in the previous chapter.

4.2.2 Culture

The thesis emphasises culture as a very important aspect of the housing model, because it represents the embodiment of people's worldviews of the environment and their values, norms, beliefs, and ways of living. In other words, culture is notably **the identity, the symbol and the structure (system of transformation) of any society** [see Chapter Five on Culture].

Many people make the mistake of using the term 'culture' and 'civilisation' interchangeably in their common daily use. In truth, culture and civilisation both connote their own individual definitions, which compliment each other. Wan Abdul Kadir (1994) argues that there is no community without culture, and vice versa (Kadir, W. A., 1994: 274). Barati (1997), claims the misunderstanding of the real meaning of culture is because of the objectification of culture within which, culture is considered as a 'thing' rather than a 'process'. This happens when a cultural phenomenon, such as a house, is taken out of its cultural context and is examined as an isolated and independent object, rather than as an integral part of social life (Barati, 1997: 244-245).

4.2.2.1 Defining Culture

There are numerous lists of definition for culture, because it is in itself a complex whole. The word culture comes from the Latin root "*colere*" (to inhabit, to cultivate, or to honour). In general, it refers to human activity; different definitions of culture reflect different theories for understanding, or the criteria for valuing human activity. Anthropologists use the term to refer to the universal human capacity to classify experiences, and to encode and communicate them symbolically. They regard this capacity as a defining feature of the genus Homo (<http://en.wikipedia.org/wiki/Culture>).

Definitions of “Culture”, described by wordnet.princeton.edu/perl/webwn include:

- a particular society at a particular time and place; "early Mayan civilization";
- the tastes in art and manners that are favoured by a social group;
- acculturation: all the knowledge and values shared by a society;
- the attitudes and behaviour that are characteristic of a particular social group or organization;

“Culture is a complex whole which includes Belief, art, morals, customs, and any other capabilities and habits acquired by man as a member of society” (Herskovits Melville In Phatak, 1995: 48). Alternatively, as Barati (1997) suggests, according to a different definition, culture can be associated with what people do, how they do it, or the way they think (e.g. Rapoport 1980b, 1981; Altman, 1980). Barati also cites Rapoport (1980b: 288) as stating culture is “a habitual set of choices which reflect an ideal human being, an ideal life and hence, an ideal environment”.

In his studies on people-environmental interaction, Amos Rapoport suggested several definitions for ‘culture’ as outlined by Barati (Barati, 1997: 241):

- That culture is about a group of people who have a set of values and beliefs which embody ideals that are transmitted to members of the group through enculturation (the transmission of culture);
- These beliefs lead to a worldview – the characteristic way of looking at the world;
- That in the case of “design”, culture “shapes” the world (Rapoport 1980b: 287).

Roohalamini (1986) gathered the Persian meanings of culture as:

- i. Knowledge, profession and science;
- ii. Techniques and knowing about sports (association of culture and sports shows that knowing about and participating in sports is considered as having culture);
- iii. Knowledge and art;
- iv. To learn and to apply learning (culture lives because it is learned and applied);
- v. Wisdom, glory, courtesy, and deliberateness;
- vi. Appearance of spring;
- vii. Education and literature;
- viii. Politeness, education and sociability.

From the above list by Roohalamini, Barati (1997) argues that in Persian, the basic meaning of culture has a strong association with knowledge, its acquisition and application. He suggests that culture is a holistic local knowledge about reality.

4.2.2.2 Characteristics of Culture

The characteristics of culture according to Barati (1997: 235-236) are as follows:

Culture exists in the minds of individual human beings, who have learned it in their past associations with other human beings to guide their own continuing interaction with the external world.

- i. Human cultures vary considerably one from another, in terms of interpreting the external world, therefore, it can be said that cultures are local rather than global,
- ii. Culture as local relativistic knowledge is a process, which is related to thought in the way it grows and in its movement of becoming.
- iii. Once a culture has been learned and accepted, it tends to persist.
- iv. All cultures are gradually and continuously being transformed. They are in an evolutionary process, therefore, exhibiting a consistent pattern of change.

Individuals share the same value systems within a culture, although they may behave differently in response to a given situation.

4.2.2.3 The Concept of Culture

Masaud (1996) suggests that culture exists by definition, i.e., it is a conceptual summary of human phenomena (Masaud, 1996: 182). According to Rapoport (1980), "*there are three alternatives very broad classes within which most definitions of culture seem to fall, these are: culture as a way of life typical of a group; culture as a system of symbols, meanings and schematic, transmitted through symbolic codes; and culture as a set of adaptive strategies for survival related to resources and ecology.*" (Rapoport, 1980: 9).

The concept of culture, according to Barati (1997), is a structure of knowledge that is not confined to its particular territory only, but extends beyond its geographical boundaries to include an interpretation of the world and cosmology. It is also capable of interpreting other cultures and the ways in which people construe the world (Barati, 1997: 233). Culture, as well as values and thoughts, also includes other more conspicuous elements such as artefacts and behaviour (ibid). Barati suggest behaviour as an imperative because of its direct implication in providing an understanding of both the individual and the group and how they connect to the environment.

Ujam (2003, Environmental Discourse Talks, PhD Programme), stated that culture is the most powerful and strongest concept that actually demonstrates a kind of distinction that what one sees, is actually the result of hidden structure, hidden meaning, which to Ujam is the structure of knowledge because knowledge dictates one's worldview, dictates the way you are united with nature and the environment, dictates the way you unravel, understand, respond and perceive the world. He maintains that culture plays an extremely important part in giving meaning to what we perceive.

4.2.2.4 Cultural Identity

When people talk about culture, the term most closely linked to it is identity. Hence, the term “cultural identity” is most commonly used when one is describing a society and its culture(s). According to Wikipedia, the free encyclopedia., **cultural identity** is the (feeling of) identity of a group or culture, or of an individual as far as she/he is influenced by her/his belonging to a group or culture.

4.2.2.5 Cultural Diversity

In a multicultural society like the people of Malaysia, evidently, there is a range of diverse cultural lifestyles and ways of living among various ethnic communities. Cultural diversity is a very significant element within the characteristics of the indigenous model because it defines the need to maintain the boundaries among different cultural ways of living in order to maintain the harmony and unity of the various ethnic societies in the country.

The term “cultural diversity”, according to Wikipedia Free Encyclopedia, represents the **variety of human cultures in a specific region, or in the world as a whole** (en.wikipedia.org/wiki/Cultural_diversity). It denotes differences in race, ethnicity, language, nationality, or religion among various groups within a community, organization, or nation (wind.uwyo.edu/sig/definition.asp). In other words, it can also be understood as, “The mosaic of individuals and groups with varying backgrounds, experiences, styles, perceptions, values and beliefs” (www.culturalpartnerships.org/productspubs/glossary.asp).

The Global Biodiversity Strategy (europa.eu.int/comm/research/biosociety/library/glossarylist_en.cfm), WRI, similarly defines “cultural diversity” as **a variety or multiformity of human social structures, belief systems, and strategies for adapting to situations in different parts of the world**. Another web source (www.environment.nelson.com/0176169040/glossary.html), asserts the term as “**The variety of human cultures that represent our adaptability and survival options in the face of changing conditions**”.

4.2.2.6 Culture and Symbolism

The term symbol in its simplest meaning, based on *Oxford Advanced Learner's Dictionary*, is defined as an image, object, etc that suggests or refers to something else. It also defines ‘symbolism’ as the use of symbols to represent things, e.g. in the arts and literature. Abdalla (1998) believes that symbols can be considered as one of the most important ways of changing the world of signs into a world of meanings and values. Symbols help us to understand the world and form it into meaningful cultural pattern which is given physical embodiment through built form as well as being expressed through written records, songs, myths, and many other symbolic structures (ibid).

Masaud (1996) suggests that symbolism is a significant factor for the understanding of culture. According to him, everything can assume symbolic meaning: a natural object like a stone, land, animals, the sun, moon or man-made objects like houses, mosques, cars, etc. or even abstract forms like numbers or geometrical shapes. Each culture creates certain symbols through the unconscious transformation of objects into symbols, and these can be visible or invisible features (Masaud, 1996: 188).

Nasr (1968) asserts that symbolism, in the essential meaning of the term we have in mind, is concerned with the process of sacralisation of the cosmos (Nasr, 1968: 131). It is through the symbol that man is able to find meaning in the cosmic environment that surrounds him (ibid)⁵². He adds that to instruct men to understand symbols in this manner does not mean a negation of the factual aspects of things, rather, it means a revelation of the knowledge of another aspect of things which is even more real and more closely tied to their existential roots than the sensible qualities and the quantitative aspects with which modern science is concerned (ibid: 131-132).

The term 'symbol' is simply defined as something that, conventionally, by association or even accidentally, stands for something else (Burkhardt, 1967; Noble et. al, 1991). Rapoport (1970) states that symbols help people to understand the world and to form it into a meaningful cultural pattern which is given physical embodiment through built form as well as being expressed through written records, graphic symbols, songs, myths and many other structures. Whereas, Kaki (2000: 60) asserts in all cultures, symbols can be seen as words and rules that make unique language, ensure their history and reveal their values. For instance, trees in a Japanese garden are sustained, supported and helped to expand by man because they symbolise man's allegiance to earth and aspiration to heaven. Its roots attach it to the earth and its branches reach out to heaven, ... (Marc, 1977: 29).

Many of us, tend or prefer to choose to live with people of same/similar culture. As Rapoport (1977) had suggested, people may unconsciously like to live with others who belong to the same culture, to share with them their values, ideas and norms and also to understand and respond to the same symbols (Barati, 1997: 274). Barati (1997) suggests cultures are also known as symbolic realities. In other words, worldviews are also determined by symbols and symbolic systems. The way people see and interpret elements in the environment depends upon symbolic meaning already given to them prior to social agreement (Barati, 1997: 267). Unfortunately, in today's world, the way the built environment is designed, culture is considered as irrelevant, preventing the transmission of knowledge to our younger contemporaries. When the built environment is not

⁵² According to Nasr (1968), citing Eliade (1959), 'the religious symbol translates a human situation into cosmological terms and vice versa; more precisely, it reveals the continuity between the structures of human existence and cosmic structures. This means that man does not feel himself "isolated" in the cosmos, but that he "opens out" to a world, which thanks to a symbol, proves familiar. On the other hand, the cosmological values of symbols enable him to leave behind the subjectivity of a situation and to recognise the objectivity of personal experiences.' (M. Eliade and J. Kitagawa (ed.) [1959: 103], *The History of Religions – Essays in Methodology*: Chicago.

relevant to the culture or that society's worldview, new generations are actually deprived of one of the most significant sources of vital information and communication (Barati, 1997: 277).

Symbolism and meanings in the built environment

Symbolism may also act as a means of communication among people of common cultural understanding. A symbols, to be recognisable as such, must be something that evidently conveys a meaning or meanings (Barati, 1997: 280). He asserts that the role of symbols is to communicate the socio-cultural system and to give cues for appropriate behaviour. He also suggests that without the environmental symbols that connect people, there is no longer common meaning. The symbols not only relate people to people, people to things, and things to things, but also create a subjective unification of all these elements. Symbols in the built environment are also important in terms of establishing and reaffirming social identity so that groups not only select different habitats but create them (ibid: 279).

Rapoport (1980) establishes that it is the environment in the mind (i.e. the subjective environment) that is important and which influences behaviour. In this view, Barati (1997) adds that since the built environment is the objective manifestation of symbols and subjective values, it is located in the mind in the form of meanings and associations. If one accepts that the environment is a form of communication there should be a similarity of processes between the structure of human mind and the structure of the environment and its contents i.e. the way they are organised (ibid: 280). Similarly, Rapoport (1980) argues, that the meaning of space depends upon the cognitive schemata within their culture; so do the ways in which space is organised.

The built environment and its general variety of forms of physical entities or features are meaningless. According to Barati (1997), what makes them meaningful is the selection and combination of materials in certain forms and patterns. So what contributes to the diversity of environments all over the world are the local meanings which every society gives to material and physical features which are organised in a particular way (ibid).

4.2.2.7 Summary conclusions of Culture

Cultural and religious thoughts are the instruments for the fulfilment of the needs of the heart and soul, or the spiritual and symbolic meanings of a building i.e., the built environment. Culture represents the manifestation of deep structures of the built environment – in this case, the dwellings - then become the manifestation of people's cultural expression and indigenous identity known as dwelling architecture.

4.2.3 Worldview

4.2.3.1 Definitions of worldview

World-view possesses the most fundamental concepts or principles in determining the criteria influencing people's attitudes, perceptions and responses towards their environment. In traditional and indigenous societies, worldviews encompass the values, beliefs and ways of living of each individual society. Seyyed Ghulam Reza Al-Islami (1998) in his thesis suggests that, "[...] the selection of problems for the solution and the way one formulates them depends more on a person's philosophy and world-view and that the way of solving them depends on a person's available science and technology. The ability to use this science and technology also depends on as person's philosophy and worldview. These, in turn, depend on the concepts and ideas s/he uses and how s/he uses them to organise her/his perception of the world". The thesis identifies worldview as an important component for the construction of the indigenous model.

This section discusses various definitions of worldview from the perspectives of modern Western epistemologies, to the universal perspectives of Islam, as representative of esastern cultures, as well as the indigenous worldviews of the focus group community of the study. It also attempts to decipher the genesis of indigenous worldviews that appreciate the balance between the natural and man-made environments.

The deep-rooted worldviews are derived from an innate knowledge of culture and tradition. According to the Wikipedia free encyclopedia, a world-view, (or worldview) is a term derived from the German word *Weltanschauung* meaning "look onto the world". It implies a concept fundamental to German philosophy and epistemology and refers to a *wide world perception*. It refers to the framework through which an individual interprets the world and interacts in it. The German word is also in wide use in English, as well as the "translated" form *world outlook*. *Weltanschauung* serves as a framework for generating various dimensions of human perception and experience like knowledge, politics, economics, religion, culture, science, and ethics. Historically, worldviews change little and slowly, achieving wide (and often unquestioning) support. Post-modernism and globalism have encouraged a proliferation of ever-changing *Weltanschauungen* (<http://en.wikipedia.org/wiki/Worldview>). The resource also describes (i) *Weltanschauung* as a generative system, (ii) *Weltanschauung* and its relation to cognitive philosophy, and (iii) its relationship to the folk epics as described below:

Welstanschauung as a generative system

Weltanschauung as generative system is a worldview that describes a consistent (to a varying degree) and integral sense of existence and provides a framework for generating, sustaining and applying knowledge. The linguistic relativity hypothesis of Benjamin Lee Whorf describes how the syntactic-semantic structures of a language become an underlying structure for the *Weltanschauung* of a people through the organisation of the causal perception of the world and the linguistic

categorization of entities. As linguistic categorization emerges as a representation of worldview and causality, it further modifies social perception and thereby, leads to a continual interaction between language and perception.

The theory or rather hypothesis, was well received in the late 1940s, but declined in prominence after a decade. In the 1990s new research has given further support to the linguistic relativity theory, in the works of Stephen Levinson and his team at the Max Planck Institute for Psycholinguistics at Nijmegen, The Netherlands [1]. The theory has also gained attention through the works of Lera Boroditsky at the MIT. The 'construction of integrating worldviews' begins from fragments of worldviews offered to us by the different scientific disciplines and the various systems of knowledge. It is contributed by different perspectives, which exist in the world's different cultures.

Weltanschauung and cognitive psychology

One of the most important concepts in cognitive philosophy and generative sciences is the German concept of 'Weltanschauung'. This expression refers to the 'wide worldview' or 'wide world perception' of a people. The Weltanschauung of a people originates from the unique world experience of a people, which they experience over several millennia. The language of a people reflects the Weltanschauung of that people in the form of its syntactic structures and untranslatable connotations and its denotations.

A map of the world on the basis of Weltanschauung crosses political borders because Weltanschauung is the product of both political borders and common experiences of a people from a geographical region, environmental-climatic conditions, the economic resources available, socio-cultural systems and the linguistic family. The work of the population geneticist Luigi Luca Cavalli-Sforza aims to show the gene-linguistic co-evolution of people. The worldview map of the world would be similar to the linguistic map of the world. However, it would almost coincide with a map of the world drawn on the basis of music across people.

Worldview and folk-epics

In terms of the relationship between **worldview and folk-epics**, the wikipedia encyclopedia mentions that as natural language becomes a manifestation of world perception, the literature of a people with common *weltanschauung* emerges as holistic representations of the wide world.

Weltanschauung serves as a framework for generating various dimensions of human perception and experience like knowledge, politics, economics, religion, culture, science, and ethics. Historically, worldviews change little and slowly, achieving wide (and often unquestioning) support. Post-modernism and globalism have encouraged a proliferation of ever-changing *Weltanschauungen* (<http://en.wikipedia.org/wiki/Worldview>).

People's perception, thus, the extent and commonality between world folk-epics becomes a manifestation of the commonality and extent of a worldview. The free web encyclopedia adds that

epic poems are shared often by people across political borders and across generations. Examples of such epics includes, the Nibelungenlied of the Germanic-Scandinavian people, The Silappadhikaram of the South Indian people, The Gilgamesh of the Mesopotamian-Sumerian civilization and the people of the fertile crescent at large, The Arabian Nights of the Arab world and the Sundiata epic of the African people.

4.2.3.2 Western Classical Scientific Worldview

Fragmented views of the environment: classical scientific approaches

The research recognises that part of today's phenomena in either urban development in general or housing in particular, may have been caused by the fragmented worldviews introduced by the classical scientific interpretation of the environment. Barati (1997) quotes Bertalanffy (1971) as saying that the classical scientific approaches have been problematic in human and environmental fields, in which case, the sciences tried to isolate the elements of observed universe into chemical compounds and enzymes, cells, elementary sensations, freely competing individuals etc., implicitly assuming that by putting them together again, the whole system will exist again. Similarly, he also quotes Mathews (1994) that in the Newtonian framework, society was seen as an aggregate of logically mutually independent human atoms (Barati, 1997: 189-190).

Barati (1997) also claims that this ability of people to separate themselves from the environment and to divide and apportion things has ultimately led to a wide range of negative and destructive results, such as global environmental pollution and the disintegration of people from their environment. Guided by a fragmentary self-world view, people then act in such a way as to try to break themselves and the world up, so that everything seems to correspond to their way of thinking (Capra 1983; Bohm 1980, 1985, 1993, 1994). The idea of the whole has been lost in the search for the identity of the parts (Ibid: 190).

The classical scientific progress of rationalism and empirical paradigms also brought serious fragmentation between people and the universe in terms of the theories, which were trying to explain reality (Ibid: 191). Barati (1997) claims that the Cartesian division and the mechanistic worldview were extremely successful in the development of classical physics and technology, but had many adverse consequences for civilisation. Mathews (1994) relates that from the mechanistic point of view, nature consists of matter, and matter is insensate, dead, drab, unvarying, devoid of interest and purposes. Nature is, claims Mathews, from this perspective, ultimately inexplicable: the fabric of the world has been fragmented, atomised, into discrete units, arbitrarily arranged (Barati, 1997: 191).

Atomism

Barati (1997) asserts that atomism causes fragmentation within the environment where it was not initially disintegrated both in the perceptual and physical sense. Bertalanffy (1971) suggested that the classic Cartesian scientific methodology, in different fields, separated elements into diverse

subjects. [...] The consequence of this kind of scientific methodology leads directly to a misunderstanding of the process of environmental phenomena (Barati, 1997: 192-193). Different urban spaces, which carry a certain meaning when seen in context, a meaning which is intended, may have the wrong meaning interpreted to them when they (the urban spaces) are examined independently, if indeed they would have any meaning at all [...] Consequently, this way of understanding the world initiated the first dualism between subject and object (ibid: 193).

Positivism

The main aim of positivism, as Barati (1997) has suggested, is the achievement of the unification of science across all disciplines (c.f. Hillier 1972-73; Garfinkel 1992; Boyd et. al. 1992), which means that positivists deny all values to philosophy and metaphysics, claiming they have no theoretical and cognitive content (Barati, 1997: 194). As a result, cultural and environmental issues have become objectified and quantified in such a way that all subjective issues have been ignored as irrelevant, non-related metaphysics (ibid: 195).

Barati adds that this methodology's intention is closely associated with terms such as objectivity, quantification, control, prediction, repeatability, explanation and common verifiability. So it has nothing to do with human symbolic activities such as value systems, myths, arts, beliefs, and worldviews (Barati, 1997: 195). Bergman (1967) and Bittner (1973) claim that these symbolic human activities have been left out of most studies of the social sciences for the last several decades (ibid: 195).

Reductionism

Reduction is a scientific methodology that views all phenomena are physical or entirely composed of physical entities. According to reductionism, the studies of all human issues such as sociology, economy, psychology, and even biology are physical subjects and processes (Barati, 1997: 195). In other words, the reductionistic doctrine is characteristically the simplification of a problem by reducing the dimensions of the studied phenomenon (Garfinkel, 1992).

Barati (1997) claims that the emergence of such classical theories of environmental issues makes people, culture, and the built environment frequently disconnected from each other. He suggests that all of these theories, models and ideas based on atomistic and reductionistic views, in practical terms, have resulted in the creation of a fragmented environment throughout the world (Barati, 1997: 197).

4.2.3.3 Eastern Perspectives on Worldview

For the purpose of the thesis study, the Eastern worldview is confined to the Islamic worldview, as it is considered one of the indigenous and the most established worldviews for the majority of the Malay society in Malaysia. Syed Naquib Al-Attas motions that from the perspective of Islam, a '*worldview*' is not merely the mind's view of the physical world and of man's historical, social, political and cultural involvement in it as reflected. He disagrees with the Arabic expression of the

idea formulated in the phrase “*nazrat al-islam li al-kawn*”⁵³. With this statement, he establishes the difference between the secular Western scientific conception of the world that is restricted to the world of sense and sensible experience, the world of created things, in comparison to Islam that does not concede to the dichotomy of the sacred and the profane (Al-Attas, 2001). He also relates that the meaning of ‘worldview’, according to the perspective of Islam, is the *vision of reality and truth* that appears before our mind’s eye revealing what existence is all about; for it is the world of existence in totality that Islam is projecting. Thus by ‘worldview’ we must mean *ru’yat al-islam li al-wujud*⁵⁴ (Al-Attas, 2001).

The *tawhidic*⁵⁵ method of knowledge in the Islamic vision of reality and truth, according to Al-Attas is not a worldview that is formed by gathering together various cultural objects. Values, and phenomena into artificial coherence, or formed gradually through an historical and developmental process of philosophical speculations and scientific discovery. He argues that it is not a worldview that undergoes a dialectical process of transformation repeated through the age and neither does it change in line with ideological ages characterised by a predominance of the influence of particular and opposing systems of thought, advocating different interpretations of a worldview and value systems, like that which have occurred and will continue to occur in the history of the cultural, religious and intellectual traditions of the West. Instead, he claims that Islamic intellectuals have all, and individually, applied various methods to their investigations without attachment to one particular method (Al-Attas, 2001: 2-3).

Based on the explanation above, Al-Attas prescribes the roles of the fundamental elements of Islam in its worldview, all of which, together with the key terms and concepts that they unfold, have a profound bearing upon our ideas about change, development and progress (Al Attas, 2000). These include:

- i. The nature of God;
- ii. The Revelation (i.e. the Qur’an);
- iii. His creation;
- iv. The relationship between man and the psychology of human soul;
- v. Innate knowledge;
- vi. The teachings of this religion;
- vii. Freedom;
- viii. Values and virtues; and
- ix. Happiness.

Source: (Al-Attas, 2001: 5)

⁵³ Refer Al-Attas (2000) for more elaboration on “*nazrat al-islam li al-kawn*”.

⁵⁴ Refer Al-Attas (2000)

⁵⁵ By this he means a metaphysical survey of the visible as well as the invisible worlds, including the perspective of life as a whole.

In the thesis's context, it emphasises the significance of the fifth to the ninth elements as above as the innate forces, which can be used as the fundamental principles for the production of the housing model based on innate values and cultural meanings. As Al-Attas (2001: 5) claims, "...these fundamental elements act as integrating principles that place our systems of meanings and standard of life and values in coherent order as a unified system forming the worldview; and the supreme principle of true reality that is articulated by these fundamental elements is focused on knowledge of the nature of God as revealed in the Qur'an".

Dr Mawil Izzi Dien, in his journal article⁵⁶ (2003) includes a statement from Sterling (1990), who indicates that the new secular worldview has become inherently materialistic with no recognition of concepts such as value, spirit, feeling, emotions, intuition and intrinsic goals. Sterling also stressed that modern worldviews, especially the Cartesian duality – which separates mind and body – sets human beings apart from and over nature, thus opening the way for a relationship that is primarily expletive and manipulative. (Sterling, 1990:78).

4.2.3.4 Perspectives on Wholeness and Holistic Notions

The terms '*wholeness*' and '*holistic*' are two most popular notions developed as a new approach to the new worldview such as modern physics, general systems theory, expansionism and other philosophies. The author believes it is imperative to distinguish the meanings that both terms carry so as to decipher their interrelationship.

Wholeness

Wholeness, in Islamic terms, is called 'Wahdat-e Wujood', which means 'the unity of existence' (Barati, 1997: 197-198). It refers to one God who is the creator of everything and nothing can exist or happens beyond His will and power (ElFiki, 2003: 27). In other words, nothing can exist independently of God. This kind of interpretation of the world makes it a unique entity (Barati, 1997: 198). The meaning, says Barati (1997), is close to the concept of pantheism in English and in the Eastern worldview, wholeness and oneness are connected with religious ideologies. Having said that, it is also important to note that Islam is a universal religion for all human kind, regardless of people's continental origins, although the religious perspective is often associated with Eastern philosophies, specifically the Arabian Peninsula.

Mathews (1994: 8) stresses that, "[...] in the Eastern view the world is considered as a unity in which the appearances of plurality and diversity are no more than ripples on the surface of the oceanic continuum. The most important characteristic of the Eastern worldview – one could almost

⁵⁶ Dr Mawil Izzi Dien (Sept, 2003) *Islam and the Environment, Theory and Practice* [http://www.theamericanmuslim.org/2003sept_comments.php?id=380_0_22_0_c]

Other bibliographies:

Sterling, S.R. (1990) *Towards an ecological world view in: J.R. Engel & J.G. Engel, (eds) Ethics of Environment and development* pp.77-96 (London, Belhaven).

say the essence of it – is the awareness of the unity and mutual interrelation of all things and events, the experience of all phenomena in the world as manifestations of basic oneness”. Barati (1997) adds that in Buddhism, it is believed that God sacrifices himself to give the universe the opportunity of existence.

Under the circumstance, Nasr claims that the cosmos indicates the divine principle and so does man, and man is himself closely associated with the cosmos. He is the microcosm and, similar to the cosmos, reflects the meta-cosmic reality (Nasr, 1971). This means, as Elfiki (2003) interprets it, there is no such division between people and the universe where people themselves, as a part of the universe reflect the divine. Hence, the universe and its container, being associated to God, are a unique sacred united whole (Elfiki, 2003: 27).

Bohm (1980) suggests that reality is not a set of objects but process and change. Wholeness is what is real, but people find it hard to grasp, resulting in fragmentation (Bohm 1980, 1993). Barati (1997), explains that in other words, reality is a whole, but people with their fragmentary approach, will inevitably be answered with a correspondingly fragmentary response to their examinations of the world. So what is needed is a re-examination of the habit of fragmentary thought, an awareness of it and of its consequences, and thus the opportunity to bring it to an end (Barati, 1997: 198). Hence, he proposes that our approach to reality should be whole (holistic), so the response also shall be whole (holistic).

Giving the example of a language, Barati explains that a word becomes meaningful and understandable only if it is engaged with the whole language, i.e., the structure of language as a whole is the relative real entity. Similarly, a phenomenon inside a given culture or environment, as a whole, becomes meaningful only if it is examined within its context.... If it is examined individually, it will have no meaning (Barati 1997, p.199).

Capra (1983: 142) cites that, “[...] the basic oneness of the universe is not only the central characteristic of the mystical experience, but is also one of the most important revelations of modern physics”. Barati (1997) suggests that this finding should be appreciated in environmental studies because it gives the opportunity to get rid of atomistic interpretation and intervention in people-environmental issues within which people, their environment, their culture, nature, etc. are considered separately as something outside each other (Barati, 1997: 200). In this manner, Barati explains that whole is the situation of not being outside each other independently. This includes both subjectives and objectives, which are structured in a complicated interconnected form (ibid: 201).

In his own words, Barati (1997, 211-212) proposes that **“person-perception-environment is a unity - not three but one...Once we accept that knowledge of the environment is local and interdependent on culture, we can begin to examine the qualities of different cultural**

knowledge systems without compromising our search for 'reality'. ..In place of planning and design theories driven by different ideologies, political views, technology, etc., and instead of seeing people, their culture, environment, and thoughts as different and independent concepts and making decisions based on such way of thinking, we can instead look to the totality and search for appropriateness and consistency in expression of a culture and its knowledge.”

Wholeness in indigenous architecture, in Sharief's (2005) view, can be identified in the way that it embraces the spectrum of the social, physical and ecological systems, making of them a new phenomenon that is not explicable within the limits of either of these aspects. It also embraces them at every scale, from the room or the individual, up to the settlement and the society as a unified entity (ibid: 346).

Holistic

The term 'holistic', derives from the word holism and denotes the wholeness of the framework for the housing model that is indigenous to the society. Holistic determines the necessity for components of a system or structure to depend upon one another, to maintain the boundary of hierarchy and order among each other, and to sustain oneself in order to ensure the sustainability of the entire system or structure, because only by achieving this, will the model be able to produce a sense of unity and real identity for the totality of the housing design and development scheme in the long term.

Based on Wikipedia free encyclopedia on the web, holism, derives from a Greek word, '*Holon*' which means entity, is the idea that the properties of a system cannot be determined or explained by the sum of its components alone. Holism, along with the adjective, holistic, was coined by Jan Smuts in the early 1920s. As given in the Oxford English Dictionary, Smuts defined holism as, "The tendency in nature to form wholes that are greater than the sum of the parts through creative evolution" (en.wikipedia.org/wiki/Holistic).

The University of Arizona's glossary of terms says the word "holistic" is perceived as looking at the whole system, rather than just concentrating on individual components. The overall sum can be greater than a simple totaling of the individual parts, because the "system" adds something. Another term is "systems thinking"(www.ag.arizona.edu/futures/home/glossary.html). Similarly, Mohawk paper denotes "holistic" as a belief that a system must be managed as a whole, rather than addressing the individual components that make it function (www.mohawkpaper.com/resources/html/glossary.htm). Another web definition from www.cox-internet.com/hermital/misc/glossary.htm also describes holistic as relating to or concerned with wholes or with complete systems rather than with the analysis of, treatment of, or dissection into parts.

Barati proposes the fundamental holistic characteristics as below:

- **No element in the environment has its meaning as an individual isolated entity.** Everything becomes meaningful only if it can be seen in its contextual situation as interconnected to the whole (ibid: 199-200). To belong to a whole implies a notion of unity of some kind.
- **A unity of parts** which is so close and intensive as to be more than the sum of the parts; which not only gives a particular confirmation or structure to the parts, but so relates and determines them in their synthesis, that their functions are altered.

The notion of wholeness and holistic in traditional and philosophical perspectives

Barati (1997) asserts that in some philosophical ideas and particularly in the traditions of Eastern mysticism, existence has always been considered as a unified whole. EIFiki (2003) agrees, commenting that ancient societies of the East are known to have always been religious. The most significant feature of these societies is the holistic interpretation of the world (EIFiki, 2003: 26). Even Capra agrees with it by stating that, “Although various schools of Eastern mysticism differ in many details, they all emphasise the basic unity of the universe which is the central feature of their teachings. The highest aim for their followers is to become aware of unity and the mutual interrelation of all things, i.e., to transcend the notion of an isolated individual self and to identify themselves with the ultimate reality” (Capra, 1983: 29).

4.2.3.5 Summary of worldview

Worldview has the paradigmatic concept of the surrounding world (environment), as the term itself denotes a comprehensive set of opinions, seen as an organic unity, about the world as the medium of exercise for the human existence. The thesis suggests that wholeness and holism as notions of worldviews are highly associated with nature and culture, which ultimately result the establishment of quality and meanings in the dwelling architecture and living environment. This section clarifies the significance of worldviews as a part of the main components for the indigenous model for housing.

4.2.4 The Environment

4.2.4.1 The (Natural) Environment and the Built-Environment

The environment- both natural and manmade – is instinctively associated with humans and their daily activities and surroundings. The following briefly explains the definitions of the environment and the built environment.

The (Natural) Environment

The natural environment comprises all living and non-living things that occur naturally on earth. In its purest sense, it is thus an environment that is not the result of human activity or intervention. The natural environment may be contrasted to the built environment, and is also in contrast to the concept of a cultural landscape. In many contexts, the term used is simply **environment**, as with

the name of the United States Environmental Protection Agency and such organisations as Environmental Defense (http://en.wikipedia.org/wiki/The_environment). The research adopts two proposed meanings of the environment based on ecological understandings as quoted by Rapoport 1976: 17) below:

- a. **The Environment as an Ecological System** having five (5) Components [proposed by Lawton (1970b)]:
 - i. The individual;
 - ii. The physical environment (including all natural features of geography, climate, and man-made features which limit and facilitate behaviour), the spaces and distances between man and objects, and the “resources” of the environment;
 - iii. The personal environment, including individuals who are important sources of behavioural control – family, friends, authority figures, and the like;
 - iv. The suprapersonal environment, which refers to the environmental characteristics resulting from the inhabitants’ modal personal characteristics (these may be old people, an ethnic group, or other specific sub-cultures);
 - v. The social environment, consisting of social norms and institutions.

- b. **The Environment as an Ecological Model** with seven (7) categories [as proposed by Ittelson (1960)]:
 - i. The **General Ecological Interrelationship** of all the categories;
 - ii. The **Perceptual Area**: Which is very important because of the primacy of perception in the man-environment interaction;
 - iii. The domain of **Aesthetic Values** of a culture and, one could add, the whole area of values;
 - iv. The **Adaptive Area**: the extent to which the environment helps or hinders activities;
 - v. The **Integrative Area**: the kinds of social groupings which are facilitated or inhibited by the surroundings;
 - vi. The **Instrumental Area**: the tools and facilities provided by the environment.

The Built Environment

The general understanding of the built environment is that it is a manmade spatial organisation for human activities. As Wikipedia, the free internet encyclopedia describes, the phrase **built environment** as the manmade surroundings that provide the setting for human activity, ranging from the large-scale civic surroundings to the personal places.

It says, “*In architecture and environmental psychology, the phrase is a useful acknowledgement that a small fraction of buildings constructed annually, even in the industrialized world, are designed by architects, and that users of the built environment encounter issues that cross the traditional professional boundaries between urban planners, traffic engineers, zoning authorities, architects, interior designers, industrial designers, etc. Historically, much of the built environment has taken the form of vernacular architecture, and this is still the case in large parts of the world. In the industrialized world, many buildings are produced by large scale development remote from*

its eventual users [...], in landscape architecture, the built environment is identified as opposed to the natural environment, with the recognition that places like Central Park may have the look, feel, and nourishing quality of natural surroundings while being completely artificial and "built", thus blurring the line between the two [...], and in urban planning, the phrase connotes the idea that a large percentage of the human environment is manmade, and these artificial surroundings are so extensive and cohesive that they function as organisms in the consumption of resources, disposal of wastes, and facilitation of productive enterprise within its bounds. Recently there has also been considerable dialogue and research into the impact of the built environment's impact on population health (see www.activelivingbydesign.org)" (http://en.wikipedia.org/wiki/Built_environment).

Rapoport (1976) posits that the built environment is also an organisation of meaning; [...] while space organisation also expresses meaning and thus has communicative and symbolic properties, meaning tends to be expressed more through signs, materials, colours, forms and the like... (ibid: 19).

4.2.4.2 Perspectives on the Environment

A Holistic Perspective

Barati (1997) maintains that a holistic view of the built environment is possible if it is examined in the cultural context. His idea of a **holistic approach to environmental development** is not a model or formula, it is a **way of seeing, perceiving and understanding** (Barati, 1997: 353). In addition, he adds that it requires a **perception of the world as everything related to everything else**. Barati suggests further guidelines to implement the holistic approach as follows:

- A diachronic holistic approach to environmental development requires to see culture as the central factor for development. He makes an important note that every culture seeks for itself a kind of balance because **it is always derived from nature**. Culture is a dynamic, sustainable, unifying process. In the holistic view, the built environment should grow out of and within this process.
- Every element in the built environment should be defined not only by its characteristics but by its relationship with the whole.
- Nothing can have meaning in the environment, as a whole, unless it is seen in the context of the whole. The meaning of the part will be completely different when it acts as an ingredient of the whole from when it is isolated. Separated independent parts are meaningless.
- Oneness and unity between subject and object in the built environment can be achieved through meanings and contextual symbolisation.
- Wholeness is a law of systematic composition, which governs the transformation of the system that it structures. The whole is not the sum of the parts but includes their transformational relations and their special order. So the arrangement of the parts in a structure also has a crucial role.

Islamic perspective on Environment and Conservation

The Islamic teaching sets limits to the human condition within four principles. The first is the Unity (Tawhid) principle - Tawhid is the foundation of Islamic monotheism and its essence is contained in the declaration (Shahada) which every Muslim makes and is a constant reminder of faith... this is the bedrock of the holistic approach in Islam as this affirms the interconnectedness of the natural order. Secondly, is the Creation principle, followed by the Balance principle and finally the Responsibility principle.

According to an article entitled *A Pioneer of the Environment* by Francesca De Chatel <http://www.islamonline.net/english/introducingislam/Environment/article02.shtml> (14/08/2003), Islamic perspectives on the environment are based on the guidelines from the Quran – the Book of Guidance for the Muslims, as well as from the hadiths and sunnahs of the Prophet Muhammad (pbuh). The prophet has a holistic philosophy on the environment, based on the three most important principles of nature, which is also based on the Qur’anic teachings and the concepts of Tawheed (unity), Khalifa (stewardship) and Amana (trust).

- **Tawheed** – the oneness of God, is a cornerstone of the Islamic faith. It recognises the fact that there is one absolute Creator and that man is responsible to Him for all his actions. The Qur’an says: (To God belongs all that is in the heavens and in the earth, for God encompasses everything.) [4:126]. The Prophet acknowledges that God is in everything. Therefore, abusing one of his creations, whether it is a living being or a natural resource, is a sin. The Prophet considered all of God’s creations to be equal before God and he believed animals, but also land, forests and watercourses should have rights.
- **Khalifa, stewardship, and Amana, trust, emerge from the principle of tawheed.** The Qur’an explains that mankind holds a privileged position among God’s creations on earth: he is chosen as khalifa, “vicegerent” and carries the responsibility for caring for God’s earthly creations. Each individual is given this task and privilege in the form of God’s trust. But the Qur’an repeatedly warns believers against arrogance: they are no better than other creatures: (Surely, the creation of the heavens and the earth is greater than the creation of man; but most people know not.) [40:57]

According to the same article, the prophet believed that the universe and the creations in it – animals, plants, water, and land – were not created for mankind. Man is allowed to use the resources but he can never own them. Thus, while Islam allows land ownership, it has limitations: an owner can, for example, only own land if he uses it; once he ceases to use it, he has to part with his possessions. He recognised man’s responsibility to God but always maintained humility. Thus he said: “When doomsday comes, if someone has a palm shoot in his hand, he should plant it,” suggesting that even when all hope is lost for mankind, one should sustain nature’s growth. He believed that nature remains a good in itself, even if man does not benefit from it.

In another perspective, Dr Dien prescribes an ideal Islamic way of life and expects humans to conserve the environment as below:

- i. The environment, is God' creation. The creation of this earth and all its natural resources is a sign of His wisdom, mercy, power and His other attributes and therefore, serves to develop human awareness and understanding of this creator. (Quran 13: 2-4; 21:79);
- ii. Muslims should seek to protect and preserve the environment because by doing so, they protect God's creatures which pray to Him and praise Him (refer: Quran 17:44);
- iii. The environment contains God's creatures which the 'ulama' or Muslim scholars consider to also deserve protection (hurma);
- iv. Islam, as a way of life, is established on the concept of good (Khayr). Therefore, it is expected that Islam will protect the environment once it is understood that such protection is good by itself (refer: Quran 99:7-8); and
- v. All humans are expected to protect the environment since no other creature is able to perform this task. Humans are the only being God has "entrusted" with the responsibility of looking after the earth (refer: Quran 33:72).

Furthermore, he also stresses that in Islam, the relationship between humankind and the environment is part of social existence, an existence based on the fact that everything on earth worships the same God. This worship is not merely ritual practice, since rituals are simply the symbolic human manifestation of submission to God. The actual devotions are actions, which can be practised by all the creatures of earth sharing the planet with the human race. Khalid (2002) supported his view that Islam prescribes a way of life that goes beyond the performance of rituals. Khalid adds that the word "Din" itself provides a holistic approach to existence, it does not differentiate between the sacred and the secular and neither does it place a distinction between the world of mankind and the world of nature.

On the ethical dimension, he describes the genesis of Syariah law – the Islamic legal system - from the time of the rightly guided caliphs (after the death of the Prophet {pbuh}), to its evolution of Islamic law (fiqh) after the expansion of the religion. To the Quran and Sunnah were added two other elements: the consensus (ijma') of scholar jurists and the process of reasoning by analogy (qiyas). According to Khalid, two other traditional instruments which were incorporated into this system, and also contributed to the formulation of environmental law in the Muslim world today are "*ijtihad*", i.e. interpretation in context and secondly, custom and practice i.e., "*urf wa adat*".

According to Khalid (2002), the Shariah evolved within the guidelines set by three principles agreed upon by scholar jurists over the centuries. They are:

- i. The interest of the community take precedence over the interests of the individual;
- ii. Relieving hardship takes precedence over promoting benefit;

- iii. A bigger loss cannot be prescribed to alleviate a smaller loss and a bigger benefit takes precedence over a smaller one. Conversely a smaller harm can be prescribed to avoid a bigger harm and a smaller benefit can be dispensed with in preference to a bigger one.

Siddiqi (1987)⁵⁷ asserts that to change or to attempt to change the direction of social and economic development, we need a consistent moral-based strategy. He suggests that in Islam, the cardinal principle of development of a nation, region, and community is the sense of “brotherhood”. This leads to equality and cooperation, which becomes the indispensable basis on which the quality of life of communities is to be built. The primordial character of the Islamic revelation establishes man and the cosmos in a state of unity, harmony and complementarity, reaffirming man’s inner bond to the whole of creation, which shares the Qur’anic revelation in the deepest sense with man (Nasr, 1998: 125).

Similarly, on the sustainable use of land, the Prophet incited believers to share the earth’s resources. He said: “Muslims share alike in three things – water, herbage and fire,” and he considered it a sin to withhold water from the thirsty. The Prophet’s attitude towards the sustainable use of land, conservation of water and the treatment of animals is a further illustration of the humility of his environmental philosophy. He stressed that the earth had rights, just as the trees and wildlife living on it. He says, “The earth has been created for me as a mosque and as a means of purification.” [Al-Bukhari I: 331]. With these words, the Prophet emphasises the sacred nature of earth or soil, not only as a pure entity but also as a purifying agent. This reverence towards soil is also demonstrated in the ritual of tayammum, or “dry wudu” which permits the use of dust in the performance of ritual purification before prayer when water is not available.

The Prophet (Peace be upon him) viewed earth as subservient to man, but recognised that it should not be overexploited or abused, and that it had rights, just as the trees and wildlife living on it. In order to protect land, forests and wildlife, the Prophet Muhammad (pbuh) created inviolable zones known as ‘*hima*’ and ‘*haram*’, in which resources were to be left untouched. Both are still in use today: ‘*haram*’ areas are often drawn up around wells and water sources to protect the groundwater table from over-pumping. ‘*Hima*’ applies particularly to wildlife and forestry and usually designates an area of land where grazing and woodcutting are restricted, or where certain animal species are protected. The Prophet not only encouraged the sustainable use of fertile lands, he also told his followers of the benefits of making unused land productive: planting a tree, sowing a seed and irrigating dry land were all regarded as charitable deeds. Thus any person who irrigates a plot of “dead”, or desert land becomes its rightful owner.

⁵⁷ Siddiqi, Akhtar H. (1987) *Muslim World: Its Dilemma of Development*, Indiana State University, New York: University Press.

4.2.4.3 Summary of the Environment

The environment, people and culture are like the inseparable components of a system, which are interrelated with one another. They must be viewed and treated as a whole, as one entity, in order to ensure that the system is properly managed. The sustainability of the environment, naturally, physically as well as socially should be the top priority in any built environmental developments. The built environmental professionals, local authorities, housing developers and anyone in direct involvement with planning, development, and design execution of the housing industry should also be aware of their responsibilities towards all categories of the environment by acting responsibly and ethically.

4.3 Significant Notions Related to Indigenous Model for Housing Based on Cultural Meaning

The thesis also identifies the notions of adaptation, sustainability and boundary as essential ingredients that can support the indigenous characteristics of the model for housing in Malaysia based on cultural meanings, as shall be discussed in this section, as follows:

4.3.1 Adaptation:

Adaptation is an important notion that would benefit the indigenous model for housing based on cultural meanings. This section explains further about the significance of adaptation and its relation to motivation theory in the context of the study.

Adaptation is innate in human nature since the beginning of man. Man naturally adapts with his surrounding living environment to fulfil his basic needs as well as his higher needs. Once man has adapted himself to the environment, he is motivated to achieve higher needs that he cannot achieve until the basic needs are fulfilled. Man, culture and society as an open systems have the ability to adapt to changes, and external pressures. Hence, the author strongly believes that a deep relationship between man and the environment is one of the essential characteristics that the holistic housing model should have.

4.3.1.1 Definitions of Adaptation

The word is described as the **process of changes** in a living organism or in cultural systems that aid in adjusting to the conditions of the environment, facilitating the ability to inhabit and exploiting a particular environment (www.mnh.si.edu/arctic/html/resources_glossary.html). A similar definition from www.smu.edu/anthro/collections/glossary2.html says that it is a process of change to better conforms with environmental conditions or other external stimuli. According to the web reference, www.streamnet.org/pub-ed/ff/Glossary/glossaryfish.html, “adaptation” is understood as **changes** in an organism's structure or habits that allow it to adjust to its surroundings. Adaptation is also understood as **adjustments** made by animals in respect of their environments. The adjustments may occur by natural selection, as individuals with favourable genetically acquired traits breed

more prolifically than those lacking these traits (genotypic adaptation), or they may involve non-genetic changes in individuals, such as physiological modification (eg acclimatization) or behavioural changes (phenotypic adaptation) (www.epa.gov/waterscience/biocriteria/glossary.html). The web source, www.thetech.org/exhibits/online/robotzoo/guide/glossary.html, briefly describes adaptation as **structures or behaviours** of an organism that are suited to a particular environment.

Sharief (2005) argues that adaptation is a process that constantly weighs man's problems against the benefits and dangers of nature. He cites Masaud (1996: 61) as saying that through a process of trial and error, adaptation to the environment gradually produces successful results that unite knowledge and technology with the need to address problems, and these are maintained and passed on through cultural patterns (Sharief, 2005: 322). As a system, an adaptive system is a system with the capacity to modify its internal state or structure in response to changes in environmental demands or opportunities (El-Fiki, 2003: 34). In addition, Berry (cited in Altman *et al*, 1980), says that, through evolution, man succeeds in adapting to the environment, often by altering the environment to suit his needs.

4.3.2 Sustainability (of Culture, Society and Environment)

Contrary to the conventional definitions used to describe sustainability in the built environment, here, the meaning of sustainability is focused on cultural and social continuity within the dwelling environment. The thesis recognises the existence of sustainability as an element that determines man's relationship with nature and the continuity of tradition and socio-cultural activities within the environment. This factor is a key reason for the notion to be supporting elements of the main characteristics of the indigenous model.

Rapoport (1994) asserts that **“cultural sustainability” refers to the survival of cultures, which implies supportive environments, hence variability, cultural specificity and the ability to combine core elements for survival, continuity and identity with new (peripheral) elements responding to new wants.** He adds that the outcome is diversity rather than convergences to a single model, and it is “...clear from both evolutionary and immunological theory.. that **in facing the unknown future, the fundamental requirement for successful adaptation is preexisting diversity**” (Darden and Cain, 1989: 126). Hence, Rapoport claims that is necessary to preserve and generate (possibly increase) diversity among environments, allowing for choice in terms of wants and lifestyles (Rapoport, 1985a, b).

The research borrows the definition of **“social sustainability”** from the same resource, in which, the term is concerned with the continued supportiveness and acceptability of environments despite changes in important aspects of culture, such as roles, family, and kinship forms, and forms of social organisation and the like, on the one hand, and activity systems (including their latent aspects, and hence wants), lifestyles, values, and ideals, images and schemata on the other

(Rapoport 1990a, 1993). This suggests an emphasis on open-ended environments so that, for example, people can modify their dwellings rather than leaving a neighbourhood (Rapoport, 1994: 7).

4.3.2.1 Open-endedness

Rapoport (1994) urged the need for the contemporary environment to be open-ended with its rapidly changing environment, compared to the slow progress claims that traditional environments were more open-ended when compared to contemporary environments. Rapoport also emphasised the importance of open-endedness so that environments can be renewed and modified, thus making buildings and urban areas longer-lived. This also allows one to remain in a neighbourhood when housing needs change (Van der Voordts, 1990). This contributes to neighbourhood stability, which, as already stated, is an important issue in terms of sustainability (Rapoport, 1994: 36). He also claimed that traditional environments, especially many traditional vernaculars, allow and indeed encourage open-endedness (Rapoport, 1990c). The need for open-endedness in the contemporary environment, according to Rapoport (1994: 8) is:

- i. For the diversity of users, rapid change, rising expectations in instrumental and latent aspects of possessions and equipment, new activities, roles, materials, and so on.
- ii. To allow for control and participation, greater use of semi-fixed elements for identity and status, and hence personalisation and so on (Rapoport, 1990/91).
- iii. To be congruent with one of the meanings of sustainability – in terms of actions that do not limit the choices of future generations.

4.3.3 Boundary

In understanding the study, it is imperative for the reader to recognise the existence of boundary throughout the course of the theoretical as well as empirical work of the thesis. In the context of the thesis, boundary is understood as *an ontological notion that persists as inherited existential or ontological force that has consciously, or subconsciously driven the formation of our environment*⁵⁸. It exists innately within the main components of the housing model, and also acts as a bridge linking them together. In the empirical findings, boundary represents the physical embodiment or identity of people's cultural perception and their indigenous dwelling architectures.

4.3.3.1 Tension and Opposition

Boundary is literally understood as the borders or limits of something. The term boundary can also be regarded as tension, opposition and difference⁵⁹. The author would like to bring the reader's attention to the significance of the terms 'tension' and 'opposition', both derived from the 'boundary' notion (with respect to the context of the thesis) that are significant in determining the

⁵⁸ Refer Saridakis (1999) thesis on Boundary.

⁵⁹ Ibid.

relationship between man and man (individual to society), man and environment (both physical and natural) as well as man and God.

Ujam (2003, PhD Programme Environmental Discourse and Dialogue, ECA) explains that the value of tension comes from the fact that there is a difference in the energy, which is associated with different phenomena or components. Without this hierarchy in a structure, there will be no flow or movement, then the structure will be dead. Between two individuals of either the same culture or background and vice versa, there always exist tension as well as opposition. For instance, between a foreign student and her English supervisor, there exists an underlying boundary - the hierarchy tension and cultural opposition – which are innate and embedded within each of them. Another example can be seen in the way different cultural societies react to a particular sign or the body language of a person that connotes different meanings in various cultures. In other words, a sign or body language is understood differently in many societies in which case, tension and opposition might occur. Hence, respect and acknowledgement of both elements of boundary is vital in order to maintain the harmony of the various communities.

Similarly, in the case of dwellings or living environment, there is an innate tendency for people to 'flock together' within their respective cultures because of the tension and opposition that exist among different cultures. Many of us, if not all, tend or prefer to choose to live with people of the same/similar culture. As Rapoport (1977) suggested, people may unconsciously like to live with others who belong to the same culture, to share with them their values, ideas and norms and also to understand and respond to the same symbols (Barati, 1997: 274). Therefore, it can be argued that tension and opposition, as elements of boundary are also indigenous to people's worldview towards the environment.

Saridakis (1999: 11) asserts, architectural creation is a lasting identity whose materiality is a cultural product. Its everyday existence, bound with human activities, becomes the medium of interpretation and evaluation, which are characteristics of this cultural condition, its immediate reality, the place becomes important, as architecture is always built in a place, this place becomes its framework of reference. [...] The built environment as part of the 'tradition' of a place, determines the principles and conditions by which we define and evaluate all architectural intervention in it. [...] Ontological-based architecture is mostly evident in Eastern cultures compared to epistemological-based Western architecture. The Eastern indigenous architecture is ontological since it evolves around people's lives, the family structure, climate, environment etc. Further, most indigenous societies produce architecture that is the exhibition of inherited forces and values, rather than the obsession of form/shape, most readily encountered in epistemological interpretation. (Ibid: 12).

Saridakis also suggests that people are driven by knowledge that has an impact on the way we organise our environment. Elements of knowledge as she listed, the complexity, mystery, unity and

order, are inherent in the nature of our minds and they drive our thinking subconsciously, because they have been created through out continuous interaction with our environment, in which case, our lives are dominated by them consciously or subconsciously (Kaplan, 1987). Saridakis also states, "The meaning of definition/interpretation relates to the ways we understand and evaluate the surrounding environment and the cultural framework in which we take part [...]. Meaning is produced and is dialectically combined with what exists as a whole (tradition). For this reason, a definition can only be formed in relation to the past. Present and past do not exist as isolated horizons." (Saridakis, 1999: 11). She adds that people are driven by these inherent forces as they are part of their perception. These ontological philosophies and values have to do with the existence of people rather than the definition of a chain of ideas. They are continuously interpreted and re-interpreted. The tension between what is epistemological and the ontological, if used productively, can modify and enrich our perception of what already exists. Literally, ontology is the study of being, it is therefore important to be able to recognise these ontological forces, if we are to sustain an understanding of self, in effect, an understanding of the environment (Saridakis, 1999: 12).

In architecture, this network of relations with the living environment, through these inherited ontological forces, establishes its definition and meaning and becomes important for its creation and evaluation. (Saridakis, 1999: 13). Ontological perspective of boundary can be understood in different ways and forms, depending on the subject of comparison or relativity, for example, the ontological boundary between heaven and earth, life and death, man and animal, between the physical world and the inner world, language and culture boundary, etc. Indeed, there is a permanent existence of boundary in human relationships with nature and the environment (social, physical and spiritual).

In multicultural Malaysia, there is distinct evidence of boundary among the various ethnic groups and among similar ethnic groups with varied regional historical backgrounds. For instance, the language (including dialects) and cultural borders are the embedded aspects of ontological boundary besides religion, ethnics and race. The existence of these boundaries results in tension and opposition among the different cultures in maintaining their unique ways of living simultaneously, bridging a communal connection with each other. Similarly, music (produced by an orchestra) as an analogy famously used by Levi-Strauss, Barati (1997) suggests that it is sensed immediately as the presence of many different but interrelated degrees of transformations of tones and sounds together. There is a feeling of both tension and harmony among the various co-present transformations, and this feeling is indeed what is primary in the apprehension of the music in its undivided state of flowing movement (Barati, 1997: 201).

Boundary, in the context of the thesis, is derived from an understanding of the deep structures – that can only be found within cultural and religious worldviews – that are deep-rooted in people's mind from generations of traditions. The term deep structure, which is derived from Structuralism

theory, will be discussed further in the Chapter Five. As a brief introduction, it is understood as firstly, a representation of something that is hidden, and secondly, an intrinsic location in which hidden forces lie (see Chapter Five).

Jose Manuel Valenzuela Arce (Aug 1998) asserts that borders – whether as bridges or divides – play a role in the identity construction of people at each end. He adds that in historical terms, there a few borders, which have not shifted in time, sometimes many times, and left the people to redefine their identities at each move. In this respect, in the context of Malaysia and its multicultural society there are people with strong religious cultural backgrounds but who are also struggling to maintain their identities within the context of contemporary life demands and globalisation.

Chris Abel (2000) says that an alternative linguistic analogy supports the contention that the essence of architecture as a culture-form has especially to do with the formation of personal, social and cultural identities (p.144). George Steiner argues that no simple theory of language could account for the incredible diversity among human languages. Such diversity serves to guard the privacy of individuals and cultures. In the same way, language is used to achieve separation as well as communication, secreted within the idea of identity, therefore, is the idea of difference [ibid (p.147)]. Abel also commented, “[...] the people of South-east Asia, who embraced first Hinduism, then Islam, resolved the different building requirements of the two religions by largely ignoring those differences. He adds that by adapting Islamic practices to a local building type, rather than importing more orthodox but ‘alien’ building forms, potential conflicts between new and old ways of life were reduced....” (Abel, 2000: 165).

4.4 Conclusions to Chapter Four

The indigenous characteristics derived from the indigenous Malay worldview illustrates that nature and worldviews represent innate indigenous knowledge that has become the system of thought of a cultured society in viewing the world (or some may say, reality), which encompasses the whole environment - physical, social and natural.

Cultural and religious thoughts are the instruments for the fulfilment of the needs of the heart and soul, or the spiritual and symbolic meanings of a building i.e., the built environment. Culture represents the manifestation of deep structures of the built environment – in this case, the dwellings - then it becomes the manifestation of people’s cultural expression and indigenous identity known as architecture. Hence, a building with heart and soul determines the identity of the built environment. By this, the author means buildings produced from a deep-rooted understanding of nature and the environment may, indeed, manifest its values in the very best of its physical appearance. Recognising this, the

author strongly believes that it is imperative to recognise the elements of boundary within the indigenous model for housing.

The mutual interdependence and interactions among the main components of the indigenous model and the supporting elements illustrate that each component affects and influences the other. Any change or transformation of one component shall affect the rest. The model cannot function effectively without any one of the main ingredients of the model nor would it be successful without considering the sustainability, adaptability or boundary among them. The following chapter shall explore more deeply into each major component with support from theoretical and scholarly discussions and reviews.

5 Theoretical Support

5.1 Introduction

This chapter is a scholarly discourse on a selection of topics that support the indigenous model for housing in Malaysia based on cultural meanings. The research concerns people, their dwellings and the environment – both built and natural environment. Therefore, within the scope of the thesis context, this chapter attempts to discuss more deeply on the components of the indigenous model, i.e., nature, culture, worldview and the environment, from Chapter Four.

5.2 Indigenous Cultural Resources

The term indigenous in the context of the thesis refers to indigenous cultural resources. According to the citation propounded by Dei (1991), indigenous cultural resources include ‘indigenous knowledge’ and the ‘cultural attributes’ of community bonding, ‘self-help’, ‘mutual aid’, social responsibility, and a ‘traditional polity’ striving to satisfy the needs and aspirations of its people (Islami, 1998: 37). El-Fiki (2003) views that local values, experiences, activities, techniques, and even materials are generally referred to as indigenous resources and knowledge, which he suggested as the base for endogenous development⁶⁰. In this context (El-Fiki, 2003), Wahab (1997: 44-45) citing Warren and Rajasekaran (1993), identifies ‘indigenous knowledge (IK)’ as:

“The systemic body of knowledge acquired by local people through the accumulation of experiences, informal experiments, and intimate understanding of the environment in a given culture. IKS is a local knowledge that is unique to a given culture or society. It is the information base for a society, which facilitates communication and decision-making. [...] It provides the foundation for local innovations and experimentation.” (Source: El-Fiki [2003])

Warren (1996) argues that Indigenous Knowledge Systems (IKS) are not inferior to global systems, they were just unavailable because they were undocumented (El-Fiki, 2003). In this light, El-Fiki (2003) maintains that indigenous knowledge is highly relevant to all human activities as it promotes the full and active participation of local people in all consequences of their affairs. It can also be timeless, and is capable of being adopted at any time, with appropriate modifications. Hence it is capable of being integrated into modern sciences (Ibid). Wahab (1997) adds with his suggestion that local knowledge is also tested, accepted and found easily adaptable to its own people. It covers the whole spectrum of the physical, natural, social, cultural and political disciplines and issues⁶¹ (ibid).

⁶⁰ Refer to Section 5.5.3 on Endogenous Development

⁶¹ IK features prominently in almost all areas of human endeavour, including, for example, agriculture, settlement planning, architecture, trade and commerce, savings and credit, transportation, health and diseases, education and training, natural resources, politics, public administration and law, gender analysis, facilitating participatory approaches to development, soil and water management, vegetation, climate, crop-pests, veterinary, farming and livestock systems, land uses, forestry, anthropology, geography, sociology, linguistics, botany, fisheries, natural resources management, socio-economic and physical development (Wahab, 1996).

Brokensha et al., (1980) and Warren (1989) propose that there is evidence suggesting that as some rural communities confront the harsh realities of current economic and ecological conditions, they resort to or rely on **indigenous knowledge and their cultural resources** base to help them to deal with the stress on their household and domestic economies. Islami (1998: 36) adds that there exist in those communities traditional institutions, structures and processes that have been set up to **satisfy basic social needs**. These are part of what Jatoba (1987) calls '**non-conventional resources** of society that can be mobilised for alternative social development. **They include the cultural resources of rural people such as social consciousness and community identity that generate common responsibility, the organisational attributes of the traditional polity, social energy that can be harnessed for self-help projects, and social networks and mutual aid created by shared experiences and historical traditions** (Jatoba, 1987; and Matowanyika, 1990).

5.2.1 Vernacular and Indigenous

Architecturally, the term indigenous is intimately related to the term 'vernacular' architecture of the built-environmental design within this region (South-east Asia). All forms of vernacular architecture are built to meet specific needs, accommodating the values, economies and ways of life of the cultures that produce them (Oliver, 1997, & 2003: 14). The indigenous Malay house form provides a good example of one-to-one relations between social and built forms typical of traditional cultures (Abel, 2000:151). The thesis adopts Oliver's definition of 'indigenous architecture' (Oliver, EVAW Vol1: xxii), which generally embodies community values, and less evidently may symbolise concepts of the cosmos, or act as an analogue for the abstraction of belief. Thus, even a simple dwelling may reflect both the material and spiritual worlds of its builders and occupiers.

5.2.1 The holistic concept of indigenous knowledge

ElFiki (2003: 94) says, in order to understand the environment appropriately, the cosmological beliefs should be bound up with scientific analysed, and should not be considered as a separate issue. Cosmology presupposes a shared value system with an ethical basis located within a given culture and arising out of a given 'place' context (Rapoport in Olivier, 1975). Thus, a meaningful contribution to human knowledge is made only when these subjective cultural aspects are considered directly in relation to any objective scientific inquiry (ibid). El Fiki adds, quoting Ujam and Stvenson (1996) that it can only be the synthesis of creative tension between these two formulations and the resulting integrated solution for any particular culture and place. If one is considered without the other end, we end up wither with subjective superstition or objective inhumanity (ibid: 95).

Ujam And Stevenson (1996) wrote that cultural values are seen to arise out of the interaction between transformational concept and the environment. These concepts give rise to meaning placed on an environmental phenomenon. Indigenous cultures have usually helped people to place each

development project and program into an appropriate holistic model by their intuition, wisdom and worldviews (ibid).

5.3 Nature, Man and Environment

5.3.1 Introduction

The following section includes scholarly discussions as reviews of the main characteristics of the housing model, namely nature, culture, worldviews and the environment. The objectives are to illustrate the relationship and interaction among the main components and also to support the model.

5.3.2 Man and Nature

Since the beginning of the world, men have been closely interacting with nature in every aspect of their lives. As a primordial existence, nature is embedded within people's worldviews, traditions, norms, customs and values. These are manifested in people's cultures, i.e. ways of living as well as their civilisation. There are numerous perspectives when it comes to man's attitudes or views towards nature. In the traditional or indigenous societies, nature is either viewed as sacred, or as a symbol of Divine creation, as cited by Prof Nasr:

“Primal people believe that the phenomena of nature are not only symbols of higher realities, which a Muslim or Christian mystic would accept, but that symbol is also ‘identified’ with the higher realities in an essential way, that is, the symbol and the symbolised are fused together in a concrete fashion in their mentality.... They have a very concrete view of the world of nature as sacred... It is the basis of their role as the great protectors of nature for nature is their sanctuary....”

Prof. Seyyed hossein Nasr, IIC Annual Autumn Lecture 1994

Al Attas (2001) interprets nature as a symbolic form, which manifests the Divine⁶². Confucianism is based on a view of nature in which the laws of nature and the laws of human existence are really the same, whilst the ‘Yin-Yang’ is the symbolic representation of duality in nature. Islamic religion refers to the phenomena of nature and events within the soul of man as *ayat* (literally signs and symbols)⁶³ (Nasr, 1998: 120). The traditional Islamic views of natural environment is based on this inextricable and permanent relation between what is today called the human and natural environments and the Divine Environment which sustains and permeates them. He adds that the *Qur’an* alludes in many verses to the un-manifested and the manifested worlds (‘alam al-ghayb wa’-shahada). The visible or manifested world is not an independent order of reality but a manifestation of a vastly greater world which transcends it and from which it issues (ibid).

⁶² In the traditional cosmology and cosmogony, the various levels of cosmic existence begins with the Divine as the source of the cosmos (Ardalan & Bakhtiar (1973: 7)

⁶³ The phenomena of nature is seen as ‘signs’ of the Author of the book of nature when one reads it

5.3.3 Man and The Environment

Barati (1997) suggests that people collect information from the environment and then interpret it in order to make life sustainable (Barati, 1997: 251). For a child, the process of learning in order to perceive the environment is absolutely crucial (ibid). Although the actual learning process is wholly individual, what is learned is achieved through the youngster's direct interaction with the physical environment and society (Barati, citing Tomasello, 1993). He also denotes that the more recent findings in the study of the relationship between people and their environment are not just by assuming a human being as a passive information receiver. The establishment of human understanding from the environment is much more complicated (Barati, 1997: 247). As Eysenck (1995) mentions, the process or establishment of environmental understanding is not only "substantially affected by the nature of presented stimuli, but it is also affected by the individual's past experience, expectations and so on" (Barati, 1997: 247). This view is supported by Rapoport (1977: 78), citing Warner and Wapner's theory, "it becomes clear that, if both the environment and observer/ user are important, then the various personal and cultural characteristics of the perceiver, for example, his past history and experience, adaptation level, and cultural schemata must be considered".

Rapoport (1976)⁶⁴ indicates several points about the characteristics of people, which affect the shape of the built (physical) environment:

- The importance of knowledge about the evolutionary background of man, both the physical and social environment within which man evolves – provide ranges and sets certain limits on the ways the environment can best respond to human needs.
- Individuals - questions concerned with people's sensory capacities: the way in which individuals as active users and explorers of the environment, perceive it through the senses, give it meaning, and hence use it.
- The relative importance of, and ways of coping with, communication, social networks, kinship systems, values, and the many other group characteristics of humans, greatly affects decisions about the form of the environment – and might, in turn, be affected by the built environment.

He also derives three differing attitudes on the effect of the physical environment on people's behaviours, moods or wellbeing:

- **Environmental Determinism:** the view that the physical environment determines human behaviour.
- **Possibilism:** the view that the physical environment provides possibilities and constraints within which people make choices, based on other, mainly, cultural criteria.

⁶⁴ Rapoport, Amos (1976) *The Mutual Interaction of People and Their Built Environment*. Paris: Mouton & Co. The Hague.

- **Probabilism:** the ‘current view’⁶⁵ that the physical environment does, in fact, provides possibilities for choice and is not determining, but that some choices are more probable than others in given physical settings.

According to Barati, all information from the external world is obtained from two main sources that can be used in order to perceive the external world in an accurate way i.e., the first is information originating from the environment through the sources called ‘perception’ and secondly, stored information in the brain known as ‘cognition’.

Rapoport suggests that **people act according to their reading of environmental cues** and thus the “language” must be understood. If the design of the environment, however done, is seen as a process of encoding information, then the users can be seen as decoding it. If the code is not shared, not understood, or inappropriate, then the environment does not communicate. (Rapoport, 1982: 10-11). One sees the environment as a form of nonverbal communication, i.e. a code decoded by users, and the environment as a symbol system (Rapoport 1969b, 1970a, 1972b, 1973a); perception (through the various senses) and cognition (giving meaning to the environment by naming, classification, and ordering) are important mechanisms. Thus in the case of several of these, the environment is closely linked to culture, social structure, and the like (Rapoport, 1982: 12). The following elaborates more on understandings of both terms in order to decipher their relationship between man and the environment.

5.3.4 Meaning in the built environment

Al-Attas defines knowledge as both the arrival of meaning in the soul as well as the soul’s arrival at meaning. By this definition, he affirms that the soul is not merely a passive recipient like the *tabula rasa*, but is also an active one, in the sense of setting itself in readiness to receive what it wants to receive, and so to consciously strive for the arrival of **meaning** (Al-Attas, 2001: 14).

Meaning, in Al-Attas’s definition, is arrived at when the proper place of anything in a system is clarified to an understanding. The notion of ‘proper place’ already implies the existence of a ‘relation’ obtaining between things, which altogether describe a system, and it is such a relation or network of relations that determines our recognition of the thing’s proper place within the system. By ‘place’ he means it is that which occurs not only in the spatio-temporal order of existence, but also in the imagined, intelligible, and transcendental orders of existence (Ibid: 14).

⁶⁵ The current view is that the built environment can be seen as a BEHAVIOUR SETTING – a setting for human activities. This concept has been developed both by Roger G. Barker (1968) and Erving Goffman (1959, 1963, 1972). Their formulations contain valid and important insights, and the term, as used here, contains elements from both these formulations.

Rapoport (1982)⁶⁶ recognizes that people react to environments in terms of the meanings the environments have for them. One might say that “environmental evaluation, then, is more a matter of overall affective response than of a detailed analysis of specific aspects, it is more a matter of latent than of manifest function, and it is largely affected by images and ideals” (Rapoport, 1977: 60). From this point, he interprets that people react to environments globally and affectively before they analyze them and evaluate them in more specific terms. Thus the whole concept of environmental quality is clearly an aspect of this – people like certain urban areas, or housing forms, because of what they mean (Rapoport, 1982: 14). He also argues that these global, affective responses are based on the meaning that the environments, and particular aspects of them, have for people (ibid).

He believes that meaning is central to an understanding of how environment works when considering the latent aspects of functions, in which meaning itself is a most important aspect of function. He claims that designers tend to react to the environment in perceptual terms (which are their meanings), whereas the lay public, the users, react to environments in associational terms (Rapoport, 1982: 19). He also argues that since meanings are culture specific - hence culturally variable, one should query the meaning that the built environment ‘has’ for the inhabitants and the users, or the public or, more correctly the various publics.

Rapoport asserts that the meaning of many environments is generated through personalization – through taking possession, completing it, changing it. From that point of view the meaning designed into an environment (even if it can be read, which is far from certain) may be inappropriate, particularly if it has a single meaning (ibid: 21). He interprets that this reduced competence or environmental docility may be cultural as well as physical, so that groups undergoing very rapid change, groups whose culture is “marginal,” and so on may, in fact, be affected critically by inappropriate forms of the built environment – those for example, which prevent or destroy particular forms of family organization, prevent the formation of homogenous groups or mutual help, disrupt social networks or certain institutions, prevent certain ritual or economic activities, and so on (Rapoport, 1972a: 10).

Saridakis (1999), “The meaning of definition/interpretation relates to the ways we understand and evaluate the surrounding environment and the cultural framework in which we take part... Meaning is produced and is dialectically combined with what exists as a whole (tradition). For this reason, a definition can only be formed in relation to the past. Present and past do not exist as isolated horizons.” (Saridakis, 1999: 11).

⁶⁶ Rapoport, Amos (1982) *The Meaning of Built Environment: A Non-verbal Communication Approach*. London : Sage Publications, Inc.

5.3.5 Man's roles and responsibilities:

5.3.5.1 The roles of the individual

Man, as an individual has important roles and responsibility towards God, towards him/herself, to family, towards others and also towards the environment – natural and built. This is according to Islamic teachings as quoted by Hobson (1998: 34), which reads:

“It is He (Allah) that has appointed you (mankind) as regents in the earth” (Quran, 25: 39)

“The world is sweet and verdant green, and Allah appoints you to be His regents in it, and will see how you acquit yourselves [...]” (Hadith: Muslim)

This statement is supported by Nasr (1998) who indicates that Islam considers man as Allah's (God) vicegerent (al-Khalifah) on earth and Allah (SWT) asserts explicitly in the Qur'an, “I am setting on the earth a vicegerent (khalifah)” (Qur'an, 2: 30). Nasr adds that this quality of vicegerency is complemented by that of servanthip (al-'ubdiyyah) towards Allah. As 'abd Allah (Allah's servant), one must be passive towards Allah and receptive to the grace that flows from the world above. As khalifat Allah, one must be active in the world, sustaining cosmic harmony and disseminating the grace for which one is the channel as a result of his being the central creature in the terrestrial order. Man as God's vicegerent has a duty to nurture and care for the ambience in which he/she plays the central role (Nasr, 1998: 124). The concept of personal responsibility is deeply rooted in a Muslim's personality and is reflected in his way of thinking or responding to what takes place in his vicinity (Al-Sari, 2005: 18).

According to Al Sari (2005: 192), Sharia is built on the fact that individuals are driven by their needs, motivated by their instincts, and act in order to fulfil their needs. As Ash Shatibi states, “Allah has ruled that religion (Din) and life (Dunia) will be fruitful and in harmony if the self-motivation of the individual leads him to make his earnings for himself and for others. Allah has created appetite for eating and drinking in man, so when he feels hungry or thirsty these feelings will initiate him to fulfil his needs by seeking the means leading to that. Allah also created a tendency between the sexes to motivate them to seek for a means of fulfilling their needs and created the feeling of cold and hot and other inconveniences which drives man to wear clothes and occupy a shelter,” (Ash Shatibi [1320-1388], 1997: 303). Man is obliged by Sharia: (1) to sustain and protect his own needs and the needs of those he supports, and (2) to respect others' basic needs (Al Sari, 2005: 216).

In terms of individual responsibility in this life, every one who has reached maturity is held responsible for his/her acts. Al Sari (2005) says that this kind of responsibility makes the individual a proactive member in the society rather than reactive. Individual independence is a feature of the Islamic social and economic system. Simultaneously, Al-Sari (2005) suggests that the Qur'an disparages imitation of others, even those who are one's superior without enough refinement.

Within the social order, the individual's role from an Islamic perspective is explained by Mahmoud Abu-Saud (1983: 117) as: "*From an Islamic perspective, to use a metaphor, man is the nucleus, the family is his plasma, and the society is his organismic tissue. These three elements are inseparable and interdependent. They co-exist best when they function together in proper balance and harmony; therefore, according to Islam, there is no contradiction between the interests of the individual, the welfare of the family and the interest of the society*".

Al-Sari (2005: 23) maintains that the main objective of the Islamic social order is to strike this proper balance without which the individual cannot achieve self-identification. This idea, according to him, leads to the concept of *Ummah*. He explains, "All Muslims around the world are to be united in one body called the *Ummah*. *Ummah* means nation, community, path, religion, and a period of time (Arrazi, 1981: 26). The term not only pertains to humans; a community of ants may also be referred to as an *Ummah* (Al-Sari, 2005). Al-Sari (2005) divides individual rights into six aspects as follows:

- i. Personal Liberty
- ii. The Right of Ownership
- iii. The Sanctity and Security of Private Life
- iv. Freedom of Expression
- v. The Right to Basic Necessities of Life
- vi. Freedom of Religion

5.3.6 Summary conclusions of Man, Nature and the Environment

Indigenous cultural resources include 'indigenous knowledge' and the 'cultural attributes' of community bonding, 'self-help', 'mutual aid', social responsibility, and a 'traditional polity' striving to satisfy the needs and aspirations of its people (Islami, 1998: 37). A meaningful contribution to human knowledge is made only when these subjective cultural aspects are considered directly in relation to any objective scientific inquiry. Cultural values are seen to arise out of the interaction between transformational concept and the environment. These concepts give rise to meaning placed on an environmental phenomenon. Indigenous cultures have usually helped people to place each development project and program into an appropriate holistic model by their intuition, wisdom and worldviews.

Men have been interacting with nature in every aspect of their lives. Nature is embedded within people's worldviews, traditions, norms, customs and values, and being manifested in people's cultures, i.e. ways of living as well as their civilisation. People collect information from the environment, interpret it, and then react towards environments in terms of the meanings the environments have for them. Meaning is highly related to the cultural framework that we (people) associate ourselves with. Each individual is responsible for all his actions and has responsibilities towards the environment.

5.4 Culture: Its Roles in the Environment and As a System of Transformation

5.4.1 Cultural stability and its evolution

A cultured society is considered stable as long as its structure is maintained. Similarly, cultures are structured by their adaptive orientations and requirements (Sahlins and Service, 1960). Stability implies that the evolution of culture always follows a particular pattern which is specific to that culture and hence distinguishes it from others (Masaud, 1996: 187). Masaud (1996) maintains that the principle of stability means that culture persists unchanged and under the influence of external factors, acting to maintain its basic structure through adaptive modification (ibid).

The evolution of culture, according to Masaud, occurs through the concept of adaptation to the physical and social environments as well as the symbolic value of culture itself. Sahlins and Service (1960), describe the evolution of culture in two ways: the first being to create diversity through adaptive modification, the other is a linear and generative progress.

An important comment suggested by Masaud (1996: 188-189) is that culture has to be understood in terms of its internal principles, which are free from outside influences. By internal principles, he means the principles consisting of the phenomenal world of ecological environment and deep hidden cognition affecting dimensions of human sub-consciousness, which are beyond the understanding of the observer. Culture should be understood through deep analysis, which traces the origin of its features (ibid: 189).

5.4.2 Roles of culture in the natural and built-environment

Masaud (1996) suggests that in order to understand the role of culture in the environment, it is more useful to **ask** not what these entities are but rather, **what they do to the environment**, i.e. **what culture does** rather than what it is. His answers to the question are as follows:

- i. First, culture may be regarded as the distinctive means by which a population maintain its identity (Masaud, 1996, p183). The distinction between the core of culture (which changes little and slowly) and its periphery (which changes quickly) is potentially useful for the analysis and design of built form.
- ii. Secondly, it can be seen as a control mechanism (Geertz, 1983). Culture carries information..it both directs how behaviour and artefacts are to be and transmits information by behavioural means, through various artefacts, including the built environment (Masaud, 1996: 183).
- iii. Thirdly, culture is a structure of a framework, which gives meanings to particulars. Culture as the property of a group exercises control through information and rules. These produce a structure within which elements take on meaning (Hanson, 1983).

Barati (1997) identifies the roles of culture in the natural and the built environment as follows:

- i. Culture enables us to communicate with others through a language (verbal and non-verbal) that we have learned and that we share in common.
- ii. Culture makes it possible to anticipate how an environment, including other people in our society are likely to respond to our actions.
- iii. Culture includes a value system by which one can distinguish between what is considered right and wrong, beautiful and ugly, reasonable and unreasonable, tragic and humorous, safe and dangerous.
- iv. Culture provides the knowledge and skill necessary for meeting sustenance needs. It also provides vital knowledge for people to cope with the external world.
- v. Culture enables us to achieve a sense of unity with a particular environment, which includes ourselves in the same category with other people of a similar background.

5.4.3 Culture as a system and a structure:

5.4.3.1 Culture as an open system

The universe consists of both closed and open systems. An open system is responsible for evolution as it will always continue to function by enhancing its value or assimilate the new input into the existing system, whereas the closed system, like the car engine would never change. The open system would contribute a new vision, a new idea and knowledge because the introduction of a new element, would be absorbed and accepted by the system.

An open system is the type of system that is responsible for evolution as opposed to the closed system that never changes, as it is always repetitive. El Fiki (2003) citing OSG (1981: 17) says that, "An open system is a system that is connected to, and interacts with its environment". Alternatively, Bertalanffy (1971), defines it as a system that keeps itself in a continuous inflow and outflow, as well as a building up and breaking down of components and it can never be in a steady state for a long while. Hence, an open system is able to contribute a new vision, idea and knowledge through the acceptance of new, external elements into the system.

Examples of an open system include the mind, society, education, and any other system that can accept or accommodate itself to a new or external element that would enrich the value of the system. It will continue to function by enhancing its value or assimilate the new input into the existing system. Waddington (1977) suggests that all natural systems are open. In other words, all living organisms can be considered as open systems, as they always obtain inputs of food, other sources of energy and raw materials, and produce different kinds of wastes and artefacts (Burton, 1939). At certain occasions, the open system has the force to incorporate external elements if that external element has the properties to support the functioning of the overall system. However, the open system would also reject the new external element if it proves to be irrelevant for the context of the system itself.

Society is an open system because of its interaction with the environment. As Nabih (1999) mentions, local environmental systems interact with their surrounding environment. In this matter, ElFiki (2003) denotes people living in the system derive benefits from the available resources to comply with their needs.

Attributes of an open system include **self-regulation** (self-regulation moves from a simple to a more complex form). For instance, when a society is exposed to external pressures, such as a natural catastrophe, a tyrant, a dictator, or so forth, when the external pressure is released, the society shall return and maintain its natural state or status. This shows that the system has an innate ability to regulate itself in order to maintain the equilibrium. It also possesses the element of **homeostasis**, in which the system in our body also has the ability to regain its natural state after the release of external pressures. In other words, homeostasis is also regarded as the process of keeping something of a stable, or stationary value (Waddington, 1977: 105). Ensuring the continuity of a given type of change is called homeorhesis, which means preserving a flow (Ibid). In both self-regulation and homeostasis, there exist the embedded rules that actually maintain the continuity of the system's regular functions. **Acceptance and accommodation** – the enrichment knowledge (ability to evolve and transform) - are also part of its attributes. And finally, an open system is always **evolving, enriching, and transforming**, in which it continues to function with enriched knowledge as well as welcoming new inputs that could enrich the knowledge of the system.

A closed system, on the other hand, consists of components and relationships that are repetitive, unchangeable and always in the state of equilibrium. The closed system is a system that does not allow anything to pass through either inwards or outwards (El-Fiki, 2003: 36). He also mentioned that a closed system is a system which does not take in from, or give out anything to its environment. For example, a car engine: The hydraulic system is a closed system that would not allow a new system or an alien element entering its system. If a new external element enters the system, it will disrupt the system, hence causing the system to stop functioning. The closed system collapses once an alien or external element enters the system.

5.4.3.2 Culture as a structure

In deciphering the notion of culture as a structure, the thesis would first explain the notion of structuralism and its components, as follows:

Structuralism

Besides being an open system, a culture also possesses the attributes of a structure, which include **transformation, homeostasis, self-regulation, hierarchy, order** and **wholeness**. In order to understand culture as a structure (i.e., a system of transformation), it is best to first decipher the theory of structuralism, as an introduction to relate the attributes of a structure that shape the characteristics of a culture.

Barati (1997) suggests structuralism as a methodology is considered to be the best one so far to examine phenomena in a holistic way (Barati, 1997: 205). Hillier (1972-73: 58) defines structuralism as “those perspectives in the sciences of the artificial which combine these two theoretical ideas: that of the formal basis of phenomenal and morphological variety and that of the system theory of meaning”. Barati points out that the concept of structuralists’ transformation helps researchers to study social phenomena not only diachronically but also synchronically. Therefore, in environmental studies, for instance, not only are physical elements examined in relation to other coincident concepts but also in a semiotic, or evolutionary historical perspective (Barati, 1997: 205). Structuralism is part of the theory of transformation. The following sections include discussions of the main attributes of the structure as a system of transformation:

Self-regulation within a structure

In structuralism theory, self-regulation is similar to homeostasis in General System Theory, as mentioned by El-Fiki (2003: 55), achieving “the maintenance of a system in a relatively constant state in a changing environment.” In other words, it is a system’s ability to maintain the internal functions in the face of external forces, using its own resources (Sharief, 2005: 340). Both homeostasis and self-regulation, according to Sharief (2005), imply that a structure is able to attain a constant state, and presumably remains there, being pushed to evolve itself as outside pressures impinge. Thus, self-regulation is the capacity of a structure to continue its deep structure or genotype through time and in the face of change, and to achieve this by adjustment of its surface structure and its components (Ibid).

Self-regulation, as a basic insight of structuralism, involves preservation of the structure (which must be controlled from within), and the stability of its boundaries by the application of explicit rules – the rules being those that were responsible for the emergence of structure (Hamidi, 2003: 21). But self-regulation also involves the creation of new elements, procedures or processes, and thus an increase in the complexity of the system. Piaget (1971) concludes that only a self-regulating transformational system is structured. In essence, culture as a system of transformation is self-regulating throughout its process of development, enrichment through time and change.

Wholeness within a structure

A structure is a system of transformation because any phenomenon in the universe is part of a process, or part of a system, that is a process of development or evolution. This indicates the element of wholeness in a structure. Wholeness is a defining mark of all structures since all structuralists – linguists, mathematicians, psychologists, or others – are at one in recognising as fundamental the contrast between structures and aggregates, the former being wholes, and the latter composites, formed of elements that are independent of the complexes into which they enter (Abdalla, 1998: 324). This distinction does not deny that structures have elements, but the elements of structure are subordinated to laws, and it is in terms of these laws that the structural whole or system is defined (ibid).

Structural wholeness, according to El-Fiki (2003: 43) is not a simple combination of the components, but rather it is the components and the laws connecting, where these laws also control the system's transformation from one form to another, in response to its changing environment. Structure here is seen more as an entity, rather than the aggregate of components that, according to Sharief (2005) happen to interact with, but which otherwise are independent of, each other. As Piaget (1971) puts it, "the laws of governing a structure's composition are not reducible to accumulative one-by-one association of its elements: they confer on the whole as such over-all properties distinct from properties of its elements. This suggests that the elements are inherently different in behaviour and potential by being part of the structure and that, because this alters their very nature, they cannot be understood as separate from that structure and its laws of composition" [Sharief, 2005: 345, quoting Piaget (1971)]. Similarly, Hamidi (2003: 23-24) has argued that the whole defines the characteristics of any physical setting, which in his view, if the whole did not exist then the units would not be significant in the same way.... In his words, "the property of wholeness in structuralism refers to the concept that structure is not an aggregation of elements, but an expression describing a set of relations between things governed by some overriding formative law". Thus, if wholeness is observed, or if a component can be seen to adopt properties that go beyond its independent potential, then structure exists and its efficient aspects (deep and surface structure, self-regulation and transformation) have their purposes (Sharief, 2005; 346).

Piaget (1971) posits that a whole is not the same as a simple juxtaposition of the elements. It is the logical procedures or natural processes by which the whole is formed that are primary, not the whole, which is consequent on the system's laws of composition, or the elements. Hence, Abdalla (1998) states that accordingly, **in the built environment, particularly the architectural phenomenon, it is essential to study the history of how these elements and features have evolved and how they have become ordered into an overall structure of the environment** (Ibid: 325).

Transformation, Change and Evolution within a structure

Transformation

A structure is a system of transformation because it is driven by the innate tendency or force to move from simplicity to complexity, i.e. to a more sophisticated form, in which its nature is always evolving, enriching and transforming itself within the system, once there is a new input into the system. This indicates the characteristics of transformation within the structure. Piaget (1971) suggests that transformation is the process of change that is inherited in a structure and never leads beyond the system but always produces elements that belong to it and maintain its laws. As transformation entails structure, according to Hamidi (2003), he then suggests that structures and forms in the built environment need to evolve or develop in time, in order to retain a unity and maintain the coherence of the components at all stages of their growth. The absence of this leads to self-destruction (Ibid: 18). **Hence**, a structure is a process, a movement from one place to another. It can be predicted because there is historical knowledge from where it is coming from. It is

inherent in the nature of structure, i.e., the system of transformation to enrich its relationships and its components, as indicated by Piaget (1971), all known structures are, without exception, systems of transformation.

Transformation is the enrichment of the existing (original) system. It increases the relationships, the components, and the interaction within the system. Transformation is predictable because it is governed by rules and one knows its origin. It is inherent in the nature of things itself. In short, transformation as an element in the structural system is also indigenous to culture and tradition of a society as it enriches the community's system and assist in maintain its sustainability.

Change

Change is defined as “the act or and instance of making or becoming different” by the Oxford Dictionary. It is the result of the imposition of external factors, not actually originating from the innate forces. It does not originate from innate forces. Change does not secure or increase in the complexity or the enrichment of the system because it is unpredictable. According to the Chinese proverb “*shou zhu dai tu*”, change is the only constant, in other words, the only thing that does not change is that everything changes (Ye Ye, quoted by Yen Mah, 2001: 10). On the contrary, transformation is described as “the act or an instance of transforming, the state of being transformed” by the Oxford Dictionary, whilst evolution is defined as “a gradual development or/the process by which species develop”.

El-Fiki (2003: 47) denotes the distinction between transformation and change in his statement, “*Transformation is about the addition of a new element to the system through time, which leads to an improvement for the benefit of the system itself, in a situation, of not losing its structure. In other words, transformation maintains the system and crystallises it. On the other hand, change is a total breakdown for the system, from which a totally new system might emerge*”. Change occurs in a system as a result of the imposition of external factors, not actually originating from the innate forces. Therefore, change does not secure or increase in the complexity or the enrichment of the system since change itself is unpredictable.

Evolution and Transformation

As for the relationship between transformation and evolution, El-Fiki (2003) relates the concept of evolution to the transformation of forms and contents, which include structures. In this view, Barati (1997) defines the continuity and transformation of the whole through time as a cause of the sustainability of the interaction between people and their environment. In architecture, Masaud (1996) suggests that different components acquire their contents, shaping parts of a structure that comprises symbolic values and people's perception. He adds, changes in designs of a building will only be understood from within a culture, since they are the result of social transformation. Consequently, Sharief (2005) argues that this implies that transformation is a particular means of change that embrace benefit, it is an increase in the complexity within a system, the differentiation

within the system, and the use of its own resources, while not inflicting damage upon any part of the system not any of its laws of composition. It is the process of improving the surface in order to maintain the deep structure and which, as Hamidi (2003: 29-31) points out, also transform the deep structure (Sharief, 2005: 344).

Culture itself is not static but in a state of evolution that might present relativities into the development of its knowledge (El-Fiki, 2003: 48, citing Lang). El-Fiki argues that cultures are unique, mainly because each culture has its own historical background and has transformed within it. Sharief (2005) also suggests that culture is the product of long-term interaction between people and both their physical and social environments. He suggests that elements of the built environment (the buildings and spaces) are a system of transformation of underlying cultural values. By this, he means, people's myths and tradition also transform many environmental and natural forces into images and cognitive schema that have become part of a structure and which have symbolic values (ibid: 345). Therefore, it is impossible to find two societies sharing the same situation in the historical perspective (Sharief, 2005: 344).

Islami (1998: 121) asserts that transformation needs time and through the process of transformation the properties of a system will be changed. He adds that each system has two types of structures, one is in surface, its performance, which can be identified by a synchronous⁶⁷ mode of thought and the other is in depth which can be identified by a diachronous⁶⁸ mode of thought. This shall be discussed in the following section.

Hierarchy and Order

A **structure is a system of transformation** because it consists of components and relationships that have to be followed in accordance with the laws of the system. The laws indicate the existence of hierarchy and order, which the system has to abide with. Culture also follows certain rules and principles embedded in the system. This is known as deep structure, which produces rules that govern the system.

Hierarchy

Hierarchy is concerned with the relationship between different levels of complexity and the interface between levels (Betru, 2005: 257). It describes what generates the levels, separates them and links them (ibid). Although being a part of the structure, it is not a fixed property (Betru, 2005) but a process in which the components change and interact, responding to their regrouping. It is the ordered relation between the connected parts that make a whole, in a way that can be identified and described using a classification of ranking and subordinate schemes (ibid: 257).

⁶⁷ See topic: *Synchronic and Diachronic*, in Chapter Four

⁶⁸ See topic: *Synchronic and Diachronic*, in Chapter Four

Having said that, Betru explains that a structural hierarchy could be assumed to be a kind of rhythm, implying interaction between elements by the way the relations express themselves in the reproduction of the continuity of interaction in time (ibid: 258). In another view, a structural hierarchy, according to Waddington (1970), exists in all nature, both living and dead. He suggests that a hierarchy requires that the system controls its dynamic through an internal record, which has some aspects of self-observation. Self-regulation within structures can be seen to correspond to the laws of hierarchy (Hillier & Hanson, 1984).

The hierarchy of home, according to Betru (2005), can be seen from different perspectives. For instance, there is a hierarchy in domestic spaces (e.g. public, semi-public, semi-private and private) and this is to do with the transformational process (ibid: 259). He adds that there is also a hierarchy in the expression of the principles of clean and dirty spaces (e.g. front and back), in addition to the hierarchy that exists in the physical elements of the dwellings as a building in terms of their significance, and this is to do with the surface appearance and the deep meanings (ibid).

Order

Betru (2005: 256) suggests a structure is concerned with the ordered relation of parts to the whole, by the arrangement in which the elements are linked together. Hamidi (2003) posits that based on this order, elements of a structure could be perceived by their unity into a structure of a higher order.

According to Betru (2005), in general, there are three sorts of consideration that tend to determine an order: (1) the psychology of the subject, (2) the logic of the subject, and (3) the physical circumstances of composition and presentation. Upton (1961: 197) delineates seven practical working classifications of orders as follows:

- i. Psychological order: This is defined as an order primarily determined by the emotional attitudes and interests of the interpreter;
- ii. Structural order: This is a logical order derived from the relation of physical objects in space, for example: public, semi-private, private;
- iii. Genetic order: This is a chronological and therefore, logical order in which events occur when interpreted as being in a cause-effect relation to one another;
- iv. Numerical order: This is a logical order in which a set of items has been arranged according to a regular series of numbers represented as modular or as a grid;
- v. Scalar order: This is an order of rank, degree, an intensity or value;
- vi. Conventional order: This type is comprised of an order of arbitrary arrangement such as an alphabetical order;
- vii. Suitable order: This covers any order determined by circumstances of arrangement or presentation and not by the inherent logic of subject matter or the psychology of the communication.

Betru (2005) emphasises, structuralism claims that a structure embraces a hidden dimension that brings order to its different phenomena and is responsible for the reproduction, reconstruction and recognition of these phenomena.

Synchronic and Diachronic

The terms synchronic and diachronic have generally been used mostly in the fields of linguistics, economics and sociology. An attempt by Faozi Ujam and Fionn Stevenson (1995) was made to introduce these notions as an approach to gain sustainable design in architecture. Their argument was:

“Another aspect of our assessment of environmental philosophy underpinning architectural design concerns the important distinction between objective scientific and cultural observation in terms of time. Cultural time involves “Diachronic” perception, which concentrate on the phenomenon as concept, which has a history of evolution and representation in the human mind. An example of this might be the evolution and transformation of the column from a marker stick for herdsmen to the civic columns found commonly in market squares which provide the same sense of place and spatial gathering point. The memory of the marker stick is deeply embedded in and underlies the perception of the civic column although the perception and physical entity has been transformed over time” (Ujam, F. & Stevenson F., 1995).

The term “synchronic” can be defined as relating a phenomenon as it exists at one point in time. Abdalla (1998: 326) defined synchronic as “describing a subject, an object or such a phenomenon as it exists at one point in time”. In other words, synchronic can be understood at the moment of observation only. It does not allow background or future information of the system. This illustrates that the properties in a system or GST are not supported by history or future, in other words, time.

On the other hand, the term diachronic is concerned with its historical development. The time influence, as the diachronic approach suggests, is an essential factor in the transformation process of any cultural aspect” (Sharief, 2005: 334, quoting Islami, 1998). It considers the history as (time influence) that which is an essential factor in the transformation process of any cultural aspect. Hence, it can be said that **diachronic represents structure**, as it is **associated with time**. Having said that, Abdalla (1998: 326) stresses that culture is not static but an evolving phenomenon and in its changes, it may introduce relativities into the history of its knowledge development. Each culture is the result of the long-term involvement of people with their physical and social environment and it is not possible to find even two societies in the world with completely similar situations in an historical perspective (Lang, J., 1988).

There is a tendency for the individual components of the structure to carry the attributes of the whole structure, that is the “holism” that is shared by the general system theory (GST). Structuralism as a system of transformation is deemed as a more significant concept for a tool of understanding the characteristics of the housing model.

Cognition and cognitive structures

Cognition is termed as “the activity of knowing: the acquisition, organisation and the use of knowledge” by U. Neisser in 1976. Earlier, R. Arnheim (1970) related the images of cognition to intelligence activity, by saying that, “The business of creating concepts, accumulating knowledge, connecting, separating and inferring was referred to the (higher) cognitive functions of the mind”. It was also described as “Memory, mental imagery, imagination, attention, comprehension, suggestibility, aesthetic appreciation, forces of will, moral sentiments, motor skills, and judgement of visual space” (G. Shouksmith, 1970).

Piaget (1972) assumes that cognition exhibits two processes, namely **assimilation** and **accommodation**. According to the Piagetian theory, cognition is the basis of adaptation. Cognitive functioning comprises of two major functions:

- i. **Assimilation**, which is the incorporation of all the different experiences in our lives. Further, it interprets the external objects and events in one’s own favoured way of thinking., i.e. adapting external stimuli to one’s internal mental structure (ElFiki, 2003: 181).
- ii. **Accommodation**, which is the readjustment of the new inputs in order to take in more of the external world (Piaget, J, 1977, cited by Abdalla (1998: 316). Accommodation is referred to as the converse complementary process, in which mental structures should adapt to these stimuli, or in other words, to take cognitive account of the various properties and relationships of external objects and events (Ujam, 1987).

Piagetian theory views that, in any cognitive encounter with the environment, assimilation and accommodation are of equal importance and must always occur together in a mutually dependent way (ibid: 323).

Masaud (1996) argues that cognitive structure and background remains within the framework of socially shared meanings and assumptions. Within its range are established the socio-cultural adaptations as well as norms, and means and values of environmental objects (ibid: 196). He commented that the interaction between cognition and culture is highly complex, in which human cognition is partly created by the socio-cultural context and in turn, partly creates it. A. H. Esser (1973), as cited by Masaud (1996), suggests that socio-cultural cognition is a component of the central nervous system’s functioning, which includes the most evolved cognitive processes. Using Von Foster’s definition, “The hierarchy of mechanisms, transformation operations and process that led from sensation over perception of particulars to the manipulation of generalised internal representations of the perceived, as well as the inverse transformation that led from general command to specific actions, or from general concepts to specific actions, or from general concepts to specific utterances”, Masaud deduces that socio-cultural factors do interfere with cognitive processes and activities, such as selection, needs, evaluation, judgements, categorisation, and others. It also manifests in the way societies, in different places and times, interpret and respond to their environment. It thus appears that people’s cognitive needs and experiences are heavily influenced by the values of their particular cultures (Masaud, 1996: 197). He concludes that this

view support the assumption that environmental objects embody information about the specific way in which a given group of people define and solve problems (ibid).

In his argument, Triandis (1972) claims that people in different cultures experience differently the environment in terms of cognitive experience (Masaud, 1996: 196). Tajfel (1977) delineates two major determinants of a person's view of the world (his cognitive selection and organisation) as: (1) the social values in their permanent state of conflicts and change; (2) The social consensus (within a culture) and the change in it.

People are different in terms of the complexity of the cognitive structure. A farmer's cognitive structure is much simpler than the managing director's of a huge business firm in the city centre. Similarly, the former's home design and interior decoration would be much simpler than the latter's who already has an increased level of complexity in his cognitive knowledge due to his urban life exposure and individual experiences. Ujam points out the necessity for researchers, academics as well as built environment professionals to acknowledge the importance of the deep-rooted values that stem from the cognitive structures of people's perception of their natural and living environments.

5.4.4 The School of Cultural Ecology Perspective on Culture

According to the School of Cultural Ecology, the cultural and social behaviour variables are considered to be in a process of harmony with nature (Masaud, 1996: 108). Whereas, Steward (1955) defines cultural ecology as the study of those processes by which a society adapts to its environment (Reinecke, 2000). Other scholars from the same field have their own views on the terminology of cultural ecology as cited by Sharief (2005: 49-51) below:

- Tyzzer (2003: 1), cultural ecology can be defined as "the study of the interaction of specific human cultures with their environment". This environment includes physical (geographical, geological and climatological) and biological factors; for humans, the socio-cultural environment must be added (Sharief, 2005).
- Bennet (1976: 95) sees cultural ecology as "simply human ecology with a little more emphasis on the social factors involved in the process", where he defines human ecology as "a mixed system. It is not wholly ecosystemic, although it may profit from some of the concepts derived from natural ecology." Human ecology is the study of spatial and temporal organisations and the relations of human beings with respect to the selective distributive and accommodative forces of the environment (Sharief, 2005).
- Leaf (2003: 1) sees cultural ecology as one of those particular fields that combine elements of many other fields; part anthropology, part geography, part biology and so on.
- Batterbury (1997: 1) says cultural ecology is, "The study of the adaptive processes by which the nature of society, and an unpredictable number of features of culture, are affected by the basic adjustment through which man utilizes a given environment".

5.4.4.1 Concepts of Surface structure (Culture Surface) and Deep structure (Culture Core)

In the built environment of the contemporary world, emphasis is always built upon surface structure, which is the manifest physical embodiment of the architecture. Aspects of deep structure, which are the motivating forces that actually drive the formation of the built environment itself, have been disregarded by both modern and contemporary built environment industry. Little do the discussion extend beyond the visible appearance to truly decipher the origin of these motivating forces that derive the physical expressions in the first place. The following discussion attempts to illuminate the readers about the relationship between the surface structure (or some refer it as “culture surface”) and the deep structure (otherwise known as, the “culture core”).

Surface Structure (Culture Surface)

Sharief (2005) views that “culture surface” is a set of expression of values developed from the core. When people build an environment, they create a surface phenomenon that evokes and is inspired by the deep meanings that lie within the culture core values (ibid: 277). In this light, Betru (2005: 239) suggests that a “surface structure” is the transformation of a deep structure and vice versa.

From the built environment point of view, Eiseman (1994) asserts that the surface level is about the sensible aspect of architecture and the deep level is about the syntactic aspect. An example for a surface structure from the Indigenous Malay dwelling architecture, would be the articulation of the form of the dwelling, which is raised slightly from the entrance porch, higher into the main interior of the house, then lower again into a transitional space between the main part the back part of the house, which is the kitchen and washing areas.

In Steward’s model, culture surface refers to the secondary features, such as the kinship systems, politics, the arts and other aspects of social organisation. Their importance lies in the way they encode the culture core, express it in observable patterns and, by doing so, enable it to be transmitted to future generations. Indeed, without its surface manifestations, the culture would exist purely as a schema of values within the minds of individuals, but inexpressible whether among contemporaries or the future generations; the culture core would be individuated, internalised, and thus would disintegrate (ibid).

Sharief (2005) illustrates that the culture core’s surface is also dependent on the environment in which settlements, being shared and able to outlast an individual lifespan, then work to embody this environmental knowledge in the form of a cultural artefact that, in turn, becomes ‘the environment’ to those who live there.

Deep Structure (Culture Core)

Julian Steward (1955) suggests that culture is defined by a series of core values. According to Steward (1955), as cited by Sharief (2005), **culture core**, in its strict interpretation refers to

'subsistence patterns', that body of knowledge that must be developed by people inhabiting a certain place and that informs them how to survive within it (Sharief, 2005: 51). Sharief asserts that simply, the culture core holds the message, "It is possible for this place to sustain us; this is how, and we, therefore must also sustain it" (Sharief, 2005: 51).

Steward and Murphy (1977: 34-35) regard the **culture core** as the "functional interdependency of [natural and human] features in a structural relationship". It embraces, "the constellation of features which are most closely related to subsistence activities and economic arrangements. The core includes such social, political and religious patterns as are empirically determined to be closely connected with these arrangements." They also add that the core signifies the cultural-ecological nexus of a society (Sharief, 2005: 51).

Sharief, citing Ujam (1987: 98) relates, "In advance societies, the nature of the culture core will be determined by a complex technology and by productive arrangements which have a long cultural history". According to Reinecke (1994: 31), the core values usually vary in different cultures as a result of the governing environmental factors. Even within similar environmental conditions, values can vary as they reflect the cognitive interpretation of the individuals who form the society (Sharief, 2005: 51).

The deep structure here is a symbolic representation of the culture and its religious forces, which set up the concept of space its definition in terms of zoning for male and female, public, or private spaces. Betru (2005: 239) writes, deep structures concern the underlying relations, and provide an abstract conceptual framework for the formal regularities. He comments that deep structure is fully equivalent to the normal meaning of the term structure and its rules of transformation generate the surface structure. The concept of deep structure is viewed as a value by Islami (1998), or a theory for Hillier et al., (1972- 73). It is the hidden forces underlying any physical structural expression. Eiseman (1994), referring to Chomsky's idea of deep structure of architecture as a model for outlining the processes by, claims that it is derived from a series of abstract formal regulations, a non-physical level at which formal relationships interact. He claims that the notion of deep structure allows for more holistic analysis of the interaction of the surface and the deep structural levels.

Instances of deep structures include the history, social structure, economy, topography, geography and the like that are the underlying factors behind the evolution and growth of Edinburgh city. Sometimes the elements are not genuine examples of deep structures as they lack the authenticity. Deep structures are normally represented in the physical expression of indigenous architectures – through buildings, proportions, colours, sizes, juxtaposition, materials, etc.

Symbolism is the best example of a deep structure manifested in art, architecture and the like. For example, in the indigenous dwelling architectures in Malaysia, the roof represents the highest level

of sacred hierarchy, the human's head i.e. the brain of the system. In china, their indigenous roofs must be in three tiers to represent the three universes. A building then becomes the physical expression of symbolism i.e., the deep structure. It is the force that structures the hierarchy of order, which produces rules that governs a system.

5.4.5 Summary conclusions of the Roles of Culture

Culture is a very important tool or dimension (motivating force) for human society because of its wholeness nature, its multi-functional roles in the environment, and its crucial part in the creation of the built environment and the society's civilisation. In this study, culture is focused on the Malay society whose reference to cultural knowledge is divided between Islam and indigenous worldviews, of which both characteristics of metaphysical entities and symbolism are embedded. Cultural evolution and stability largely depend on the strength of the persistence of the society's worldviews to maintain the basic structure of its system. Therefore, in confronting the wave of change through time, culture as a system of transformation, have to be able to adapt, accommodate and transform (i.e. enrich the information in the existing system of) its society for the impending changes.

5.5 Development

The contemporary development approach towards housing in Malaysia has failed to accomplish people's satisfaction in terms of cultural, social as well as environmental needs. Hence, the aim of the study is to find an appropriate approach towards housing development in Malaysia. The author emphasises that the built environment professionals, the housing policy makers and developers there need to decipher the concept of development, its distinction between the concept of growth and development, and enlightens them on the type of development deemed as the most appropriate approach for housing development in the country: the endogenous development.

5.5.1 Definitions of development

There are already numerous notions and studies of the topic, 'development' in various fields including the built-environment field. El-Fiki (2003) describes development as a broad holistic concept, which goes beyond material growth to involve the complex social, economic and technological transformation towards the improvement of the overall quality of life. Ingham (1993: 1803, cited by Islami, 1998: 32-33) summarises some of the general ideas of the meaning of development as below:

- a) The historical dimension;
- b) Structural change; **(whereby the agricultural sector declines, relative to the manufacturing and service sectors, it remains important, though there may be costs in terms of increased international dependency, unemployment and loss of the traditional way of life)** [author's emphasis]

- c) Modernisation (**which encompasses social, political and cultural change**[author's emphasis] as well as the purely economic, has many critics)
- d) The benefits of economic growth
- e) Criticism of economists
- f) Sustainable development
- g) Political and civil liberties
- h) The need of economists to be made aware of the different philosophical perspectives out of which their ethical judgement may emerge.

Islami (1998: 37) argues that “development is a process in which individuals or societies increase their abilities and desires to satisfy their own needs and desires and those of others. It is much more a matter of learning than of earning. **It is better reflected in the quality of life than in the standard of living** [the author's emphasis]”. It has become increasingly apparent that the continued economic growth of a nation is not necessarily accompanied by improvements in the quality of life (Ackoff et al., 1984). Because of these kinds of definitions, many argue, as Henderson (1978) does, that some of the most economically advanced countries are now increasing their standard of living at the expense of the quality of life (Islami, 1998: 38). Without denying the fact that wealth is indeed relevant to development or the quality of life, Islami (1998) explains that how much people can actually improve their quality of life and that of others, depends not only on people's abilities and desires but also on what resources are available to them. Resources are created by what nature provides. What nature provides is not a resource until people have transformed it or learned how to use it (ibid: 38).

Islami claims that some arguments in the discourse of development referred to the structure of society, in which they consensually suggest that government means to determine the interests of the whole nation, of the whole society, through structure, organisation, behaviour, and etc. But **the problem with centralised organisation is that it imposes a global uniform perception of the different places of the country itself, rather than setting a policy, which is the synthesis of diversity** (Islami, 1998: 58) (the author's emphasis). He also argues that many indigenous societies do not resolve their problems through such organisation. Their real organisation is the organisation of values themselves. They use values to generate all their activities and behaviours and responses. The author strongly agrees with Islami's (1998) recommendation that the formal responses by government and other agencies should actually relate to these values, which can be translated into new organisation and strategies capable of handling problems and their implications.

5.5.2 Growth & Development

According to Islami (1998), growth is a change in size or number, in which it can be positive or negative. The term is most often linked to biology and economy, for instance, growth in biology refers to the process of an individual organism growing organically; a purely biological unfolding

of events involved in an organism changing gradually from a simple to a more complex level (www.wordnet.princeton.edu/perl/webwn). In economy, Islami (1998: 42) mentions that economic growth may refer either to a change in the size of an economy (for example, its GNP⁶⁹), or a change in the measure of its performance (for example, per capita income). This is due to the fact that an organism can increase and decrease in size, and populations can increase or decrease in number (ibid). Islami also claims that, “it is conceivable to see a society’s compulsion to grow as natural, even laudable. Why? Because, there is an assumption that physical or economic growth is necessary, if not sufficient, for development. Nevertheless, if limits to growth limited development, one could understand a preoccupation with growth.”

There is indeed an apparent distinction between the meaning of growth and development as described here: to grow is to increase in size or number, whilst to develop is to increase one’s ability and desire to satisfy one’s own needs and legitimate desires and those of others. Development actually goes beyond material growth to involve the complex social, economic and technological transformation towards the improvement of the overall quality of life. However, the trend of development in the contemporary housing scene in Malaysia has been focused more on the concept of growth, instead of the true concept of development.

Hence, the thesis argues that it is vital to rectify the misconception about growth and development and start realising that when developing a built-environmental design such as housing, growth and development should **reinforce each other** through gaining resources from within the context of its local environment. In this light, Ackoff (1986) mentions, the best evidence that this is happening is a simultaneous increase in standard of living and quality of life. However, there is currently a widespread belief that quality of life is being sacrificed to increase standard of living. This belief is accompanied by a willingness to sacrifice standard of living to improve quality of life, a willingness that is reflected in the environmentalist movement (Ibid).

Resources can be used to accelerate development and improve quality of life [...] (Ackoff, 1986). A lack of resources can limit growth but not development. The more developed individuals, organisations, or societies become the less they depend on resources and the more they can do with whatever resources they have. They also have the ability and the desire to create or acquire the resources they need (ibid).

5.5.3 Endogenous Development

El-Fiki (2003) cites that the Webster’s dictionary explains the term “endogenous” as: ‘originating or produced from within’. Islami (1998: 54) suggests that endogenous development is a progress through which a concern is given to innate knowledge, and that the internal potential powers of people and their transaction play an essential role in development plans (the author’s

⁶⁹ The Gross National Product (GNP)

emphasis). El-Fiki (2003) defines the endogenous development approach as, “the progress through which a concern is given to indigenous knowledge, and the internal potential power, i.e. the two basic pillars of such developments are, first, indigenous resources and knowledge and, second, public participation.”

We (1994) refers the word ‘endogen’, which originates from a botanical analogy as “a plant that increases by the irregular growth of new vascular and cellular tissue among the tissues already formed, yet it means to originate from or to grow within a pre-existent body”. This metaphor views a society as a giant organism, within which innovations develop (El-Fiki, 2003), in other words, it simply refers to growth from within. Islami (1998) also share the same view in which endogenous development stimulates the individuals and societies with multilateral plans for **development from within** (ibid). By this he means that development cannot be grafted on to a country like a foreign body. It must grow from within the country at the grass-roots level, that is, within readily available resources. He argues that development is not a biological analogy but a psychological and social concept. Therefore, he suggests that **the definition of development is only possible when based on particular philosophical and ideological principles**. He also claims that the real implementers of development are the people themselves, hence **development should proceed at the people’s own pace and standards**; and that the techniques of development should be simple – that is **ones that the people can afford, understand and benefit from** (Islami, 1998: 57).

5.5.4 Summary Conclusions of Development

Development is a process of learning in which individuals or societies increase their abilities and desires to satisfy their own needs and desires, as well as those of others. The notion is better reflected in the quality of life rather than in the standard of living. It goes beyond material growth to involve the complex social, economic and technological transformation towards the whole improvement of the quality of life.

The thesis argues that an endogenous development is the most appropriate approach for housing development in the Malaysian context. The development from within would ensure that society’s cultural meanings and worldviews are included in the process of housing design and development, and the ontological notion of boundary is recognised as a method to ensure the sustenance of identity and cultural ways of living of the multicultural society.

5.6 Theories of Human Needs

5.6.1 Human needs, Adaptation and Motivation

This section aims to decipher a deeper understanding of human’s needs, adaptation and motivation towards the natural and living environment. The objective is to establish the link between people’s motivation, which respond to the forces of the natural ecological environment.

5.6.1.1 Human Needs

It is human nature to have needs. The human needs varies from the most basic needs such as needs for food, clothes and protection, to the higher level of needs such as aesthetics needs, and self-actualisation needs. People are naturally motivated to desire for higher needs whenever the basic needs are being fulfilled or half-fulfilled. There are many theories concerning human needs, their survival and motivation in accomplishing their satisfaction and desires in life. Among others, the most popular one was established by Maslow, in his book entitled, *Theory of Adaptation and Motivation*, which has been referred to by many successive scholars of various fields of studies. Masaud (1996) believes that the study of the human motivation model and theory of adaptation developed by Maslow is necessary to show the link between the ecological environment and human motivations. He asserts that adaptation and motivation are two notions that are strongly linked together (Masaud, 1996: 98). He claims that by studying the various needs, such links are established in which people are prompted to develop creative architecture through adaptation processes to fulfil and transcend human motivations and expectations. Al Sari (2005) has tested this theory against the basic human needs, based on Sharia⁷⁰, the Islamic jurisprudence as described in the following section.

The quality of occupation in contemporary society also reflects the level of human's perceptions and needs towards the quality of life, quality of living, quality of space and so forth. According to Al-Sari (2005: 114), Friedman and Havighurst (1954) developed five functions of work and their associated meanings are as below:

1. Income: includes maintaining a minimum sustenance level of existence as well as achieving some higher level or group standard;
2. Expenditure of time and energy (something to do or a way of filling the day or passing time);
3. Identification and status. Work was viewed as a source of self-respect, a way of achieving recognition or respect from others and a definition of a role;
4. Association, which included friendship, peer group relations and subordinate-super ordinate relations; and
5. A source of meaningful life experience, meaning work gives purpose to life, fosters creativity and self-expression, provides new experiences and is a service to others.

Masaud (1996: 87) relates that according to instinct theory, humans are self-motivated; their own nature and their environment influences behaviour; their nature supplies them with a ready-made framework of ends, goals, or values; most often, under good conditions, what they want is what they need. Ash Shatibi (Ash Shatibi [1320-1388], 1997, v2: 303), in his words says, "It is the wisdom of the God which has ruled that Din and Donya (faith and colonisation of Earth) can be right and fruitful if the self motivations of the individual lead him to earn what he or others need. God has created the appetite for eating and drinking in man, so when he feels hungry or thirsty

⁷⁰ Sharia, according to AlSari (2005) means religion, way, method, and system.

these feelings will motivate him to fulfil his needs by seeking the means leading to that. Also, from the feeling of cold and hot, and other inconveniences, man has created for himself clothes and house”.

5.6.1.2 Adaptation

Since the beginning of human’s life on earth, men had learnt to adapt to their surrounding environment in order to survive. In the process of adaptation, men had also learnt to communicate and interact with the environment, using the available resources to fulfil their needs, for their own use and benefits such as animal’s skin for clothes, wood and leaves to build houses and so forth. Through time and civilisation, men had adapted themselves to the physical, social and cultural environment.

Sharief (2005) asserts that an environment is what surrounds something, a community, a group or an individual. It is the natural or physical situation where such a community or group or individual exists, and to which it has to adapt. With adaptation, the environment it usually changed (Sharief, 2005: 49).

According to Abdalla (1998: 317), adaptation takes two forms, i.e.:

- i. **Biological adaptation:** It is the development of acclimatisation of any living creature to the natural environment. The adjustment of man to natural conditions, and his adaptation of these conditions to his needs, transform his surroundings into a man-made cultural landscape. The continuous transformation within the mind of man is visibly expressed in his changing environment.... (Howard M., 1989); and
- ii. **Socio-cultural adaptation:** In addition to their biological flexibility, humans can adjust their activities patterns, clothing, shelter, diet and so forth, and by so doing, create a relatively comfortable micro-environment for themselves. Humans are capable of adapting relatively quickly to almost any earthly environment through the three aspects of culture, which are, the role of technology-skills and knowledge by which people make things or extract resources, the social organisation, i.e., the way people organise themselves socially, and thirdly, people’s values and beliefs. The way individuals interact with the environment is conditioned by their society’s beliefs concerning the nature of the universe. However, these beliefs link humans with their natural environment through myth and ritual practices (Howard, M., 1989). Biological and socio-cultural adaptations go hand in hand, or at least parallel (Abdalla, 1998: 318). The strong interaction between man and his environment does not allow any separated and isolated view (ibid).

5.6.1.3 Motivation

Motivation comes from the word motive(s) that can be considered as the reason(s), which causes somebody to act in a particular way (Oxford Advanced Learner’s Dictionary). Motivation, as a broad psychological and behavioural study, has had numerous researches, books and topics written

about it. Abdalla (1998) suggests that to a considerable extent, there is a theory of motivation to go with every field of human endeavour. From the cultural point of view, it has been recognised as Abdalla (1998: 318) stated, “Different cultures usually value different things, and therefore what people want obviously varies from one culture to another, because it would be impossible to discover a set of motives of importance that apply to all culture”. Certainly, each person appears to have a uniquely different set of motivational needs, there are no simple dominant motives common to all people, Everyone is unique, just as each culture is unique (McClelland, D., 1985).

The pioneer of motivation theory is Abraham Maslow who assumes that there is a hierarchy of needs starting with physiological needs, safety needs, belongingness and love needs; the esteem needs, self-actualisation needs and the highest level of needs, cognitive and aesthetic needs (Maslow, A., 1954) (See section 4.6.2.2 below for further elaboration.) Abdalla (1998: 320) suggests that in the built environment and referring to “Maslow’s Theory of Motivation”, people’s act of building their own houses, settlements, and cities could be viewed as a response to a set of physical, socio-economical, cultural and psychological motives and forces (**dimensions**⁷¹).

On the parallel between adaptation and motivation, Masaud stresses that adaptation is a dynamic process, while motivations behind this process represent a ‘natural stimulation’ inherent in human nature. Such stimulation has a hierarchical order, in which the hierarchy is expressed in the varied degrees of aesthetic experience and preference to the built environment that people demonstrate in their everyday life. The hierarchy of the environmental structure is the result of the hierarchy of human needs and motivations (Masaud, 1996: 99). He explains further that motivation deals with responses to psychological issues related to people and the way they view the environment, whilst adaptation deals with the interpretation of these issues in the environment as a whole. In this respect, architectural prototypes would embody these forces and that these forces provide the origin of the architectural characteristics and forms (ibid: 107).

5.6.2 Models of Home as A Response to Basic Human Needs

5.6.2.1 Al Sari’s Model of Human Needs

This section looks into the models of home as a response to basic human needs, starting with Al Sari’s (2005) interpretation of Ash Shatibi’s hierarchy of needs based on *sharia*⁷² through the concept of *Magasid Ash Sharia* (the intentions of *Sharia* or *Sharia* Objectives). *Sharia*’s overall aim is to facilitate man’s mission to inhabit the Earth, warrant people’s *Masalih* (interests) and prevent *Mafasid* (disinterests) by maintaining justice, mercy and magnanimity (Al Sari, 2005: 97). In other words, the overall goal of *Sharia* is to fulfill the interests of people and prevent costs or losses, i.e., to gain *Masalih* and exclude *Mafasid* (ibid: 87). Ash Shatibi asserts that the primary

⁷¹ Dimension here, is used in Chapter Five as a category in the questionnaire analysis

⁷² *Sharia* has several meanings: religion, way, method, and system (Al Sari, 2005: 78). The overall meaning of *Sharia* refers to the Law of Islam that deals with civil interactions (Al Hasani, 1995: 281).

objective of the Lawgiver is the *maslaha* (singular of *Masalih*) of people (ibid). According to him, *masalih* are not equal in value and hence, they were divided into three grades: *daroriyat* (necessities), *hajiyat* (needs) and *tahsiniyat* (luxuries) (Ash Shatibi: 1320-1388). Al Sari (2005: 89) categorised them into three phrases⁷³ and levels as below:

Ad Daroriyat: The primary interest level

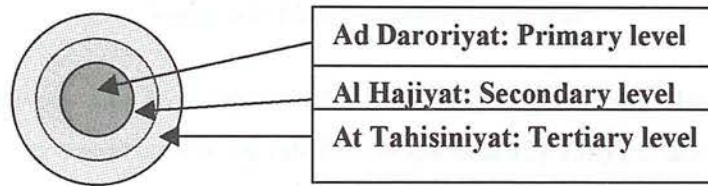
This level of interest is deemed essential for the preservation of life. If neglected, corruption, confusion and system disorder will prevail.

Al Hajiyat: The secondary interest level

This is the level of interest required by an individual for a flexible and easy life. If these interests are not fulfilled, there will not be disorder or general corruption, but individuals will face hardship.

At Tahsiniyat: The tertiary interest level

This type of interest refers to enhanced customs or highest ethics. If they are not fulfilled, there will not be disorder or hardship; nevertheless, life will deviate from the normal intuitive and sublime custom.



Source: Al Sari (2005)

Figure 5-1 The above diagram illustrates the “Levels of Masalih” from Ash Shatibi’s classification as interpreted by Al Sari (2005)

According to Al Sari (2005: 98) Ash Shatibi proposes that the five necessities or basic human needs based on Sharia are *Din*, *Nafs*, *Aql*, *Nasl* and *Mal* (religion, life, intellect, posterity and property) (AlGhazali, 1997: 417). Each of these needs progress through three levels, meaning each can be partially satisfied (Al Sari, 2005: 118). In other words, man does not need to satisfy his physiological needs in order to be motivated to fulfil his security or social needs (ibid). The five basic needs are preserved in two ways: first, by supporting their existence and secondly, by protecting them from disorder and expected defect (Ash Shatibi [1320-1388], 1997, v2: 220). Sharia preserves the basic needs through legislation, in which its implementation may be the responsibility of an individual, the state, or a group of individuals of the whole nation (Al Sari, 2005: 98).

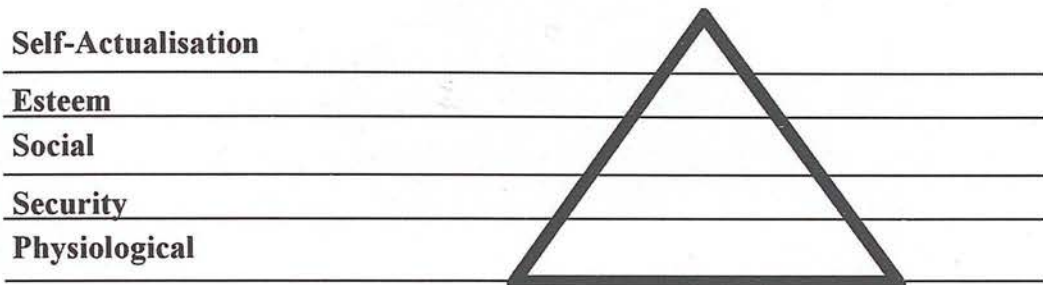
5.6.2.2 Maslow’s Model of Hierarchy of needs

This section compares Ash Shatibi’s basic human needs theory to Maslow’s (1954) “Motivation and Personality” theory of human needs, which have the closest similarity to Ash Shatibi’s with some apparent discrepancies. The six hierarchy of needs according to Maslow, are summarised below:

⁷³ *Daroriyat* is th plural of *Darory* which means necessary. *Hajiyat* is the plural of *Haji*, drawn from *Hajah* which means need. *Tahsiniyat* is the plural of *Tahsini*, drawn from *Thasin*, which means betterment (Al Sari, 2005: 89).

- 1 Physiological: includes the need for air, food, water and sex;
- 2 Security: includes the need for safety, order, and freedom from fear or threat;
- 3 Belongingness and love (or social needs): includes the need for love, affection, feelings of belonging and human contact;
- 4 Esteem: includes the need for self-respect, self-esteem, achievement, and respect from others;
- 5 Self-actualisation: includes the need to grow, to feel fulfilled, to realise one's potential
- 6 Cognitive and aesthetic needs.

(Source: Masaud, 1996: 75-86)



Source: Al Sari, (2005: 117), adopted from: James Stoner, Management
 Figure 5-2 Maslow's hierarchy of needs

The difference between the two models (AlSari, 2005) begins with Maslow's theory which assumes that the lower needs have to be fulfilled (not necessarily fully) to allow the motivation for the next higher needs to be affective. In other words, if the physiological needs are not satisfied, security (being in the next highest level) is not considered relevant (AlSari, 2005: 117).

On the contrary, according to Al Sari, the basic needs outlined in Sharia cover all of mankind's characteristics (physiological, psychological, religious, and social) in a parallel way, allowing man to satisfy the minimum amount needed from each necessity simultaneously. He maintains that Sharia assumes that a minimum of the five necessities (religion, life, property, reason and posterity) is absolutely necessary in the lowest level. If that minimum is not achieved, the life of the individual or the community may not continue or may continue but with great disorder and disintegration (ibid: 117). AlSari also recognised another difference between the two models, in which Maslow views the subject of basic needs from the individual's point of view only, whereas Sharia views basic necessities from three perspectives: legislative, individual and state.

Based on Al Sari's (2005: 118) summary conclusions: "Sharia is built around a clear concept of five basic human needs: Din (Religion), Nafs (Life), Mal (Property), Aql (Intellect) and Nasl (Posterity). These were protected through Sharia legislation, and at the same time, Sharia instructed Muslims to work to fulfil their individual needs (AlSari 2005: 118). Each of the needs progressed through three levels, meaning each can be partially satisfied. Man does not need to fully satisfy his physiological needs in order to be motivated to fulfil his security or social needs. Both the state and the individual are held responsible to fulfil these needs" (Al Sari, 2005: 118).

5.6.2.3 Masaud's (1996) Adaptive model based on Maslow's motivation theory

Adaptation to the Physical Environment

This fundamental type of adaptation to the physical environment is basically responding to physiological, safety and protection needs. During the adaptation to the physical characteristics of the natural environment, climate, topography, natural resources, environmental threats and man's physiology, man is likely to give priority to fulfil his needs for protection, security, and thermal comfort (Masaud, 1996: 102). Masaud associates basic motivations with adaptation to the physical environment, which results into the development of the concept of shelter.

Adaptation to the Social Environment

This type of adaptation responds to the community, sense of belonging, love and esteem needs. Adaptation to the social environment is a process where man meets the requirement to adapt to other members of his community through the expression of love, a sense of belonging and self-esteem motivations. According to Masaud (1996: 165), social adaptation means that people adapt to live with each other. The association of social adaptation with these motivations would then lead to the evolution of the concept of habitat; a place of communal living where a strong sense of social belonging is a dominant phenomenon which ties people together in an atmosphere of collective support and social responsibility (Masaud, 1996: 104).

Adaptation to the Cultural Environment

Masaud (1996) asserts that adaptation to the cultural environment is motivated by self-actualisation needs and cognitive and aesthetic needs. This is supported by Rapoport (1980: 9) who says there are three alternatives very broad classes within which most definitions of culture seem to fall, these are: culture as a way of life typical of a group; culture as a system of symbols, meanings and schematic, transmitted through symbolic codes; and culture as a set of adaptive strategies for survival related to resources and ecology."

Masaud (1996) suggests that eventually, adaptation to culture signifies the satisfaction of self-actualisation, cognitive and aesthetic motivations. He maintains that **cultural adaptation provides a holistic framework within which the whole society perceives the quality of life as an expression of all the values shared by people** and which includes those related to the previous levels of adaptation. He adds, the associated concept would then be found in a spirit of place or **Genius Loci**, a place, which fulfils all human needs (Masaud, 1996: 105).

The fulfilment of people's longing for beauty and aesthetic enjoyment can be seen as high human motivations (Masaud, 1996: 105). Such longing was achieved in traditional cultures through freedom of expression in art, decoration, and other symbolic features (ibid). Masaud (1996) argues that numerous architectural components and features have a similar history that ought to be explored and understood, therefore maintained in the architecture of the different cultures (Masaud, 1996: 107). He also claims that **social and cultural forces have become important in man's**

evolution because they largely decide the goals towards which he is moving; i.e., socio/cultural forces have become more powerful than biological ones in orienting the evolution of man's way of life (ibid: 146).

Community structure and family type make demands upon spatial relationships, while the cycles of the day, the seasons, the working year, and of life, profoundly effect internal and external use of space. The dwelling is made to adapt to family structure and evolving needs, the dwelling embodies the values of the group to which it belongs [...] (Masaud, 1996: 144). Societies and the individual attach significance to their dwellings that relate to their value systems, ranging from personal identification, to the cosmic symbolism of the house, its location, and its orientation. Sometimes, wholly implicit, they may be expressed visually through built form, in detail or in both sacred and secular decoration, which reflect beliefs, hierarchy, status, and aspirations. (ibid). In his words, Masaud (1996) says, "we shape our environment to serve our social purposes in a way that would confirm and facilitate similar and harmonious social attitudes and behaviours for the successive generations. He further argues that built environments irrespective of people's cultural and social expectations should be changed since cultural values are important in the man-environment interaction. (ibid: 148).

Masaud, citing Altman (1975), defines privacy as an interpersonal boundary regulation process by which a person or group regulates with others. The privacy regulation permits people to either be open to others or to be closed off to others at another occasion. Therefore, privacy is a changing process in which people attempt to regulate their openness/closeness to others (Altman, 1975; cited by Masaud, 1996: 150).

5.6.3 Summary Conclusions of Theories of Human Needs

It is human nature to have needs. According to the instinct theory, humans are self-motivated; their own nature and their environment influences behaviour; their nature supplies them with a ready-made framework of ends, goals, or values; most often, under good conditions, what they want is what they need. The two models of home by Al Sari (2005) and Maslow (1954) that respond to human basic needs contradict in their views whether motivation occurs before or after the basic needs are being fulfilled. Al Sari's model covers the physiological, psychological, religious and social needs in a parallel way, allowing man to satisfy the minimum amount needed from each necessity simultaneously, whilst Maslow's model requires priorities that the physiological needs must be fulfilled first, before the higher levels of needs can be fulfilled. Maslow views the subjects of basic needs from the individual's point of view, whilst Al Sari's model that is based on Syaria views basic necessities from three perspectives: legislative, individual and state.

Adaptation is a dynamic process, while motivations behind this process represent a 'natural stimulation' inherent in human nature. Motivation deals with responses to psychological issues

related to people and the way they view the environment, whilst adaptation deals with the interpretation of these issues in the environment as a whole. In this respect, architectural prototypes would embody these forces and that these forces provide the origin of the architectural characteristics and forms (ibid: 107). Masaud's (1996) adaptation model asserts that human being adapts to the physical, social and cultural environment.

5.7 Conclusions to Chapter Five

Indigenous cultural resources include 'indigenous knowledge' and the 'cultural attributes' of community bonding, 'self-help', 'mutual aid', social responsibility, and a 'traditional polity', which strives to satisfy the needs and aspirations of its people (Islami, 1998: 37). Cultural values are seen to arise out of the interaction between transformational concept and the environment. Indigenous cultures have usually helped people to place each development project and program into an appropriate holistic model by their intuition, wisdom and worldviews.

Men have been interacting with nature in every aspect of their lives. Nature is embedded within people's worldviews, traditions, norms, customs and values, and embodied in people's cultures, i.e. the ways of living as well as in the societies' developments and civilisations. People collect information from the environment, interpret it, and then react towards environments in terms of the meanings the environments have for them. Culture is a very important tool or dimension (motivating force) for human society because of its holistic nature, its multi-functional roles in the environment, and its crucial part in the creation of the built environment and the society's civilisation. Cultural evolution and its stability largely depend on the persistence of the society's worldviews to endure the basic structure of its system. The endogenous development would ensure that the society's cultural-religious values and worldviews are considered, the boundaries among cultures are recognised as a method to ensure social harmony and unity and sustainability of living by maintaining the individual culture's identity and ways of living.

In conclusions, this chapter supports the thesis hypothesis that housing model in Malaysia should be based on cultural meanings so as to maintain quality of living, and a national identity for the Malaysian housing. The next two chapters are components of Part Three, i.e. the empirical studies, which explores deeper into people's perception of dwelling designs and living environment (see Chapter Six), and the embodiment of cultural meanings in the indigenous living environment, which are driven by cultural and indigenous resources (see Chapter Seven).

6 The Open-ended Questionnaire Survey & Analysis

6.1 Introduction

Part Three of the thesis is the empirical study, which is divided into two chapters – the questionnaire survey and the supporting data. Chapter Five, i.e., the open-ended questionnaire survey, is split into a compilation of survey responses and the analysis of the responses. The analysis of responses is sub-divided into categories (aspects, objects and activities), dimensions and personal profiles. The methodology used in this chapter is adopted from Ujam's open-ended questionnaire qualitative analysis method. It attempts to explore more deeply into people's perceptions, attitudes and appreciation of their dwelling design, environment, inherent worldviews and the challenges they face amidst contemporary tensions and pressures – lifestyles changes, globalisation, and sustainability of cultures. This chapter will attempt to interpret the findings with reference to the first part of the thesis.

Ujam's statement (2003, Environmental Discourse Talks, PhD Programme) that, "(1): people are connected to the environment and (2): are actively involved in the creation and evolution of the living environment", has intrigued the author to incorporate it into the main aim for the survey. With reference to the first underlined statement, the question emerges as to how much do today's people connect to the environment? Is there or are there any aspects of lives, such as culture, religion, tradition, etc., which still affect people's connection with the environment? Given those questions, one wonders if today's people are actively involved in the creation and evolution of the living environment or if they seclude themselves from it, perhaps, due to various circumstances. From the second underlined statement, the author wonders if there is any link between the way people live today with the way their ancestors used to live? This prompted the researcher to establish a link between contemporary Malay community's lifestyles and the historical evolution of the community's development in terms of their cultural way of living so as to decipher the meaning of the whole statement.

In order to clarify whether the above statements are applicable to the contemporary living environment, the researcher attempts to investigate it through an open-ended survey of the contemporary Malay society. The main aim of the survey is to establish people's perception of their living environment, how they adapt and respond to the forces of natural, physical environments affecting their everyday lives, including people's relationship with the society, culture and traditions, which influence their views about their living environments.

6.2 Research Methodology

Due to the nature of the inquest, the research methodology requires a qualitative enquiry, in this case, an open-ended questionnaire. Strauss (1987) states that qualitative research, based on an

open-ended questionnaire is a standard tool in social science methodology. The open-ended questionnaire has been employed to investigate the observation of events, norms, values, actions etc. from the perspectives of people who are involved in any study, as 'seeing through the eyes of people' (Bryman, 1995) and the data that emerges can be connected to literature and theories and 'grounded in reality' (Denscombe, 1998), as well as discovering things about multifaceted issues such as housing.

In order to evaluate the findings from the open-ended questionnaire, the researcher refers to Aspinall and Ujam (1992)'s analysis approach, as used by the preceding PhD researchers. The examination approach is based on categories: (1) Objects, which are created as a response to the environment. For example, mosques, café, school, landscape water features, etc.; (2) Aspects, which are feelings, preferences, attitudes, perceptions, thoughts, and affection towards the environment, and (3) Activities, which are the behavioural responses towards the environment. From the survey evaluation, the thesis suggests that motivations are achieved by activities.

6.3 Organisation

The questionnaire is divided into three parts, the first being the most personal and relevant to the house. There are four questions asking for personal information and another twenty questions relating to the dwelling. The next part focuses on the neighbourhood level and comprise five questions and finally, the more general and broader level, another five questions about the city.

The purpose of this three-tier division is so that at the early stage of the questionnaire, respondents are asked simple, straightforward questions on things they are best acquainted with. Eventually, this leads to harder questions, which require more consideration from the respondents. Being an open-ended questionnaire that entails subjective answers, people either find it hard, or are reluctant to answer them within a short time, although, the most important part of the survey is to find out the reasons for the answers given by the respondents.

After the categorical analysis of the survey, the evaluation proceeds with a section on dimensions, which are established from the survey and finally, the personal profiles of individuals, obtained from informal interviews.

6.4 Objective of the survey

The main objective of this chapter is to analyse people's perceptions, firstly, of their homes, then at the neighbourhood level and finally, at the city/town level, as reflected in the survey. In order to identify whether people's worldviews about their living environments have changed dramatically, or evolved from their indigenous worldviews, the survey attempt to identify the features which affect contemporary ways of living and people's perceptions about their residential areas and living environment. In other words, the survey seeks to find elements of transformation that have occurred throughout the process of urban and housing development, which affect people's perception and satisfaction of their living environments. The study also attempts to decipher whether there still exist elements of spiritual, complexity and creativity in people's relationship

with their dwelling places - natural, physical, and social environments - which manifest the quality of living and the cultural meanings in the living environment.

The survey key questions attempt to decipher:

- Whether culture, religion and/or tradition still have a major influence today on people's way of living⁷⁴;
- How contemporary lifestyles, international knowledge and exposure of to living environments affect the way people view their dwelling places, living environment and the world today;
- From which source of knowledge is the contemporary people's interpretation of the meaning of an ideal house/home⁷⁵ based on?
- What are the aspects of indigenous and/or traditional living environments with which people still connect or relate to?

6.5 The Study Area

The open-ended survey began with the initial intention to study the values and attitudes of a single ethnic population, from different economic, educational, and cultural backgrounds about their living architecture and environment.

The author selects her respondents at random places and at random times, as she was also gathering data on different indigenous housing typologies in and around the country. In addition, due to the time factor, she also distributed the questionnaires by posts and email. Feedback came mainly from Kuala Lumpur and its suburban areas, Perlis, a small town in the north, where her three-month data collection was based; and two responses from the historical city of Melaka (Melacca). Kuala Lumpur, the capital city of Malaysia, has the largest population in the country. It is the biggest attraction for internal migrants and external immigrants – legal and illegal - from various Asian countries, due to the plentiful job opportunities in various fields. Hence, its population varies from the highest income earners to the most deprived residents in some slum areas. Needless to say, housing and residential estate developments are vast and built rapidly for there are always high housing demands from people at every stage of life. However, for the purpose of the research, the survey limits itself to a single ethnic population group considered as the native or indigenous community of the country – the Malays.

6.6 Constraints of the survey

The constraints of the survey: firstly, people's reluctance to respond to questions that require much thought; the majority of the respondents preferred to think simply instead of giving complex and

⁷⁴ Do spirituality, cosmology or indigenous worldviews on dwellings, and living environment still have a huge impact on the lives of contemporary Malay society?

⁷⁵ The idea is to give one the freedom of creating one's ideal home - what would it be, what would it look like, would one have any connection with nature and the natural environment and what are the reasons?

complicated view points. Time was also a major factor for the respondents due to daily job demands, family matters, etc. Also, due to the nature of the questions intended to elicit the meanings⁷⁶ from the given answers, in terms of reasons, this created some confusion for respondents because of the similarity of some of the questions.

Problems also occurred from respondents via post and email. Some responses went missing during delivery, and some email responses could not be returned to the author. As a result, out of 55 copies of questionnaire forms being distributed, the total number of questionnaire forms received in return was only 43. Further, the responses from those who answered the survey from one-to-one interviews also differ from those who answered them by post and email. This is mainly because the latter did not receive proper explanation about the questions. As a result, some questions were left blank, creating missing data.

6.7 Compilation of the Survey Responses

6.7.1 Introduction

This section reviews the questionnaire results from 43 respondents out of the total number of 55 people contacted. Each question is considered with regard to all responses given from the survey.

6.7.2 Collection of the Responses

In total, there are thirty questions derived from the open-ended survey, of which, most required the respondents to provide reasons for each question answered. Tables are used to show the frequency of times similar responses were repeated as well as their reasons. Responses are categorised according to the number of replies given to each question.

This method is used to devise another set of tables with categorical sections: objects, aspects (adjectives) and activities. All responses were categorised, according to the number of replies given to each question. The categories expand on the relationship between people's perceptions of their dwelling design and the living environment.

The collection of responses was examined, according to the level of questions asked, in each of the three parts, starting with personal information about the dwelling, followed by queries about the neighbourhood and ending with the city/town level.

6.7.2.1 Level 1: Personal Information and Dwelling Level

Age group

The table below shows the four age groups of respondents in the survey. The first is age twenty-four and below; the second, is between twenty-five and thirty-five years; the third group is between

⁷⁶ Meanings here refer to the list of reasons from respondents in each question.

thirty-six and fifty-five, and the last group consists of people aged fifty-six and over. The table shows that the majority of respondents fall into the 25 -35 years of age group:

Age	24 and below	25-35	36-55	56 & over	Total
Frequency	1	29	9	4	43
Percentage	2.32	67.44	20.93	9.30	100

Table 6-1 Age group

Gender

From the results of the survey, there are seventeen male respondents and twenty-six female respondents. The table below shows the percentage of gender distribution for this survey:

Gender	Male	Female	Total
Frequency	17	26	43
Percentage	39.53	60.46	100

Table 6-2 Gender

Occupation

Coincidentally, due to the random questionnaire distribution, the majority of respondents appear to be government staff in various academic fields. It is also obvious that the majority of the Malay working class population prefer to be in government employment due to the pension scheme offered, salary and other benefits. The table below shows the percentage of occupation distribution among the government staff and other groups of occupation which include students, housewife, self-employed, private and retired people:

Work	Student	Housewife	Gov/staff Education	Self employed	Private	Retired	Total
Frequency	5	1	26	1	6	4	43
Percentage	11.63	2.32	60.46	2.32	13.95	9.30	100

Table 6-3 Occupation

Type of Family

The table below shows the distribution of nuclear and extended family established from respondents of the survey:

Type	Nuclear	Extended	Total
Frequency	40	3	43
Percentage	93.02	6.98	100

Table 6-4 Type of family

The number of people in one household

The number of people in one household is distributed into four different age groups. The majority of the respondents' family numbers range between 3 to 5 people in one household, followed by 6 to 9 people per household, then 0 to 1 person per household. The result shows that the majority of contemporary young families in the community comprise small to medium-sized family numbers, compared to the previous generation, which tended to have a large number of family members

within one household. In the researcher's opinion, this result is related to the age group of the respondents. The table below shows the frequency and percentage of numbers in one household obtained from all the respondents:

Range	0-1	2-5	6-9	10+	Total
Frequency	5	30	7	1	43
Percentage	11.63	69.77	16.28	2.32	100

Table 6-5 Number of people in one household

Dwelling Information

Q (3): What is the nature of ownership of your house?

The status of home ownership

The status of ownership shows a high percentage of owned and rented properties in this survey. The researcher suggests that this is highly dependent on the age group and occupation of the respondents, which determines the affordability to own any property. Below, the table show the distribution of people and the ownership status of their homes:

Status	Own	Rented	Parents'	Others	Total
Frequency	21	15	5	2	43
Percentage	48.84	34.88	11.63	4.65	100

Table 6-6 Status of home ownership

Q (4): How long have been living in your present house?

Length of stay

The table below shows group division of the length of stay of each respondent in their current homes. The frequency table shows that the majority are living less than six years in their property.

Length of stay	0-5	6-10	11-15	16-20	21-25yrs	Over 26years	Total
Frequency	32	6	2	2	1	0	43
Percentage	74.4	13.95	4.65	4.65	2.32	0	100

Table 6-7 Length of stay

Q (5): What type of house did you live in previously?

The previous house types

The table shows the distribution of properties respondents lived in previously.

The house types are divided into eight (8) types:

Type	HR flat	MR flat	Apt	Condo	Link	Semi-D	Bungalow	Traditional	Total
Frequency	1	3	6	4	16	2	6	5	43
Percentage	2.32	6.98	13.95	9.30	37.20	4.65	13.95	11.63	100

Table 6-8 The previous house types

Q (6a): What type of house are you living in currently?

Type of current house

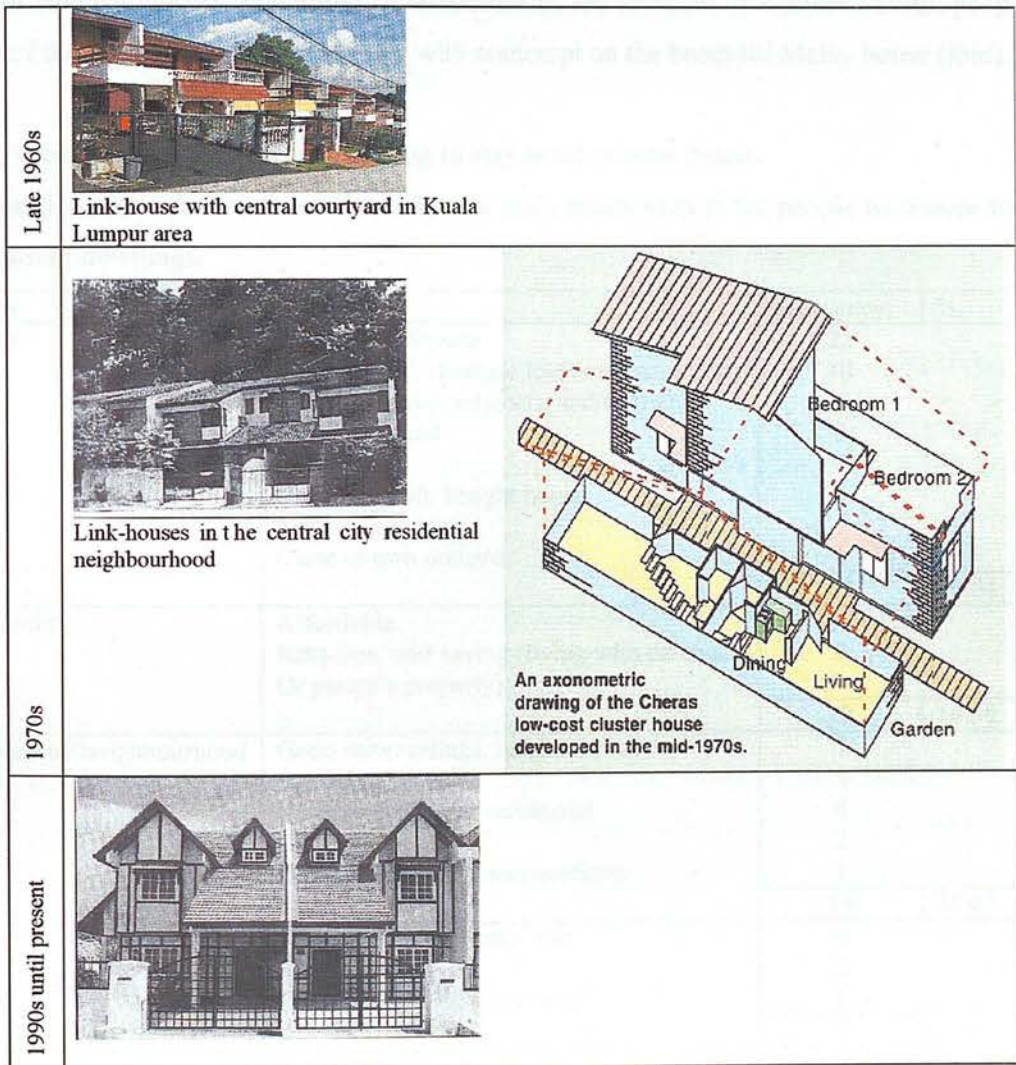
Type	HR flat	MR flat	Apt	Condo	Link	Semi-D	Bungalow	Traditional	Total
Frequency	2	3	5	2	22	4	4	1	43
Percentage	4.65	6.98	11.63	4.65	51.16	9.30	9.30	2.32	100

Table 6-9 Type of current house

The terraced-link houses

The terraced/linked houses are the most common choice (51.16%) for the average working group.

Below are examples of the terraced-link houses and their development in urban areas in Malaysia:



Source: Fee (1998) & Hamzah (2002-2003)

Figure 6-1 Above pictures show the development of terraced-linked house since the 1960s until present

The finding shows that the terraced-linked house type is most preferred by the respondents. Although this house type is the most common choice, it is not necessarily the best option. As mentioned in Chapter Two, Hassan (1999) discovered that the terraced house type – which is the most common housing type in urban areas – indicates the highest negative level of social satisfaction. This is generally due to its irresponsiveness to the need for thermal comfort in the

context of the local climate, the spatial design layout, which does not reflect the local cultural ways of living, as well as the rigidity of the design.

In contrast, a study by Lim Jee Yuan has shown that the traditional Malay house is superior to the modern brick houses in the housing estate. In support of this finding, Martin Khor (2002) relates, the Malay house has been constructed through the generations in a very skilful way to provide proper ventilation and flow of air, protection from the heat of the Malaysian sun, to give proper lighting, and to make maximum use of space. The Malay house is also cheap, can be constructed by family labour with the help of the community, and blends in very harmoniously with the natural surroundings. In contrast, the much glamourised modern housing-estate units are very hot, have poor ventilation, are very expensive and do not blend with nature in any way. The brick house was built for English climatic conditions. Yet because of the invasion of western values, people think highly of the brick house and look down with contempt on the beautiful Malay house (ibid).

Q (6b) Mention three reasons for choosing to stay at the present house.

The question was asked to determine what the main motivation is for people to choose to stay in their current dwellings.

Reasons		Frequency	%
Location	Close to workplace	22	
	Convenience, strategic location, easy access	10	
	Close to family, relatives, and/or friends	4	
	Close to school	2	
	Location	1	
	Close to newly bought house	1	
	Next to golf course	1	
	Close to own orchard	1	
		42	36.84
Affordability	Affordable	17	
	Rent-free, cost saving (living with parents, Or parent's property)	5	
		22	19.30
Environment/ neighbourhood	Good surroundings, neighbourhood	7	
	Safe environment	5	
	Un-crowded, quiet residential	4	
	Own village	2	
	Clean, comfortable surroundings	1	
		19	16.67
Ageing	Family, ageing parents' life	4	
	Retirement life	2	
	Leisure activities, gardening	1	
		7	6.14
Comfort	Comfortable	4	
	Comfortable house	1	
		5	4.38
Size	Of property	3	
	More space for future planning	1	
	Own parking space	1	
	Preference for small-sized house	1	
		6	5.26
Design/ spatial arrangement	Design attraction	2	1.75
Privacy	For own privacy	2	1.75
Fulfilling dream	To own a house	2	
	Purchased land by own means	1	

		3	2.63
Developer's good reputation		1	0.88
Circumstances	Limited choice	1	
	Could not rent flat to others	1	
		2	1.75
Long term stay		1	0.88
Its scenery		1	0.88
Landed property		1	0.88
TOTAL		114	100

Table 6-10 Reasons for choice of current house type

The following findings arising from the questionnaire survey do not have much significant to the thesis subject. They do, however, illustrate the contemporary issues as the direct implications of the housing development approaches in the country as well as the issues of cultural sustainability. It was discovered that there are three most important factors for people when they decide to live or buy their homes: (1) is location, (2) affordability and (3) convenience. This is due to the strong link between home and workplace.

Home and Workplace

The contemporary urban structure in many cities including Malaysia is mainly geared towards economic development, in the name of progress. Therefore, it is not surprising the people living in the urban areas are work-oriented. This determines the relationship between home and workplace as a very significant factor for people when choosing their place of dwelling. In the contemporary scenario, people do not have much freedom and options to demand the type of dwelling they really need to maintain their cultural lifestyles, instead, they make do with the type of dwellings that are provided, as long as it is within close proximity to the workplace. Therefore, it is not surprising to discover that the highest percentage of people in this group – who are mostly working-class people – prefer to choose a dwelling place that is closer to their workplace.

However, without realising, this phenomenon has a significantly huge impact on the loss of cultural continuity. The nature of job demands, particularly in urban areas, restricts people's attachment towards their dwelling places, and most of the time it also affects the quality of family life. The dwelling place becomes a transitional place for most working people, many children become latch key kids because their parents are still at work after working hours, and there is seldom or no interaction at all with the neighbours, hence, the word "pigeon-hole society"⁷⁷ was born. Eventually, this situation creates an ephemeral society and a worrying increase in social and even crime issues. Due to the lack of family and community interactions, inevitably, some substantial aspects of cultural, social, religious and traditional activities tend to decrease, at other times, cease to exist as the contemporary situation impede the community from understanding and maintaining its traditions.

⁷⁷ The expression "pigeon hole society" is adopted from Oscar Newman's "Crime Prevention Through Urban Design"

Affordability

The housing industry boom in the country does not ensure that many more people are able to settle themselves in the new housing provision. This is mainly due to the rise of house prices that have increased exponentially against people's economic affordability. Therefore, many young professionals in the city opt either to stay with their parents, or to stay in their parents' other house, whichever is most convenient and closest to their workplace, in order to save the cost of living in the city.

Convenience

The need for convenience is vital in contemporary life. Even the values of the housing properties increase when they are located close to public facilities and amenities. This is also an indication that the Malaysian community, in particular the Malay society, has become a consumer society, largely dependent on services and facilities, as opposed to being self-sufficient like the traditional society.

Comfort

Comfort here refers to people's satisfaction with their current living environment – the living spaces, the surroundings. The sense of comfort can also be achieved when people are able to enjoy the pleasure of security and privacy in their own private homes. The surrounding environment – the views, the people, neighbours – are also contributing factors that may determine a person's sense of comfort living in his/her dwelling. Many people enjoy the views of natural surroundings and friendly neighbours. Having a familiar surrounding for instance, one's own village or home town may enhance the feeling of comfort and satisfaction of living in the current living environment.

Summary

The phenomena of home and workplace, home and community are indeed big issues that need to be tackled at a larger scale than the dwelling level. If not at the urban level, it should be addressed at the country's level because the current relationship between home and workplace as well as home and the community, do have a paramount impact on the sustainability of culture and tradition for the whole Malaysian society, which used to have shared values, a common agenda and a sense of unity. These characteristics, which once shaped the Malaysian society are rapidly diminishing since the economy is now the main agenda, while family life, community values and environmental sustainability have been increasingly disregarded. Hence, the connection between people and the environment have been lost. Comfort increases people's sense of belonging and security to live in an environment.

Q7. Mention two changes that you have made to your house and/or its compound since you have lived in this property. Please give two reasons for each change that you have made.

The question is posed to find out what are the reasons that motivate people to change their existing accommodation. Secondly, it intends to investigate the degree of the quality of space provided in the current housing provision. The table below show the list of changes and their reasons:

Changes	Freq	Reasons	Freq	Total
Space extension/renovation [indoor & outdoor]	14	Room too small, need for bigger space Upgrade bathroom, kitchen Add balcony in bedroom for view, comfort Desire for spaciousness, multifunctional space Larger spaces are more convenient Need for fresh air, green external environment Need for spaciousness Need space for personal activity Need space for extra storage Need space for guests Preference for neatness, tidiness For family's comfort The need to do so For relaxing space, relief from work stress	4 1 3 1 2 1 2 1 4 1 1 2 1 1	25
Kitchen extension/renovation	12	More organised cabinet spaces Initial kitchen too small Need for separate cooking and dining space Additional social space Preference for more spacious kitchen Better looking kitchen than original For more access and better view Basic kitchen offers inadequate storage space Need for more storage space Preference for open concept	3 3 2 1 5 1 1 2 3 1	22
New Paints/wallpapers	11	To brighten space, make a difference Existing walls too dirty, get fresh new look To create liveable, comfortable environment More spacious and welcoming look For mental relief and stress reduction Dislike existing wall colours To express personality To obtain peacefulness For personal satisfaction Reference for modern concept Religious reasons	2 1 2 1 2 1 1 1 1 1 1 1	14
Create garden/landscape including herbs, fruit trees	7	Interest in God's creations To attain peace/ tranquillity To fulfil leisure time For beauty/ aesthetics For food benefits For refreshment and comfort For fresh air, coolness and shady environment	1 3 1 3 2 1 1 1 1	14

		Brightens house and beneficial plants To create green environment		
New floorings	4	For better quality of interior floorings To define spaces and functions For safety reasons For religious reasons – hygiene To create liveable environment Wooden floorings minimise dust trap, easy maintenance For health reasons	1 1 1 1 1 1	7
Interior furnishings	2	For comfort and adaptability Suits large family needs Necessity Personal needs	1 1 1 1	4
Lighting	1	To create beautiful ambience Dislike old lighting	1 1	2
Miscellaneous: Put floor tiles at car porch Add grilled walls at the back Cut down some trees	3	Upgrade, safer as play area For ventilation and extra utility space -	1 1	2

Table 6-11 Changes made to current property

Changes or alterations in houses occur because people respond to the need for adaptation and motivation. Change or renovation of dwellings is seen as an opportunity to improve the quality of life of the particular community. The motivation to make some changes or improvements to their living environment may be directly or indirectly linked to a person's cultural roots or upbringing.

Personalisation

People aspire to make changes to their homes, according to their individual, religious and cultural needs. Changes made with regard to the interior décor or design due to personal needs is known as personalisation. This is the rearrangement, decoration, putting up, displaying or arranging of personal items, articles, and artefacts, such as pictures, posters, photographs of family and loved ones, and personal articles, in a space (Mazumdar, 2000). It can be simply a by-product of the use of space by a person. But personalisation may also be symbolic. It may be read by others as a sign of the presence of a person using a space, as well as the specific characteristics and interests of that person. It may be marking or conveying one's presence or ownership and control over a territory (ibid: 159).

Betru (2005) divides the meanings of personalisation into three levels. The first, is the personal self, which refers to the awareness of one's body, thought, mood, emotion, perception, gestural expression and physical being. Secondly, the social self, which refers to the process by which objects become objectified (a dwelling becomes home) and thirdly, the cosmic self, which refer to

the human drive towards a greater harmony of things in general (Rochberg-halton, 1986; cited in Despres, 1991).

In the thesis context, the symbolic aspect of personalisation may originate from the cultural meanings and cosmological understanding of the Malay society. Individual personalisation may depend largely on a person's upbringing. In other words, the decoration or modification done by the owner of the house is also a reflection of that individual's identity. The material chosen by the owner to alter the front wall, for example, may also be considered as a reflection of his/her personal identity which reflects his/her social identity, that is, the way he/she wants others to see him/her (Betru, 2005: 277). Thus, personalisation also enhances and manifests the attributes of cultural meanings and cosmological understanding (if any), which exist within one's cultural roots.

The needs for aesthetical fulfilment

Changes in the interior living spaces indicate that people are motivated to change their interior living spaces, as a response to fulfilling their aesthetic needs. These changes may happen not necessarily when people are financially ready to make changes, or are highly motivated, but the deeper reason lies within the inherited knowledge embedded in the society's tradition, culture, worldviews and ways of living. The author recognises that the desire to upgrade the interiors is also influenced by the external global influences within the community, specifically and generally.

Spaciousness

The most common change or alteration that people are motivated to make is to achieve a sense of spaciousness in their living environments. The Malay definition of space is predominantly based on the notion of openness, the idea that is deeply embedded in the society's culture and ways of living. The notion is manifested in the forms of the Malay attitudes towards nature, people and the forms of their living environments. For example, the Malays direct interaction with nature, their acceptance and welcoming of others coming into their dwelling or territory and so forth. This is the factor that motivates many to create a sense of spaciousness in their dwelling environment. Some Malays have created better spaces by adding and extending their existing spaces. Others, who do not have the luxury of renovating, modify their interior furnishings to suit the size of property such as using bright paint in order to create the illusion of spaciousness.

Zainal Kling (2001: 169) says that culture becomes the major determining factor in terms of the form of space, whether it features a sense of "spaciousness" or "crowding". In his words, "What is spacious for one culture may be 'crowded' for another culture. What is spacious, might be 'too spacious' for other cultures. What is 'crowded' might just be defined as 'close' and 'intimate', in fact, felt 'easy' and 'comfortable' for a different culture". In view of the Malay culture, Kling claims that a Malay person would feel very comfortable with a wide, open space such as an open-plan house that only has exterior walls without room divisions. Not only would the space feel

spacious, but it would also give “a sense of relief”. The sense of relief allows a person to feel comfortable to move, and calms his/her emotions (ibid).

In the Malay cultural way of living the same (public) space should be flexible enough to cater for different cultural, religious or traditional functions. The garden and beautification of the interiors illustrate the desire for an aesthetically pleasing environment as well as a connection with nature. This finding suggests that if the cultural perception of space differs from one culture to the other, then every housing spatial design layout should offer flexibility for people to modify their living spaces in order to give people the opportunity to respond to their respective cultural needs.

Summary

Changes or alterations to dwellings are made to suit the occupants' higher needs. They also illustrate the needs to fulfil cultural meaning, for instance, in terms of cooking comfort and the use of large, open spaces for various cultural, social and religious activities. Personalisation is one of the attributes of the cultural meanings and cosmology and an understanding of an individual's cultural roots. Space extensions indicate the desire for spaciousness for various functional purposes. Changes to the spaciousness and the aesthetical beautification of the internal living spaces of Malay homes are very common because these elements are parts of the cultural components embedded within the worldviews of the Malay society, which embody its cultural meaning. People in the community are motivated to make changes to their dwellings, as necessary to suit their personal, cultural and religious needs.

Q (8): Mention three things you like about your present house. Please give two reasons why you like them.

Questions 8 and 9 asked people about their views of their current living environments. Both questions looked into the contrasting views, between the likes and dislikes of the type of accommodation people lived in. The table below shows the things favoured by respondents and their reasons:

Things	Freq	Reason(s)	Freq	Total
Location:				
In/near to the city centre	4	Easy access, strategic	9	
Close to workplace	3	Easy commute	4	
Close to amenities/facilities	4	Convenient	4	
Close to family/relatives/friends	2	Visiting, assistance	2	
Green belt area	1	Enjoy greenery, recreation	1	
Opposite a lake	1	Breathtaking	1	
Next to a hill	1	Cool	1	
Good neighbourhood & environment	1	Safe	1	23
Size of property	11	Convenient	3	
		Suits family/own needs	4	
		Easy maintenance	2	
		Easy movements	1	
		Spacious spaces	4	
		Fits all furniture (arrangements)	2	
		Comfortable size/number of rooms	8	
		Better environment than previous property	1	
		Good ventilation	1	

		More space for storage	1	
		Cater for guests' room	2	
		Bedrooms for long term	1	
		Privacy and comfort	1	31
Position/orientation	12	Sun orientation:	2	
		Facing north-south – indirect sun, cooler, no glare	1	
		Each window well lit	1	
		Gets sunrise and sunset	2	
		In the centre of the plot, with spacious land front & back	1	
		Balanced area for small orchard, vegetables & herbs plantings	2	
		Good for health		
		Open space suits outdoor gatherings		
		Corner lot:	2	
		Secluded / Less crowded	2	
		More quiet /calm	1	
		Spacious spaces		
		Kitchen position:	1	
		Privacy	1	
		Suits Malay cooking culture		
			1	
		Toilet position - at the back:	1	
		Practical		
		More privacy		
			3	
		Gets nice breeze, view	1	
		Ample space for kids play area	1	
		Possibility for renovations	2	
		Facing open field – can supervise kids, windy		
		Land at the back:	1	
		For pets' area	1	30
		For drying clothes		
Design:				
Concept	4	Interesting	1	
		Comfortable, convenient room sizes	3	
		Participate in design process	1	
		Use open concept – suits climate	1	
		Based on English tower and Tudor design	1	
		Good scheme	1	
Layout	5	Direct connection between dining and kitchen	1	
		Ease of movements	1	
		Ample storage spaces	1	
		Separate living, dining and kitchen	1	
		Practical	1	
		Good cool ventilation across the rooms	1	
		Sufficient number of bedrooms and toilets	1	15
Interior spaces:				
Kitchen	4	Spacious, comfortable movements	4	
		Good design quality	1	
		Able to dine in kitchen	1	
Master bedroom	2	Silent and dim in the morning	1	
		Cool	1	
		Spacious	1	
		Can accommodate other functions	1	
Interior spatial arrangement	1	Less clutter, more spacious	1	
Audio-visual room	1	Provide privacy	1	
		Relaxation space	1	
Stair case	1	Good divider between living and dining area	1	
Bathroom	1	Separate shower and toilet	1	15

Table 6-12 Things favoured about current living environment and reasons

Family relationship and values

Traditionally, the Malay society is very sensitive towards nature and the activities that happen surrounding them. This is illustrated in the creation of proverbs, maxims, similes, and so forth, which emerge from daily life experiences, manifesting human's interaction with the natural elements, such as soil, water, wind, fire, flowers, trees, days, moon, sun, etc. The sayings and proverbs then become part of the Malay traditional heritage, embedded in the society's value system and in the organisation of the Malay family institution.

In the Malay community, it is a moral as well as a religious duty to help the family member and relatives, especially during times of emergencies (Harun, 2001: 441). This is in accord with the verses from the Quran which says: "[...] and do good to both parents, kinsfolk, orphans, the poor, the neighbour who is near of kin, the neighbour who is a stranger, [...]" (AlQuran, 4:36). Harun (2001) illustrates beautifully in his book, the *Malay Cosmology* that the value system of the Malay community, particularly the family institution, clearly emphasises the establishment and stability – these are derived from the interaction with the natural elements. The stability of the family supports the stability of the society. If the universe and the unity of natural elements can create order, then by following the universe and the unity of the natural elements as guidance, as well as a model, then order within family life and society can be established (ibid: 450).

In this community, the social organisation revolves around the individual's family, relatives and close friends. A house acts as a foundation for social-cultural-religious implementation and is vital to people's lives. Traditionally, houses function to give shape and identity to the communal way of living. Thus, the choice of a house with close proximity to family, relatives and friends are essential to ensure the continuity of the cultural ways of living. Today, the physical distance between the urban/city dwellers and their family members in their hometowns and villages still do not deter people's enthusiasm from keeping in touch with their families in the villages. Hence, the famous tradition of "*balik kampung*" has been established as a new culture for the Malaysian urbanites. The term "*balik kampung*" refers to an event, which takes place when the majority of the Malay urban dwellers would go back to their respective hometowns to be with their families (usually in the villages or small towns in various parts of the country) especially during festive seasons like the Eid celebration. The sense of belonging to the hometown is apparent in the Malay saying, "*hujan emas di negeri orang, hujan batu di negeri sendiri, lebih baik di negeri sendiri*" (a golden rain in the foreign country, a stony rain in one's own country; however, it is still better in one's own country).

Views towards natural surroundings

The wikipedia free encyclopedia (www.en.wikipedia.org/wiki/View) describes, that a view is what can be seen in a range of vision, as described in the 'seeing' section of "the senses". The term 'view' may also be used as a synonym of point of view in the first sense. It may also be used

figuratively or with special significance—for example, to imply a scenic outlook or special vantage point (Ibid).

The need to obtain views of natural surroundings is an important criterion for people's choice of their dwelling place. It reflects people's natural inclination towards nature. Natural surroundings do not only provide aesthetical pleasure, but can also have a strong, relaxing effect on people. Having access to natural views gives people a sense of satisfaction, pleasure and release from the daily tensions. In contemporary housing, the value of a property increases should one have better views or perspectives natural surroundings, such as trees, hills, mountains etc. For instance, in their study of the significance of trees and forests in the urban setting, Dwyer *et al.* (1991) discovered that there is a strong tie between people and trees. They reported that Ulrich and his associates have actually measured the relaxation effects associated with views of trees and other vegetation. They found that individuals who viewed urban scenes with vegetation had slower heartbeats, lower blood pressure, and more relaxed brain wave patterns than individuals who viewed scenes without vegetation. Similarly, Ulrich reported that hospital patients recovering from surgery who had a view of a grove of trees through their windows required fewer strong pain relievers, experienced fewer complications, and left the hospital sooner than similar patients who had a view of a brickwall (ibid).

Summary

The need to develop and maintain family relationship and values, as well as maintain a connection with the natural environment remains the significant aspects for ensuring people's satisfaction with their living environment. The Malay community's principle of life is to live with blessings from God, parents and then the community. According to Islam, the individual's responsibility, is first towards his God (Allah), next his parents, then himself and finally, towards the community. In order to live with blessings from God, people live by the rules and guidance of the religion (the Quran and sunnah) and its teachings, which cover the whole aspects of life that stem from the basic principles of Islam, which is to be modest, pious, kind and sympathetic towards others (human beings as well as living creatures) and many other virtuous aspects of good characters. In summary, this worldview is embedded in the Malays subconscious, and the development of the activities above which are socio-religious-cultural motivations, have become the tradition of the society.

Q (9): Mention three things you do not like in your present house. Please give two reasons why you dislike them.

Things	Freq	Reason(s)	Freq	Total
Size of spaces too small	21	Crowded/limited	9	
		Restricted movement	1	
		Inconvenient for occupant	4	
		Poor ventilation	3	
		Insufficient no. of rooms/space	2	
		Low acoustic level	1	
		Poor workmanship	1	
		Inadequate size of space(s)	2	
Many existing spaces need renovation which	3			

		is costly, but impossible to live without No space for storage, create storage problems	2	28
Position/ Location of: House	8	House is far from work place Facing (main) road/junction Noisy, busy Too close to golf course Too close to the sea Facing air pollution Facing traffic congestion Isolated, away from town Too quiet Inadequate service, public amenities &facilities	3 4 3 1 1 2 2 1 3 3	
Master bedroom	1	Inappropriate	1	
Guest's toilet	1	Too open, no privacy	2	
Garbage location	1	Too near, smelly	1	
Bedroom	1	In front – no privacy	2	
Kitchen	1	In front – no privacy	2	
Manhole	1	Smoke from cooking enters living area Problem when extending kitchen	1	33
Design Elements:				
The stairs	1	Too steep - safety for kids, elderly	2	
The balcony	2	Under utilised, wasted space	3	
The grills	2	Poor quality, material too rough	3	
The rendered cement in front yard	1	No greens, no space for gardening, hotter environment	3	
The marble floor	1	Expensive maintenance, cold	2	
The roof	1	Very poor workmanship, leakage	2	15
External/ outdoor space(s)	5	No space for outdoor activities Hard soil – hard to plant, grass grows long Hard to maintain (too big) No space for extension, drying clothes No space provision for child's play, unsafe Facing vehicle accessible road- unsafe for kids	2 2 2 2 2 2	12
Quality of:				
Design/ Construction	3	Low quality- cracks, leaks, extra cost for repair, piping problems	4	
Finishes	2	Cheap tiles, transient paints	2	
Water supply	2	Bad quality, unhealthy, soils clothes	4	10
Neighbours and neighbourhood	4	Lack of sense of neighbourhood Noisy Dangerous driving Social problems Air pollution Different races, religions and cultures Different attitudes among people – different social status Most residents are at work most of the time – no time for socialising Too many illegal immigrants – no commitment towards cleanliness, safety, civic consciousness	4 2 1 1 1 1 1 1 2	14
Thermal comfort	3	Hotter inside than outside, even at night Dark kitchen especially during evening No cross air ventilation through house Low ceiling – hot house	4 1 1 1	7
Poor kitchen design	2	Kitchen stove does not have hood for absorbing smell from cooking Compact, uncomfortable, prone to dirt Very limited space for movement	1 1 1	3
Orientation of:				
Toilet	1	Facing side of kitchen, not living area	1	

Unit(s)/ space(s)	1	Unable to receive sunlight No privacy Wrong views in and out Wrong judgement in capturing sunrise and sunset	1 1 1 1	5
Interior space(s): Bathroom/toilet next to kitchen Other spaces	1	Inappropriate, kitchen becomes small	2	
	1	Inadequate family space, no privacy	2	4
No lift facility	1	Difficult for movement and carrying	4	4
Design: Layout	1	Spatial arrangement Should separate wet & dry kitchen At least 2 bathrooms, 4 bedrooms	1 1 1	3
Too open	1	No shades, thus hot Need landscaping, means has to spend extra cost	1 1	2
Direct link between kitchen and living space	1	Smell and stains from cooking pass through living area	1	1
Type of house: link/ terraced	1	Susceptible to noise from neighbours and vice versa Heat intolerance, bad air ventilation	1 1	2
Poor maintenance by landlord	1	House uncared for Tenant has to do own repairs using own money, difficult to get refund	1 1	2
No wall to divide living space, bedroom doors and toilets	1	No privacy, restricted movements when guests are present	2	2
The street leading to house	1	Quiet, dark especially at night, unsafe	2	2
Mosquitoes	1	Poor drainage system leads to mosquito breeding	1	1
No Mosque / 'surau' facility	1	Mosque is important for Muslim to pray and hold religious and social gatherings/activities	1	1
Security	1	Insecure when no one is at home – long vacation, gone back to hometown	1	1

Table 6-13 Things disliked about current living environment and reasons

Insensitivity to socio-cultural needs

Small and compact houses are inappropriate for large families, and also irresponsible towards the local climate, culture and religious tradition. In general, not much thought was put into responding to cultural-religious needs in contemporary housing design. By this, the author means that in some housing design layouts are insensitive to locals norms and cultural expectations, for example, either the kitchen or the toilet, or both are located at the front part of the house. A number of respondents recognise the impracticality of compact design, as it is unsuitable for social and cultural gatherings. This happens due to a lack of awareness or knowledge about indigenous housing design solutions to these matters. Kitchen sizes as well as bedrooms sizes are too small, while the position of the toilet contradicts religious requirements.

The lack of sensitivity to social, religious and cultural needs in home designs have left people dissatisfied with the compact room spaces and other main functional spaces like the living space, the kitchen and the outdoor space. The outdoor space provision is usually either too small or non-existent in contemporary housing design schemes. The inadequate size of both interior and exterior

spaces cause not only the problem of crowding, but it is also an indication of the failure of contemporary housing provision to respond to the society's socio-cultural needs.

People are not given much choice about future extensions or renovation, and disallowed the opportunity to utilise open external space for cultural occasions or for leisure activities such as gardening or children's play area. This indicates that the housing design is irresponsible to people's need for outdoor and leisure activities within the boundary of the house(s), especially for the children. In addition, the whole approach to contemporary housing development does not cater for the long-term need for change in the properties. Without considerable attention to these needs, people are deprived of incorporating cultural meanings into their living environment.

The following findings do not relate to the topic of the thesis, but they are still relevant to the future improvement of contemporary housing.

Size constraints in the living spaces

It is important for people to be content with the size of their living environment. A good size property and its compound,, and the kitchen were preferred by the respondents. This is mainly due to the social-cultural-religious activities within the dwelling territory, which affect people's way of living. The respondents also enjoy space for the pleasure and peace of mind it provides. Likewise, the quality of space and size can deter people's motivation and satisfaction of their living environment.

It was also found that the size of the toilet cum bathroom in many new housing developments is sometimes too small and that there is just enough space for the toilet, sink and shower pipe. This causes problems for people with disabilities, larger than normal sized people, and pregnant women. Storage issues in the household are common problems due to the lack of available space in the living accommodation. With a house already too small and no space for extension or even a children's play area and nor a space for teenagers, there is bound to be social phenomena within the neighbourhood. The irony is that even when the housing properties become smaller, their prices keep rising.

Crowding

Current properties are too small and compact, compared to the traditional living accommodation. Compact living spaces have caused crowding in the house affecting health, comfort and security. The immediate consequence is overcrowding, for it is very claustrophobic and stressful especially for people with large families. One can feel trapped in one's own house.

Thermal comfort

Compact house types such as the terraced-link houses and multi-storey flats have created a "hot house" phenomenon. This is due to the increasing temperature inside the house, especially during a hot sunny day.

Summary

From the responses it has been established that the same elements can become both factors of attraction and detestation. The size of the house and adequate space accommodation for the interior and surrounding environment are also major factors of appeal and vice versa. The many issues that arise from people's dissatisfactions indicates a lack of understanding of local people's physical, social-cultural-religious needs as well as their long-term psychological and spiritual effects of living in the contemporary living environment, namely, in terms of privacy, and the needs of space for their socio-cultural activities. The reasons why people are satisfied or dissatisfied with their dwelling environment suggests that cultural, religious and traditional aspects do play significant roles in determining what is and is not appealing to the respondents. The lack of sensitivity or attention to greater consideration of these matters may be due to the current circumstances and challenges that confront today's society, whether it is in the nature of contemporary work and lifestyles; or the increasingly deteriorating education about traditional qualities and values of living, physically, socially, morally and spiritually.

Q (10) Mention three architectural/decorative features/detailing/interior that you aspire to have or have already had in your present house.

Architectural/decorative/interior features	Freq	Reasons	Freq	Total
Roman pillar	1	Modern look, romantic	2	2
Colours	3	Attractive, different Different mood for different spaces – reflects function Give sense of spaciousness Cheerful colours for kids, to be more appreciative and responsible	2 1 1 3	7
Balcony/verandah	6	Space to enjoy fresh breeze and sun Enjoy surrounding view Space to grow plants Personal preference Traditional look Beautiful Additional space to living room	2 3 1 1 1 1 1	10
Decorative designed doors /windows	2	Modern/contemporary look Renew old, ugly doors Beautiful	2 1 1	4
Ceiling décor	5	Beautify home environment Self satisfaction Beautiful and lively Get the expensive/exclusive look Tidy and clean Choice of geometric or flower pattern	1 1 1 1 1 1	6
Lighting design / décor	3	Beautify house Get the expensive/exclusive look To maintain and decorate ceiling To give effect to room ambience	1 1 1 2	5
Traditional roof design	2	Personal interest Good air ventilation Privacy	1 1 1	3

Patio/deck	2	Beautiful, contemporary look Relaxation area	2 1	3
Water features /landscape design	6	For thermal comfort Contemporary look Increase living space Enjoy both internal and external spaces Green surrounding ideal for relaxation space For health, personal satisfaction For family and social use Like greens inside home	1 1 1 1 3 2 1 1	11
Green house	1	To get fresh vegetables Personal hobby	1 1	2
Antique/Semi-antique/traditional curvilinear fretwork (<i>awan larat</i>) Wooden design furniture and finishes	9	Simple, nice and decorative Pleasing to the eye, favourite Solid wood stair looks nice Unique heritage, past reminiscence Traditional look Pure, authentic Malay identity More suitable for Malaysian climate Easy maintenance	1 3 1 2 2 2 1 1 1	13
Natural handmade wooden decorations	1	Like natural Soft look Portable, changeable Easy maintenance	1 1 1 1	4
Malay/local/ethnic architecture+ interior design	5	Has features of indigenous house Looks more outstanding with environment Prefer open plan - very airy and bright Max view and sense of spaciousness Unique/traditional characteristics Race's heritage House should be product of own culture Values of Malay archipelago	1 1 2 1 2 1 1 1	10
Traditional décor – Calligraphic/motif (<i>awan larat</i>) Carvings for the roof & walls	2	To instil traditional values at home Façade does not look so plain House has more character	1 1 1	3
Design décor on walls	1	Modern look, beautiful	2	2
English architecture	1	Dream home	1	1
Modern eclectic architecture	2	House does not need much décor Preference for Bali style	1 1	2
Modern architecture/interior design/furniture	7	Cleaner, simpler, up to date Space looks bigger Enough for furniture and necessities Suits personal taste Separate space and functions Comfortable	2 1 1 2 1 1	8
Mediterranean interior design	1	Simple and tidy Feels like in holiday island	1 1	2
Porcelain pots	2	More English-like Beautiful Contemporary look	1 2 1	4

Attic	1	Personal preference Practical	1 1	2
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Table 6-14 Architectural, decorative feature, detailings and interior aspirations for dwelling

The question intends to identify respondents' aspirations towards aesthetical features in their contemporary living environments. It also attempts to discover the level of people's knowledge about their dwelling architecture.

Colour

One of the aspects of the appreciation of nature is society's common appreciation of colour especially the natural, primary colours such as black, white, green, yellow, red, blue and brown. In the indigenous or traditional societies, colour is mainly associated with nature. For instance, in the Chinese cosmological understanding, colour is attributed to nature, human beings and the natural environment. The concept of Wu Xing⁷⁸ is central to all elements of Chinese thought, including science, philosophy, medicine, astrology, and Fengshui (<http://www.kheper.net/topics/eastern/wuxing.html>). The table below is adopted from the same source to illustrate the correspondence between colour, nature, human beings and the environment:

Wu Xing	Colour	Season	Weather	Direction	Yin&Yang organs	Emotion	Quality
Earth	Yellow, brown	Late summer	Humid	Centre	Spleen & stomach	Meditation	Stable
Metal	White, golden, Silver	Autumn	Dry	West	Lungs & large intestine	Worry, sorrow	Sharp & pointing
Wood	Green or blue	Spring	Windy	East	Liver & gall bladder	Anger	Enduring
Fire	Red, orange, purple, pink	Summer	Hot	South	Heart & small intestine	Joy	Radiant & hot
Water	Black, dark blue	Winter	Cold	North	Kidney & bladder	fear	liberal

Source: <http://www.kheper.net/topics/eastern/wuxing.html>

Table 6-15 Colour symbolism according to Wu Xing Concept

Similarly, in other cultures, colour embodies a deeper meaning. According to http://www.kheper.net/topics/Islamic_esotericism/latifa.htm, in Sufism, reference is often made to a number of subtle organs or centres, called latiaf (singular latifa), each of which is associated with a particular colour and psychospiritual faculty. The simplest version of this is described by Idries Shah and, quoting him, Kenneth Raynor Johnson, who give the following correspondences:

Intuition	khafi	black	Forehead
Mind ("heart")	qalb	yellow	left side of body
Spirit	ruh	red	right side of body
Consciousness	sirr	white	solar plexis

Source: http://www.kheper.net/topics/Islamic_esotericism/latifa.htm

Table 6-16 Symbolism of colour from the perspective of Sufism

⁷⁸ "Wu Xing" is actually the short form of "Wu zhong liu xing zhi chi" or "the five types of chi dominating at different times". Water dominates in winter, wood in spring, fire in summer, metal in autumn. At the intersection between two seasons, the transitional period is dominated by earth. It is customary in Chinese writing to summarize a longer phrase into a couple of characters. Sometimes the meaning is completely lost in the abbreviated form if the original phrase is not referred to. Wu Xing is one such example.

In the Malay culture, colour is closely linked to nature, and as Osman (2000: 293) suggests the colours are often associated with its life-giving purpose and vegetative images. Hence, the red colour refers to mother earth, blue to the sky, green for the greenery and plants that exudes life, white is the cloud, yellow (orange-yellow) is the sun and blue-green for the sea. In another perspective, Nasuruddin (2001) claims that the Malay symbolism of colour mainly refers to the Hindu beliefs, especially in the traditional Malay performance. In the context of a structured-society, colours also signify power and authority (Osman, 2000). According to the Malay Annals Osman relates that the four colours, which symbolise power, are white, yellow, red and black. Based on their knowledge backgrounds, the two experts have this to say about symbolic meanings of the four colours: Nasuruddin (2001: 327) suggests that black symbolises maturity and tranquillity, whilst Osman maintains that black is universally considered sinister and evil, fringing on the world of supernatural elements. Nasuruddin regards the colour red as a symbol of desire, but Osman (2000) claims that red signifies bravery and the colour of honour for the chosen warrior. They finally have common views on the colour yellow as an exclusive colour for aristocrats and kings and white, which refers to goodness, purity, beauty and nobility. Nasuruddin adds that all four colours that are painted on the faces of the main characters of the shadow-puppet show, also have a connection with the four wind directions; black for the north, red for south, yellow for the west and white for the east.

In the field of textile and decorative art, Osman (2000: 294) mentions that the description of colour in textiles comes in a wide range of tones and hues, in which the description given to a particular colour and shade is derived from the world of nature, such as from herbal plants, palms, fruits trees and flora. Ismail (2002) asserts the concept of colours in textiles art is introduced from the velvet fabrics (in yellow, red and green). These are the Malay archipelago's royal decorative colours that frequently embellishing the curtains, canopies, pillow cases and so forth (ibid: 2002) <http://www.kakiseni.com/articles/people/MDIxOO.html>

Colour is also associated with the medicinal, magical and ritual significance of the Malay society since the beginning of time. According to Nik Abdul Rahman bin Nik Dir, the state of Kelantan (north east coast Peninsula) *pawang diraja* (the royal wizard), in traditional medicine, colour is ascribed with certain qualities – white for purity, yellow for authority, green for asceticism, blue for godly, red for warrior-like, grey for bravery, black for meditation. Green also symbolises the colour of Islam and the colour used by the prophet (Osman, 2000: 294).

Water

Water as a natural environmental element carries different meanings for many cultures. The use of water as a feature in home landscaping design is not new. The origin and symbolism of water can be traced from many Eastern religious and cultural traditions. Water is the essence of the gardens of paradise in the Islamic faith. Hence, throughout history, it has been established that the Muslim rulers from Moorish Spain to Persia sought to reproduce the image of paradise in the design of their

palace gardens, creating elaborate water features, pools and fountains (Chatel, 2002). The gardens of the Alhambra in Spanish Granada, the Bagh-e-tarikhi in Iran's Kashan, and the gardens of the imperial palaces in Morocco's Marrakesh all testify to this desire to emulate Quranic paradise on earth. All are designed around water features and fountains that have been subtly woven into the layout of the beautiful parks, hence combining water and the beauty of the natural landscape to fill the human soul with faith, joy and happiness.



Source: Th einternet

Figure 6-2 Natural waterfalls (above left and middle) and a man-made (above right) waterfall landscape design

The Chinese garden web source <http://www2.ville.montreal.qc.ca/jardin/en/chine/eau.htm> mentions that water, which forms the earth's arteries, symbolizes both life and the feminine principle of the universe (yin). Its flat surface works like a mirror and seems to increase the dimensions of the surroundings. Water is essential to the representation of nature as a whole, and its horizontal line counterbalances the effect of the mountains. Water is one of the dominant, unifying elements of a garden.

According to the website http://en.wikipedia.org/wiki/Japanese_garden, the water source in a Japanese garden should appear to be part of the natural surroundings; this is why one will not find fountains in traditional gardens. Man-made streams are built with curves and irregularities to create a serene and natural appearance. Lanterns are often placed beside some of the most prominent water basins (either a pond or a stream) in a garden representing the female and the male elements of water and fire. In Japanese tradition, this is known as yin and yang. In some gardens, one will find a dry pond or stream. Dry ponds and streams have as much impact as do the ones filled with water (ibid).

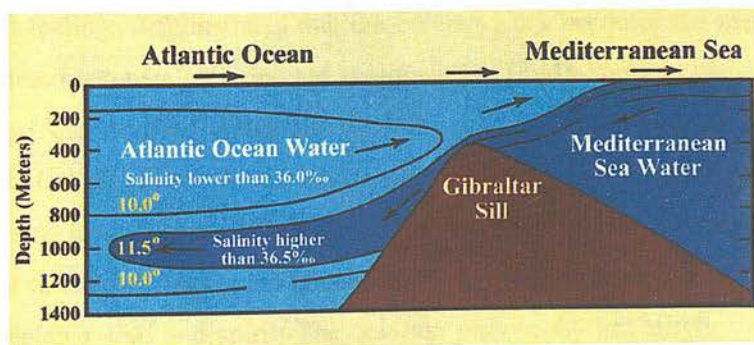
Francesca de Chatel (2002) writes, Islam ascribes the most sacred qualities to water as a life-giving, sustaining and purifying resource. It is the origin of all life on earth, the substance from which Allah created man (25:54), and the Holy Quran emphasises its centrality; “We made from water every living things (21:30)”. Water is the primary element that existed even before the heavens and the earth did: “And it is He who created the heavens and the earth in six days and his Throne was upon the waters (11:7)” [ibid].

The purity aspects of water

In Islam, water is viewed as a symbol of purification. It acts as a means of physical as well as spiritual purification. In the physical purification, there is the minor purification called *Wudu'* (ablution) which is carried out before prayer and the major purification, called *ghusl* which cleanses the whole body from impurities after intercourse, menstruation, childbirth, before adopting Islam, and after death (Chatel, 2002). The spiritual aspect of taking ablution or *ghusl* is in the act of worship, i.e, while the body's being cleansed, the mind must be completely focused on Allah. Without the remembrance of Allah, carrying out *wudu'* or *ghusl* simply for refreshment, may makes it invalid (ibid). Ms Chatel describes that the physical and spiritual components of the purification ritual reflect the Islamic principle of *tawhid* (unity): body and mind should be united in the performance of religious duties. Islam means "surrendering to Allah", and Muslims, "those who have surrendered to Allah", do so with body and soul. An inscription in the baths of Granada's old Moorish Quarter expressed the link between physical and spiritual purity. It says that the body is the mirror of the soul, and therefore "outer stains suggest inner ones as well." [ibid].

Boundary in water

Water also possesses the properties of boundary. Modern science has discovered that in the places where two different seas meet, there is a barrier between them [Ibrahim (1997, 1996)]. The finding has already been established in the Quran, which mentions, the barrier between the two seas that meet and they do not transgress each other. "*He has set free the two seas meeting together. There is a barrier between them. They do not transgress.*" (Quran, 55:19-20). The Quran also mentions the divider between fresh and salt water as follows: "*He is the one who has set free the two kinds of water, one sweet and palatable, and the other salty and bitter. And He has made between them a barrier and a forbidding partition.*" (Quran, 25: 53). The human eye cannot see the difference between the two seas that meet, nor can they see the division of water in estuaries into three kinds: fresh water, salt water and the partition (zone of separation) (Ibrahim, 1997: 19).



Source: Ibrahim, I.A (1997: 18) A Brief Guide to Understanding Islam

Figure 6-3 The above digram shows the boundary in water between the Atlantic Ocean and the Mediterranean Sea.

The Carving Tradition

The most recognised Malay carving production is the traditional Malay Curvilinear Fretwork ('*Awan larat*⁷⁹') wood carvings. According to Ismail (2002), the Malay carving tradition – decorating with carving productions has been the symbol of cultural supremacy since the establishment of the majestic tradition of the sultanate of Melaka. The royal palace was filled with interior equipment such as the throne, royal bedroom, up to the external spaces or the small palace garden, the guests' resting place, the drum hall, the land carriage, or the royal sea ship as well as the gravestones at the royal graveyards have all been adorned with the carvings by the Malay's 'carving-know-how' (ibid).



Source: Fee (1998) *The Encyclopedia of Malaysia, Vol.5: Architecture*.

Figure 6-4 An illustration of 3 types of woodcarving designs known as the "*Awan Larat*". The top carving shows a mythical bird-like creature with a lion's head and a long feathery tail; the middle shows a woodcarving design formed by the *tebuk terus* (direct piercing) technique; and bottom carving design is a combination of pierced and cut out from the pane known as *tebuk timbul* (emboss piercing) technique.

Ismail (2002), attempts to express the symbolism of Malay sensibility or 'the soul of the carving image' in a poem that has been composed by a poet with the vigour of the roots and spirit of carving in her article, "*meng'Ukir Budi Melayu*" (*Carving the Malay's Sensibility*). She illustrates that through the expertise in carving, combined with the artistic feel (soul and mind), that the product would be beautiful and pleasing. The house, which is originally merely a place for shelter from the rain and hot sun, has been added with the values of the decorative embellishments. The unity of work and feelings demonstrates that the carving work becomes the metamorphosis of the artist's feelings mixed between pleasure and responsibility (ibid). She also claims that artists in the Malay world 'work' to produce consumer art, but with full creativity and aesthetics that have undergone the test for centuries. 'To carve' is not merely just using materials (wood, soil, stone, metal etc.), but it also incorporates ideas, opinions and feelings. Ismail also emphasises that it is the space for 'the soul of carving' that is being sought. First, the mind space encompasses the pulsation of feelings, the Malay's soul and spirit. The quatrain philosophy has taught, '*berguru ke padang datar*' (learn from your master until you reach the open plains) and '*alam terkembang jadikan guru*' (the expanding world, make it a teacher) [see Chapter Three]. What is meant here is, to the

⁷⁹ *Awan Larat* means the 'trailing pattern': it refers to the quintessential Malay form found in woodcarving, boat decoration, kite designs, silver work, and embroidery. A meandering arabesque with stylised foliage (Illustrater glossary, ibid)

Malay sensibility, when learning, one must learn whole-heartedly and from modest natural surroundings, learning can be expanded because we are continuously learning from nature itself. It is from the universe that one may contemplate, explore as well as learn. This is the world of the Malay intellect and sensibility, borrowing everything from the Supreme Creator. This notion is manifested in the decorative motifs, which adopt views or elements from nature; the marching clouds, the glittering lightning. All of the motif adornments are picked from the beating pulse of God's creations, borrowed and returned to its proper place – man and the living nature themselves (Ismail, 2002).

Traditional Malay decorative elements such as the curvilinear fretwork symbolise artistic beauty, and quality of design, which stem from the society's indigenous worldviews, cultural knowledge and appreciation of nature and natural creations that have been transformed into the physical world in the form of art. In other words, the antique and traditional choices illustrate the interest in natural elements, and the appreciation of the quality art and its beauty. The author thinks that these traditional architectural features should be maintained for the knowledge of the younger generation. The older generation needs to maintain a part of the culture that relates to their childhood upbringing in their parents' old house, as well as the inherited tradition of their ancestors. Respondents also viewed it as a unique quality for the community and that it is of practical use.

Summary

Colour, water and carving traditions are attributes of nature that have been transformed into symbolic cultural meanings and cosmological understandings by indigenous societies. They add values and qualities to the living environment and manifest the relationship between man and nature, man and God, as well as man and man. They also act as the catalyst intellectual development and creativity in relation to design, gardens and crafts in the built environment.

Q (11): Please mention three things that your ideal house and surrounding environment should have and please give one reason for each thing you mentioned.

Ideal house and surroundings	Freq	Reasons	Freq	Total
Spacious spaces/ rooms:				
1. Living room	6	Suits large family/personal needs Many guests during gatherings For furniture & freedom of movement Family gathering space	2 2 1 2	
2. Bedrooms	5	Suits family/personal needs Extra storage and functional space	1 1	
3. Outdoor compound for play area, gardening and/or landscape design	25	For family & social recreation area / kids play safe To be close to nature for good health/ green environment For relaxation/leisure space Enjoy meaning of family life at home For planting, gardening To maintain aesthetical values in living space	13 4 2 1 3 2	

4. Kitchen	5	To have village-like environment	1	56
		To be near God's creations	1	
5. House	3	For preparing/cooking comfort	3	
		Enough storage for kitchen utensils	2	
6. Special function rooms	14	More comfort	1	
		Peace of mind	1	
		Easy activities, furniture organisation	2	
		To encourage reading, to do work	1	
		Swimming privacy exercise, cooling	1	
		Special place for parking car(s), security	2	
			5	
		To gain peace of mind	1	
		To perform prayers/ religious activities with family	1	
		Space for personal interests/equipment	1	
Location/orientation: Next to natural surroundings/ views Quiet, peaceful area, far from main road Not too busy nor too remote Higher places House oriented towards <i>Qibla</i>	4 4 1 1 1	Love for tranquil environment Hills as inspiration Natural landscape therapeutic healing Close to nature, love the view Safe from air & noise pollution Suits personal and religious needs Kids safe to play, privacy Easy access to facilities, isolated	1 1 1 3 4 1 2 1	14
Amenities and facilities in close proximity	11	Recreational purposes Mental/spiritual relaxation Ease for kids to go to school Basic necessities available nearby Family recreation area within local area Convenience Health treatment available nearby Personal interest facility nearby Mosque provides space for religious activities	1 1 1 3 1 1 1 1	11
Single/bungalow type with many Bedrooms and bathrooms/toilets	5	Comfortable for family needs Need to separate kids – girls/boys; room for guests	5 2	7
Balcony, patio	5	For day and night viewing For relaxation space	1 3	4
Security	4	Police station for security Contemporary life demands security	1 1	2
View, green surroundings	4	Trees provide healthy, cooling environment	3	3
Privacy	3	To obtain sense of freedom and privacy from neighbours/outside Islamic values	2 1	3
Neighbourhood	3	Safe, friendly relationship Tolerant neighbours	2 1	3
High ceiling	1	Give sense of spaciousness	1	1
Storage	1	For storage space	1	1
Bright natural lighting into house	2	Preference for natural lighting	2	2
Provision for rubbish dump site And seamless drainage system	2	To maintain cleanliness and residents' welfare	2	2
Flat, not split level house	1	For freedom of movements for the elderly and kids	1	1
Contemporary Malay architecture	1	Contemporary design & material	1	1
Park-house concept	1	Each house has access to parks, public amenities for safety, children's activities	1	1

Hidden and secure drying area	1	Privacy	1	1
Maximum wind flow throughout interior	1	Provide thermal comfort	1	1
Well-designed interior and external	1	To achieve most appropriate design for comfortable living environment	1	1

Table 6-17 Ideal house and surrounding environment with reasons

The Ideal Home

Respondents were asked about their aspirations in relation to their ideal house to establish the level of cultural meaning and cosmological understanding that motivates or influences people's perceptions of their living environments. Betru (2005: 122) mentions that the word 'ideal' in English means "a conception of something as perfect, most suitable". Salamati (2001) adds that the meaning of "house", "home" and "ideal home" vary in different societies, depending on cultural background (Ibid). This topic has been discussed earlier in Chapter Two. A brief discussion of the three main aspirations for the respondents' ideal homes follows.

The Sense of Spaciousness

Spaciousness seems to be most respondents' preference for their ideal houses. Open external space of their residence, which would be used mostly for doing activities such as gardening, landscaping, playing and social occasions. The need for an adequate size of interior living space reflects the individual's and his family's desire to sustain their cultural and religious ways of living. A good size external outdoor space within the compound of the house property indicates people's need for social and recreational activities involving nature such as gardening, landscaping, growing fruits and plants, and enjoying the beauty of natural surrounding views. From the responses, it is evident that green outdoor space is as important as the indoor spaces for the people. Both spaces must be large enough to meet personal and family needs as well as for socio-cultural-religious activities.

The Quality of Space

Cultures differ with regard to their use of space and the physical environment (Hall, 1966). The functions of space are shaped by the native cultures as regards their ways of living and their worldviews. Space is a very important criterion to determine people's satisfaction or discontent towards a living property. Aiello *et al.* (1980: 108) mention that in adjusting to the environment, people adapt successfully certain patterns of living, illustrating the ability of the natural environment to have a tremendous impact on the shaping of culture. Conversely, cultural practices also often result in the modification of the environment (ibid). Aiello *et. al* also commented that, *"in adapting to the natural environment, people attempt to control or alter the physical setting by constructing man-made or built environments (e.g., homes, offices, cities, towns or villages). These built environments are constantly being modified to meet human needs and to reflect the prevailing attitudes, life-styles, and customs. Thus, cultural values influence people's perceptions and views about the environment, which in turn affect environmental design. Since the built environment is a product of culture, it helps shape future generations by serving as a medium for the transmission of norms, customs and values."* [The thesis emphasis]

Waterson (1990, 1997) in "*The Living House*" examined how everyday uses of space within the house may serve to shape the relations of those who inhabit it. Rules about the uses of space provide one of the most important ways by which the built environment can be imbued with meaning; reflexively, that environment itself helps to mould and reproduce a particular pattern of social relationships (ibid: 167).

Space, its functions and spatial organisation are shaped by the society's cultural rules and the innate principles of its indigenous worldviews. Hence, it has a deeper role, which embodies socio-cultural-religious meanings. In this light, the author thinks there is an impending need to review the appropriateness of the size of spaces within a housing property and the flexibility of the spatial organisation of contemporary housing in Malaysia. The thesis also suggests that the local society's spatial behaviour has to be considered in the process of designing homes for the people, instead of merely copying the internationally stereotyped housing architectural plans.

Natural Setting

According to most of the respondents, an ideal home should be located within natural surroundings or close to the natural environment such as the hills, forest, trees, the river, water falls, etc. It is clear that the need to be close to natural settings indicates people's desire for an interaction with nature. Men are generally attracted to a natural setting not only because of its aesthetical qualities, but also the deeper, more symbolic meanings, which the natural environment possesses. Abou El-Ela (1995) states, the term, 'natural environment' refers to places and their topographical features, such as mountains, valleys, rivers and seas. It also refers to their environmental conditions, such as temperature, humidity, wind and rainfall and to the place's natural resources such as materials, minerals, social, flora and fauna. All these variables of the physical environment greatly affect people's behaviour (ibid). He also claims that the natural environment factors represent the predominant factors that affect the identity of people and their built environment.

Many indigenous cultures and societies associate themselves with nature either metaphysically or spiritually due to their need to adapt with the environment as well as a form of motivation. Thus, nature does have a profound impact in shaping a society's culture, especially when the society's tradition and worldviews have evolved and developed with nature. Elfiki (2003: 121-122) suggests that the natural world may constitute a subject for deep affection, expressing love, and friendship [e.g. birds feed by picking out food remaining between a crocodile's teeth]. These feelings of relationship and connection provide intimacy, a way of expressing trust, and a sense of kinship. Through the shared conviction in life's underlying meaning, people achieve a sense of cohesion and mutual commitment. These sentiments encourage the belief that at the core of human existence resides a fundamental logic, even harmony and goodness. Thus, perceiving universal patterns in creation offers a foundation for morality, which gives definition and shape to human existence (Kellert, 1999).

From the mutual interaction with nature, a society may embody its understanding of nature into the physical built environment, craftworks and socio-cultural traditions. In this view, Nasr (1968, 1976, 1988, 1990: 87) referring to the Japanese culture, states that among a people with remarkable artistic sensitivity there developed the most intimate contact with nature, from rock gardens and landscape paintings to flower arrangements, all based on the knowledge of cosmic correspondences, sacred geography, the symbolism of directions, forms and colours.

Summary

For the respondents, spaciousness, quality of space and natural settings are some of the important aspects for an ideal living environment, called home. The need to achieve a sense of spaciousness in both interior and external living spaces reflects the individual's and his family's desire to sustain cultural meanings in their dwelling place. The quality of space and spatial behaviour - how people use it, how territories are defined, how the spaces are organised and so forth – must first be understood by the built environment design professionals before attempting to provide an adequate housing provision to suit the local society. People's general preferences to be attached to the natural environment should be understood by the design professional as having a profound significance in shaping human culture. Therefore, nature should be the touchstone for a sustainable living environment for the community as well as the whole nation.

Q (12): Mention five spaces that you would prefer the most to have in your ideal house and its surroundings. Please give one reason for each space.

	Room/space	Freq	Reasons	Freq	Total
Rank 1	Large living room	25	Family gathering space Place to entertain many guests Need spacious, nice resting space Has to be big enough to separate men and women guests and children's activities Convenience For guests' comfort Gives first impression about home owner	6 10 3 1 1 3 1	25
Rank 2	Spacious, bright & airy kitchen	22	Enclosed kitchen to prevent smoke disturbance For convenience – during meal preparation Space and cooking comfort – most vital Interest in cooking Family, relative, close friends' focal point The busiest space in every house	1 2 6 1 2 1	13
Rank 3	Spacious garden, outdoor space	21	Interest in gardening, landscape design To have village-like living environment Space for relaxation Open and refreshing (mind/mood) space For gardening and social activities Stimulating and picturesque environment Enjoy the serenity of green environment Green, cool environment	4 1 1 1 3 1 1 1	13
Rank 4	Spacious bathrooms, toilets	20	Time well spent, space for relaxation Vital for family needs Tidy, clean & easy maintenance Good ventilation Comfortable For convenience and privacy	2 2 3 1 6 1	15
Rank 5	Spacious master bedroom, bedrooms	17	Privacy for the whole family, most private Space to relax, unwind Large clothing storage Separate rooms for girls and boys Comfortable place for sleeping Must have best views Ample space for reading, praying	6 7 1 2 8 1 1	26

Table 6-18 Five most important spaces for occupants and reasons

The question is posed to understand people's views of the living spaces, which are directly or indirectly related to personal, social, cultural and religious forces, and which motivate people to recognise their significance. From the questionnaire responses, the top priority space is the living room, followed by the kitchen, and then the garden or open outdoor space. Bathrooms/toilets were the fourth space deemed important, whilst the master bedroom was the fifth space viewed as important.

The Living Room

In the Malay culture, a living room acts as both a public and private space within the interior space of a dwelling. The flexibility of function of the living room makes it a very important space for the family. Its function changes for various occasions and different purposes, according to the needs of each family or occupants. In normal everyday life, it is a family gathering space for leisure and entertainment activities. During special occasions like wedding ceremonies, funerals, religious and social events, the space becomes the public gathering space for the main activity. These cultural

activities are still active within the Malay community. Because of these reasons, the living room area needs to be spacious, open, simple and easy to maintain.



Figure 6-5 The views of contemporary Malay house living environment

Source: Author

In the traditional Malay houses, the locations of the entrance porch (normally, the *serambi* or *anjung*), the living room and the kitchen indicate a sense of order in controlling entrances into the house, for example, the '*serambi*' is the main entrance for the male guests, whilst the kitchen, which is normally positioned at the back of the house, acts as the main entrance for the female guests - usually other female family members, relatives and regular female friends. A similar situation exists in other parts of the world, for example, in Peru, Alexander (1969) discovered that the "entire" home of certain low-income families had been subdivided in order to permit visitors to enter into different parts of the home. Usually, close friends are given access to the informal living room and kitchen areas, whereas strangers typically only have access to the door and a porch (if one exists) (ibid: 110).

Kitchen

The kitchen is a reflection of Malay society's cultural ways of living. Cooking comfort is considered the most important aspect for the Malay society. Therefore, it has been the norm in this community to have a large kitchen, to cater for food preparation and also as a focal point for a gathering place. In short, the kitchen remains as the heart of the house for the contemporary Malay family.

There is also flexibility in the use of the kitchen. When the function changes, its spatial definition is also affected. In a normal situation, it is the most intimate and private space for the family, but during socio-cultural occasions, it may act as a gathering space for the whole family, relatives and friends. During these times, the kitchen becomes a public space, with a special preference for the female gender.

Comparatively, in an English working-class culture, the living room/kitchen constitutes a deeply private place, and is truly the centre of both family and individual life (Richard Hoggart, 1959: 32-38). And within that one room, each person may well have his or her own place – a special chair or

a group of objects. Such private places are set apart from the public world, either physically or, because of their particular meaning for us (ibid).



Source: Author

Figure 6-6 A conveniently spacious contemporary kitchen in a Malay house

The external (outdoor) living space

The exterior living space (lawn / compound) must also be spacious enough to accommodate special occasions, or social activities; gardening or landscape design as well as the children's play area. Hence, a large compound is preferred because respondents love the idea of the sense of openness. It is appropriate for various cultural- religious- social activities and offers the opportunity for kids to play safely around the compound of the house.



Source: Author

Figure 6-7 View of a conveniently spacious front compound of a contemporary Malay house

Garden, landscape (the green outdoor space)

The desire to have one's own green environment demonstrates man's innate need to be connected with nature, be it for social, health or for spiritual reasons. Having a fruit orchard and a garden has already been a part of the culture of the Malay society for centuries. This is due to the geographical location of the country, which can really provide a whole variety of tropical fruits and edible and medicinal plant choices. Historically, the traditional Malay community, was an agricultural society, hence, life revolved around nature and the natural environment. The findings show, even though the nature of people's professions have changed over the course of the century, the need to be close to nature apparently is still strong within contemporary Malay society.

Identity of the traditional Malay garden

Desmond Ho, the owner of Terra Garden Limited, Malaysia, commented on the identity of a Malaysian garden, that the concept of a garden should be applied based on the heritage of the local culture. What is expressed is the aesthetical values. He perceives that, *“The beauty and tranquillity of nature is for human pleasure. Plants, combined with elements of nature give the eternal peace. The house’s front yard (or lawn) is like the face of the house. It needs to be decorated beautifully and attractively because it acts as the reflection of the owner’s personality”* (<http://www.bharian.com.my/m/BHarian/Sunday/Lanskap/20060625105658/Article/>).



Source: the internet

Figure 6-8 A traditional entrance design into a traditional Malay garden

The web source, <http://www.bharian.com.my/m/BHarian/Sunday/Lanskap/20060715121200/Article/> describes that the lawn area surrounding the house is closely connected with the space and activities inside the house. The spatial division is obvious from the multi-functionality of the varying landscape designs. A typical traditional Malay garden area is normally divided into three main divisions, i.e., the front lawn, the side lawn and the kitchen lawn as described below:

i. The front lawn

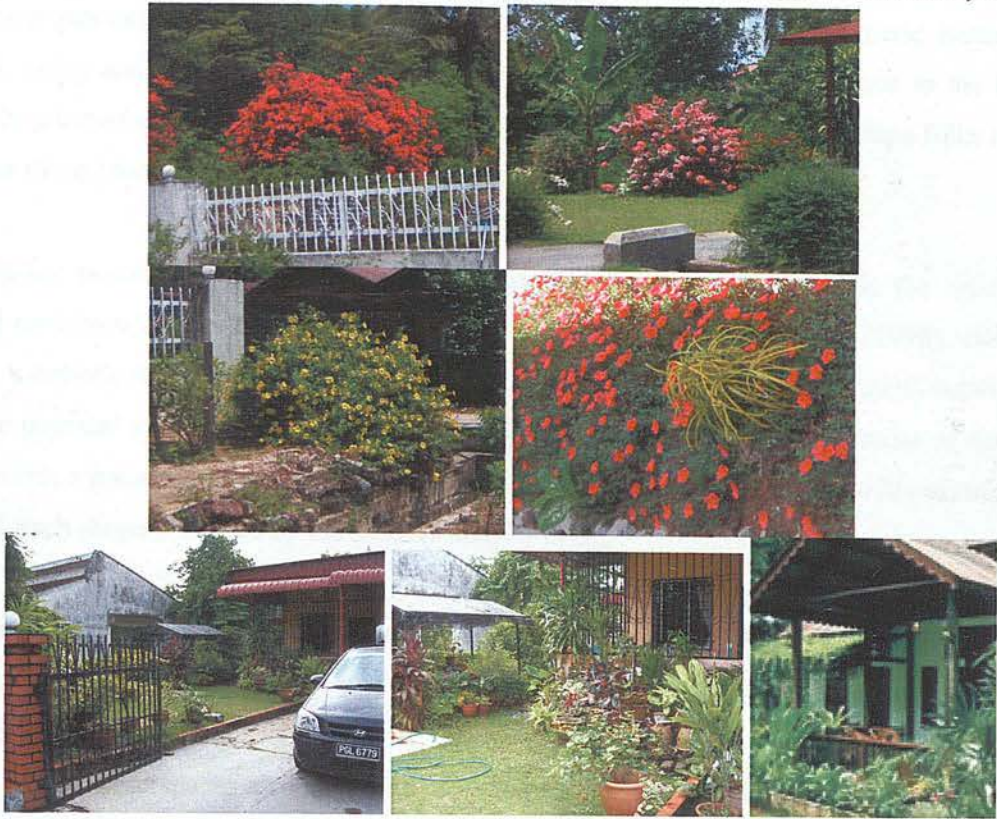
It is a spacious open space, very attractive and is the part of the garden that is given the most attention. Usually, the front compound is used to hold many socio-cultural-religious activities such as the wedding feast.



Source: the internet

Figure 6-9 A Spacious front lawn (compound) or a traditional Malay house, normally used as eating space for guests during festive occasion such as a wedding

In this section, there are varieties of flowers in different shapes and colours and fragrance. Bright coloured ones and fragrant smells are the main factors of consideration when choosing flowers for the front lawn. Examples include, the Puding flower, the hibiscus flower, the Siantan flower (*Ixora Fistula*), the Bougainvillea, kemuning, cempaka, kenanga and kesidang.



Source: Author and the internet

Figure 6-10 Views of contemporary Malay front gardens, with potted plants and bright tropical flowers

ii. The side lawn



Source: the internet

Figure 6-11 Views of a traditional Malay house side garden

Most daily activities occur in this section, because it is normally facing the kitchen door and close to the internal kitchen area. In the traditional Malay agricultural society, there would be the paddy store, the bathroom, and the chicken's den at the side lawn of the house. The landscape here is filled with fruit trees such as mangosteen, mango, ciku (sapodilla), rambutan, kedondong, henna, limau kasturi (kalamansi lime), and betel leaf. Most if not all the plants or trees here can be used as food and medicine. Tall trees such as coconut trees and areca-nut trees are mainly planted on the sides of the garden to denote the boundary from the neighbour's house. Banana trees are also plentiful because of their many benefits too.

iii. The back lawn

The back lawn of the traditional Malay house is the private outdoor space normally used as a cooking space, and for washing and laundering clothes. In modern houses, the space is also known

planting plants and spices for cooking use such as lemongrass, screw-pine, turmeric, kesum, curry, selasih, chilly and yam. This part is also called the kitchen lawn. The area next to the border is normally planted with bamboo trees, which act as the dividing fence. Some village folks also used the area to care for animals.

The highest percentage of people in the questionnaire responded positively to the creation of a natural environment within the territory of their living environment. Abdalla (1998), citing Fitch (1972) mentions that, "the way people build their world affects all the interactions between them and the physical environment. The changes should reflect the beliefs and attitudes of the society and provide a pattern for the future. However, the relationship between man and his environment is mutual, each shape is shaped by the other (Fitch, J., 1972)."

Gardens, landscape designs, orchards, and the green outdoor space of a dwelling place demonstrate the society's needs for connection and mutual interaction with nature and the natural environment, and there are reasons for responding to the needs such as the health, food, for recreational purposes, and so forth. These spaces also act as a motivation for people to have a healthy and balanced life, and they provide a sense of peace, and tranquillity. The thesis views that housing design and development should encourage the creation of such objects within the compound of the individual housing property by providing an adequate size of space for the purpose.

Summary

The living room and kitchen represent the community's most important spaces that accommodate the socio-cultural activities. These activities, values, and privacy, are inseparable from this community. Secondly, also due to cultural and social needs for activities within the territory of one's own home, there is also a significant demand for a good size outdoor living space. This also indicates awareness among respondents for the need to be close to nature in order to create healthier and more meaningful lives. However, in the reality of today's housing provision, these needs, unfortunately, have not been considered.

Q (13): Mention three types of building materials for your ideal house starting with one you prefer most. Please give two reasons for each of your choices.

	Material	Freq	Reasons	Freq	Total
Rank 1	Wood/ Timber – <i>Belian, Selangan batu, jati, etc.</i>	26	Cosy, cooling, suits climate Natural look Beautiful, attractive colour/ appearance Closeness to nature Strong, firm, & durable High aesthetic value Softens overall design Traditional/antique/country/ ' <i>kampung</i> ' look, style Personal desire Health reasons Environmentally friendly, blends in with environment Easy maintenance Tropical identity	8 6 6 3 3 2 1 8 1 1 1 1 1	42
Rank 2	Red clay bricks For walls	12	Long lasting, durable Cooling Exposed brick and natural look is best Fine workmanship No need to paint Expensive, versatile look Affordable, suits climate High quality, beautiful	6 2 3 1 1 2 1 2	18
Rank 3	Combination of timber, concrete & glass walls	7	Contemporary look Beauty of architecture Personal dream Get wider perspective To bring outside inside Style preference Beautiful 2 nd alternative to 100% timber construction	4 2 2 3 2 2 2 1	18
Rank 4	Concrete masonry	6	Low/ easy maintenance Strong structure Easy to mould & shape Durable Convenience Suits climate	1 2 1 2 1 1	8
Rank 5	Stone/ rock walls	6	Natural, blends with environment No need paint, saves cost Durable Won't be eaten by termites Strong material, appearance Does not absorb nor keep heat Classic/rustic look Quality guaranteed	1 1 1 2 2 1 1	10

Table 6-19 Preferred choice of building materials and reasons

Wood (timber)

Wood is one of the indigenous building materials, which has a great significance in Malay's cultural meaning and cosmological understanding. As a building material, it is recognised for its natural look, its aesthetical quality, flexibility, durability, uniqueness, and as being environment-friendly. It is also the most appropriate building material for the local (Malaysian) climate as it

blends in well with the surrounding environment. The use of wood in housing construction today is minimal due to the preference for the more modern building materials such as concrete, masonry and steel. Yuan (1995) claims the erosion of confidence in the local technologies and products as a result of Western-style models of development is the major cause of the current predicaments. In his words, "*The bias towards modern science and technology by policy-makers, academics, researchers and professionals has led to the neglect and decline of local technologies and cultural forms such as the traditional Malay house [...]. In the case of the traditional Malay house and wooden house in general, their status is lowered by the over-glorification of the Western-style house forms and modern building materials*". His view is supported by Cockrem, a traveller who comments that all this genius and exquisiteness is threatened with extinction; this under the onslaught of capital-driven, and grossly inappropriate modern architectural forms (Tom Cockrem, http://www.thingsasian.com/goto_article/article.2586.html [14/10/2006]).

In contrast, it has been extensively used in the traditional Malay houses because of a deep appreciation of the beauty and functionality of wood. There are reportedly around 3000 species of wood in the country. Apart from its main use as the structural components for the indigenous houses, wood is one of the natural resources extensively used as decorative elements in the architecture of the traditional dwelling. The value and quality of woodcraft are closely linked to the choice of wood species. According to Said *et al* (2002), the Malay craftsmen consider four factors in choosing the wood for the construction of building components and the crafts to be carved, i.e., (1) the convenience of getting the wooden material, (2) type of use, (3) physical characteristics and durability of the wood, and (4) the belief in the spirit of the wood. The 'Belian'⁸⁰ and 'Selangan Batu' type are the preferred types of wood for structural construction because of its strength, firmness and durability. Most traditional house builders prefer the 'Cengal' and 'Merbau' types for the carving components because of their endurance and durability from woodworm and fungus attacks.

This section explores its significance in the cultural meanings and cosmological understandings, which is the fourth factor: the belief in the spirit of the wood. The best area to describe the cosmological understanding of the wood is in the works of the Malay wood carving, which is also closely related to the indigenous Malay architecture, as described as Nik Rashidi below:

"[...] our traditional carvings are our only link to the past, with nature around us and the living elements that keeps our art alive: This is our Malay art, because it comes from the land and it breathes the history of our people. If we cut off our links to our ancestors, we would be like a ship without a compass; a people without history." (Nik Rashidi, in *Traditional Malaysian Woodcarver* (http://universes-in-universe.org/eng/islamic_world/articles/2004/modernity_islam_and_tradition)).

⁸⁰ *Eusideroxylon zwagerii* (L.a.), ironwood; the hardest wood indigenous to Sabah and Sarawak, reaching densities of between 800-1,000 kilograms per cubic metre. (reference: Illustrated glossary in Ariffin, Syed A. Iskandar, Order in Traditional Malay House Form Vol.1 (2001) Oxford Brookes University, Oxford.

Said *et al* (2002) mentions that the Malay carver's beliefs in the spirit of the wood is the main factor which determines his preference towards a species or a tree that would be turned into a woodcraft element. A spirited wood can be divided into two aspects, i.e. from the physical aspects and the metaphysical aspects. For example, an ancient tree aged more than 200 years is believed to possess bad spirits of the devils. Therefore, it is not favoured for any building material including for carving purposes. The belief is influenced by the characteristics of the tree, whose wide buttress roots claw the soil and the huge and tall tree trunk. The gigantic features of the tree cause the traditional Malay community to link it with the bad spirit myths. Conversely, the highly spirited wood such as the *kemuning* wood is perfect for creating the handle of the *keris* (the Malay dagger) and the small dagger. This is because the highly spirited wood is appreciated by the Malay society and gives craftwork a high status. The belief in the spirits of the wood motivates the Malay community to respect the trees and wood, hence, they use it systematically, orderly and courteously (ibid).

Yatim (2001: 343) asserts, that the products of the Malay woodcarvings are mostly in the form of panels used to decorate the walls of the houses and mosques. He describes the most often used motifs used include the *sulur* (the tendril), the *awan larat* (the curvilinear fretwork) and flower motifs such as the lotus flower. The use and choice of the lotus flower is also interesting, for instance, the use of bloomed lotus is used in the houses, which symbolises life and its challenges. A wilted lotus is the motif decorating a gravestone, which carries the meaning that a person has left the ephemeral world, and gone to the eternal world to face the Lord. The *Beringin* (Banyan) tree or *Gunungan*⁸¹ brings with it a concept that the diversity of the corporeal world with plants, and with the multi-level spatial places, symbolises the journey to God (Aziz Deraman, 1980: 191). Other motifs used are the *tapak badak* (rhinoceros foot prints), *siku keluang* (bat's elbow), the shining sun and so forth (Ismail Hamid, 1991: 199). Another example of wood carving with a cosmic element is what is called *bangau* (the stork bird). It is attached to the back of the fishermen's boat on the east coast of the Peninsula Malaysia. To the Malays, the bird represents a cunning way to catch fish [ibid]. Said *et al* (2002) adds, the head of the stork, called *makara* is the Pattani-Malay⁸² myth about cosmology and the sea.

Summary

Wood is a natural indigenous resource that has a lot of potential and contribution to make to people as well as to the environment. That is why it has been extensively used as a building material and its supporting components for centuries. As part of nature, wood is also believed to have its own spirit that makes it unique, and connects people with the natural environment surrounding their dwelling places. The next chapter elaborates on the traditional Malay woodcarving, illustrating the

⁸¹ The word '*gunungan*' originates from the Javanese language, which represents a mountainlike figure in the wayang play symbolizing the universe; imitation mountain.

⁸² The Malay society with Southern Thai influence. They reside next to the Thailand border in the east-coast states of the Peninsula, namely, Kelantan and Terengganu

carving motifs from various cultural-religious influences originating from the regions of the country, which are a manifestation of the aesthetics and functional aspects in indigenous Malay dwelling architecture.

Q (14): Mention three things that you think are most important to be considered before choosing or constructing an ideal house. Please give two reasons why they are important.

Things	Freq	Reasons	Freq	Total
Location	37	To ensure kid's safety To ease commuting cost; less jam, less stress For convenience of social/religious activities To have access to public amenities/facilities Home design should blend with environment Privacy Safe area, good neighbourhood* Close to relatives and friends* Accessibility Uncluttered area Natural surroundings, nice views* Stress relieve, peace of mind Convenience* Need for peaceful, open space Clean, fresh, beautiful & healthy environment	1 5 2 13 2 6 15 1 5 3 2 2 5 2 3	67
Design/style of house	19	Expressing modern, expensive look Safety, privacy factors Personal tastes, preferences, characters, identity Proper use of material, workmanship Sustainable house, living environment Design to blend in with environment English cottage design – personal dream To feel good, sense of belonging Design must be flexible, durable Ensure practical design layout Design must suit personal/family, social religious needs Utilise best of climatic conditions, suits climate Closeness to nature	1 3 6 1 2 2 1 2 1 1 4 2 1	27
Cost/ budget	16	According to personal affordability, avoid stress Good value for money Realistic thinking Suits personal and religious teachings House must be good investment property Suits personal/family needs and income Enjoy comfortable moderate life Budget constraints	7 4 2 1 1 2 1 1	19
Plot size/ built up area	11	Ensure adequate space for kids' rooms To have spacious living and kitchen Spatial organisation and design depends on the plot size To be able to consider the cost of construction Need large space, spacious rooms for family needs To provide good environment in the house Depends on family lifestyle – the need for comfort Plot size and built-up area must be practical Ample plot size for house and external garden/orchard Medium size is best for easy maintenance, security	1 1 1 1 3 1 2 1 2 1	14
Neighbours, neighbourhood	8	Important aspect for personality development Neighbours with high moral values are dependable Design must be compatible with surrounding neighbourhood community Muslim Malays, educated local community Neighbourhood housing influence design	1 1 1 3 1	7
Orientation of house	7	To get the most out of the sun benefits To get the most of the wind benefits	1 1	

		Determined by religious, cultural & traditional factors	1	
		Sun angle determines warmth & coolness of house	1	
		To organise spaces accordingly	1	
		For privacy	1	
		To get ample sunlight into house at certain times	1	
		To determine fenestration of spaces/rooms	1	
		For blessings	1	
		Realistic thinking	1	
		Design must suit sun orientation to avoid too much heat or light	1	11
Building material Quality	5	To ensure durability	3	
		Response to climate	2	
		Beautiful	2	7

Table 6-20 Important considerations prior to choosing a site, building a house and reasons

Location

Location plays a vital role in people’s top priority consideration in choosing a dwelling place. It has been frequently mentioned in many parts of the questionnaire responses and is normally connected to the workplace, the convenience of facilities and amenities (such as transportation services, school, hospital, post office, shopping and market place), the closeness to family and friends, etc. It also connotes the need for a sense of belonging, a sense of place. In other words, location is highly related to the identity of a place and its community. A residential area that suits most of these location criteria is going to be the most popular choice. If a person is able to choose a location site for his/her own house, all of these aspects including his/her own personal preferences shall be considered.

In the traditional society, the choice of location for the site of the house is cosmologically based on the condition of the soil, according to the interpretation of the palm, and the division of the land based on certain symbolic names in the site choice custom, as in the Figure 6-12 below:

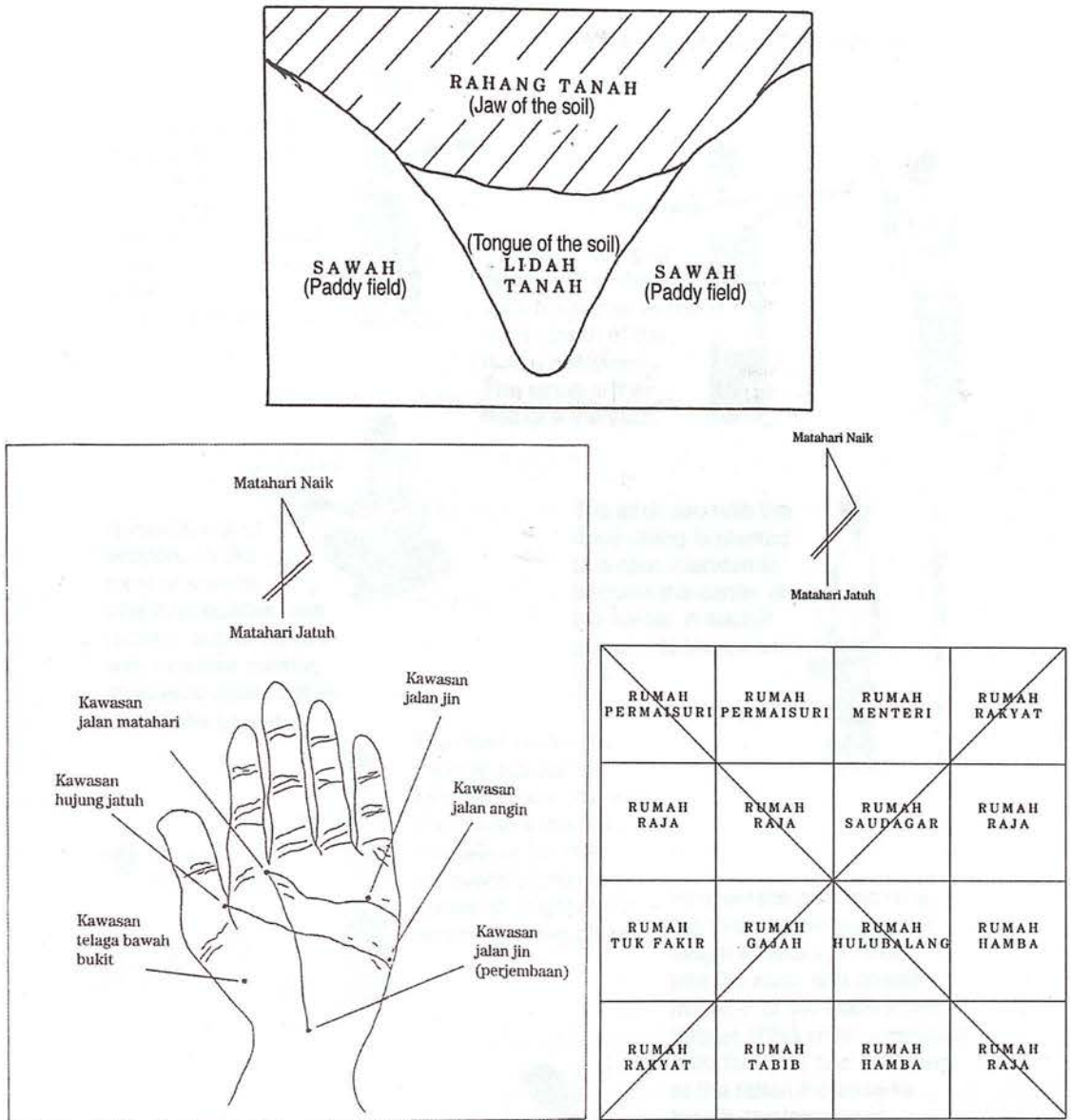


Figure 6-12 Above: Type of soil with 'tongue'; middle: way to choose a site based on the left palm, and above right: division of the land, based on certain symbolic names in the site choice custom. Source: Yahya (1995: 31-33)

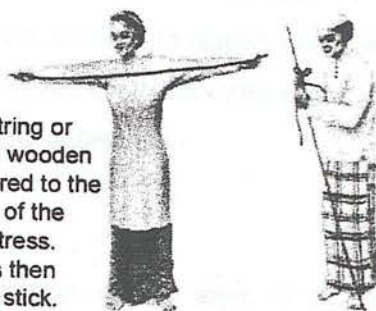
After the site has been chosen, and before the construction of the house building starts, there will be a ritual performed to receive blessings from nature and the spiritual worlds as illustrated in the figure below:

The house-building rituals

A building priest, a *pawang* or *bomoh* (or a *tukang* who masters the art of shamanism) is called to perform the ritual called *puja rumah* or 'blessing the house'.



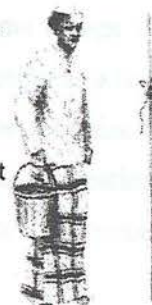
A piece of string or rattan and a wooden stick measured to the *depa* length of the house's mistress. The string is then tied to a the stick.



Invocation and prayers, in the form of mantra and supplication, are recited, accompanied with incense burning, at several spots within the house boundary.



The stick tied with the *depa*-string is planted at a spot intended to become the centre of the house. A bucket of water is placed next to it.



The ritual ends with another session of invocation and prayers. The house's mistress may join in to recite the supplication and wishes for a good and secure dwelling place.



At dawn the next morning the mistress measures the length of both the string and the stick, and checks the level of the water in the bucket. If the water overflows onto the plate and the string or the rattan increase its length, the location is suitable (*rasi*) and exactly at the spot where the stick was planted is the place where the *tiang seri* is erected.



Reference: Ariffin, Syed I. (2001)

Figure 6-13 The traditional house building ritual procession

Source: Ariffin (2001)

This shows the close interaction between people and nature in the process of building a house, how people respect and include nature as part of their lives. The finding also illustrates that there is a decrease in contemporary people's understandings of site location considerations that are based on the cosmological understanding of the society's tradition. This is mainly due to the diminishing culture of traditional transmission, either through individual family members, or the society to the younger generations. Moreover, there is less opportunity or exposure for people to learn about these traditions in schools or other formal education, except with personal interest and efforts. Hence, the knowledge has ceased to exist, and remains only in the history books.

The design aspect

Another aspect of importance is the design or concept for an ideal house. Most respondents prefer a home design in a natural setting for its beauty and because it blends well with the environment. There is a sense from respondents of their consciousness the need to respect the natural landscape and keep the design composition simple, but elegant with respect to the forms of the landscape. The following discusses the concept of designing a dwelling architecture:

The concept of design for a dwelling architecture

There are obviously numerous definitions and discourses on the topic of design in various academic fields such as art, architecture, design and so forth. George Nielson (in Fishel's *401 Design Meditations*, 2005), an architect and industrial designer, claims design is a response to social change, it is a message about value, of value, and of no value; design as a living, design as a culture, good design as a form of respect, a part of life, a subjective response to an objective criteria, an ongoing process of development and discovery; and the most interesting one, design is instilling structure and soul into our naturally chaotic and unintelligible environment, and the list goes on and on.

Victor Papanek (1984) summarised his interpretation of design as the conscious and intuitive effort to impose meaningful order, with emphasis on the intuitive aspect of design. He adds that consciousness implies intellectualisation, cerebration, research, and analysis. Even though intuition itself is difficult for him to define as a process or ability, it nonetheless affects design in a profound way. He adds, "[...] for though intuitive insight we bring into play impressions, ideas, and thoughts we have unknowingly collected on a subconscious, unconscious, and preconscious level" (ibid: 4).

Aiello et al. (1980) asserts, the design of an environment not only influences the transactions that occur within it but is also itself a product of the culture from which it originates. From the questionnaire, the findings suggest that in the context of the design of a house, it usually refers to the design concept, the spatial arrangement (organisation) of the house, the orientation, the appearance of the houses. For the respondents, their design aspiration must fulfil the following factors in order for them to feel satisfied with their dwelling environments, i.e., a successful design (concept) must:

- i. Respond to the environment
- ii. Respond to socio-cultural-religious needs
- iii. Respond to recreational needs

This, according to Aiello (1980) illustrates that the architectural designs of buildings are evolved to match the climate and cultural conditions of the society. The design aspect of housing is very crucial to determine the success and satisfaction of the people as the end-users of the product. Hence, apart from responding to the tangible needs as above, it must also respond to the society's

intangible needs for cultural meanings and innate values that are predominant in people's aspiration for living.

Rapoport (1982) views that "design" has traditionally been regarded as the activity of special individuals. In broader perspective, design can be seen as any man-made change in the physical environments (Rapoport, 1982: 20). He deduces that all man-made environments are designed, in the sense that they embody human decisions and choices. They embody specific ways of resolving the many conflicts implicit in all decision-making. (Rapoport, 1982: 20). He also suggests that the specific nature of the choices made tends to be lawful, to reflect the culture of the group concerned. In fact, one way of looking at culture is in terms of the most common choices made. A consistent system of choices also decides people's dress and behaviour, their food, and their table manner while eating. Design can be seen as a choice process. In traditional, preliterate cultures, everyone is engaged in shaping the environment and is thus engaged in design – choice is predetermined – everyone accepts one form (Rapoport, 1982).

Although contemporary urban or global design styles have manipulated the design scheme in the housing arena, when given a choice to build an ideal house, cultural, religious and traditional aspects still have some bearing on the respondents' instinctive ideas about how their ideal house should be designed. This is illustrated in their preference for an open-plan layout for the guest room and dining area so that it is convenient for use during ceremonies, celebrations mostly related to culture, religion as well as tradition. Another respondent suggested there should be a open-plan space for both the lower and upper level of the house. This is to accommodate many people at one time in a space and for ease of movement to serve food, during festive occasions. These matters are the immediate things considered in design of the ideal house. It shows how significant culture and religious values are, embedded in the respondents' attitudes to their living environment. The impact of an open-plan space that also provides a direct link to the external view i.e. the green surroundings provides the sense of spaciousness, which increases the level of individual satisfaction, and hence creates a healthy living environment. It should be re-stated that this illustration of an ideal living space is based on the articulation of space for public living spaces only. In summary, the ideal design concept for an ideal house is a reflection of socio-cultural-religious activities that motivate people to have the open-plan concept for the living room (which is for public access) in the first place.

Personal tastes and satisfaction, as well as religious needs lead the list of reasons given for the above suggestions. Some stated the desire for an expressive or expensive modern look, others got their aspirations through travel and life experiences to fulfil their personal dream of an ideal house. The ability to design one's own house gives a sense of satisfaction and belonging, more than merely living in any other place. Besides suiting the family needs, the ideal house would be able to portray the individual's personality and hence, enhances one's sense of belonging. In addition, there is also an awareness of the needs for safety and privacy, and creating a sustainable living

environment. Some respondents recognise the need for design to blend in with the environment, to suit the climate, and to be close to nature. Hence, the design must be practical, responsive to climate and use proper material and good workmanship. It must also be durable, i.e. flexible for the changing needs of the occupants. In short, the design or concept of an ideal house determines that the identity of the owner(s), should meet the socio-cultural-religious needs as well as the environmental needs, and last but not least, should also provide a sense of belonging for people.

Q (15) Mention three aspects of your culture, religion, or tradition that have influenced your thinking in choosing or building your ideal house or design of a house. Please give two reasons for each answer.

Aspects	Freq	Reasons	Freq	Total
Spatial organisation	15	Family room important (C) Environmental consideration (E) In accord with religious guidance (R) Cultural demands (C) Traditional concept, cultural religious influence Consider own life style / preferences Emphasize on privacy (R) Ensure segregation between male and female (R/C) Major public spaces as gathering areas (SC)	1 5 5 1 6 1 1 1 1	22
Privacy, moderation	12	Inherited/learned from culture/tradition Learnt from religious teachings/ perspectives Lifestyle considerations To cover 'aurah', modesty (religious value) For convenience and comfort, safe from intrusion Must have clear separation between public and private spaces (socio-religious aspect)	9 6 1 1 4 1	22
Design/concept	11	Formal knowledge of space and function of individual cultures Preference for Malay style (T) Ensure cleanliness and its maintenance (R) Consideration to suit personal needs Consideration to suit spiritual beliefs Consider Malay characteristics and modernity To provide adequate space for socio-cultural gathering/ occasion within the property area Open space concept provides sense of spaciousness Consider culture, religious and tradition in design	4 1 1 1 1 1 4 1 1	15
Orientation of: House Bathroom/toilet	10	Environmental consideration Self interest, personal preferences Religious perspectives Malay cultural belief Toilet must not be facing or backing the <i>Qibla</i> direction (R) To get morning sunlight into the house (cultural belief) Living room should face <i>Qibla</i> direction To get maximum benefit from sun and wind To ensure maximum use of space for congregational prayer To ensure spaces organised facing <i>Qibla</i> for convenience	4 2 5 1 2 3 1 2 1 1	22
Size of house	6	Overall size must not be too big – must be moderate Must have adequate number of rooms to segregate boy(s) and girl(s) Must have separate rooms for guests for their privacy Public (living) spaces must be appropriate for large gatherings during festive, ceremonial occasions Large outdoor space for conducting ceremonies/festivities	3 4 3 1 3	14

Table 6-21 Aspects of cultural- religious-tradition influences

This question was intended to find out how social, cultural, religious and traditional forces influence people's worldviews and motivations in their decision making about choosing or building their ideal homes or designing a house.

Orientation

Orientation is a part of a culture's codified cultural practices and prescriptions when dealing with design, either in oral or contextual form or both. Mazumdar (2000: 164) gives two well-known examples: the *Vaastu Shastra* and the *Feng Shui* principles, which are cultural in nature and express people's beliefs and values just as the Western design practice of design based on efficiency and science do. The former, is the ancient art and science of building in India, which contains detailed directions and suggestions regarding site selection, preparation, design, construction, making fit for occupation, and for maintenance, including specifications for orientation, dimensions, materials, and colours (ibid). The latter principle, *Feng Shui* (established in China) gives directions for the site selection, building placement, landscaping, building orientation, and design, and provides guidance for details such as placement of furniture, selection of materials, dimensions and colour.

In the context of the thesis, orientation is influenced by environmental, religious as well as cosmological dimensions of the cultural worldviews. From the climatic point of view, the reason is to orientate the spaces in the house according to both the sun and wind directions. Morning sun is preferred over afternoon sun; direct sunlight is avoided from entering the house to prevent heat, and maximum cross air ventilation from outside passing through the interior to achieve natural cooling. As part of religious requirements and traditional beliefs, for example, the living room should face the '*qibla*' (direction of Mecca), while, the toilets and bathrooms should neither face *qibla* nor directly back it, and the master bedrooms should face the rising sun. Further elaboration on this topic shall be discussed in the next chapter (e Chapter Seven).

Spatial Organisation

Spatial organisation of an ideal house is the most important aspect, influenced by cultural, religious, and traditional thought. Privacy, male and female space divisions are vital. For example, the living room, as a public space is mainly to entertain guests or male guests, whereas the kitchen as a private family area is also used as semi-private space when entertaining mainly female guests. These two spaces are the major gathering space for the family and guests. Hence, both spaces need to be spacious enough to meet the demand. So, in terms of the order of spatial arrangement, the most public space would be positioned at the front part i.e. the entrance to the house, that is, the living room, followed by the dining room, then the kitchen, which is normally put at the back.

If given the opportunity to build or own an ideal house, most respondents would prefer a bungalow with a spacious compound, traditionally used to conduct social, cultural and religious occasions such as 'kenduri', religious ceremonies, community or social gathering. A bungalow gives a sense

of privacy and freedom that the occupants need. This is an important religious aspect that is to cover the 'aurah'⁸³, hence ensuring that modesty is obtained. According to Islamic teachings, it is also a necessity for sons and daughters to have separate rooms.

Spatial organisation is also influenced by the climatic and environmental conditions so as to ensure thermal comfort inside the house. Ventilation throughout the whole house ensures the coolness of the interior even when it is piping hot outside. Therefore, the spaces are organised accordingly. In summary, spatial organisation is an embodiment of cultural-religious and environmental aspects for the Malay community.

Moderation

Despite the change of lifestyles of the society, some religious and cultural values do still persist in this community. One of them is the aspect of moderation. Moderation is the key factor for the respondents when considering the spending for their ideal home(s). The reason that people aim to keep to the cost or budget is not only for reasons of practicality but mainly, it is due to the awareness of the individual's religious duty. One must not spend more than one can afford to, because any extra amount spent, if one is not able to pay, one would suffer the punishment if not here, then in the hereafter. Therefore, this notion of moderation, realistic or practical thinking are common among respondents not only because they are fulfilling their dreams, but also due to the religious requirements.

The size of the property and number of rooms

The basic requirement for a Malay Muslim house would have to be a three-bedroom house with an adequate size living room, bedrooms, kitchen, bathroom and toilets. That should cater for the least number of family members with a son and a daughter who must be separated by the time they come of age. There is also a preference for a moderate and an adequate size of open space. These requirements are reflections of religious and cultural ways of living for the Malay community.

Q (16): Mention four important cultural, social and/or religious (rituals) traditions you have already made or would like to be able to make within the space of your house and its compound. Please give two reasons why they are important.

The responses below are also presented in a hierarchical order to indicate the level of importance of each answer.

Activities	Freq	Reasons	Freq	Total
Cultural-religious ceremonies: Weddings, funerals, circumcision, khatam Qur'an (a ceremony when one has finished reading the whole Quran).	22	Cultural continuity/tradition	9	
		Religious tradition	7	
		Community gathering	5	
		Family, relatives normally gather in the living and kitchen to prepare, conduct ceremony	9	
		Religious/cultural tradition	10	

⁸³ Parts of the body which must be covered from other people's view according to the law of Islam

		Family, friends, & community bonding Important ceremonies has been done at the house	6 2	48
Social gathering	18	Socio-cultural tradition Family, relatives and friends normally gather in the living and kitchen areas Spend quality time together Personal motivation Strengthen community ties Create sense of belonging	2 2 8 1 2 3	18
Festival celebrations open house: Eid, 1 st Muharram, Hajj	12	Cultural continuity/tradition Community living Enjoy quality family gathering Opportunity to invite & meet friends at home Personal motivation Get to know one another Religious activities	3 3 3 3 1 1 1	15
Outdoor recreation: BBQ, gardening	13	Enjoy outdoor activities with family, relatives, friends Healthy lifestyle Enjoy gardening Personal relaxation Personal motivation Different event compared to cultural occasions	10 3 1 3 2 2	21
Congregational prayer	10	Religious needs Tie relationship among family members Spend time with family doing religious activity Quality time For blessings Personal motivation	10 1 1 1 1 1	15
Taking off shoes inside house	10	Culture/religious tradition, a custom Religious teaching- cleanliness Hygienic purposes Ethnic identity	9 2 2 1	14

Table 6-22 Significant social, cultural/religious rituals/traditions normally done within house compound

The *Majlis Khatam AlQuran* (the completion of the Quran reading event) and the *Tadarrus* (a congregational Quranic reading)



Source: The internet

Figure 6-15 Indoor events: Above & middle: khatam AlQuran event and above right: Tadarrus event

The most often recurrent activities that occur within the interior spaces are the religious ceremonial celebrations such as weddings, funerals, circumcision, the *khatam Qur'an* event, (a ceremony when

one has finished reading the whole Quran. For the female youth, usually the occasion is held during her wedding day), and the *taddarus* event (a group recitation of the whole Quran during the whole month of Ramadhan). These major occasions usually take place in the living room of one's house. It has always been the norm for the community to celebrate festivities and ceremonies together with relatives, neighbours and friends, whether it is cultural, religious or social occasions within the dwellings.

Social visits and gathering

A simple principle in the Islamic preaching says, "All Muslims are brothers". It actually carries a deeper meaning for the Malay society, in which the majority of its community is Muslim. The principle is embodied in the social activities such as the culture of visiting and community living traditions. The tradition of visiting one another is one of the ways to bind the relationship among family members, relatives, friends and other members of the close-knit community. It is through this social activity that cultural values such as respect, love and forgiveness are established.

Muslims believe that Islam is the complete and perfect religion because it encourages the believers to practise good moral behaviours and values such as respecting one another, being well-mannered, welcoming and entertaining guests pleasantly, because to celebrate the guests brings together God's blessings, and Allah (God) promises great abundance of rewards for those who welcome guests into their homes.

Another important principle is "*to respect the guests is compulsory for every Muslim*". According to the Islamic teaching, one who welcomes and entertains his guest(s) with humility and honesty in the best possible manner shall be blessed by God. Hence, one must entertain them appropriately as long as it would not deviate from the teachings of Islam. For example, when welcoming the arrival of the guests, one must present a polite manner, a happy and joyful face, presenting affordable and adequate food, without extravagant spending, or being boastful to guests. It is also a religious custom to accompany the guest(s) at the entrance door upon leaving the house, along with a 'doa' (prayer) for them.

In the contemporary urban living environment, the respondents' social activities are reduced to mainly visiting and socialising with close relatives and friends within reasonable distance of their residential neighbourhoods. For the distant family members and relatives from the urbanites' respective hometowns, which are mainly based in the rural areas or '*kampung*' (village) environment, the family gatherings occur during major religious celebrations such as *Eid Fitri* and *Eid Adha*, or special long holidays. Then the majority of the urban migrants leave the city centre, or major urban areas to return to their place of belonging, leaving the urban places either empty or bringing a halt the normal economic and commercial activities. This has also become the norms or tradition for the whole society.

Outdoor activities and recreation

Some people enjoy gardening as a leisure activity, while others enjoy outdoor activities in the company of family, friends and relatives. This is part of quality time spent together with family to balance busy life during weekdays. However, the reality of living in compacted flats or apartments, or even link housed with no external space available for any leisure activity restrict people's outdoor activities in their own front or back yards.



Figure 6-16 Outdoor event: Barbeque Source: Author

Taking off the shoes upon entering the house

Shoes removal is a common religious requirement that has become a norm in the daily life of Malay community. In Islam, it is taught that cleanliness is part of faith in the religion. Further, the interior of house is considered a holy place, like the mosque and a paradise. Hence the house must always be respected and must be always be clean. Symbolically, when one enters the house after taking off one's shoes, all the bad spirits from the journeys outside are hindered from entering the soul of the occupants of the house.

A house in the Malay society symbolises a sacred place similar to the mosque, hence upon entering the house, it has been the tradition of the society to take off their shoes as an act of respect to the place. Traditionally, the Malays even wash their feet before entering their homes due to the nature of their work in the agricultural fields. The cosmological meaning from this action is illustrated in the figure below:

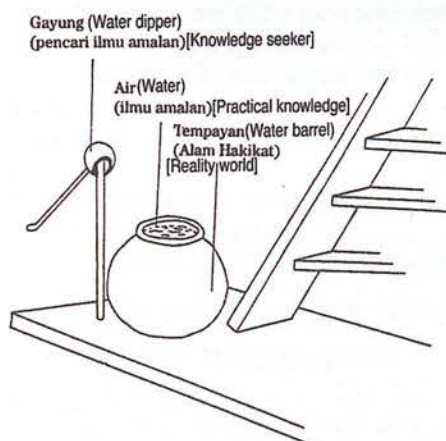


Figure 6-17 Symbolism behind the earthen water barrel and its water dipper. For a more detailed explanation, please refer to Chapter Three, Page 77.

The finding illustrates that the cultural meaning prevails in response to the needs to sustain the social-cultural-religious aspects. This being said, only refers to the social-cultural-religious occasions such as weddings, funerals, childbirth, Eid celebrations, and so forth that have become the norms or custom for the society. However, in terms of cosmological aspects or understandings, the notions have been regarded as irrelevant mainly because people are more and more ignorant of their existence due to the lack of education of traditional transmission about the knowledge; and the nature of contemporary lifestyles, which mainly focuses on the physical realities – e.g., jobs, economy and social activities.

Q (17): What is the meaning of home to you?

This question is motioned to discover people's intuitive understanding of what home means to them. This method is used to decipher people's aspirations of a meaningful place to live in. Below are some of the notions of a home from the respondent:

Meaning of home from respondents' perspectives	Frequency
Home is a place to get peace of mind, care and love; being with family	9
Home is a place to rest, relax and enjoy my day with family	8
Heaven on earth	4
A place to relax, maintain one's health, peace of mind	2
Home means family, safety, comfort, and soothing environment	2
A peaceful place, family gathering place, peace of mind, sense of belonging, affection and contentment	2
A place which always calls for a return – sense of belonging, good & bad memories	2
The place where I can do anything I like without interference	1
Place to build life with family, heaven for me and loved ones	1
A place to relax, be myself, grow old with spouse and family	1
A place for seclusion, privacy from involvement with others	1
A place for shelter; comfortable, beautiful & clean; place to release stress from work	1
Sometimes can also be a good working place	1
A comfortable place to relax, do housework, spend the whole day	1
Home is my heaven; cosy & relaxing place, calm and safe for the whole family	1
Home is my village, my root and hence I have a lot of attachment here	1
Home is place to meet & interact; a peaceful retreat, a connection with natural environment	1
Place for family development with adequate provision of amenities & facilities nearby	1
Place that gives sense of satisfaction, release external pressures	1
A place for shelter, family interaction, caring, sharing and loving	1
A place to relax, reflect oneself, a place which has a sense of belonging	1
A peaceful place for caring, sharing and loving; bitter sweet memories and favourite food	1
A place to return to and welcoming; comfortable and feel secure	1
It is a cocoon- a private life; feel secure, comfortable, and release stress	1
A place of living the social, family and religious aspects	1
A place of shelter, to rest body and mind, and an image of individual's personality	1
A place where one feels belongs to	1
A place to relax, work, and personal hobbies; a place to tighten relationship with God (The Creator), to strengthen family institution & with other people	1
It is the most important asset in life – symbolises one's heritage and achievement throughout one's life	1

Table 6-23 Meanings of home

The Essence of Home

The meanings of home from the respondents' perspectives can be derived in terms of categories as below:

Category	Meaning
Family	Home is viewed as a gathering place for the whole family, life with family, a place for family development and growth, family interaction, aspects of family, a family institution, a place to share, care, love and affection among family members.
Peace of mind	Home is a place for relaxation, enjoyment, contentment, cosy and calm; a place to rest body and mind, a peaceful retreat, and a place of contentment and satisfaction.
Health	Home is viewed as a place to maintain health and well being such as to relieve stress, a release external pressures, a place of beauty and cleanliness.
Safety, security	Home is a safe place, provides a sense of security and shelter for the occupant(s).
Comfort	Home provides comfort and pleasure for the occupant(s)
Sense of belonging	Home reflects a call for a return, good and bad moments, a place of roots and attachment, a place to return (retreat) to and welcoming, and a place where one feels belongs to.
Privacy	Home is a place of seclusion, not interference and no involvement(s) of other(s).
A place to reflect oneself	Home is a place to get closer, communicate and tighten the relationship with God and other family member(s). Home is also considered as heaven on earth.
A place for work and leisure	For some, home is a both a workplace and a place for leisure activities with the family.

Table 6-24 Categories of meanings of home

Apart from those categories home are described in connotations such as the followings:

"Living the social, family and religious aspects";

"The most important asset of life"; and

"A symbol of one's heritage and achievement throughout one's life".

Betru (2005: 235) suggests that home is more than a dwelling. Its roles in everyday life integrated with the rich social, cultural and historical significance that determines lifestyles and identity (ibid). In his words, *"The concept of home is a complex of overlapping and interrelated elements, synthesising a network of social, customary, conscious, and subconscious drives into a whole."* (refer Chapter Two under the sub-topic of "the Concept of Home")

Vincent Vycinas (1961: 34), paraphrasing Heidegger, describes the phenomenon of home as "an overwhelming, in-exchangeable something to which we were subordinate and from which our way of life was oriented and directed, even if we had left our home many years before". Relph (1976: 39) acknowledges home as the foundation of our identity as individuals and as members of a community, the dwelling-place of being. Home is not just the house you happen to live in, it is not something that can be anywhere, that can be exchanged, but an irreplaceable centre of significance [...]. Home in its most profound form is an attachment to a particular setting, a particular environment, in comparison with which all other associations with places have only a limited significance. It is the point of departure from which we orient ourselves and take possession of the world (ibid). He commented that although in our everyday lives we may be largely unaware of the deep psychological and existential ties we have to the places where we live, the relationships are no less important for that. It may be that it is just the physical appearance, the landscape of a place that is important to us, or it may be an awareness of the persistence of place through time, or the fact

that here is where we know and are known, or where the most significant experiences of our lives have occurred. But if we are really rooted in a place and attached to it, if this place is authentically our home, then all of these facets are profoundly significant and inseparable. Such home places are indeed foundations of man's existence, providing not only the context for all human activity, but also security and identity for individuals and groups (Ibid: 41).

Home is the most comfortable place that can provide a sense of tranquillity for the occupants because this is where one would have the ability to strengthen his relationship with the Creator, the place where one can pursue his other interests apart from work. Thus, home here is the most important asset in one's life, as it symbolises one's heritage and one's lifetime achievements (refer to chapter 2). The answers reflect people desires for a sense of belonging and sense of place in their home environment. As discussed earlier in chapter two a home carries a deeper meaning to a culture or a society than just functioning as a shelter. Sadly, today's urban living environment (i.e. housing) provisions do not give such opportunity, with exception to very high-cost bungalow projects in suburban areas.

Q (18) Mention three (3) characteristics of indigenous or traditional dwelling design such as the architectural or decorative features that you like. Please give two (2) reasons why you like them.

The question attempts to decipher people's perspective and appreciation of the indigenous living architecture.

Characteristics	Freq	Reason(s)	Freq	Total
Design:				
Layout	2	Practical, comfortable, fresh	4	
Concept (open plan)	2	Emphasis on privacy, segregation/religious requirement	2	
The architectural design	5	Cultural adaptation	1	
The appearance	1	Flexibility in design and functions of space(s)	3	
The elevated house	2	Airy	1	
The openness/ spaciousness of spaces (interior & exterior)	13	Suits climate and cultural needs	3	
		Opportunity for future extension (due to family growth)	8	
		Reflects identity	1	
		Sense of order/ principles	2	
		The elevated house lets air flow underneath, cooling	1	
		Simplicity in design suit contemporary lifestyle	1	
		Environmentally friendly	5	
		The presence of hierarchy of space	1	
		Suits family needs	1	
		Freedom of movement & furniture arrangement	1	
		Reminiscence of the past	1	
		Openness/spaciousness of space creates a relaxed feeling, relieves stress	3	
		Closeness to nature	1	
		Larger living spaces may accommodate for more guests	1	
		Housework is easier with such design	1	41
The openings:				
Big windows/ large openings	4	Good natural ventilation, cooling	5	

Full-height windows/ doors	6	Full view of natural surroundings	4	
Louvered windows	1	Lots of ventilation, natural lighting	3	
The air vents above windows	1	Attractive, beautiful	2	
		Reminiscent of the past	1	
		Comforting atmosphere with air & light	1	
		Variety of sizes for ventilation	1	17
Serambi/ Anjung/ Verandah/ foyer/ the entrance porch	11	Its beauty/creativity/authenticity	1	
		A welcoming, airy space for visitors	1	
		Adaptability to climate and culture	2	
		Reflects cultural heritage	1	
		Airiness of the space	2	
		Reminiscent of the past	1	
		Provides a sense of order	1	
		A very comfortable resting place	1	
		Space to entertain guests	1	
		Convenient as a gathering space	1	12
The wooden decorations above windows and doors	8	Looks nice, maintain own cultural heritage	1	
Decorations/ carvings		Beautiful, artistic	2	
Traditional Malay 'awan larat' wood carvings, calligraphies		Preserve/ promote traditional features to young generation	1	
		High aesthetic value, highly skilled work	3	
		Creative Malay identity	1	
		More practical to use and maintain	2	
		Unique	1	11
The airiness-brightness-coolness of space inside-out	8	Smooth air flow throughout house, no stuffiness	1	
		Healthy environment	1	
		Inside house is cool, unlike modern houses	1	
		Reminiscent of the past		
		Suits climate	2	
		Comfortable	4	
			2	11
Large compound/ outdoor space	4	Suits cultural outdoor activities	2	
		The sense of openness	1	
		Uncrowded	1	
		Safe play area for kids	1	
		Reflects cultural, religious needs	1	
		Suits climate	1	7
Malaccan house: The tiled front staircase	4	Sexy shape	1	
		Good meeting place	1	
		Attractive feature with aesthetic values	1	
		Welcoming	1	
The huge air well in the interior		Cooling, refreshing; good air circulation	2	
		Energy efficient- natural ventilation and natural lighting	1	7
The roof: Minangkabau style Perak style	4	The most distinctive feature of traditional Malay house	1	
		Display different ethnic identities	1	
		Very artistic and Malay	1	
		Raised in village environment	1	4
The choice of material: Wood/ timber	4	Suits local climate, cooler, comfortable	1	
		Blends in with natural environment	2	
		More natural	1	
		Most suitable and durable	1	
		Unique and attractive	1	
		Environmentally friendly	1	
		Likes the sound of wooden floors	1	8
Space articulation	3	Provides good ventilation	1	
		Provide proper space for social interaction	1	
		Articulation of space according to hierarchy	1	
		Functions of space suit culture, climate	1	
		Sense of principles	1	
		Reflects religious identity	1	6

Space underneath the elevated main house	2	Cooling, refreshing Suitable place for afternoon chat & tea Shady Multifunctional space	2 2 1 1	6
The shape of <i>Bidayuh</i> house	1	Unique Responsive to climate	1 1	2
The attic	1	Privacy, mysterious space under the roof	1	1
The Balinese door	1	Beautiful	1	1
The <i>wakaf</i>	1	Cooling, refreshing Suitable for chatting, afternoon tea Shady	1 1 1	3
The well	1	Enjoy the cool water & surrounding natural environment	1	1
The beauty	1	Reminiscent of the past Personal preference	1 1	2

Table 6-25 Characteristics of favourable indigenous dwelling design and reasons

This question attempted to find out about people's perspective and appreciation of the indigenous living architecture.

Adaptation to the local context

The traditional Malay design approach also attracts people's attention mainly because of the sense of spaciousness that it provides. The design approach, which responds very well to the environment in terms of the climate (bright and airy) clearly denotes people's satisfaction. Some also prefer the traditional roof types since they are reminiscent of the past. The attic, which has long existed in the indigenous houses has been revived as an attractive, additional contemporary living space. Besides providing privacy, it also provides good views from the top of the house. Design elements made from natural materials such as the wooden stairs, or the curvilinear fretwork, provides a freshness and natural look for the interior of the house. In terms of the openings, such as windows, doors and the air ventilators, some people prefer these to be decorated with traditional designs (like the 'awan larat' or calligraphies) as an indication of certain kinds of symbols.

Generally, people prefer wide openings because of the view as well as the need for maximum cross air ventilation throughout the interior of the house. This is to ensure comfort and personal satisfaction. It also demonstrates a connection with nature. Overall, this indicates that although time has changed, people are still motivated by indigenous design elements that suit the local socio-cultural, spiritual and physical contexts as well as the need to be connected to the natural environment within their dwelling compounds. The patio or deck is a new space accommodation, which responds to contemporary social needs and is increasingly popular. In short, the traditional Malay design approach to the dwelling embodies its unique local heritage and the identity of the dwelling and cultural lifestyles.

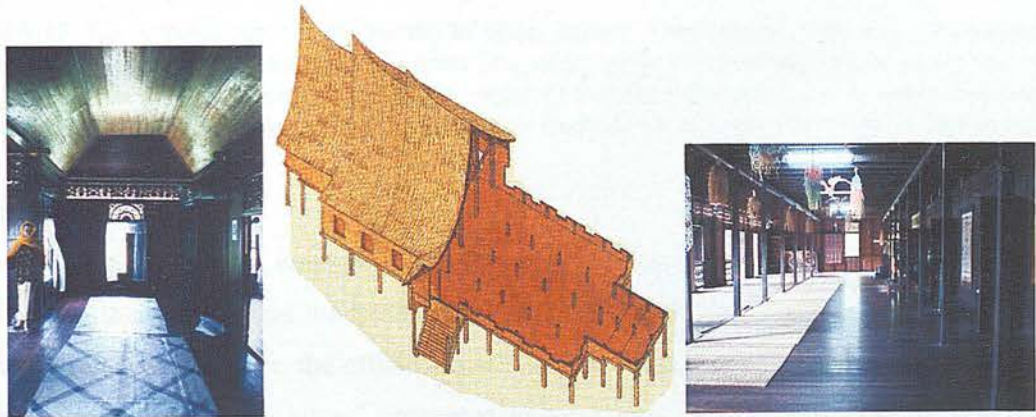
The position of the living room at the front, the kitchen at the back, and separate rooms for sons and daughters, all of these, abide by the rules outlined by religion, which are adapted into Malay culture. This provides comfort and privacy needed by the household occupants.

The concept of Openness

The open-plan concept is practical and comfortable. The openness of space inside and outside the house gives a sense of spaciousness as the space continues from the interior, out towards the external green environment. For the occupants, it gives a sense of relief and satisfaction. This shows that the openness of space can provide an environmentally-friendly space because of its closeness to nature. It is also user-friendly since there are no obstructions or corners that impede the through view of the building. Open-plan space also provides ease of movement that is very convenient for ceremonies and festive occasions. Greater living space can accommodate more guests. The concept of openness invites the housing designers to consider providing flexible designed spaces for the contemporary housing that can adapt to changes of functions in the short as well as the long term.

Flexibility of Spatial Functions

The concept offers the flexibility of function especially for the main living room (*rumah ibu*). For instance, the 'serambi', besides being responsive to culture, suits the climatic needs, keeping the space cool during the hot sunny daytime, letting the air pass through the house. Flexibility in design also offers opportunity for future expansion and the articulation of the hierarchy of space.



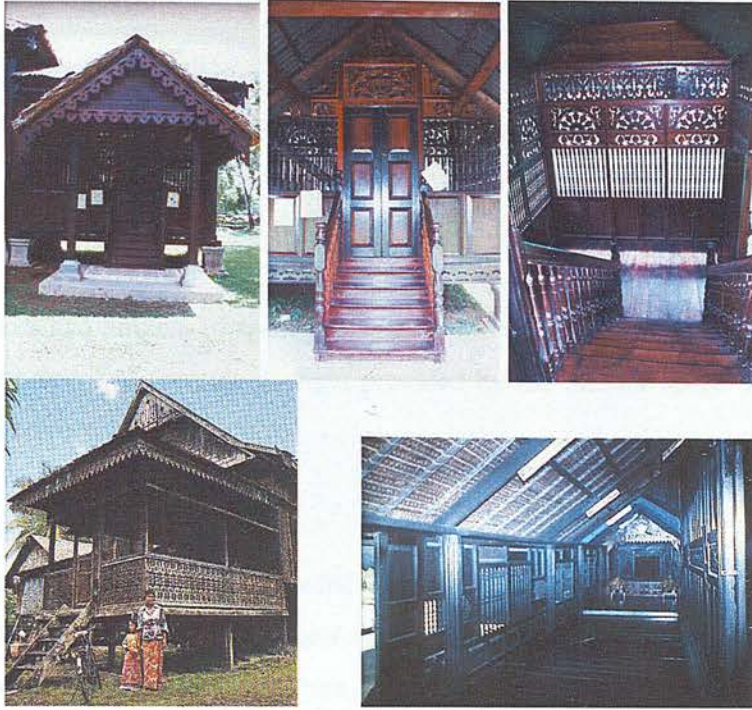
Source: Above left and right, Author; middle pic: Fee (1998)
 Figure 6-18 The main living spaces of three types of indigenous dwellings, from left to right: the serambi of traditional Malay house, the reception area (serambi) of Ampang Tinggi Royal Palace, and the main gallery of a traditional Iban Longhouse.

The design of the Malay traditional dwelling caters for the Malaysian climate. Hence it provides sufficient shade from direct sunlight or glare, great ventilation throughout the interior of the house, hence, provides a cool interior despite the hot outside temperature. A large roof overhang provides shade from the glaring sun, and protects the interior from heavy, pouring rain.

A Welcoming Transitional Space

The entrance porch, or '*anjung*', or '*serambi*', represents beauty, creativity and authenticity. People like it because it is a welcoming space, an ever ready visitors' area, which adapts so well with the climate and culture. The airy space reflects the Malay cultural heritage and suits the cultural-

religious needs. It can be a resting place as well as a gathering place for entertaining guests without having to go inside to the main living space.



Source: Author (the first three pictures), Fee (1998) and KALAM, UTM. For the last two pictures respectively.

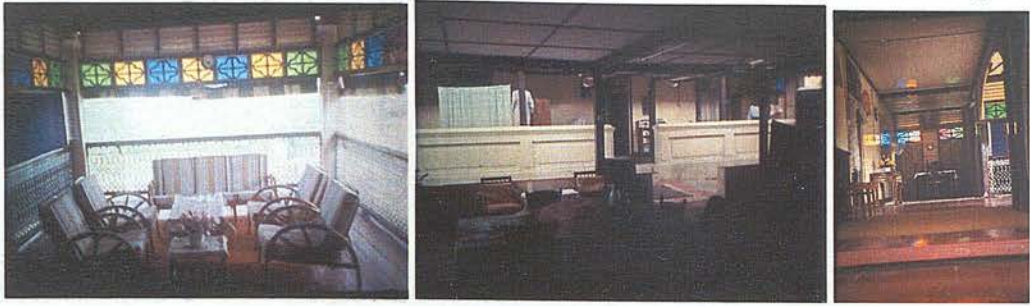
Figure 6-19 The entrance porch is the identity of Malay culture, a reminiscent of the past. Architecturally, it demonstrates a sense of hierarchy and the order of a public space. It is normally termed as the '*anjung*' as illustrated in the first four pictures, and in other types of traditional dwellings, the '*serambi*' becomes the entrance porch, with the absence of the '*anjung*' as illustrated in the last picture (above bottom right)

Thermal Comfort

~ The airiness, brightness, coolness of the space and its surroundings

People enjoy the comfort that the traditional Malay house provides. Because its design relates and responds to the environment, the efficient control of light and wind successfully provide excellent thermal comfort inside the house, compared to most new houses. This also means, from the respondents' point of view, that traditional Malay houses are able to provide a healthier living environment – that is crucially needed in a hot and humid country like Malaysia.

In many of today's commercial housing properties, thermal comfort has always been an issue. Low ceiling height and back-to-back openings (in the cases of the terraced/linked housing, high-rise flats properties) always result in poor air circulation. This makes the house too hot during the daytime and causes thermal discomfort inside the house. The low ceiling also makes a house look too small and creates a crowded feeling. As a result, some people may feel claustrophobic inside their own homes.



Source: KALAM, UTM

Figure 6-20 Interior spaces of the traditional Malay house that response to the thermal needs, such as air ventilation throughout the house and daylight brightness control.

Brightness, coolness and airiness of space provided by the entrance porch or ‘anjung’ (above left) and coolness and control of extreme daylight provided by the interior space next to the interior courtyard space (above, middle and right).

~ Large and wide openings

Large and wide openings are not only needed for air ventilation and natural lighting, but also to provide full inside-outside views. The bigger the openings, the better the air circulates, the more light can come, and the better the views from inside out. The traditional Malay house’s windows doors and other openings fit the description.



Sources: Author and KALAM, UTM SKudai Malaysia (third photo only)

Figure 6-21 Full height openings features in the indigenous dwelling designs illustrate the manifest embodiment of the climatic context of the dwelling as well as the deeper meanings.

Windows are usually designed in full height from floor to ceiling and are louvered. There is also a decorated air vent above the window and in between the floor and walls. This allows maximum cross air ventilation and circulation throughout the house, hence natural air cools the interior temperature of the house.

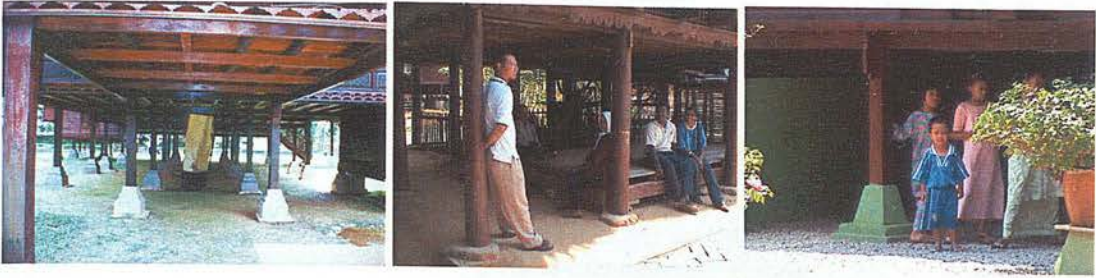
This is an element of traditional Malay architecture that is not only attractive but is very functional and it is an important part of climatic control as well as being aesthetically pleasing. In addition, the openings also embrace a deeper symbolic meaning as shall be discussed in Chapter Seven.

Other functional spaces:

Space/Bunk Seating Beneath the House

This space is enjoyed because it is the most cooling and shady place of the house. It is also a perfect spot for having afternoon tea, or a short day nap or just socialising with family members

and neighbours. Traditionally, it is also used as a storage space for animals and food supplies, and also as a place where women hang out with family and neighbours for a chat.



Source: Author

Figure 6-22 The functions of the space varies from being a resting place for an afternoon nap, or for drinking tea, even as a car parking space due to the coolness and freshness that the space provides.

The Attic

The attic is recognised by respondents for their beauty and creativity. In comparison to contemporary housing properties that do not have a space called the attic, its presence in traditional houses provides unique space for privacy and sense of mystery.

Summary

The characteristics of the indigenous Malay design favoured by the respondents are based on a design concept, which is open and flexible. This means, the dwelling offer a freedom of movement, a sense of spaciousness inside the dwellings and simultaneously, it is open to the opportunity for future changes in the short and long-term plans for a family unit. Its responsiveness to climate and socio-cultural-religious conditions makes the dwelling a comfortable and practical place in which to live. The existence of the sense of hierarchy and order of space also attracted the respondents' attention. Finally, the characteristics of the indigenous Malay dwelling and its environment that are environmentally friendly and sustainable reflect the connection with nature, which people in the survey find very interesting. The results show that there is a significant connection between people's positive views of the characteristics of the indigenous dwelling design, with its responsiveness to the socio-cultural-religious as well as the environmental requirements. Referring to the thesis context, the indigenous dwelling design has demonstrated its ability to deliver the innate values, and meanings of culture for the society.

Q (19): Mention three characteristics of contemporary dwelling design that you like most such as the architectural or decorative features. Please state two reasons why you like the features.

Characteristics	Freq	Reason(s)	Freq	Total
Choice of materials*	16	Durable	7	
		Suits climate	1	
		Easy maintenance, practical, beautiful	6	
		Affordable	1	
		Strong and solid	1	

* *These responses are established with the understanding that building materials here can be anything from structural materials to walls and columns until finishing materials. Hence, the types of building materials vary from traditional material like the red clay brick to new materials such as stainless steel, marble, and many other choices for finishes.

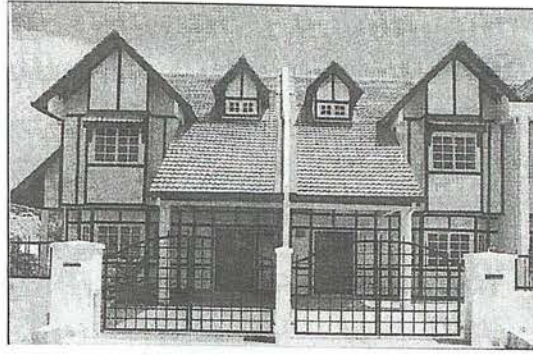
		Modern look	1	
		Cooling	1	
		Nice and beautiful	1	
		Suits space accordingly	1	
		Finishes suit environment	1	
		Simple, clean look	1	
		Suits needs and purposes	1	
		Simple, in touch with nature	1	24
Contemporary/ modern look	14	Suits needs and purposes	5	
		Durable	1	
		Looks nice and beautiful	6	
		Up-to-date with current style	1	
		Practical	2	
		Simplicity in design	12	
		Highest priority	1	
		Reflects modern lifestyle/ modernity/ status	4	
		Reflects personal identity	1	33
The modern/contemporary concept	7	Elegant look, attractive	2	
		Comfortable	1	
		Soft colour choice	1	
Contemporary design layout	4	Alarm, internet ready	2	
		Have rooms for privacy, keep 'aurah'	2	
		Practical	5	
		Minimalist style- sense of spaciousness	1	14
Landscape – indoor, outdoor	4	Soothing, peaceful, relieve stress	3	3
Special function rooms: Garage cum store room	2	Can also be home DIY space	1	
		Reduce clutter in house	1	
Home theatre space	1	Privacy, personal entertainment	2	
Home office/ studio/ library	1	Special room for work/concentration	1	
		Keep other parts of house tidy	1	6
The French windows	2	Frame views	1	
		Allows natural lighting into house	1	
		Give wide perspective	1	3
The roman pillars	1	Reminiscent of western history	1	1
The colour scheme on walls	2	Nice	1	
		Brighten spaces	1	2
The patio	1	Relaxation space	1	1

Table 6-26 Contemporary dwelling design favoured and reasons

Changing values (in worldview and lifestyle preferences)

In the contemporary global world of information technology such as multimedia and the internet, it is acknowledged that global exposure has immensely influenced a change in people's values from various cultures around the world. These changes also include the change in people's worldviews and preferences which were initially based on local cultural, traditional or religious understandings to the new global cultures of the new world. In housing, for instance, the modern concept, in terms of the simplicity of design, and the building material choices that are most favoured by people and are identified with modernity and progress, whilst the holistic traditional concept is misunderstood as being backwards and out-dated. The following discusses the two favourable characteristics of contemporary dwelling designs:

Simplicity



Source: Hamzah (2002-2003)

Figure 6-23 Modern terraced-linked housing design that is popular among housing developers and homwbuyers alike due to the simplicity in its design.

The concept of simplicity in design is generally referred to by many of the respondents as epitomising the contemporary lifestyle. It refers to the ideas of practicality, de-cluttering, and justifying needs and personal preferences. Because of this, simplicity in design is recognised as a key characteristic of the contemporary housing design.

Interestingly, simplicity in design, evidently also exists in the traditional housing design of the Malay society, especially, for the poor, traditional peasant community. Simplicity in the design of the traditional dwelling encompasses both physical and spiritual aspects of the design process and its development. The concept was originally derived from centuries of man's mutual interaction with nature. Simplicity became a part of the tradition, culture and worldview that carried meanings in the built environment for the whole society. Instead, the simplicity in design of contemporary housing is purely in relation to the physical aspects of the design development. Unfortunately, due to the lack of awareness of this knowledge, many people, including contemporary architects misinterpret it as outdated.

Modernity

The concept of modernity as understood by the respondents is represented by the physical appearance of the house design, which portrays the contemporary looks and the use of contemporary building materials such as concrete, masonry, glass, steel and bricks. The visual appearance of contemporary housing design also reflects contemporary lifestyles, social status and progress. There is indeed a strong link between the visual appearance of a contemporary house and social status. Conversely, there is no relevance between the characteristics of contemporary housing design with the cultural meanings and cosmological understanding.

Summary

The most favourable characteristic of contemporary dwelling design is in its simplicity. Secondly, is people's attitude towards modernity that is reflected in the choice of building materials, and the visual appearance, which represents social status and progress. There is no link between the

characteristics of contemporary dwelling design with cultural meanings and cosmological understanding.

Q (20): Mention three characteristics of a contemporary dwelling design that you dislike most. Please state two reasons why you dislike them.

Characteristics	Freq	Reasons	Freq	Total
Overall property size too small: Spaces too small, very limited	21	No room for extension, changes Unfit for family & friends gathering Uncomfortable sizes for occupants Difficult to arrange furniture, options limited Impractical High price for inadequately small spaces Claustrophobic, especially for large families Little ergonomics consideration, inhumane Too compact, crowded Hotter environment than larger house Unsuitable for Asian culture, climate Bedroom small, too crowded with furniture Living, kitchen and dining size unfit for needs Claustrophobic feeling, trapped inside house Creates mental stress Tight space for car parking	5 2 1 1 2 1 1 4 1 1 2 2 1 2 1 1	28
Lack / no outdoor, green, open space	11	Lawn too small to organise outdoor/leisure functions, e.g. BBQ Not much/ nil space for kids play area Limited/ nil space for relaxation Reduce or prevent possibilities for future expansion Cannot enjoy outdoor/leisure activities Feel trapped in own house Inhumane design No opportunity to enjoy time with family and the greenery	5 1 1 1 1 1 1 1	12
Rigid/ stereotyped design	10	Less ergonomic consideration especially for the toilet/ bathroom, inhumane design Unsuitable for Asian culture, impractical Design inconvenient for renovation/ extension Not much space for outdoor activity, gardening Causes thermal discomfort – increasing temperature inside house, crowding with large family size No privacy Unsuitable for Malaysian climate Makes some people feel trapped inside own home Crowding in the house	2 4 2 1 2 1 1 1 1	15
Bad spatial organisation/ design layout	10	Impractical Unsuitable for cultural, religious and traditional activities/ gatherings At times kitchen is either too small or too big Toilet position is wrong, unsuitable No privacy Impractical for Asian culture Small sized bedroom, kitchen, etc. Unsuitable for local people's needs People do not have a choice Discomfort in own home Insensitive spatial arrangement for public & private spaces; e.g. toilet, kitchen living, etc.	3 3 1 2 1 1 2 1 1 1 1	17
Kitchen: At the entrance	2	Visible from outside, living space – no privacy	2	

Open concept	1	Cooking smell disturbs neighbours	1	
		Unsuitable for local cooking culture	2	
		Only practical for western cooking or those who do not cook;	1	
Size	1	There need to be a separate wet kitchen	2	10
		Size too small, cooking is hobby	2	
Low ceiling	5	Makes house looks smaller, cause crowding, discomfort	4	9
		Makes interior spaces hotter due to improper air circulation	3	
		Feel trapped in own house	1	
		Unsuitable for climate	1	
Poor workmanship	3	Quality of workmanship incompatible with price	2	10
Material: wrong choice, cheap, lower standard	3	Causes insecurity among homebuyers	1	
		Unightly	1	
		Roof designed poorly, caused leaking	2	
		Contemporary houses built with cheaper and lower standard of materials, buyers pay more	1	
		Some materials unsuitable for climate	1	
		Unsatisfactory standard of finishing	1	
Developers' main aim is profit maximisation	1			
No privacy (for many contemporary housing designs)	4	Causes discomfort	1	5
		Cause the feeling of insecurity	1	
		Impractical for religious lifestyle	2	
		Inhumane	1	

Table 6-28 Characteristics of modern/contemporary dwelling designs that are disliked and reasons.

Privacy

The meaning of privacy

The meanings of privacy here are discussed in relation to the residential living environment. Al-Kodmany (1999: 283) defines residential visual privacy as “the ability to conduct everyday activities of the home without being observed and without fear of being observed by those outside the home (i.e. neighbours and passers-by)”. According to Lang (1987: 145), definitions of privacy have one thing in common; they stress that it has to do with the ability of individuals or groups to control their visual, auditory and olfactory interactions with others. The Architecture Research Unit⁸⁴ of the University of Edinburgh (1966) defines privacy as: the freedom to live one’s own life (together with that of one’s family) without outside interference or intrusion, freedom from seeing or being seen by neighbours and passers-by when in the house or garden, and freedom from disturbance by noise.

The Concept of Privacy and Moderation in the Malay culture

The Malay culture views privacy and moderation as important aspects of daily life, particularly due to religious requirements. Living in moderation and simplicity is also a religious tradition. The Holy Quran clearly delineates the terms for privacy between members of the family as below:

“O ye who believe! Let those whom your right hands possess, and the (children) among you who have not come of age ask your permission (before they come into your presence), on three occasions: before morning prayer; while you take off your clothes for the noonday heat; and after the late-night prayer. These are your three times of undress. Outside those times it is not wrong for

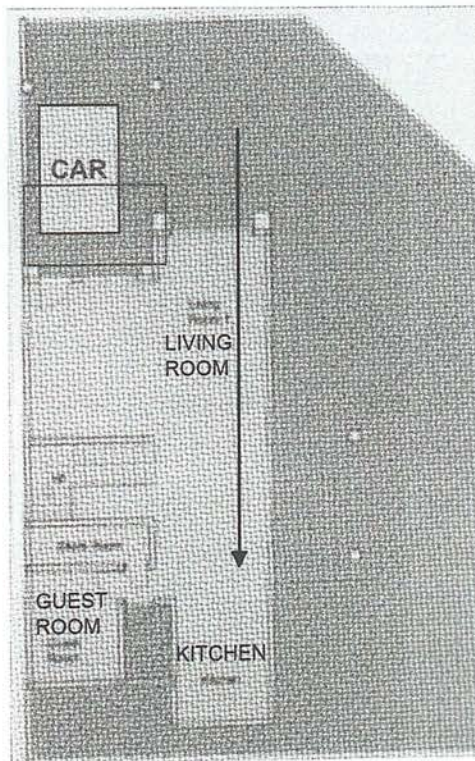
⁸⁴ The research unit published a book called *“Privacy and Courtyard Housing”* illustrating the meaning of privacy.

you or for them to move about attending to each other, thus does God make clear the signs to you, for God IS full of knowledge and wisdom. But when the children among you come of age, let them (also) ask permission, as do those senior to them (in age), thus God make clear the signs to you: for God IS full of knowledge and wisdom” (Surah: xxiv: 58-60).

This religious thought has been inherent throughout the years and transformed into the cultural tradition of the community. Privacy provides comfort and a convenient living environment for the whole family within their own residence. In summary, the concept of moderation and privacy are the innate cultural-religious forces of the Malay community that should be responded to in relation to housing design because they provide a sense of security, comfort and convenience that everybody needs.

Privacy Invasion

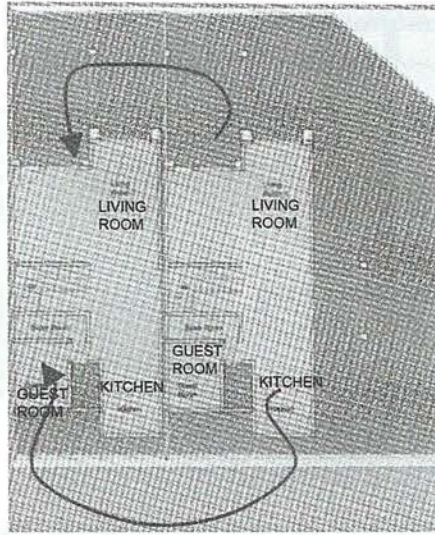
Privacy issues arise as the outcome of improper and insensitive spatial design arrangements for people’s homes. Contemporary housing designs in the country – terraced/linked houses, medium to high rise residential buildings, especially the low-cost apartments and flats have all violated the true privacy of the occupants visually, including odour violation, for example, the kitchen area is put in front at the entrance near the living space, and the toilet is also put at the front where the guest or living room is situated. This is unsuitable for cultural requirement where kitchen is considered as private and mainly for entertaining female guests and the culture also requires the toilet to be in a secluded area preferably at the back instead of at the front. This also causes respondents to be uncomfortable and insecure in their own homes.



Source: M.Rasdi (2003) in *Housing & the Problems of Privacy Violation*.

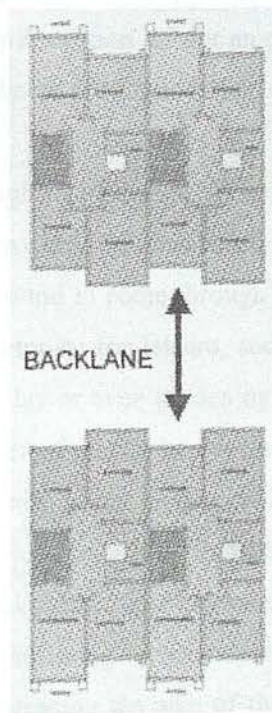
Figure 6-23 The privacy problem of contemporary dwelling design

According to the Figure 6-23 above, the internal design layout that violates the visual privacy of the occupant, in which the living area and kitchen space have no visual barrier and the exposed stair case up to the family rooms, which contradict with the respondents' cultural-religious way of living.



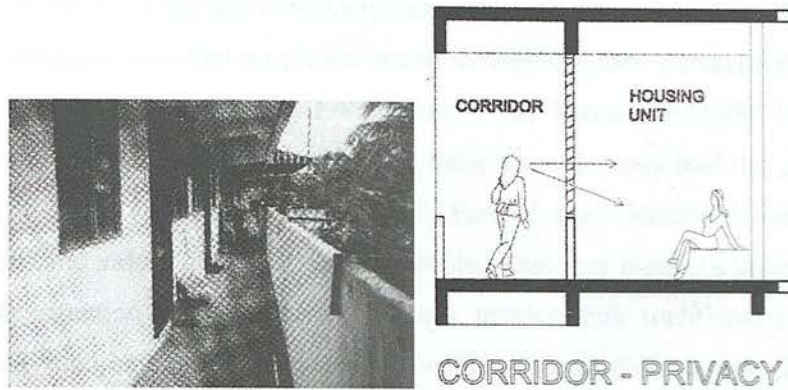
Source: M.Rasdi (2003) in *Housing & the Problems of Privacy Violation*
Figure 6-24 The violation of odour privacy

Apparently, contemporary linked houses design neglect to consider the odour factors in designing the Malaysian houses. Smoke and odour come from many sources such as local cooking culture of the Malaysian society, the ritual burning of incense and paper from the Chinese culture. As a result, people have to endure the lack of privacy and odour violation from their neighbours.



Source: M.Rasdi (2003) in *Housing & the Problems of Privacy Violation*
Figure 6-25 Visual Privacy violation as a result of back-to-back design

Typical linked houses' layouts in Malaysia are either back-to-back windows or front-to-front doors designs (see Figure 6-25 above). This insensitivity towards people's needs for privacy and sense of security within their own dwellings has indeed caused this visual privacy violation. Position of houses such as the back-to-back linked houses and the high-rise flats accommodation causes visual privacy violation and a lot of noise pollution.



Source: M. Rasdi (2003) in *Housing & the Problems of Privacy Violation*
Figure 6-26 Corridor privacy violation

The majority of high-rise housing developments, especially the low-cost housing such as the multi-storey flats have also violated the visual privacy of the occupants and their sense of security in their own homes.

Rigidity of design

The rigidity of contemporary housing design has limited homeowners and prevented them having the opportunity to further develop the property, either for renovation or for space extension. What makes matter worse, since the built-up area of the whole property is already so small, there is very limited and sometimes there is not any allocation left for an outdoor space. This is true in cases like high-rise flats, condominiums or apartment accommodation, even the link house types.

This situation is bad because firstly, rigidity of design, for example, the positioning of the windows merely at the front and back of the property (applies to all the above accommodation), is not the most effective way to manipulate the wind to come through the interior and cool the environment. A small plot of land limits the opportunity for leisure, social and outdoor activities to be held. Worse, there is hardly any space for play or even gardening or landscaping. The lack of open and green spaces induces escalating number of mental health issues, and social phenomena among the youngsters. The continuity of community living is also challenged because there is no space that provides the opportunity in such developments. The impact of a congested living environment is often the cause of the increase in social problems, crime rates and a mentally disturbed society due to life stress, the poor condition of the living environment and over crowding. More and more housing development projects are decreasing the size of the open external space for each house they design in the pursuit of maximising profits. In some cases, like the high-rise housing development project, in particular, the low cost housing developments offer very little or no external green space, other than a small balcony, which is normally used either for drying clothes

or as storage space. Its design is unsuitable for use as a gardening area nor as the children's play area.

Repercussions of bad design planning

Inappropriate designs, especially in the provision of a living environment for the public can have a direct detrimental impact on people physically, mentally, socially and environmentally. Living in inappropriate buildings means that people are unable to carry out their cultural practices, which can lead to stress, guilt and conflict (Potash, 1988; Esber, 1972). Mazumdar (2000: 165) adds that this inability to socialise with the next generation, i.e., today's youths, may lead the group to forget its culture, an effect Jaulin (1971) calls "ethnocide". Part of one's identity is tied up with one's culture. When cultural values and practices are disabled, that may lead to a crisis of identity (see, for example, the situation of Papua New Guineans leaving their traditional environments and moving to the city and having to adapt to new dwellings not of their design) [Ibid]. Bad design planning may especially have a negative effect on the high-rise residential blocks, especially in terms of safety and security.

Summary

The violation of privacy, the rigidity of design and bad design planning are common problems in the Malaysian contemporary dwelling designs and developments. These factors have had a detrimental impact on the environment and people in terms of society, health and security. The root of the problem might be avoided if the planning and design of houses have considered and respected all aspects of the local conditions of the social, cultural and environmental needs.

Neighbourhood Level

Q (21): Mention two residential areas that you would like to live in within your neighbourhood. Please give two reasons why you choose to live in each area.

Residential area	Freq	Reasons	Freq	Total
Taman Melawati	4	Sense of community living	1	
Taman Setiawangsa	1	Convenience	3	
Kangar Town	1	Close to workplace, public amenities	8	
Puteri Jaya town	2	Muslim community area	1	
Arau	1	Near mosque – many religious activities	1	
Wangsa Maju	1	Strategic location	1	
		Good view	1	
		Peaceful environment	1	17
Putra Jaya	5	Well-planned town and residential area	1	
Bukit Rimau	1	Great recreational facilities for family, working people	2	
Kota Kemuning	1	Like the design scheme/ concept	1	
Leisure Farm, Johor	1	Large outdoor space	3	
		Courtyard terrace promotes community spirit	3	
		Fenceless design concept – more open	2	
		Close to nature	1	
		Close to facilities & public amenities	1	
		Open plan concept, versatile, and luxurious living environment	1	
		Advanced technology facilities – underground utilities, electronic/ fibre optic phone cable, gas & water	2	17
Gombak	1	More greenery, nice views, mountains	2	
Bandar Baru Uda	1	Not too crowded with traffic	2	
Kg Pulau Melayu	1	It is home, own village, knows everybody	1	
Rasau Link	1	Many relations	1	
Taman Tun Dr Ismail	1	Malay community living environment	1	
		Good place for retirement	1	
		Good location- near city centre	1	
		Major convenience stores nearby	1	10
Damansara Heights	3	Like the design concept, housing schemes	2	
Mutiara Damansara	1	Complete with recreational & public facilities	2	
		Big, spacious homes	2	
		Safe and secure neighbourhood	1	
		Convenient for family life	2	
		Variety of housing choices according to interest, affordability	2	11
Natural settings: Hill side, seaside	3	Relaxing	1	
		Always good feeling	1	2
Kampung / Village environment	3	Friendly, responsible, tolerant residents	1	
		Green surroundings	1	
		Calm and fresh	1	3
Bukit Beruang	2	Hill side, fresh air, peaceful	1	
Heights Kelebang	1	Back to nature – natural surroundings	1	2
Sect 2,3& 4 Shah Alam	2	Town within garden concept	1	
		Near facilities, amenities & recreational park	1	
		Clean	1	
		Sense of community living	1	
		Lots of green areas – lakes, garden, etc.	1	5
Bandar Darul Aman	2	Positive social environment	1	
		Convenient - Local amenities and facilities nearby	1	
		Lots of greenery – next to valleys, lakes	1	
		Elite area, safer because of security	1	
		Buyers can choose housing design	1	
		Strategic location- near workplace, shopping	1	6

Table 6-29 Preferred residential neighbourhood and reasons

Attachments to the living environment:

The sense of belonging

“In both our communal and personal experience of places there is often a close attachment, a familiarity that is part of knowing and being known here, in this particular place. It is this attachment that constitutes our roots in places; and the familiarity that this involves is not just a detailed knowledge, but a sense of deep care and concern for that place. To be attached to places and have profound ties with them is an important human need.” Relph (1976: 37-38).

Simon Weil, the author of *The Need for Roots* (1955: 53) wrote, *“To be rooted is perhaps the most important and least recognised need of the human soul. It is one of the hardest to define. A human being has roots by virtue of his real, active and natural participation in the life of the community, which preserves in living shape certain particular expectations for the future. This participation is a natural one in the sense that it is automatically brought about by place, conditions of birth, profession and social surroundings...”* In response to this statement, Relph commented that Weil’s suggestion is by implication, in that it is at least equivalent to the need for order, liberty, responsibility, equality and security – and indeed, to have roots in a place is perhaps a necessary precondition for the other ‘needs of the soul’ (ibid: 38). He adds that to have roots in a place is to have a secure point from which to look out on the world, a firm grasp of one’s own position in the order of things, and a significant spiritual and psychological attachment to somewhere in particular.

In the questionnaire findings, people mainly relate their rooted-ness or sense of belonging to the original dwelling places that are mainly in the traditional ‘*kampung*’ environments. The sense of place is highly connected with a person’s cognition of a place. In other words, childhood experience does influence and affect our sense of place. Relph (1976: 37) suggests that places of childhood constitute vital reference points for many individuals. They may be special locations and settings, which serve to recall particular personal experiences, though the setting itself may be no part of that experience; or they may be personal places, which in themselves are the source of some “peak experience” as Maslow (1968) has called it – that is, an ecstatic experience of pure individuality and identity that stems from some encounter with place (ibid).

Neighbours and neighbourhood (surrounding environment)

This aspect is highly influenced by culture, religion and the traditional background of the respondents’ group. Neighbours and neighbourhood are also important considerations in determining where one would choose to live, which will determine what type of neighbours and neighbourhood it will be. A respondent expressed that a good neighbourhood environment is an important aspect for personality development. There are also the needs to have neighbours with high moral values, hence, it is vital to be living in a good community or neighbourhood.

Neighbours are also considered to be close contacts besides family and relatives. Therefore, there is a high tendency for people to choose a neighbourhood of the same or similar ethnic, cultural and

religious background, in the search to find commonness and a sense of belonging. Before deciding to begin a housing project in a certain neighbourhood, the design needs to be compatible with and respectful of the social cultural activities of the surrounding communities. Form, shape and the architecture of the surrounding houses give general ideas about the identity of the neighbourhood to someone who wants to build his house in the area.

Among respondents, there are some suggestions that it is important to choose neighbours for social and cultural harmony. Respondents prefer neighbours from the same ethnic and religious background mainly because it is more convenient when it comes to organising cultural, religious and social activities within the neighbourhood. '*Kampung*' environment in other words is the Muslim Malay community living environment. There is a desire from the respondents to return to the atmosphere of indigenous living in which one used to live during one's childhood. It recognises local cultural, religious and traditional ways of living. A good neighbourhood and surrounding environment can determine people's satisfaction and happiness towards their life and place of dwelling. A living neighbourhood is recognised by the whole community with a common understanding about the cultural lifestyles. There is a need for every culture to maintain its boundaries among other cultures so as to sustain peace and harmony and their own unique ways of living.

Summary

In general, most respondents prefer to live near a natural surrounding environment and '*kampung*' or village environments, or in a residential area surrounded by a natural environment. The '*kampung* environment' denotes the sense of belonging, community living, and green, natural surroundings, which offer relaxing, calm and fresh feelings. Apart from being able to maintain the traditional values, it is able to create a sense of belonging because there are many relations in terms of connection among people, between people and nature. Simultaneously, people also desire to be close to civilisation, which basically mean convenience, i.e. the provision of public infrastructure, amenities and facilities. In other words, people long for a village-like living environment set in the urban setting because of the quality of life.

An ideal residential area should also have plenty of external space for play, leisure, as well as organising socio-cultural-religious activities together with the community. In choosing an ideal neighbourhood, the main matters of concern may include safety, commonness, an altruistic community, similar levels of education and lifestyles, same ethnic and religious background. These aspects are important in terms of the convenience for people to organise religious and cultural activities together.

Q (22): Mention two criteria of housing design in your neighbourhood that you like. Please give two reasons for each criterion that you like.

Criterion	Freq	Reasons	Freq	Total		
Housing development scheme/ Design concept	9	Convenient for single & family life	10	41		
		Close to amenities & facilities	8			
	10	Provide users choice to choose own house type according to interest & affordability	3			
		Unique, warm & homely	2			
		Close to workplace	4			
		Suits personal/ family lifestyle	7			
		Sense of community living environment	1			
		Mixed development- close to local facilities, public amenities	1			
	Mixed development	1	Affordable price		1	
			Provide choice and variety		1	
Small development	1	Not too rigid in terms of design	1			
		Choice of design up to buyers	1			
	1	Small community encourages neighbourhood spirit	1			
Sense of community living	11	Friendly neighbourhood, environment	3	20		
		Suits personal/ family lifestyles and needs	8			
		Personal preferences	3			
		Neighbourhood spirit, lots of social activities with neighbours, knows them better	3			
		Close to local facilities, amenities	1			
		Housing without fence – no boundary	1			
		Sense of understanding among residents	1			
House types: Single fenceless bungalow	1	Outdoor compound seen as one – unites neighbours	1	24		
		Encourage neighbour interactions without boundary	1			
		Semi-detached house	1		Established residential area	1
					Has good size outdoor space for gardening, outdoor activities	2
		Low-rise apartment	1		Good size property	1
					Open plan, hidden kitchen	1
		Mixed house types	1		Choices for everyone according to affordability	1
					No discrimination	1
		Town house	1		Bigger size house	1
					Security	1
		Resort type	1		Nice balcony facing outwards	1
					Wide perspective	1
		Bungalow with large compound	1		Freedom to do outdoor activities	2
					Possibility of future expansions	1
					Big and spacious	1
		Modern bungalow with Malay design influence	1		Great, clean external outlook	1
					Simple, yet strong design	1
Interest in wild plants landscape	1					
Personally built houses	1	Individual expression	1			
Natural setting location Close to playground & park	2	Enjoy green & peace next to civilisation	1	4		
		Near secondary forest, lake, river	1			
		Enjoy community recreational park	2			
Open design concept	2	Freedom of individual design choices	2	4		
		Able to see different housing characters	1			
		Houses are not too uniform/ homogenous	1			
Next to open field/playground	2	Can monitor children playing, garden view	3	4		
		Get lots of wind into house	1			

Table 6-30 Criteria of housing design in neighbourhood favoured by respondents and reasons

Mixed and Small-scale Housing Development Scheme






Most people when asked about housing design criteria of their neighbourhood refer to the housing development scheme of their neighbourhood. Types of developments vary from small, medium to mixed development. A small development is a small housing scheme that caters for a small number of residents within a neighbourhood. The mixed housing development concept usually includes facilities and amenities such as school, mosques, shopping markets within the residential neighbourhood, or in other cases, the mixed housing development means the ground floor of a low-rise (three or four storey) housing development, which would be open for commercial building, whereas the upper levels shall be used as residential houses. This type of housing development does provide convenience for people's immediate needs for education and getting access to food, clothes and other household necessities. People's preferences of housing schemes also vary depending upon their interests in a specific design concept, either international or local/vernacular. In addition, many respondents prefer housing schemes that also provide a recreational area with natural surroundings. However, some also commented that the mixed housing developments that provide facilities are mainly focused on big cities.

Mixed House Types

Basically, for an ideal house, most people would prefer the idea of having an individual bungalow with its own large compound and natural green surroundings. The main reasons being, people have the freedom to practise their socio-cultural-religious lifestyles and activities in this type of property, and the opportunity to change or alter the dwelling when the time comes. The ideal house type would actually provide the occupant(s) with the sense of security and privacy crucially needed, which most conventional housing provision today fails to offer. In this context, the house type mentioned here is significant with the characteristics of traditional Malay dwelling design within a village setting.

Within the residential neighbourhood, many responded positively to an established Malay residential neighbourhood, which normally offers a friendly environment with a good neighbourhood spirit. Kids are able to play safely in a community living neighbourhood because there is sense of responsibility and cooperation among residents. Others also respond well to housing properties that can offer convenience for long-term family life, cultural and religious fulfilment, closeness to the workplace, and in close proximity to amenities and facilities. From this perspective, the appropriate housing types that may fulfil those requirements are single or double semi-detached houses; a single or double-storey bungalow with a large compound; or a personally built or designed house. Below are examples of modern housing types that are favoured by the respondents:

The Semi-Detached Housing Developments:

1970s	 <p>Semi-detached houses in urban areas for the middle-income buyers.</p>	
1980s	 <p>Semi-detached houses in the city centre were also designed for middle-income homebuyers.</p>	
1990s until present		
	 <p>Bungalow developments – only afforded by a few people</p>	

Source: Author, Fee (1998) and the internet

Figure 6-28 Semi-detached housing development

Unfortunately, today's reality demands that housing types should be in accord with affordability instead of personal interests. In order to own such housing types mentioned earlier, one would have to earn substantially high earnings, but most people do not. Hence, many could not afford to live in the ideal living environment that they would have preferred.

From this finding, the author has listed the characteristics of house types that people like in their residential neighbourhood as below (without any particular order of importance), all house types that:

- i. Encourage neighbourhood interaction (community living)
- ii. Provide a good size indoor and outdoor space (for children's play area and recreational activities)
- iii. Offers a good size property
- iv. Respond to socio-cultural needs in the spatial organisation
- v. Offer possibilities for future change
- vi. Offer a green environment – natural surroundings
- vii. Offer a range of choice for users to opt for house type, according to affordability.

Summary

The development scheme preferred by respondents must be able to first: respond to individual, family and society's needs; second: offer convenience – facilities, amenities, infrastructures, and once the first two are fulfilled, the development scheme must be able to provide a range of design, in accordance with users' economic availability.

Q (23): Mention two criteria of housing design in your neighbourhood that you do not like. Please give two reasons for each criterion that you dislike.

Criterion	Freq	Reasons	Freq	Total	
House types: High-rise flats Link/ terraced	9	Design too compact, buildings too crowded	13	53	
	5	Creates social problems	2		
		No/lack of privacy for most occupants	7		
		Noisy	3		
		Residents always have problem with low water pressure	1		
		Normally has no or very limited external space – no children's play area	4		
		Dirty	1		
		Don't know neighbours – causes insecurity	1		
		Class division	1		
		Irresponsive to local cultural/traditional activities	2		
		Inadequate room sizes	3		
		Poor design, workmanship	1		
		Community population density too high	1		
		Uncomfortable spatial organisation	1		
		Roof leaked right after house had been built	1		
		Unsuitable for Asian culture	1		
		Overcrowding	2		
	Town house	1	No room for renovation		1
			Has to share entrance with neighbour		1
			Less privacy		1
Country Club houses	1	Hard to maintain outdoor cleanliness	1		
		Creates community segregation	1		
		Cause ecological imbalance			
Housing scheme/ design layout	6	Expensive, unaffordable, mainly for the rich	1	10	
		Unsuitable for cultural needs	2		
		Design scheme too compact, profit making	2		
		Overcrowding	2		
		Misuse of recreational parks	1		
		Problems to organise socio-cultural activities	1		
Housing development approach	6	Too much development in one site	1	13	
		Mixed development too close to each other's site	1		
		Segregation	2		
		Congestion due to limited access	2		
		Disturb privacy	1		
	Rapid development		Creates social problems, property violation		2
			Disrupt cultural lifestyles		1
			Loss of local identity		1
			Noise and pollution		1
	Back to back link/terrace house design	4	No privacy		3
		Poor design	1		
		Limited outdoor space	1		
		No community life	1		
		Poor maintenance of green playing field	1		
Homogenous housing estates	2	Strips off people's individuality	1	1	

Compact bathroom/toilet, kitchen and storage sizes	2	Unsuitable for people's needs Difficulty in movement	1 2	3
Fencing	2	Dull, no architectural value, low quality Feel restricted Gives false sense of security	3 1 1	5

Table 6-30 Criteria of contemporary housing design disliked by respondents and reasons

The following discusses findings from the respondents' views that do not relate directly to the thesis context, but are still important from the general housing perspectives:

The Impact of Modern Housing Developments:

Homogenous, compartmentalised, and stereotyped design

Other issues of contemporary dwelling designs which, are disapproved of, have been put under a miscellaneous category, and are those with one or two remarks. In this category, there are several views worth mentioning that indicate disapproval of modern contemporary design concept - which are mainly the low-cost flats, the terraced-linked housing, and condominiums. Pictures below demonstrate the homogeneity in the concept of contemporary housing developments in Malaysia:

Homogeneity in Contemporary Housing Development



Source: the internet

Figure 6-29 The pictures above show the typical mixed housing development, with zonings – commercial, public and residential areas. Picture on the right shows the typical homogenous terraced-linked housing.



Source: the internet

Figure 6-30 Another type of mixed housing development; the terraced-linked townhouses – a new design approach adopted from foreign housing designs. The ground floors are used as commercial buildings, whereas the upper levels of the buildings are used as residences.

The phenomenon of an individualistic society:

Lack of sense of neighbourhood

Another issue brought up was the lack of a sense of neighbourhood or community living within the proximity of the respondents' residence(s). People live in isolation, there is tension caused by the mixture of cultures living in the same living environment, and there is also the noise pollution due to the way the housing accommodation is arranged with main vehicular access in front of each house in the case of the terraced linked houses.

The increase in social problems and crime

For many decades now, the social and criminal issues arising from the impact of the housing development approach are numerous and alarmingly, are rising every minute, every second. Newman (1972) who introduced the term 'defensible space', established from his study on the relationship between design characteristics and crime statistics that some building patterns afford criminal activity more readily than others. This is due to the design of some open spaces that do not relate to the community and their residential territories. The individualistic attitudes developed through the process of modernisation do not help to bring together the society to resolve the social and criminal issues within the neighbourhood either. Social phenomena among the youths, like loitering in the shopping complex and antisocial behaviour; unhealthy activities and detrimental attitudes arise due to a lack of positive activities such as sports and recreation within the residential area.

Congestion, caused by high-density housing development

A compact housing development project within a very limited area is the norm in the contemporary housing development trends in Malaysia. Any strategic location in the city or urban centre is exploited by housing developers to build more houses, even though it is already cramped with existing housing. The imbalance between rapid development projects and preserving nature has become uncontrollable and has disrupted the environment, caused overcrowding, pollution, social and other environmental problems.



Source: The internet

Figure 6-31 The aerial view above illustrates the rapid development of a high-density housing scheme in an area near the city centre.

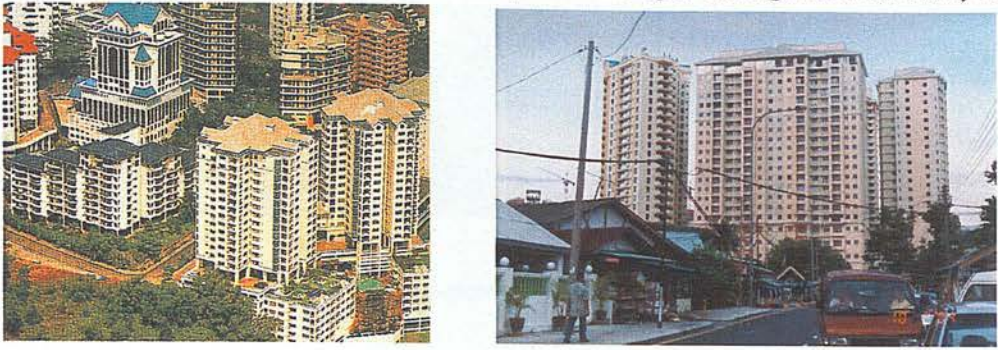


Figure 6-32 Clusters of condominiums in a variety of shapes, size and styles in the heart of the city centre of Kuala Lumpur, Malaysia.

As a result, extreme congestion in the urban living environment such as claustrophobic feelings, stress, crowding, illness and insecurity take place in the residential areas. The lack of open space and green areas for sports and out-door activities for youth and children also has bad consequences. In the case of terraced-linked houses, the residential road access is too narrow for a two-way traffic and causes safety concerns for kids who tend to play in the middle of road in front of their houses. This situation also discourages and limits the freedom of important cultural activities from being held at the individual houses. From this question it was also discovered that the majority of people are not in favour of the modern housing types i.e., high-density housing developments, namely high-rise flats, apartments and condominiums, and especially the terraced-link houses. The reason is mainly because the immensely densed housing development areas, cause myriad of crowding problems, privacy issues, as well as pollution - air, noise, traffic and other environmental degradation.

The high-rise developments – flats and condominiums



Figure 6-33 Cheap, low-cost, low-rise and high-rise flats developments in central Kuala Lumpur, Malaysia.



Source: Author

Figure 6-34 Typical views of high-rise multi-storey housing development in the city and suburbs areas

It has been discovered that the high-rise flats, apartments and condominiums' development are highly likely to increase social, mental and health problems. For one, design schemes for condominiums and high-cost apartments are individualistically design oriented, i.e. they do not encourage community living. People go on with their lives without even knowing who their next-door neighbour is. In the case of flats or low-cost high-rise housing developments, there is a lack of privacy consideration, either in terms of the design scheme or the wall materials used are normally of such low quality that they prevent privacy from the neighbours. This group of people have no choice but to accept their prescribed living environment, due to circumstantial factors such as affordability and life constraints.

Summary

Homogeneity, individualism and congestion are the direct implications of the contemporary housing design and developments. The phenomenon has indirectly increased social and criminal problems within residential neighbourhood for many decades. Although many attempts have been made to resolve the issues, they are without resolution. It is undeniable that all these aspects being discussed here must be resolved sooner or later before any further damage is done. Therefore, there is a crucial need to develop a housing model that could provide a healthy, safe and communal living environment, which can automatically prevent and resolve these issues. In other words, we need a housing model, which can actually tackle the social and environmental issues, encourage community integration and participation in the living environment, and provide appropriate living environments that respect human needs, and the social-cultural needs, with an adequate space to breathe, relieve tensions, and have socio-cultural activities together.

Q (24): Mention two customs, social, or ritual traditions that are important for most people in your neighbourhood. Please state two reasons why they are important.

Criterion	Freq	Reasons	Freq	Total
Open house for 'kenduri' (big feast), ceremonies— wedding, funerals, Quran recitation; Festive celebrations – Eid, Maulud etc	25	Cultural/religious tradition	17	39
		Community living, communal activity, friendly environment	9	
		Strengthen community relationship	5	
		Social interaction, connecting people	3	
		Religious teachings	1	
		Norms, custom	2	
		Family get together, meet neighbours	2	
		'Salam' greetings	7	
	Ethnic identity	3		
	Polite culture	1		

		Respect to others	1	
		Asking permission to enter house	1	
		Strengthen tie with others	1	13
'Pasar malam' (night market)	8	Cheap food, clothes, groceries, etc.	4	
		Malaysian culture, custom	2	
		Social tradition	2	
		Social gathering place	1	
		Economic & social activities	1	10
Community gathering at mosque	4	Attend mosque for congregational prayers	1	
		To organise religious/ social activities	1	
		Meeting place to change ideas	2	
		Centre of religious/social activities	1	
		Unite community	1	6
Community gathering at multi-purpose hall	2	For physical activities	1	
		For cultural/religious activities – Eid celebration, wedding ceremonies, neighbourhood watch meeting etc.	2	
		Get-to-know neighbours	1	
		Place to decide on community security	1	5
'Gotong royong'	2	Malay community tradition	1	
		Symbol of cooperation, responsibility	1	2
Visiting one another	1	Social norms	1	
		Strengthening ties with one another	1	2
Polite dressing code	1	Religious practice	1	
		Represents community's identity	1	
		Lesson for younger generation to follow	1	3

Table 6-31 Important customs, social and ritual traditions in the neighbourhood and reasons

Community Gathering at the Mosque



Source: the internet

Figure 6-35 Islamic learning, congregational prayer, religious talks and courses are normally held at the community's local mosque.

The mosque is not only a place for worship, but also acts as a gathering place for communal-religious activities. As a place of worship, the mosque hold congregational prayer five times a day for the local residents, and during the Eid celebration, it holds the congregational prayer for the whole community in the neighbourhood. Community gathering at the mosque occurs from time to time, depending on the courses, lessons or talks being held every week or month. On special occasions, like the fasting month or Ramadhan, the religious activities in the mosques increase, and also function as a place for charitable deeds – giving food, money and clothes for charity, especially for the orphans, the poor and the needy.

Eid celebration

Muslims celebrate two kinds of Eids in a year. The first is the celebration after the fasting month of Ramadhan. The celebration is called Eid'ul Fitr. The latter is the celebration for the pilgrimage

groups who have gone to Mecca, in Saudi Arabia to perform Hajj, the fifth pillar of the Islamic faith. It is called Eid'ul Adha. The pilgrimage must be performed (for those who can afford to go, physically, emotionally and financially) at least once in a lifetime of a Muslim.



Source: the internet

Figure 6-36 The cow slaughtering event, to mark the completion of Hajj which takes place on every 10th day of Zulhijjah. It is a festive celebration and a sign of gratification towards Allah's blessings.

On the 10th day of the month of Dzulhijjah in the Islamic calendar, that is the first day of Eid'ul Adha celebration, the cow-slaughtering event takes place. The same event takes place all around the Muslim world on the same day. The meat shall be distributed to the poor and the needy. The event would take place within the local community area.

'Gotong Royong' (community spring cleaning)

It is a religious obligation as well as a cultural tradition among neighbours within a Malay neighbourhood to help its community members. The cooperation among residents in the neighbourhood enables neighbours to get better acquainted and creates a healthy community living environment. The spring-cleaning (*gotong-royong*) event has survived through time and change, as an inherited custom within the respondents' community living tradition for centuries. These are the idealistic hopes of the respondents in the community that they live in. However, the reality of contemporary lifestyles has also changed people's attitudes from community based into individualistic society due to time and space limitation, work demands, and so forth.



Source: the internet

Figure 6-37 *Gotong-royong*: renovating a local community's mosque (above left & middle) and community spring cleaning (above right)

Summary

The social, cultural, religious, rituals, customary activities of the society always involve the community. This indicates the continuity of traditional ways of living that sustain people's communal living, even in the urban setting. These activities motivate people to work together and

establish harmony and a sense of belonging towards a neighbourhood. The sustainability of cultural ways of living is vital so as to maintain the identity of a nation and preserve the meanings in the living environment.

Q (25): Mention two important characteristics that you recognise as identities of your neighbourhood. Please give two reasons why they are important.

Characteristics	Freq	Reasons	Freq	Total
Mixed community	12	Live together, opportunity to know one another Reflects cultural diversity in the neighbourhood Encourages racial integration Neighbourhood location attracts so many people Crowded with illegal immigrants Comfortable living together with current lifestyle Consists of all races Today's lifestyle – one does not know the neighbours	1 7 1 1 1 1 1 1	14
Modern development	3	Promote modern way of living Mainly individualistic community Equipped with modern facilities Contemporary lifestyle	2 1 1 1	13
Pigeon-hole society	4	Symbolise contemporary living People work most of the time Repetitive routine, like living in jail Small houses	3 1 1 1	
New urban living environment	1	New township, many facilities inactive Regimented street planting	1 1	
Good eating out spot	5	Eating out is part of modern day culture Family outing activity Social activity/ gathering Small vendors economy area	4 1 2 1	8
Rural Life Village environment in urban setting Malay village Traditional Malay village	1 1 1 1	Friendly neighbours Sense of community living Traditional values of living maintained Safe haven for kids to play People know each other; do social, cultural, & religious activities together	1 1 1 1 1	7
Fishing village	1	Near the river and sea Fishing activities used to be active	1 1	
Middle class Malay area	4	Majority residents are Muslim Malays Malay developer Many facilities for Muslims (mosques, kindergarten) Ease of communication – same religion, ethnic Semi-D/ Bungalow house types Financially and socially stable	1 1 1 1 1 1	7
Night market area	4	Convenient to buy food, rations Get to know neighbours Attract other people to come here A social gathering place	2 1 3 1	7
Community living, neighbourly residents, friendly environment	4	Care for each other Help always at hand Type of development affects people's lifestyle A very strong tie among residents in the community Nice place to return from work, rest, talk	1 1 1 1 1	

		to neighbours		5
Natural surroundings, beauty	3	Pure, natural, relaxing Caves, valleys, hills & forest reserve area Lots of fruit trees	1 1 1	3
Individualistic community	2	No social interaction with neighbours People mind their own lives	1 1	2
Jam-packed area	2	Narrow streets Busy street, far from office	1 1	2
White collar housing area	2	Very expensive housing area	1	1
Modern-traditional development	1	Contemporary living, maintaining the good tradition	1	1
Landscape design neighbourhood	1	Residents enjoys designing landscapes	1	1
Most beautiful residential area	1	Each house has the biggest garden space; the neighbourhood has green lung area and recreational park Well-planned housing development	1 1	2
Mixture of Islamic & Hindu cultures & society	1	Majority of community here practise these two religions	1	1
Housing colour scheme	1	Different from other residential areas Makes the houses more recognisable	1 1	2
Strategic location	1	Accessible from major towns Developments within the area - future jobs and new residential areas	1 1	2
Block design	1	Easily recognisable Attract people's attention	1 1	2
Tourists spot	1	Popular pottery making business centre	1	1

Table 6-32 Characteristics which determine identity of neighbourhood

Identity: change and meanings

Many scholars find the notion of identity a difficult concept to define. Hewitt (1984) suggests identity can be conceptualised as consisting of three related elements: first, symbolic placement that situates the person in the world, at once differentiating the individual from some aspects of reality and affiliating the person with other aspects. Secondly, an interpretation of both the qualities and values of self characterised respectively in self-imagery and self-esteem. This multi-faceted nature of identity is nicely reflected in the everyday language of identity and identification. We identify ourselves as people of a certain type, quality and value; we also identify ourselves with others and with significant objects, in order to give a sense of belonging and attachment. Thirdly, identities embedded in culture are socially and historically specific. They are produced in the individual consciousness through life-long socialisation and the patterned experience of everyday life (Berger, 1970) [cited in Adas, 2001: 27-28].

Identity may change with the influence of time. Time is a factor that can add, enrich and transform an individual, a society or a place. In the context of architecture, and the environment, Adas (2001) comments, the place one once knew before may seem rather different when one returned to it a few years later. He adds, objects of the built environment may play a significant role in mediating time and identity, to the extent that they become signs of temporal processes, such as festive decorations, These facilitate the differentiation of time into socially or personally significant units, or act as material symbols of past and future periods (Ibid). He says, "*In many cultures, dwellings have been used to symbolise the transition from one life stage to another [...] Houses and dwelling*

objects are also important to identity in that they constitute symbols from the past, which represent the continuity of a society.”

Meaning, when related to place they affect the development of the built environment in two ways. On the one hand, it asserts an identity, while on the other, it enables an individual to acquire identity within a place, which in turn, influences his actions and behaviour (Dayaratne, 1992). In order to understand place meanings, it is essential to examine the process of change such as urban renewal, relocation and gentrification (Rivlin, 1982).

Mixed Community

Identity in contemporary living neighbourhood has also changed through the course of time. The strategic location of the neighbourhood attracts many people from all walks of life into the neighbourhood, hence a mixed cultural community is established. This notion of identity reflects the cultural diversity and the community integration of living together in the same neighbourhood, while at the same time, maintaining people's boundaries. For example, in one neighbourhood, there is a fusion of Muslim and Indian living cultures.

Most respondents recognise the multi-racial, multi-cultural and multi lingual community in the neighbourhood as an identity because ideally, living together gives the opportunity to be acquainted with each other, at the same time recognising and respecting each culture's boundaries. This way, a better understanding of different cultures is established and racial integration is encouraged.

Fusion of Modernity and Traditional Living:

The majority of Malays living in urban areas are traditionally brought up from a village environment in their respective hometowns. Living in the present urban environment presents a tremendous challenge and demands a lot of change in traditional, cultural lifestyle. For example in many aspects of cultural and religious activities, the community strives to maintain the traditional ways of dealing with them. Community living represents a communal and neighbourly neighbourhood, a rural living environment, albeit in an urban setting, natural surroundings. People in this neighbourhood live by maintaining their values and cultural meanings in their daily life and this affects the whole community. But in other cases such as work, leisure, commercial and entertainment are modern and contemporary. Residential neighbourhoods, especially in the city centres or urban areas are predominantly identified with social status. Hence, terms such as a white-collar neighbourhood, the middle-class plots, or the 'pigeon hole' society are common names associated with certain residential neighbourhoods. In conclusion, it can be said that the contemporary Malay society lives in a fusion between modernity and traditional ways of living.

Summary

The identity of mixed community represents cultural diversity of a neighbourhood. However, it is also a fact that in reality, each ethnic society tends to prefer to "flock" together within a

neighbourhood of the same ethnic community mainly due to convenience in practising the similar cultural and religious ways of living. This indicates the existence of boundary among various cultural societies – as a result of the opposition to living within their own specific rules and domains. The contemporary Malay society lives in a fusion between tradition and modernity.

Question	Response	Frequency	Percentage
1. How do you describe the relationship between the different ethnic groups in your neighbourhood?	They live together in harmony and respect each other's customs and traditions.	15	15%
2. What are the main reasons for the existence of boundaries between different cultural societies?	Opposition to living within their own specific rules and domains.	10	10%
3. How do you think the contemporary Malay society is changing?	Fusion between tradition and modernity.	12	12%
4. What are the challenges faced by the different ethnic groups in your neighbourhood?	Language barriers, cultural differences, and economic disparities.	8	8%
5. How do you think the government should address these challenges?	Through education, cultural exchange programs, and economic support.	7	7%
6. What are the most important cultural and religious practices in your neighbourhood?	Prayer, fasting, and celebrating traditional festivals.	18	18%
7. How do you think these practices have changed over time?	Some practices have become more formalized, while others have become more relaxed.	14	14%
8. What are the most important values and beliefs in your neighbourhood?	Respect, honesty, and family values.	16	16%
9. How do you think these values and beliefs have changed over time?	Some values have become more prominent, while others have become less so.	11	11%
10. What are the most important social and economic issues in your neighbourhood?	Unemployment, poverty, and social inequality.	9	9%
11. How do you think these issues have changed over time?	Some issues have become more acute, while others have become less so.	13	13%
12. What are the most important environmental issues in your neighbourhood?	Pollution, deforestation, and climate change.	10	10%
13. How do you think these issues have changed over time?	Some issues have become more prominent, while others have become less so.	12	12%
14. What are the most important health and safety issues in your neighbourhood?	Accidents, diseases, and crime.	11	11%
15. How do you think these issues have changed over time?	Some issues have become more prominent, while others have become less so.	13	13%

City/ Town Level

Q (26): Mention two changes you like that have happened (within 10 years) in housing development in your city/town. Please give two reasons for each.

Changes	Freq	Reasons	Freq	Total
Housing design/development concept: Green concept Mixed development concept Advanced technology concept Sustainable design concept Intelligent design concept Low cost development concept Modern concept Open design concept	15	Healthy environment Peaceful, safe environment Better choices, opportunities Within golf course area, greens Enable young families, low-income earners to own homes Reduces stress Convenient for everyone Many new local facilities Attracts people New developments increase job opportunities & population Crime prevention initiative Increase living status Facilities for all ages Ecological Beautiful designs More use of modern materials, less wood Unique designs Pay for own property, can do renovations Open concept – sense of spaciousness	3 3 2 1 2 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1	27
Better infrastructure	14	Better access, less traffic Better, safer choices Time saving Better transport connection Increases property value More shady green pedestrian walks	11 2 3 1 1 2	20
Creation of green outdoor, landscapes	11	Promotes healthier, better lifestyle Personal preference More attractive, peaceful environment Kids' own activities area – safety for kids Green environment Weekend retreat for local community	5 1 2 2 1 1	12
Local facilities & amenities complex Well maintained public spaces	4	Safe Peaceful Better connection, access Healthier outdoor environment Better opportunities	1 1 3 1 1	7
Range of housing design and prices	4	Choice according to needs, affordability Variety of choices	3 1	4
Cleanliness awareness	1	Yearly cleanliness competition	1	1
Good water supply	2	Old, rusty pipe replaced Stronger water pressure Water problems resolved	1 1 1	3
More efficient drainage system	3	Drains properly covered Cleaner environment Less flooding, blocked drains	2 1 1	

		Provides service for population	1	5
Centralised shopping area	1	Residents' convenience	1	
		Tidy, organised environment	1	2
Reduction of high-rise developments	1	Ineffective for living environment	1	
		Better scheme for low-cost houses	1	2

Table 6-33 Favourable changes in housing development within 10 years

More Green Concepts Within Residential Areas

People act more positively and actively with the introduction of a green concept within the residential area because it promotes a healthier and better lifestyle. A natural green environment always provides a more inviting, attractive and peaceful environment.

A substantial number of respondents recognise the positive impact green concepts brings to the residential neighbourhood. They view that the environment becomes cool, safe and peaceful because of the introduction of the concept. The whole area becomes more attractive and nature is being preserved. Residents can enjoy recreational activities during weekends and public holidays and children can play safely in the open green spaces provided. Whereas, in other conventional commercial housing development, children do not have much space to play but risk playing in the middle of the road in between opposite houses.

For the previous ten years, housing developments have improved their development schemes by providing more options for people to own their own home, according to affordability. There are better choices for everyone, from low-income people, to young families to own homes. Local facilities and amenities' buildings included in a mixed development scheme are convenient for residents' needs and also provide career opportunities.

Provision of Infrastructures

The third most common response is the improvement in the road networks, highway connections to main towns or cities, or main destinations. New road networks means better access and connections to towns and cities, less traffic, hence, travelling time to and from work, and to other destinations is reduced. The introduction of mixed development within a housing scheme provides the main public facilities and amenities within reach of the residents. This also means more convenience for the people in the residential area, a healthier environment and better accessibility. People also approve of the more attractive modern housing scheme, and open design concept for residential areas for the past ten years. Other changes that respondents approve of include the provision of an efficient drainage system, a new water supply piping system, better infrastructure and the provision of pedestrian facilities – which never existed before. People also appreciate the maintenance services provided for public spaces, cleanliness and hygiene awareness that ensure the environment is kept clean. This finding shows that people welcome changes that improve the quality of their living environment. However, it is still noted that in some places there as been no maintenance of infrastructures for the last ten years.

Summary

The findings indicate that developments that incorporate nature into their schemes are most welcomed by people, due to their deep appreciation of nature and the natural surroundings. Apart from that, any improvements in the quality of living are also well received.

Q (27): Mention two changes you dislike that have happened (within 10 years) in housing development in your city/town. Please give two reasons why you dislike the changes.

Changes	Freq	Reasons	Freq	Total
House price increase	12	Contrast to its size, decreasing quality	1	15
		Unsatisfactory quality, poor ventilation	2	
		More after sales expense for renovations	3	
		Due to land limitation/ profit maximisation	1	
		Users have no say	3	
		Small, but expensive	3	
		Pay more for smaller houses	1	
		Too much development in one area	1	
		Poor workmanship, quality – cracks, leaks, holes on walls, drainage system etc.	10	
Repair & renovation costs incurred upon buyers after sales	8			
Face repair difficulties	1			
Too many profit-gaining developments reduce quality	1			
Low quality building materials, drainage system	1			
	1			
High-rise developments	5	Increase crimes, social problems	2	10
		Lack of privacy	1	
		Individualistic living environment	1	
		Unsuitable for cultural lifestyle	1	
		Imposed on people, no consultation	1	
		Congested living environment	1	
		Too high population density	1	
		Affects mental health	1	
		Affects teenage development	1	
			1	
Compact designs Too much development in an area	5 2	Causes crowding, especially for large family	2	
		Disrupt environment	1	
		Affects cultural/traditional lifestyle	1	
		Buyers have to pay for renovations	1	
		Design without users involvement	1	
		Small, uncomfortable rooms	2	
		Irresponsive to local culture, climate	1	
			1	
Uncontrollable development	1	High population density-	1	

		congestion Minimal open space More pollution Illegal shops, houses, stalls grow without planning permission	1 1 1	13
Little to no greenery, open space	4	Inadequate space for gardening Limited space for children to play Insufficient space for social, recreational activities	2 1 2	
Imbalance between conserving nature & urban development	1	Unable to enjoy greenery in urban centres	1	
Trees cut down	1	Loss of greenery	1	7
Road system failures Residential road too narrow	3 1	Peak hour traffic jams Pollution Causes safety concerns for kids Too much roadwork Too many people use cars for work	1 1 1 1 1	
Highway construction	1	Too many people live, work in the same area – cause road congestion too	1	
Main road/highway in the middle of housing development	1	Adds to traffic jams Increases motor accidents, death rate Noisy, safety concerns	1 1 1	9
Planning impact – pollution	2	Air, noise & water pollution Affects natural ecological balance system Inadequate water supply	1 1 1	3
Modernisation of cities Demolishing historical buildings Influence of external culture	3	Cuts off relationship with the past Loss of heritages New foreign lifestyles, attitudes Unhygienic residential areas	2 2 1 1	6
No infrastructure maintenance	1	Loss of occupants in the area	2	2
Abandoned projects	1	Unfinished housing projects Invites unlawful activities in the area	1 1	2
Developments promoting link, high-rise types	1	Disagree with many aspects of the type of development & prices	2	2

Table 6-34 Unfavourable changes in housing development within 10 years

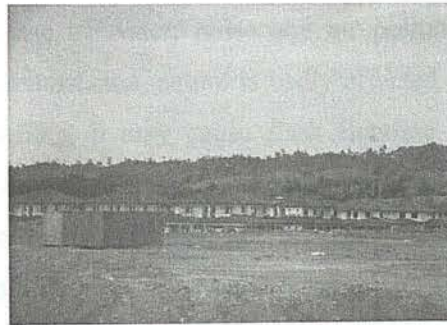
The problems or dissatisfaction raised in the feedback to this question have a lot to do with the ethical issues in the built environment. The following findings may be useful insights to the current scenario of the housing environment in Malaysia, especially in the urban areas.

Modernisation of Historical Cities

In the rush to modernise the cityscapes, the new urban development may sometimes decide to demolish the historical buildings that mark the historical development of the city itself - in the name of progress. New foreign urban styles have been imposed on the local built environment, creating a totally new urban fabric. People's lifestyles, and attitudes are expected to change towards modernity along with the modernisation of the cities. Unfortunately, this only means that the insensitive action has inevitably cut off the society's relationship with the past and its repercussion is the loss of heritage. Modernisation of the cities has also established an individualistic urban society. This situation shows the influence and assimilation of western culture into the lifestyles of the local community. In the end, the cultural meanings in the living environment may also be lost.

Ecological Imbalance

Land clearing for the purpose of urban and housing developments is a major cause of deforestation and global warming. More and more green and natural landscapes such as hills and forests have been transformed into open, plain lands for mass housing projects or new urban sites. As a result, the balance of the eco-system has been disrupted. The irresponsible acts of development for the sake of growth and progress have indeed deterred the sustainability of the environment and culture. Unfortunately, this loss is irreversible, nor irreplaceable. Therefore, there is a crucial need to control the destruction of the natural environment.



Source: Author

Figure 6-38 Typical view of natural land and hills clearances for mass housing projects such as the terraced-linked houses.

House Price Increase

The constant increase of house prices has always been an issue. The dissatisfaction occurs because people are unsatisfied with the total built-up area of the property (which are increasingly smaller in size), which means that they have to pay more for renovations, extensions and refurbishments after purchase. Overall, not only do they have to pay more than they are supposed to, but clients also have to spend extra money on renovations before they actually live in the house that they have bought. From this perspective, people do not get the value for money they have to pay for their new property. It is unfortunate that people, as the end-users become the victim in the whole transaction process. Worse, they have not been given the opportunity to voice their dissatisfaction. This is a total loss to the buyers, especially for first-time buyers. Instead, the property developers in the housing construction industry gain the most. Ideally, everyone should be able to afford decent

home at a reasonable price; and the price itself should not be determined by the housing developers, but controlled by government.

Quality of Workmanship

Another issue that causes dissatisfaction among people is the poor construction workmanship and finishing qualities. The insensitivity towards quality and climatic conditions results in problems in terms of the thermal comfort inside the dwellings and uneasy living conditions. This usually happens after the two-year guarantee period by the developer to bear the cost of repairing the problems when the quality of workmanship is poor. The quality of housing construction has gone from bad to worse. People do not get the value for the money they paid for their houses because the construction quality is so low. The users normally have to pay more for renovation work after the purchase of the property since there are many defects, hence extra cost is needed to repair them. For example, cracks on the walls, termite problems and roof leaks may already happen at very early stage after construction is finished. This raises feelings of insecurity among respondents.

Ethically, the choice of quality building materials should ensure the durability of a house, the quality of dwelling, as well as being responsive to local climatic conditions. Also, it should give a good impression for the potential resident(s) and easily maintained. The quality of workmanship should ideally create an aesthetic representation of the owner's ideas and values.

Pollution

There has also been an increase of water, noise and air pollution within the new residential neighbourhoods. Under the circumstance, nature is badly affected and polluted too. For example, when the drainage system suffers, it may cause flash flooding, especially during heavy rain. Pollution such as noise and olfactory effluence are also common in the contemporary housing estates especially the multi-storey high-rise flats and the terraced linked houses. Besides that, there is also other environmental pollution such as carbon emissions from various private and public vehicles, and nature's resources such as the rivers are contaminated as rubbish dumping areas and so forth.

Summary

The problems raised in this section are highly linked to the ethical issues of the built environment. Modernisation of the cities and ecological imbalance has tremendously affected the cultural continuity and sustainability of the natural environment. Other alarming issues in contemporary housing raised include the increase in house prices, the poor quality of workmanship and environmental pollution. These issues occur as a result of an insensitive and irresponsible approach towards development. Thus, it is vital to examine the ethical issues in the current development approach, re-evaluate the mistakes that have been made, and consider alternative ways for better solutions and prevention against the recurrence of similar phenomena.

Q (28): Please give two suggestions for changes that you would like to see in future housing developments in your own town/city. Please give two reasons for each.

Suggestions for future changes in housing developments in one's own area can be summarised as follows:

<i>On planning and development</i>	Do better town planning before actual construction Developments should be towards an environmentally friendly environment Should encourage users participation	3 5 2
<i>On the number of projects in an area</i>	Should limit the size of development in order to control overcrowding	1
<i>On housing design</i>	Design should be more sensitive to cultural, religious values, way of living Design should be responsive to nature & climate Design should promote a user-friendly environment Design should promote community living Design should be sustainable Build more single and semi-detached house types Design to minimise crime rate, improve community interaction	5 13 3 9 5 2 1
<i>On house spaces, sizes</i>	Bigger, more comfortable spaces inside out More value for money Promote healthy development Provide sensible space for outdoor, leisure activities	6
<i>On house pricing</i>	Should provide and promote affordable housing On outdoor spaces Should be bigger to cater for leisure and socio-cultural activities	6
<i>On security, privacy matters</i>	Should increase security and privacy	1
<i>On community living</i>	Housing design development should encourage the idea of community living	1
<i>On green spaces - recreational parks</i>	Maintain green lungs in every residential area For social, recreational activities Respect nature	1 1
<i>On road and transport system within residential areas</i>	Provide reliable transport system, encourage people to use it Strict parking rules, provide enough parking spaces Reduce traffic congestion, easier access Provide better network for convenience & add market value	2 2 3 3
<i>On public amenities, facilities and infrastructure</i>	Better and more efficient than existing.	1

Table 6-35 Suggestions for future changes of housing developmnet

The following discuss some suggestions from the respondents for positive changes to future housing development in the city/town:

Balance in Design

From the design point of view, it was observed that there need to be a balance between society's development and sustaining nature in housing design. The majority of respondents are aware of the need for housing design to respect the natural environment so as to ensure the sustainability of the environment. For example, the user and environmentally-friendly design, which responds to climatic conditions and people's needs are encouraged because besides protecting and preserving the natural environment, it can also promote good health and healthy living. The fulfilment of such design would nurture a sustainable living environment and a sense of place. Moreover, there is also a strong suggestion to urge the community to work together in creating and maintaining the green lung, hence promoting a healthy living lifestyle. The green lung can become the centre of attraction and for social activities.

Housing developments should also be able to provide a balance between commercial and residential developments.

Housing for Everyone

Housing developments should cater for all aspects of life by providing living spaces suitable for people of all ages. This is a suggestion to provide a proper community centre that would include recreational and sports facilities, childcare centre, the elderly community centre, health facilities and amenities within the vicinity of the housing neighbourhood. The area can act as a nodal or meeting point for the community in the neighbourhood to enjoy recreational and health activities. There should also be suitable and safe playground facilities for the children. The proper community centre should be able to promote racial integration in residential areas and enhance unity among residents.

Security

Security issues have become a matter of concern for everyone, especially those who are living in the city. Therefore, the respondents also proposed to promote social interaction and a safe neighbourhood, apart from the provision of a police station. Design approaches towards home design should be to minimise crime rates, and to improve social interaction among the community within the neighbourhood.

User Participation

Many also suggested future housing design should encourage user participation and engagement in the housing design process, ensuring thorough (long term) planning before proceeding with a particular housing project. Respondents view that users' needs are vital for long-term satisfaction. Hence, housing design should anticipate users' needs for their living environment to create a sense of belonging. This is needed to avoid the same mistake reoccurring. For example, a densed housing development project within an area may cause traffic problems (congestion) and a detrimental environmental pollution. Respondents also suggested that housing developers should provide shopping complex facilities within their own housing neighbourhood for more convenience.

Adequate Size of Living Spaces for Homes

Design should also be responsive and sensitive to cultural and religious needs when it comes to internal spatial organisation. There is a higher level need to enjoy better living conditions, comfort and personal satisfaction. In this case, people require bigger internal spaces for individual homes, as well as externally.

It has been highlighted previously that people need larger living spaces for various reasons. External space should be able to cater for socio-cultural and outdoor activities like barbeque, playing, gardening and leisure. Every individual has the need for open green space as much as the comfort of his own home. Therefore, many respondents support the idea of providing each property with an adequate space for an external compound, either owned individually or shared among neighbours. In this view, the single type and semi-detached house types are the best examples of properties that offer both the comfort of inside and outside living. The mentioned house types are able to provide a sense of spaciousness and are most suitable for a communal living environment. Everyone can enjoy their own compound/lawn; kids can play safely under parents' surveillance. In this view, it is also recommended that housing developers should stop building more high-rise flats or similar kinds of developments. This is to prevent social phenomena, crowding and space for kids' learning and playing – important for the future development of new generations.

An adequately large space (either individually owned or shared) promotes healthy living, offers more comfortable space and value for money. It gives comfort for the whole family as well as with the local community. A respondent implied that ideally, there should be a maximum of two families within a plot of land.

Affordable housing

This suggestion is a search for the most appropriate housing design, which can fulfil individual and local cultural requirements with prices controlled by the government. Instead, housing designs should be diversified to have a variety of design choice instead of conventional stereotyped design. The suggestion is made so that more people can afford to own homes and also because beautiful homes are not built just for the privileged. This way, everyone gets the opportunity to express individuality, personal and cultural needs, while getting the value for money paid for their homes. So far, housing developers get too much profit from their housing projects, which demand too much money from homebuyers.

Better networking

A better roadwork connection was suggested so that it would be able to cater for the increasing number of vehicles using the road network. An upgraded traffic system would minimise traffic congestion by providing easier access. Respondents also suggested a better and more efficient provision of public service transport system facilities, to improve the current situation. This improvement is crucial for the convenience of people who commute to work. Further, it can also

increase the market value of the residential area. Contemporary lifestyle in the country demands each household to own at least one personal vehicle. Inevitably, there is an increasing demand for parking space provision within the compound of one's own home in order to prevent people from parking by the roadsides, which normally causes a lot of traffic jams and roadblocks in the residential area.

Identity building

In order to create a sense of identity towards the living environment, there was a suggestion to provide a uniform garden, flowerpot areas and dustbins for each household in the neighbourhood. This would ensure a beautiful and aromatic atmosphere, which would encourage people to maintain the look. This would also help to create an identity for the neighbourhood. Good maintenance of the environment would also ensure its cleanliness, for healthy living. Respondents also urged developers be more responsible in their future approaches to housing developments.

Summary

It has been established that there is a realisation among people about the need to engage with nature in the living environment. Nature does indeed play an important role in carrying meanings in people's lives. Housing development should support this notion by responding to the local users' needs, encourage a more user-friendly design, promote an environmentally friendly development, be more responsive towards climate and cultural needs, and also encourage people's participation in the process, so as to maintain the identity, cultural continuity and meaningful living environment for the whole society.

Q (29) Mention two ways that you have learnt about the values or teachings of life through cultural, traditional values and teachings beneficial for dwelling design and a community living environment. Ways people learn them are summarised as follows:

Childhood experience, informal education at home (cultural religious upbringing)	16
Through self interests	13
From school – formal education, social interaction	11
Through reading	7
Knowledge transferred from generation to generation	6
Life experience, domestic and abroad	4
Through extensive travelling	3
Through observation	3
Through multi media, mass media – television, internet, papers, etc.	2
Exposure to different cultures	2
Book of guidance distributed to the local community	1

Table 6-36 Ways of learning cultural traditions and values

Ways of learning about culture and tradition

In the fast-paced, robust contemporary living environment, people are faced with the challenge of maintaining their cultural and traditional values. Traditionally, the knowledge of tradition or culture is usually transferred from parents and grand parents to their children, from generation to generation. People may learn about the values and teachings of life from their childhood experience, at home, and through religious and cultural upbringing. This way, the continuity of religious, cultural and traditional beliefs of the society are maintained.

In contrast, today people build their knowledge and understanding about their own culture through self-interest, sometimes through formal education, i.e. from school and also from social interaction. Other methods of learning include mass media and multi media, like information technologies; through observation, through extensive travelling, through life experience – domestic and abroad, exposure to different cultures, and also some guidance book that is being distributed to the local community. However, these methods of learning about culture and tradition are very basic. Inevitably, some valuable information of the culture and tradition may have been lost in the transitional period.

Q30. Ways of preserving or maintaining cultural and traditional values in dwelling designs and the living environment.

Ways of preserving cultural and traditional values in dwelling designs are suggested as follows:

Dwelling/home design should respect and consider the natural environment	10
Through formal education at schools – to appreciate indigenous knowledge	9
Dwelling designs should be responsive to local climate, cultural lifestyles	8
Housing design should involve users during and after the development process to promote community participation and shared social values	4
Design layout should encourage community interaction, gatherings; provision of open green spaces for community's leisure activities, healthy environment	3
Practise everyday cultural, religious tradition with family and community	3
Record existing traditional houses and instil the values to the young generation	3
Local community organisation can work to promote good cultural values to the community	3
Government support in terms of finance and equipment	2

Table 6-37 Ways of preserving and maintaining culture and traditional values

Preserving cultural and traditional values in the dwelling design

In order for the contemporary dwelling design to preserve the cultural traditional values, it must first respect the surrounding natural environment. The dwelling design should also relate and incorporate the cultural and traditional values in its concept. These include the symbolic values and cosmological understanding of many aspects of the dwelling design. The dwelling should also be able to accommodate cultural and social needs.

For parents, they are encouraged to teach their children good moral values, advise them accordingly and pay particular attention to creating a close family relationship in accordance with cultural, religious or traditional principles. Further, every parent should instil the importance of

religious and cultural traditions to their children, as these are values are needed to maintain good relationships among each other, among society as well as relationships with the natural environment. If every family does this, then the whole society would benefit from it hence, sustainability is maintained.

In the process of design, one should also consider community involvement during and after a housing development project so as to promote community participation, while getting to know each other. This way, it encourages shared social values and moreover, because of the trust gained between neighbours along the building process, it will ensure the place to be a lot safer and a more peaceful place to live.

Finally, the housing developers are urged to have responsible attitudes in their approach towards housing developments, and give their long-term commitment towards their housing projects instead of focusing on profit making. This way, it will ensure the quality of housing construction, as well as the sustainability of the environment. The living environment should be responsive to the local climate and be reflective of local cultural ways of living, instead of imposing foreign or global ideas of what it should be or look like in the modern environment. Modern housing offers ephemeral solutions towards housing demands, but indigenous housing architecture can offer the eternal solutions to a variety of contemporary social and environmental issues, simultaneously sustaining the environment.

Q (31) Observation that one thinks might be useful for this research

- i. Ensure developers have a responsible attitude towards their housing developments and their workers' infrastructure
- ii. Ensure developers make a long term commitment to their housing development – not just for profit making
- iii. Living spaces are dependent on the country where we live, so should follow local styles
- iv. Too modern a lifestyle will lead to compartmentalised living spaces like in Japan.

6.7.3 Analysis of responses

6.7.3.1 Introduction

This section shall analyse the questionnaire feedback more deeply by categorising the responses into aspects, objects and activities. The ten best classifications will be listed and those significant to the thesis goals will be selected for the purpose of discussion. Next, there will be a section on dimensions, the motivating forces that emerge from people's concern as a driving force for them to react as a response to the environment. The author interprets the dimensions as factors, which contribute to the objectives of the study. Finally, there will be a session on personal profiles in which open interviews took place to discover how people feel, perceive and react to their living environment.

6.7.3.2 Categories

People are connected to the environment and are actively involved in the creation and evolution of the living environment. The categories are impacts of people's reactions to their living environment. These categories are aspects, objects and activities.

Aspects

Aspects are feelings, preferences, attitudes, perceptions, thoughts, and affection towards the environment. This can also be understood as people's embedded, innate views of the environment they live in. Sharief (2005) mentions that aspects cover the way that people feel, perceive and respond to their environment, and their attitudes to it. They are descriptions not so much of the real objects, but of the observer's image of the objects by which they recognise physical form by its meaning (Sharief, 2005: 233). The following discusses the significant aspects arising from people's responses to the questionnaire.

I. Location

A Notion of Place

According to the *Oxford Advanced Learner's Dictionary*, location is defined as a place or position. In the questionnaire findings, it is undeniably the most significant aspect of consideration, to choose a place of living. This is mainly due to the pressing nature of contemporary work and urban lifestyles. As a literal interpretation of the responses, the choice of location manifests aspects of a social group or class in terms of being able to afford, a property in a certain location and of a type of property, whether it is located in the urban city centre or the suburbs, or even in the developed land property in the outskirts. This view is the product of a contemporary structure or framework of a contemporary housing approach that creates social segregation and disintegration.

As one of the properties of place, we may discuss the meaning of location in relation to the notion of place. In her account of the idea of place in architecture, Susan Langer (1953: 95) argues that **places are culturally defined and that location in the strict cartographic sense is merely an incidental quality of place:**

"[...] a ship constantly changing its location is nonetheless a self-contained place, and so is a gypsy camp, an Indian camp, or a circus camp, however often it shifts its geodetic bearing. Literally, we say a camp is in a place, but culturally it is a place. A gypsy camp is a different place from an Indian camp though it may be geographically where the Indian camp used to be."

John Donat (1967: 9) thinks places occur at all levels of identity, my place, your place, street, community, town, county, region, country and continent, but places never conform to tidy hierarchies of classification. They all overlap and interpenetrate one another and are wide open to a variety of interpretation (ibid). In view of this thesis, it suggests **location as a place that is culturally defined by the local society, it also acts as the motivating force which attract people**

towards a focal point within an area that eventually becomes the identity for a place known as the living environment.

The strength of this view is intensified by the relationship between the place and its community, and the roots of the place and its people. Relph (1976: 34) asserts that the relationship between community and place is indeed a very powerful one in which **each reinforces the identity of the other**, and in which **the landscape is very much an expression of communally held beliefs and values and of interpersonal involvements**. He claims that in some form, such relationships between created place and community exist in all cultures, for reasons well summarised by Wagner (1972: 53):

“Communal undertakings bring together the families of a place for common ends: to apportion lands among families, provide water and other utilities, make and maintain roads, erect public buildings, create burial grounds, establish shrines and places of worship. The settlement lives in communal efforts despite the several separatenesses it harbours. And the acknowledged common fate and identity have their own expression in symbols and other display.”

In particular, they are expressed in the landscape, which in this sense is a medium of communication in which all the elements may have messages, [...] and the commonly experienced messages and symbols of the landscape then serve to maintain what Aldo van Eyck (1969: 109) has appropriately called “a collectively conditioned place consciousness”, and this gives the people from a place essentially the same identity that the place itself has, and vice versa (Relph, 1976: 34). He concludes that people are their place and a place is its people, in which places are ‘public’ – they are created and known through common experiences and involvement in common symbols and meanings.

In this light, the author postulates that a community represents the beliefs, values, and the interpersonal involvements, combined with the notion of place, which is culturally defined by the society hence, produces a powerful identity, filled with meanings, which the contemporary living environments are missing.

Place and Identity

McSweeney (2005-06) refers to two experiential theorists understanding of place within the field of humanistic geography:

- (1) Relph (1976), who described the experience of place as an “unselfconscious immersion”, and the feeling of “existential-insideness”. He regarded this to be the basis for our feelings of ‘belonging’ (ibid: 22).
- (2) Tuan (1980), who coined the term ‘rootedness’ to describe a familiarity with place that has grown through time.

A Sense of Place

"I was not interested in doing an autobiography or a tell-all of any sort, but I felt that a memoir of a time and place might resonate with people like myself, who had a very strong sense of community, a sense of place and belonging in growing up. When you leave to go out into the world, as many of us have, how do you reconcile that strong need to feel rooted and belong?" Actress: Sela Ward⁸⁵

The quote above relays a message that people who have lived in a community living neighbourhood have a deep-rooted attachment to their former living environment in which they grew up. Whenever there is a choice or an opportunity for the respondents to choose the best or ideal place to live, people prefer to live in a natural surrounding environment, which responds to their cultural ways of living, gives a sense of peacefulness, security, privacy and the enjoyment of natural surroundings. This indicates the natural inclination of people to have a connection with nature and the natural environment and the tendency to return to their roots.

Another important factor to consider is the need for a connection with other people, which is a reflection of human nature to interact with other human beings. No man is an island, there is a need for each individual to be involved with the community where there are shared common values and needs. A deep relationship with place is necessary, and perhaps is unavoidable, as close relationships with people; without such relationships, human existence, while possible, is bereft of much of its significance (Relph, 1976: 41).

Habraken (1983) argues that the sense of place is an outcome of mutual transactions between people and their built environment (Adas, 2001: 128). Adas (2001) suggests, the sense of place may be significant in relation to, and explicable in terms of, identity and material existence. Toby Israel employs his expertise in environmental psychology in design psychology to use positive association with past places to envision positive design. He maintains that is not about recreating places but identifying their primal, satisfying essence and using that highly positive association as the touchstone of design (Israel, *Some Place Like Home*).

The Spirit of Place

A place is a centre of action and intention, it is "a focus where we experience the meaningful events of our existence" (Norberg-Shulz, 1971: 19). Relph (1976) writes that the essence of place lies in the largely unselfconscious intentionality that defines places as profound centres of human existence. There is for virtually everyone, a deep association with and consciousness of the places where we were born and grew up, where we live now, or where we have had particularly moving experiences. This association seems to constitute a vital source of both individual and cultural identity and security, a point of departure from which we orient ourselves in the world (ibid: 43).

⁸⁵ Ward, 49 never severed her small-town roots. In 2002 she wrote the memoir "Homesick." She keeps an abiding connection to Mississippi, her home state where she and husband Howard Sherman (with whom she has two children) have established Hope Village, which provides care for abused and neglected kids. She's also been actively involved in Hurricane Katrina relief efforts in the hard-hit state.

Summary Conclusions of Location

The findings suggest that there is a lack of consideration of people's cultural identity and sense of belonging to a place in contemporary housing provision. The current places of dwelling or the living environment fail to provide the belonging needs in people, because contemporary housing provision fails to respond to the circumstances of the social, cultural and religious needs of the people.

The thesis argues that the essence of a place in the context of Malay society, must also consider the roots of its people – their culture, tradition, religion – which embody the identity of its society, apart from responding to the immediate physiological needs and the material needs. In other words, the creation of a place must respond to people's interaction with nature and the natural environment, as well as the socio-cultural needs in order to develop people's attachment towards their living environments. Change and developments are inevitable for these are signs of progress, achievement and posterity for some people, but the point of the issue is that no matter how much change of development is made to the living environment, it must be enriched with cultural meanings and the values of a place.

Location and place characterise the identity of a neighbourhood, they also recognise the similarities and differences among the diverse cultures of the multi-cultural communities in a country like Malaysia. Therefore the living environment, i.e. housing provision should provide the sense of place and sense of belonging for the individual and the society as a whole.

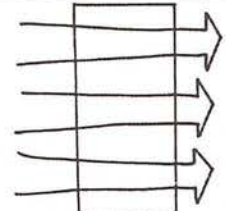
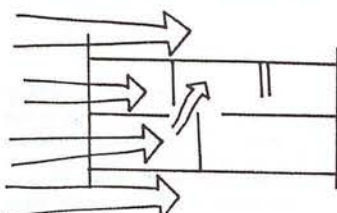
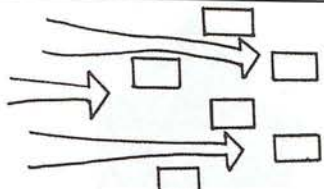
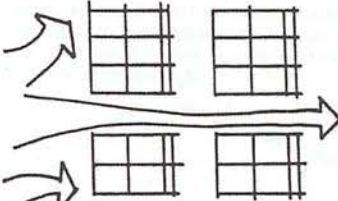
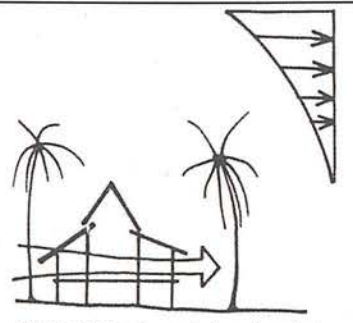


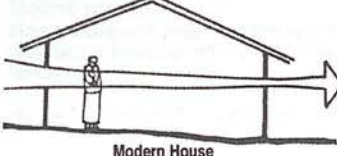

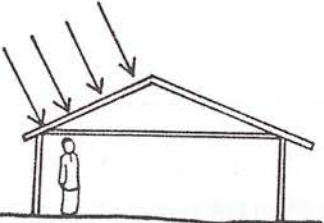
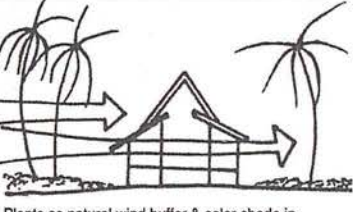
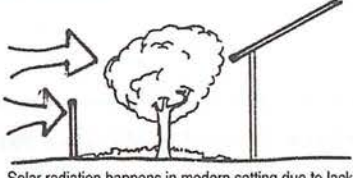
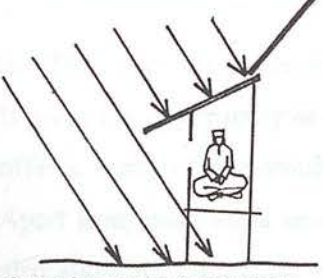
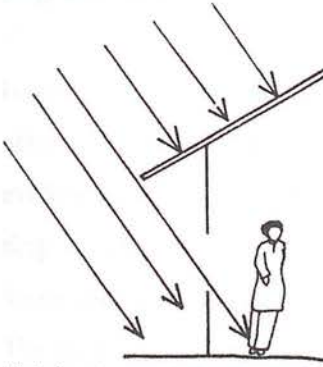
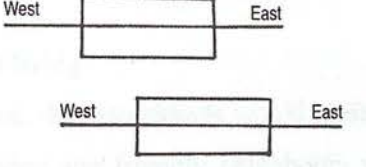
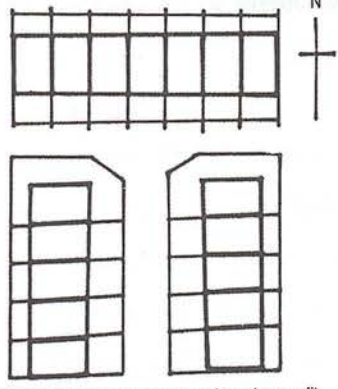
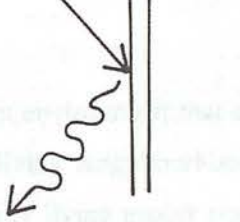
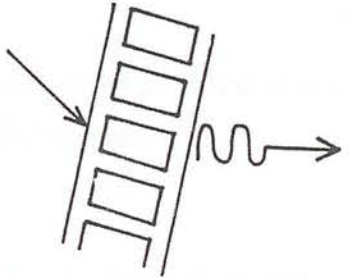
II. Design

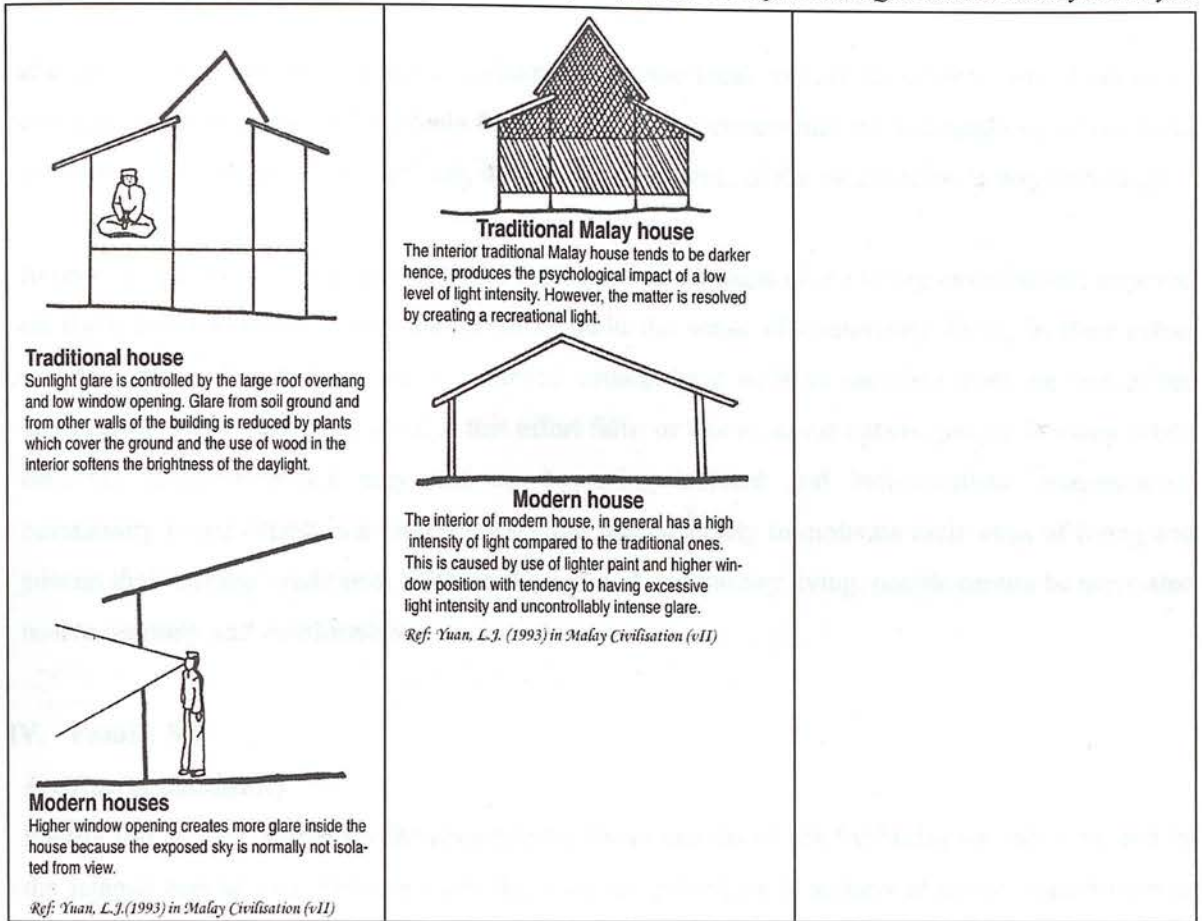
Adaptability and flexibility

The respondents acknowledge that an indigenous dwelling such as the traditional Malay house is adaptable to climate and cultural needs. The adaptability and flexibility of design also reflect the cultural identity, whilst the flexibility of design itself is reflected in the change of functions of certain spaces like the living room and the kitchen. Flexibility is also an attribute in the Malay craftwork such the 'Awan larat', calligraphies and other decorative elements. The following

Source: Yuan, L.J. (1990) in Malay Civilisation II

Figure 6-39 illustrates comparison between indigenous dwellings and modern housing:

 <p>Plan showing cross ventilation in traditional house</p>  <p>Plan showing cross ventilation in modern house</p> <p>Resource: Yuan, L.J. (1993) in Malay Civilisation (vII)</p>	 <p>Random design orientation in traditional house</p>  <p>Fixed linear design orientation in modern house</p> <p>Ref: Yuan, L.J. (1993) in Malay Civilisation (vII)</p>	 <p>Traditional Malay house wind speed gradient</p>  <p>Modern house wind speed gradient</p> <p>Resource: Yuan, L.J. (1993) in Malay Civilisation (vII)</p>
 <p>Traditional Malay house</p>  <p>Modern House</p> <p>Ref: Yuan, L.J. (1993) in Malay Civilisation (vII)</p>	 <p>Traditional House</p>  <p>Modern House</p> <p>Resource: Yuan, L.J. (1993) in Malay Civilisation (vII)</p>	 <p>Plants as natural wind buffer & solar shade in traditional setting</p>  <p>Solar radiation happens in modern setting due to lack of buffers from heat and light penetration.</p> <p>Ref: Yuan, L.J. (1993) in Malay Civilisation (vII)</p>
 <p>Overhang and vertical parts of traditional house allow for good shelter from rain, and air ventilation.</p>  <p>Modern house is exposed directly to rain and sunlight causing uncomfortable feeling due to intense heat inside the house.</p> <p>Ref: Yuan, L.J. (1993) in Malay Civilisation (vII)</p>	 <p>Traditional Malay house orientation - always oriented towards Kaabah i.e. east-west orientation</p>  <p>Modern houses orientation are based on profit maximisation. Hence, housing orientation varies according to the limitation of the available land.</p> <p>Ref: Yuan, L.J. (1993) in Malay Civilisation (vII)</p>	 <p>The use of wood as building material maintain the balance between hot and cold air during nighttime. The palm leave roof is an efficient hot air reflector.</p>  <p>Bricks, roof tile, concrete and other current building materials for modern houses keep hot air and release it at night, hence making it thermally uncomfortable.</p> <p>Ref: Yuan, L.J. (1993) in Malay Civilisation (vII)</p>



Source: Yuan, L.J. (1990) in Malay Civilisation II

Figure 6-39 Contrasting design approaches in adapting to the climactic needs between the traditional dwelling and the contemporary dwelling designs. From the table, it is illustrated that the traditional dwelling design has managed to solve a lot of environmental situations as opposed to the contemporary dwelling design.

III. The needs for a communal living

If given the opportunity or choice, the respondents would prefer to live in an environment that can offer a sense of community living and friendly neighbours within their living neighbourhoods. Apart from ensuring a sense of security among the residents, the community living aspect could also allow for cultural activities and traditions to be maintained by the majority of people in the neighbourhood.

However, the structure of the housing environment in the contemporary urban setting does not offer, allow nor encourage the opportunity for the development of community building. This is evident in the identity of the neighbourhood described by the respondents that their neighbourhoods have either become a pigeonhole society, or being individualistic – one does not know one’s next-door neighbour; or the residential area becomes an anti-social neighbourhood. The root of the cause is perhaps because the community was never included in the design process the housing projects and its development (before, or after). The architect and designers make decisions among themselves when shaping the living environment, for example, how the housing development layout plans are going to look like, the size and spatial division of each housing property, the size of the roads etc, based on the preconception of universal and housing designs

abroad that are presumed to suit everybody within the local context. In other words, there is no connection between the architect and the users, nor the architect and the sustainability of the local surrounding environment (the culture, the climate, the norms of the local society's way of living).

In order to survive, people have to adapt rapidly to the changes of the living environment imposed on them and create their own initiatives to build the sense of community living in their urban neighbourhood. But this cannot be achieved without hard work or sacrifice from the rest of the community in the neighbourhood. If this effort fails, or worse, never occurs, people in many urban dwelling neighbourhoods may end up becoming isolated and individualistic communities. community living aspect is a vital force for the Malay society to motivate their ways of living and sustain their cultural traditions. Without the sense of community living, people cannot be motivated to live securely and comfortably.

IV. Family life

A cultural continuity

Family life is very crucial for the respondents. Every aspects of life for Malay society is guided by the Islamic regulations. These include the laws and principles in aspects of social organisation as well as family organisation. The laws are built to protect each family member, and the whole family as a unit as well as the society. Culture also plays a crucial role in family values as well as the society's development.

Malay families are very close knit and the closeness is usually extended to their families and close friends who are considered as members of an extended family. Although today, the Malay families are normally nuclear families, many maintain their relationship with their close relatives and regular friends, either on a daily basis or, weekly, monthly or on special occasions, such as during the *Eid* celebrations, weddings, funerals etc. This is the nature of community living for the Malay society. In case either one of the living parents of the young Malay families start(s) to age, it is ususally the norm that he/she is brought to live together with their married son(s) or daughter(s) because it is the children's religious duty to care for the parents in their old age, should the circumstances require them to. This norm is a contrast to the modern, or western cultures, where people normally send their ageing parents to the care homes to be taken care of by carers.

Changes brought by the urban developments, in particular, the housing industry in the country has had a negative impact on this aspect of the society's cultural-religious-social needs. This is evident in the context of spatial organisation and the accommodation of spaces, inside and outside of the individual housing properties, also, due to the urban morphology, which creates social and spatial divisions. As a result, in adapting themselves to the changes, people have to strive to maintain the relationship with their relatives and friends. Edwards (1969: 7) in presenting the conceptualisation of the family change, denotes that the industrialisation process, urbanisation, the value and norms

orientation, and differences, as well as the expansion of other institutions within the community are the main factors that cause the change in the family institution.

In other words, the home environment provided by current housing policy is irresponsible to the needs for family life and social interaction, which are actually essential for people's motivation to sustain a communal and rewarding life. Instead, it created what Talcott Parson (1977: 50-51) claims as, "isolated nuclear families", which have very minimal relationships or prioritisation with the relatives, either from the husband's or the wife's side. According to him, this type of family places more importance on the husband and wife's relationship rather than relatives. Hence they have no emotional ties and strong sentiment with the relatives. Goode (1968: 237-255) suggests the modern family system, particularly in the urban areas is a conjugal family system suited to the industrialisation and urbanisation processes. Urbanisation creates a physical separation between the newly developed urban areas and the original villages. In effect, contact between the urban family and their relatives in their respective hometowns became less.

The aspect of family life is crucial to secure and maintain the identity and sustainability of cultural ways of living for every society in the country, not only the focus group community. Hence, the thesis urges the housing design and policy to consider the benefits and implications of family life as a medium to balance a healthy social development against the changes of surrounding physical developments. The thesis argues that the continuity of family life should be encouraged as it defines the identity of a society, and ensures the sustainability of unique cultures and traditions of the Malaysian society as a whole.

Objects

Objects are created as a response to the environment. For example, mosques, cafés, schools, landscape water features, etc. People invent objects or buildings from the things or creations they see, feel, touch, or hear in and around their environments. These are the manifestations or physical expressions of people's perceptions or understanding of their built and living environments.

According to Abdalla (1998), objects mean all physical elements of both the natural and the man-made environments. He asserts that the built environment consists of physical and non-physical variables. Abdalla refers the former to be the artificial arrangement of different elements, materials and the spaces between them as a result of people's transformation of the environment to achieve their functional needs; whereas the latter variable consists of different activities, memories, values, and symbolic meanings within the geometric space (Abdalla, 1998: 71). Below are the significant objects obtained from respondents to be highlighted:

I. The 'Serambi' (The guests reception area) / *anjung* (the entrance porch)

The 'serambi' or the guest entering space, which sometimes is also referred to as the 'anjung' or the entrance porch, is the reflection of traditional Malay cultural/traditional practice. It also

represents the spatial zoning, based on the cultural-religious guidelines. In this case, the 'serambi' is the public space of the entire house, which is accessible to guests and outsiders. The space, which is slightly raised above the ground, but lower than the main space ('rumah ibu') of the house also connotes tangible as well as intangible meanings. The tangible meaning is that it responds to the climatic condition of the environment – the weather in the country is hot, humid and wet all year long. Hence, the space as a transitional space, is slightly raised above the ground, accessible by either five or seven flights of stairs (about a metre above the ground) in order to avoid the interior spaces of the house from becoming wet. The lightness and openness of the space also responds to the hot climate, as it allows the wind to easily penetrate through the space, creating a cooling and comfortable environment.

Symbolically, the airiness and brightness of the design suggests that the Malay's openness and welcoming nature towards their guests and the intricacy of decorative elements reflect the owner's personality, his expression of the beauty of the natural surroundings and his interaction with nature. Both the kitchen and the 'serambi' are indeed two main significant elements of spaces and designs, which possess the innate values and cosmological understanding of the Malay culture and are reflected in their functions and spatial articulations.

The Roof

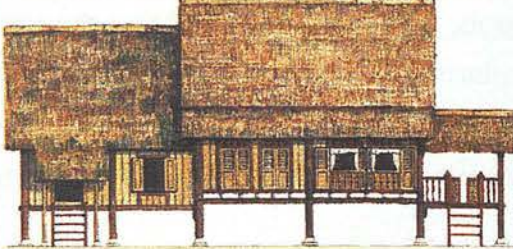

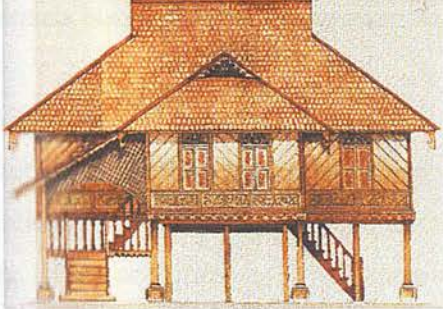
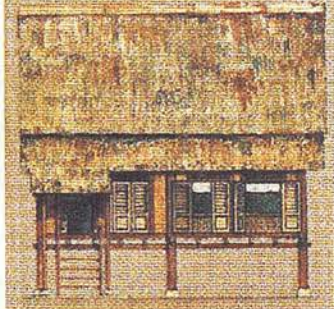
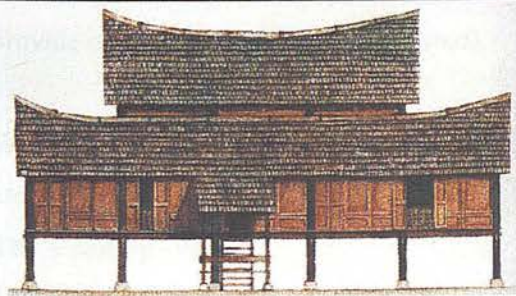
This architectural feature is positively viewed due to its distinctive shape dominating the whole appearance of the traditional Malay house. The roof differentiates one's ethnic identity from someone else's. For example, there is the shape for Perak roof, Malacca roof, Minangkabau roof, and etc.



Sources: The internet (first photo) and KALAM, UTM Skudai, Malaysia.

Figure 6-40 The diversity of roof style designs, which can be found from indigenous dwellings in different regions of the Peninsula

The variations of roof designs and house forms in the Peninsula states are based on the regional influences from various sources from internal sources as well as from the neighbouring countries. Fee (1998) describes each of the roof types as follows:

Roof Type and House Form	Details
 <p>(i) The <i>Gajah Menyusu</i> roof design</p>	<p>The <i>Gajah Menyusu</i> house, so-called because of its resemblance to a suckling elephant, is the easiest way of extending the basic house form</p>
 <p>(ii) The <i>Bumbung Lima</i> roof design</p>	<p>The <i>Bumbung Lima</i>, or “five ridge roof”, which allows greater height within, derives from the European house styles of the colonial period. The space below is often used as a garage or for storage</p>
 <p>(iii) The <i>Bumbung Perak</i></p>	<p>The <i>Bumbung Perak</i> is also known as the <i>bumbung potongan Belanda</i>, or ‘Dutch-style roof ridge. Its more complex gable ends dictate the use of modern roofing materials</p>
 <p>(iv) The <i>Bumbung Panjang</i></p>	<p>The <i>Bumbung Panjang</i> is the most common roof form in the west coast of the Peninsula</p>
 <p>(v) The <i>Negeri Sembilan</i> roof.</p>	<p>The <i>Negeri Sembilan</i> roof is a visual analogy of a bull’s head and horns, purportedly honouring the buffalo for the role it played in winning an important battle in Sumatera, Indonesia.</p>

Source: Fee (1998), modified by author

Figure 6-41 Variation of indigenous roof types according to regions.

Infrastructures – buildings, roads and services (public amenities)

Infrastructures are defined as services and facilities that support day-to-day economic activity. Infrastructure includes roads, electricity, telephone services, and public transportation. Infrastructure has traditionally been provided and maintained by the government

(www.icons.umd.edu/pls/reslib/display_glossary), or, the basic facilities, services, and installations needed for the functioning of the community, such as transportation and communications systems, water and power lines, and public institutions including schools, post offices, and prisons (www.southampton.gov.uk/environment/development-control/planning-terms.asp).

Infrastructures and services are instruments, which cater for the needs and desires of contemporary living. In view of this, Emhemed (2005: 296) mentions, the availability and quality of infrastructure - such as the road networks, sewerage system, water supply, etc. – and the facilities such as markets, schools, public offices, children's play area, etc., at the neighbourhood level or in the cities, that play an important role in determining the qualitative rank of housing and enhance its prestige. An adequate provision of infrastructures such as transportation, schools, public services buildings, shopping facilities in a particular urban neighbourhood can increase the population, as it attracts business as well as workers to it..

Activities

Activities are the third of the categories, which respond to the environment. These are people's actions from their knowledge or the tradition, culture or religion. Hence, motivations are achieved by such activities. Few examples of activities include meeting, playing, visiting, and congregational praying.

The meaning of activities, according to Sharief (2005), is the significant way people interact with the objects in their environment or their behaviour in facilities provided to them (Abdalla, 1998). Kaki (2000) relates that activities could be seen as one of the main aspects of environmental behaviour, which contribute to the place (Sharief, 2005: 237). He adds that human activities reflect many essential factors such as historical, social, cultural, religious, and spiritual values within the environment. They place specific demands on the built environment that make it function to provide enjoyment and satisfaction (ibid).

Religious-cultural activities: Feast, ceremonies, rituals, religious celebration (Eid, Maulid), etc.

The wedding event

The wedding ceremonial occasion is chosen as a discussion topic in the socio-cultural-religious activities since the event is the best example to demonstrate the intertwining of the activities. It is still practised within the territory of the owner's home, but could extend to the street in front of the house (in the case of terraced/linked house) to accommodate for eating spaces for the guests in the form of temporary tents.



Food preparation for the wedding is done with the help of the local community



Guests start arriving at the home of either the bride or the groom to enjoy the wedding feast.



The temporary tent is built at the front lawn to provide space for the guests' dining areas. The tradition of separating guests eating spaces by gender still prevails in the Malay community due to the religious teachings.

Source: The internet

Figure 6-42 The pictures above illustrates the scenes and activities at a wedding venue in the village setting.

With the changes and transformation of houses from the traditional setting to the modern, urban setting, the conditions in which to execute the wedding event have also changed. For example, today, for the more financially able, the occasion is usually done at a banquet hall in a hotel or, a clubhouse. For the more unfortunate people living in multi-storey flats, due to the restrictions of available space, they make do with a reasonable amount of space in the parking lot to provide the eating spaces for the guests, with the hope of mutual understanding and respect from other residents. However, this leads to another problem of parking lot issues, which causes traffic congestion in the area. In a more organised setting, where a multi-purpose hall is provided, people would rent the place for a few hours to celebrate the occasion and entertain their guest with foods and traditional presentations such as traditional Malay martial arts performance, and *marhaban* (congregational religious *nasyeed* singing).



Source: The internet

Figure 6-43 A Muslim Malay's matrimonial process

The picture above shows a religious matrimonial process which occurs at the bride's home, in which the imam shall recite the rules of marriages and some verses of the Quran pertaining to the responsibilities of the man as a husband before the bride-groom signs the marriage contract with the imam and agrees to accept the bride as his lawfully wedded wife. The agreement is done by the bride-groom by shaking his hand with the imam once, simultaneously saying his agreement in one breath with a at least four men as the witnesses for the event. Vice versa, the wife shall also sign the marriage contract in agreement of her marriage to the prospective husband, in accordance with Islamic marriage laws.



Source: Author's friend, Mrs Norisma

Figure 6-44 The "adat bersanding" (wedding display custom)

The ceremonial procession is continued with the "Adat Bersanding" (the Malay wedding custom, which displays the newly-wed couple on an embellished decorated altar for public view) to mark the life-changing occasion and this is an influence of Hinduism culture, which is still maintained in the custom of the Muslim Malay. Further the newly-wed couple shall be ushered to their eating venue to eat with each other's parents and together with the rest of the guests.

Summary

As mentioned earlier in the introductory chapter, the Malaysian society as a whole is a religious society. The diverse multi-cultural societies maintain and sustain their ways of living by following the rules of their respective religions, cultures and traditions. In this case, the Malay society maintains its religious-cultural activities despite the constraints of contemporary dwelling

provisions, and arrangements. Having said that, the religious-cultural activities such as births, weddings, circumcisions, funerals, Eid celebrations, congregational prayers and so forth are adapted to the contemporary circumstances of spatial and economic constraints. Socio-cultural-religious activities within the Malay society are inseparable. They are the main forms of activities and involve communal cooperation. Family members, relatives, friends and neighbours are all involved in order to ensure the success of each programme. Housing design, which responds to religious-cultural activities, would ensure the sustainability of culture and its identity.

II. Child's Play and Activities

People experience places and landscape individually. Relph (1976: 37) suggests that in particular the places of childhood constitute vital reference points for many individuals. They may be special locations and settings, which serve to recall particular personal experiences, though the setting itself may be no part of that experience; thus Rene Dubos writes (1972: 87): "I remember the mood of places better than their precise features because places evoke for me life situations rather than geographical sites."

David Elkind (1974) suggests that the child is an organic unit whose experiences and perception of the world should be valid and respected. This organic unit undergoes continual transformations, caused and shaped by interaction with his environment. In such transformations, there should always be continually changing adjustments and different states of equilibrium, resulting in new understandings (El Fiki, 186). Shaefer and Berger (1997) suggest play as the highest priority for the intellectual exercise of children, and state: "*Play is serious work for children. The child develops his intelligence, his creativity through play. Play contains the outline of his human existence*" (in: Reinecke, 2000: 39).

People develop individual personality development from their early childhood learning experiences. Jean Piaget, the renowned cognitive development theorist has concentrated his study on the educational psychology, children's perception and cognitive development. He advocated that children's education should be directed towards full development of human personality, and promoting an individual's autonomy and encouraging respect for others. Piaget also stressed that what really matters is the quality of life that can be fostered by involving children in thinking and discovering their own ways of learning, through free activities and experiments, experiencing repeated functions with fresh new contexts (cited in El-Fiki, 2003: 182). Referring to Piaget's 'play therapy' (which includes two types of play: the 'symbolic play', and the 'functional play') El Fiki (2003) suggests that in applying them to endogenous type of development, it would be more appropriate to use local vocabulary stemming from the child's local environment, to grow with its values, and hence be able to interact with and respond to its variables in the future; rather than creating false environments and fake games that belong to different backgrounds and cultures.



Sources: Author (above left) and the internet (above right)

Figure 6-45 Open, green spaces for both modern and traditional houses above, are essential for children's healthy cognitive and personality development.

Winnicott (2005: 73) proposed a central role for creative play in the child's search for self: "*It is in playing and only in playing that the individual child or adult is able to be creative and to use the whole of the personality, and it is only in being creative that the individual discovers the self*". McSweeney (2005-2006) stresses the importance of children's activities to be connected with the exploration of the natural environment (such as den building) because they are not just games, but important developmental steps in our ontogeny. If we miss out on these, we miss out on part of what it is to be human (ibid: 43). He then proposed a hypothesis that a decline in childhood environmental interaction presents a real threat to a 'healthy society'.

Summary

The place of childhood is a vital reference point for many individuals. Child-play and childhood experiences are vital aspects of cognitive and personality development from early childhood to adulthood, from a clueless to a rational and sensible human being. The child-play acts as an intellectual exercise, an early learning experience for the child to get acquainted with the surrounding environment. The child is viewed as an organic unit, whose experience and perception of the world is undergoing continuous transformation, caused and shaped by interaction with the environment. Therefore, it would be more suitable to use local vocabulary from the local environment, to grow with its values, so that the child would grow up and be accustomed to its variable in the future.

Night Market ('*pasar malam*') & Eating-out Spots

The night market is the most popular among the Malaysian community of all races, ages, gender, and all walks of life. It is the place where people go to get cheap but tasty local food, groceries, clothes, households and various other items. The community business activity has become the whole nation's culture irrespective of race, culture, religions and so forth.

The night market and eating-out spots are significant contemporary social-commercial activities for the community. They act as gathering places for communities within the neighbourhood from all walks of life and they are fast becoming the contemporary society's cultural lifestyle.



Source: The internet

Figure 6-46 The night market and eating out spots

The night market, as its name suggests, normally starts operating in the late afternoon and lasts throughout the night within the vicinity of a residential neighbourhood. It is usually held either once a week (either one of the weekdays) or twice a week, which includes one of the weekend days. Apart from providing a variety of delicious but cheap food choices, the place also offers varieties of household utility items, perishable (fresh vegetables, fresh fish, prawns, fruits) and non-perishable foods, clothes, jewellery etc., all at bargain prices. In some places, during the weekends, on either day, there will also be a similar commercial activity like the night market, but it is called '*pasar tani*' (agricultural market), and it operates in the morning until afternoon. Most goods sold are fresh agricultural and seafood products as well as other selections of food. The night market provides convenience for the busy urban population within the residential neighbourhood area who have no time (mainly due to daily jobs) to shop for food and other household necessities during the weekdays or perhaps during the weekends.

There are abundant choices for eating out places in the country, be it in the city centres, or the suburbs, or even in small towns. Eating out spots are mushrooming in various places, because of the high demand especially in the urban areas and the activity normally starts each afternoon and lasts throughout the night and in some places, stays open until early morning. This is due to the fact that people want to enjoy relaxing and rewarding hours after the long and hard day's work, hence, the night time shall be the time to enjoy themselves, to eat together with family or friends, at their choice of eating out locations, at least once or twice a week.

The Malaysian eating culture offers an endless variety of food choices reflecting the different cooking styles and tastes of its multi-racial population. There are selections of edible food (halal – for Muslims) Malay, Chinese, Indian and Nyonya cuisines from hawkers at the roadside '*gerai*' (stalls), to the organised food stalls, and kiosks in a specially designed space for the occasion, to fancy restaurants and hotel buffets. During the month of Ramadhan (the Muslim's fasting month) the activities at both places are more active than usual, especially at night time. Indeed, the night market and eating out places are relevant activities, adding to the identity of contemporary Malaysian society's culture as a whole, which responds to the contemporary needs due to the nature of contemporary urban lifestyles in Malaysia.

Summary

The night market and eating-out spots are the two most famous social gathering places. Today, many people are so busy with work during the day and do not have much time to spend at home. After busy and hectic daily activities, the night market and eating out spots become the most convenient places to fulfil the most basic human needs: food for the hungry and tired customers. Eating out has become the new popular urban culture.

Aspect		Object		Activity	
Design / concept	140	Garden/ external space/landscape	82	Feast ('Kenduri')	47
Spaces/ spaciousness	112	House	58	Ceremonies/Rituals	
Location/position	103	Kitchen	50	Visiting/Socialising	19
Development / planning	63	Infrastructure – buildings, roads	46	BBQ	13
Convenience @	47	& services		Festivals/open	12
Accessibility/mobility		Living/ family area	32	house	
Community living /friendly	46	Wood/ timber construction	30	Relaxation	10
neighbours		Bathroom/toilet	24	Taking off shoes	10
Size	39	Bedrooms	22	Congregational	10
Nature / Green	36	Traditional (<i>awan larat</i>) motifs,	20	prayer	
Culture, norm, custom	33	calligraphy/Wooden decoration		Night market	8
Orientation	32	Master bedroom	19	Relieve stress	10
Spatial arrangement	29	Building materials	16	<i>Salam</i> greetings	7
Peaceful, calm	29	Hobby room	15	Reading	7
Family life	28	Red clay brick wall	14	Community	6
Quality/ workmanship	28	Facilities	14	gathering	
Religion /Spiritual	25	Openings	13	Maintenance	6
Economy, cost, budget	22	<i>Serambi/anjung</i>	11	Eating out	5
Privacy/ modesty	20	Wall paints/papers	11	Family activities	5
Indigenous/ traditional/	19	Ceiling – décor	10	Leisure/ gardening	4
local/ethnic		Recreational park	7	Hobby	3
Social	19	Floorings	7	Travels	3
Affordability	19	Roof	7	Observation	3
Modern architecture	18	Mix of timber, concrete and glass	7		
Childhood experience	16	Patio / deck	6		
Education	15	Single storey bungalow	6		
Cultural values/ Lifestyle	14	Concrete masonry	6		
Comfort	14	Rock/stone walls	6		
Self interest	13	Playground, recreational park	4		
Modernity	13	Lightings	4		
Security	12	School	3		
Sense of belonging	10	Grills	3		
Ventilation	10	Office/ studio	3		
Pollution	11				
Climate	10				
Neighbourhood &					
Environment	6				
Colour	6				
Sceneries	6				
Village	6				
Tradition/ heritage	5				
Health	5				
Relatives/friends	4				
Heaven	4				
Life experience	3				
Thermal comfort	3				
Eclectic	3				
Desire					

Note: (Categories occurring once or twice only are not listed).

Table 6-38 The categories division and their lists compiled from the questionnaire

6.7.3.3 Dimensions

According to <http://en.wikipedia.org/wiki/Dimension>, the meaning of dimension (from the Latin language, "measured out") is, in essence, the number of degrees of freedom available for movement in a space. Ujam states that dimensions emerge from people's concern as a driving force for them to react as it originates from the most basic to the most abstract and aesthetical; from different hierarchies and order. Examples of dimensions include social, territorial, and physical. Sharief (2005) suggests that dimensions such as social, architectural, and religious, indicate shared motivations that underlie a range of stated preferences. Abdalla (1998: 110) interprets "dimensions" as **motivating forces behind any occurrence in the environment, whether the occurrence is physical or emotional, visible or invisible, permanent or transitory**. In his thesis, dimensions are divided into external and internal motivations. This thesis concentrates on the dimensions that affect people's lives in the built environment as described below:

Material Dimension

In the context of the thesis, the material dimensions are the physical wants for the livelihood of the society living in the contemporary living environment, particularly in the urban areas. The material dimensions derived from the questionnaire survey include the technology, location, amenities, facilities (shopping, sports, recreational, etc.), the infrastructure and networking; the building materials, and physical aspects of housing designs. These are reflections of the contemporary Malay society's responses to the new⁸⁶ lifestyle or ways of living - the way people enjoy leisure activities, social activities etc. The rapid pace of development also results in a rapid pace of life for the urban society. Alvin Toffler's (1970) *Future Shock* tackles the issue of the rapid change and its overwhelming impact on people who have to cope and adapt to the changes. He defines the future shock as a time phenomenon, a product of the greatly accelerated rate of change in society. It arises from the superimposition of a new culture on an old one. It is culture shock in one's own society (ibid: 20). He claims that change is accelerating so fast, that it is affecting people's pace of life especially in the urban centres. In this prospect, people have a desire for convenience more than ever. In other words, the material dimensions are the new inputs to the cultural structure of the Malay society. Initially, its growth⁸⁷ occurred at an evolutionary pace, but during the period of the rapid pace of urban and housing developments in the country, the change also developed exponentially.

The changes in lifestyle are also gradually and inevitably affecting the transformation of the society's cultural and traditional ways of living. The thesis argues that the current approach of rapid urban and housing developments in the country with the main aim to achieve the status of an advanced country, or a modernised society, is a detrimental misconception of the status itself. The main reason being is that the society has already had its own civilisation and cultural ways of

⁸⁶ The term "new" here refers to the changed and transformed ways of living, compared to the traditional ways of living.

⁸⁷ See Chapter Five under the topic **Growth and Development**

living, which should actually be identified, nurtured and sustained, instead of demoralising and demolishing them in a superficial way. This is evidence of an imbalance between the country's urban growth, and the society's development, and between the land development and the sustainability of the ecological system.

Quality Dimension (The Intrinsic Values)

Quality refers to the inherent or distinctive characteristics or properties of a person, object, process or other thing. Such characteristics or properties may set a person or thing apart from other persons or things, or may denote some degree of achievement or excellence. The author derives the quality dimension from the respondents' views of space, dwelling property, the construction workmanship, design, choice of building materials, way of living and aesthetics. With regard to people, the term may also signify a personal character or trait (www.en.wikipedia.org/wiki/Quality). Having discussed the aspects of design and space in the previous categorical analyses, this section shall concentrate on the dimensions of quality that act as the driving forces for people to achieve contentment in their living environment.

The quality of life

The quality of life is a crucial factor to determine the level of people's satisfaction towards their respective dwelling architecture and living environments. There are many definitions of the term "the quality of life" in many sectors of human development such as community development organizations, health and psychological organisations, the department of philosophy and so forth. Some examples of the definitions are extracted from various internet sources such as the following:

According to the Regional Indicators Report for Southeast Louisiana, USA, the quality of life is termed as, the level of enjoyment and fulfilment derived by humans from the life they live within their local economic, cultural, social, and environmental conditions. The Jacksonville Community Council defines quality of life as the "feeling of wellbeing, fulfilment, or satisfaction resulting from factors in the external environments." Quality of life, in this sense, is most directly measured using subjective indicators. However, objective indicators are often used to track the external conditions, which affect quality of life (indicators.top10by2010.org/glossary.cfm).

Ventegodt S, Andersen NJ, & Merrick J. *ScientificWorldJournal*. 2003 Dec 1;3:1164-75.

Links write in "*Quality of life philosophy I. Quality of life, happiness, and meaning in life*" that, "The meaning of life is connectedness and development. It is about realizing every opportunity and potential in one's existence. The opportunities must be found and acknowledged. What do you find when you find yourself deep down? You find your real self and your purpose in life. You realize that you are already a part of a larger totality. Antonovsky called it "coherence". Maslow called it "transcendence". Frankl called it "meaning of life". We call it simply "being"." The Quality of Life Research Center in Copenhagen, Denmark states:

“Life has a surface and a depth. The surface is what we present to ourselves, and others on an everyday basis; the depth contains the more lasting values, which we often keep hidden. It is when the depth is acknowledged and expressed in life and socially that life meaning and quality of life are improved. [...] In quality of life research one often distinguishes between the subjective and objective quality of life. Subjective quality of life is about feeling good and being satisfied with things in general. Objective quality of life is about fulfilling the societal and cultural demands for material wealth, social status and physical well being. Quality of life understood in these ways deals with life's surface. We believe that between these two superficial poles of existence, an existential core of experienced life meaning can be found; where the subjective and objective meet and the source of quality of life is found. To move towards this core of life is both the goal of our research and the hope for the use of the results (<http://www.livskvalitet.org/cms.ashx/English/What%20is%20life%20quality.asp>)”.

The web source, nydailynews.healthology.com/nydailynews/15836.htm simplifies the terms as the overall enjoyment of life. A philosophical source describes the quality of life as a construct that "connotes an overall sense of well-being when applied to an individual" and a "supportive environment when applied to a community" (Moriarty, 1996). ... (mapp.naccho.org/MAPP_Glossary.asp). and another, says, that it is “the degree to which intellectual, spiritual, economical, social and health pursuits are achieved and maintained” (www.phac-aspc.gc.ca/vs-sb/voluntarysector/glossary.html). From a health perspective, the Clinical Investigations Office (CIO) at Cancer Care Manitoba, defines quality of life as the level of comfort, enjoyment, and ability to pursue daily activities of living (www.cancercare.mb.ca/CIO/cio_glossary.shtml).

In the context of the thesis, the quality of life as *the level of enjoyment and fulfilment established by people within their local economic, cultural, social, and environmental conditions* is determined by people's interaction with God, nature and the environment; as well as social relationships (among families, friends and the community), by preserving the principles and laws of their culture, traditions, religion, values and beliefs. People also achieve their level of higher needs for self-actualisation and identity building by fulfilling their ways of life in accordance with the embedded forces of the deep structures of their worldviews, and perceptions towards nature within the vicinity of their dwelling architecture and the surrounding environment. In other words, the fulfilment of the quality of life in the living environment that supplements the spiritual, mental and physical needs of the occupants, would alleviate the stress level, create a sense of happiness and contentment in people, thus creating a healthy, safe and culturally sustainable living environment.

The thesis suggests, that the establishment of the quality of life is associated with people's interaction and responses towards nature and the environment, the interaction among the community members of a neighbourhood, the degree to which intellectual, spiritual, economical, social and health pursuits are achieved and maintained, as well as the overall enjoyment of life.

Values, health, happiness and beauty are some examples of the aspects of quality of life. Bakar (1997: 3) proposes that beauty in its true nature is a quality that is non-measurable and non-quantifiable. It is at once a spiritual and an intellectual quality whose reality transcends the physical objects in which it may manifest itself. The idea that beauty is essentially intellectual in nature was, of course, widely held in traditional societies and civilisations (ibid).

Cognitive Dimension

Many scholars associate the cognitive dimension with the notions of the sense of place, sense of belonging, and identity. The dimension is developed from childhood experience and the surrounding environment in which the child's life revolves, such as the local customs, traditions and norms that are practised by one's particular community.

The term cognitive itself bears a variety of definitions in different contexts. The first definition, according to [www.prostate-cancer.org/resource/gloss_c.html], cognitive is referred to as relating to, or conscious intellectual activity (as thinking, reasoning, remembering, imagining, or learning words). It is also defined as awareness with perception, reasoning and judgement, intuition, and memory; the mental process by which knowledge is acquired [www.finr.com/glossary.html]. A simpler view from www.handsandvoices.org/resource_guide/19_definitions.html says that the word cognitive refers to the ability to think, learn and remember. Another web source www.inspection.gc.ca/english/corpaffr/publications/riscomm/riscomm_appe.shtml defines cognitive as relating to or involving the act or process of knowing, including both awareness and judgement. Cognition is characterized by the following: attention, language/symbols, judgement, reasoning, memory, problem-solving (ibid).

People generally acquire, organise, and keep in their minds information about the world, events, and things they have experienced and even those they have not yet experienced (Mazumdar, 2000). This is called "cognition". Environmental cognition is the thinking about, organising, and keeping of information about the environment, places, building, and things. This kind of processing of information about the environment enables us to make sense of the environment. For example, we may have mental pictures and memories of our houses, or other physical environments we have been in. Our ability to know depth and distance are affected by perception and cognition (ibid: 158).

Cognitive dimension here is related to the respondents' cognitive development of their childhood experiences, which inadvertently brings about the sense of belonging, the sense of place for them. In other words, the cognitive memories, remembrance and imagining are the embedded values, which actually create the identity of the community living in a particular living neighbourhood. This dimension is built and nurtured throughout the livelihood of a person based on his environmental and physical surroundings. Culture, worldview, religion and tradition all play important roles in developing and enriching a childhood learning experience.

Religious Dimension

Religion is another integral part of human culture. It is one of the underlying factors that determines the identity of people and their built environment (Adas, 2001: 109). From the early time, religion was one of the important motivations behind the building of settlement (ibid). In relation to the definitions of the term 'cognitive', religion can also be linked with a sense of cognition as it is also relating to or involving the act or process of knowing, including both awareness and judgement.

A society's religious beliefs are often salient to the city and community designs, historically and cross-culturally. AbdulWahab (1994: 16) mentions, that every society understands, observes, and forms its settlement, according to its own cultural background. Supporting the statement, Rapoport (1969: 40) comments that religion is the determinant of form in landscapes, settlement patterns, cities, houses, demography, cultivation, and circulation. Many modern cities however, do not reflect such values, but traditional communities and those from earlier periods frequently incorporated religious values (Altman, 1980).

Religion, as a dimension plays a predominant role in shaping the worldviews and cosmological understandings of the Malay society. It has played an important role over a long period of time in shaping the way of life and component structures of human settlement, its layout, architectural forms, and characteristics (Adas, 2001). Throughout the history of civilisation, Judaism, Hinduism, Buddhism, Christianity, Islam and other religions have inspired societies to spiritual guidance and the creation of new ideas and technologies which have acted as the guiding force for the development of a particular culture in any geographical location (Alam, 1985). Religious values were organised around a series of polarities: sky/earth, sun/moon, east/west. These religious values were carried directly into the structure of settlements (Adas, 2001: 110).

6.7.3.4 Personal Profiles

This section aims to decipher individual's perceptions and their attitudes towards their living environment, to give them the freedom to express their feelings, expectations and thoughts about their home and living environment.

1. Muhammad Fuad Haji Saar and wife, Saadiyah



Source: Author

Location: Kg. Pulau Melayu, Miri, Sarawak, East Malaysia.

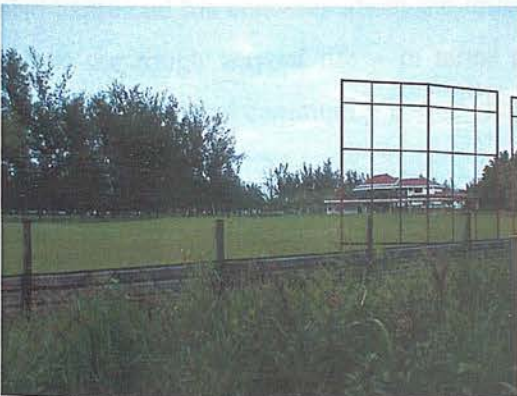
Age: 51

He has been living in the current residence for 13 years with his wife, Hajjah Saadiyah Haji Kepol, son, daughter and a maid. As an introduction, he explains about the house, which he designed by himself and his wife, with the assistance of a consultant architect. The design is aspired by the love of natural surroundings.



Source: author

Figure 6-47 Front and back perspectives of his house. The backyard shows the tropical garden that the couple is nurturing



Source: author

Figure 6-48 The golf course next to the house (above left) and Fuad's previous house (above right)

The site was chosen because it is next to a golf course, his ultimate sports activity and above all, it is located in his very own village, own neighbourhood where he was born and raised. His definition

of home, in his words, is, “my *kampung* (village), my root, and so I have a lot of attachment here. It is apparent that Mr Fuad Saar has a very deep sense of belonging to the place.

To suit his contemporary life style and love of his village and nature, the concept used here is what he called an innovated Malay house design. The house is a double-storey bungalow, made entirely of reinforced concrete masonry but the upper storey’s walls facing all directions have plenty of openings, hence using the modern timber checked casement windows as the openings’ materials. The upper floor, where the main living area is situated, faces the north-east and has floor to ceiling height glass wall and openings.

Due to his love of natural surroundings, Saar wanted to make sure that he has a wide, picture frame perspective of the external surroundings of his house. With the exception of the bedrooms, the layout of the living and dining space is left open i.e., there is no dividing wall between the two spaces because he loves the sense of spaciousness it brings. It gives him a sense of satisfaction and contentment just by being able to achieve all this.

The design concept is based on a mix of tropical and ethnic design. His living area, the family’s focal point, also allows him to accommodate religious, cultural and social activities in his very own compound internally as well as externally. Examples include congregational prayers, religious activities inside the house, wedding ceremony and preparation at the external compound, and social activities with relatives, neighbours and friends inside and outside the house.

Mr Fuad Saar believes that he has achieved his dream of an ideal house for his family and himself. His Islamic faith, cultural sensitivities, love of nature, sense of community living, along with cleanliness and health awareness have given him physical and spiritual contentment for his life.

When asked about the changes that have happened in his town, he opened up to the new facilities and infrastructures that could bring in a profitable economy for the future of the town. However, he also expressed his concerns about the influence of foreign cultures in the town centre. By this he means the rough way of life – in terms of verbal communication and rough behaviour that is opposed to the local community’s social life.

2. *Dato’ Saari*

Location: Melaka, Malaysia.

Age: 62

Dato’ Saari has been dreaming of an English tower castle house since he visited the United Kingdom several times before his retirement. Although he grew up in a traditional Malay house in his hometown Johor Baharu, Malaysia – and he still does keep an “attachment” to the old house of

his parents in the form of a *kekisi*⁸⁸, he was particularly attracted to the tower castles and cottage houses in and around the British Isles. So when he actually found a corner lot, semi-detached housing design scheme, with a cylindrical corner wall, which reminds him of the castle tower, he decided to buy the property. He has now been living there with his wife, son and daughter for two years.

Another reason why he chose the property was because it is located close to his orchard. In his retirement life, he is also a keen gardener. Ever since he moved into the house, he had extended the whole house to create a bigger kitchen and bigger living area. Also, as a keen reader, he provides space to accommodate his special library. On the upper floors, he had also enlarged the master bedroom. He also upgraded the whole interior floorings of his house including the floorings for the front car porch. He had realised his English castle and cottage design dream by choosing materials closest to them such as stones, clay bricks and an English garden.

Despite his love for English designs, religious and cultural activities remain his main priorities. He prefers large and spacious internal and external spaces to accommodate these kinds of activities. As a collector, his house is also filled with antiques, paintings and artworks from various places. He also has a keen interest in traditional wooden craftsmanship, and the traditional louvred windows. For him, home is a comfortable space for family development, gives a sense of satisfaction that can makes us feel safe and peaceful.

Dato' Saari expresses his disagreement with today's housing schemes which offer very limited spaces for living, especially the toilets, and the store room. On the changes that have occurred as a result of developments, he liked the many landscape designs that had coloured the streets and housing areas, and also the hygienic awareness among residents and government authorities who maintain the services. However, he thought that it was a pity that many old and historical buildings were being demolished just to build new buildings. The consequence was the state has lost some of its invaluable historical remains. The development of Bandar Hilir Melaka has cut off the historical relationship to the present times.

He suggested that there must be a well-kept green lung – with big old trees – in every housing estate for the purpose of recreation or relaxation activities. In addition, he proposed an integrated Malay, Chinese and Indians living environment to promote unity, hence enhancing the multicultural relationships.

⁸⁸ *Kekisi*, according to Ariffin, S.I. (2001) are alternating panels forming a balustrade for a window and part of a *serambi* wall (p285).

3. *Haji Izham Haji Zainal Abidin*

Location: Petaling Jaya, Selangor

Age: 29

He is a bachelor living alone in his parents' semi-detached house in Petaling Jaya for less than five years since he came back from his PhD study in the UK. His parents are now living in Seremban. This opportunity gave him a sense of freedom, independence and enabled him to make plans for the future.

Also a keen gardener, Izham likes to plant plants or trees for their food benefits, apart from for aesthetics and a leisurely activity for himself. He is content with the size of the property and its spaces. However, the location of the house, which is too close to the main road, invites air pollution and traffic congestion, hence noise pollution into the street in front of his house. His love for food and cooking makes him prioritise the kitchen as the most important space for the house. Home for Izham is a place to relax and reflect oneself, and gives a sense of belonging.

When asked about his thoughts about indigenous or traditional dwellings, he acknowledged the cooling and comfortable environment, the sound of the wooden floorings, as well as the feeling of spaciousness outside with the surrounding greeneries, which is relaxing and close to nature. In his answers to the characteristics of modern contemporary houses that he disliked, he mentioned the compact living spaces, limited outdoor spaces, heat, bad air ventilation and oversimplified interior furnishings. The negative aspects, in his opinion, give claustrophobic feelings, reduce comfort and increase difficulties in engaging outdoor activities as well as future expansion possibilities that every family needs from time to time.

He particularly disliked the link houses since he thought that they were cramped houses, with bad ventilation, hence hot. The house type gave a false sense of security with fences that actually gave a feeling of restriction and above all, the house type provided very limited spaces to live in. The same situations would apply to high-rise flats.

Like others, Izham preferred to live next to facilities but also close to nature, and where there is sense of community living environment. He also had a preference for bungalow house types because they provide spacious spaces and bigger compounds. He particularly like the Putrajaya residential area that had a fenceless design concept, secure, more user and environmentally friendly and also the housing layout – cul-de-sacs, which encourage community interactions.

His living area is renowned as a night market area, hence the identity of his neighbourhood. It is a common social tradition that is able to unite the community from all walks of life and racial or ethnic backgrounds to come and enjoy the cheap variety of food, fresh vegetables, or sea product; clothing, household necessities, and etc.

Izham also suggested, authorities should be able to provide affordable, quality housing that responds well to environmental and human needs. He added that in the future, there should be a promotion of an interactive communal living lifestyle.

4. *Noralina Mohd Ali*

Location: Saujana Utama, Sungai Buloh

Age: 32

Mrs Noralina M. Ali is an architect living with her architect husband, three kids and a maid in the newly finished end-lot link/terraced type house. She moved into the house in late 2001 from a high-rise apartment in the city centre. Whilst she is not entirely pleased with the current property she has, it is the only affordable house closest to her workplace, which took approximately 40 minutes to one hour to reach.

Her dream home would be a house with a spacious front compound with orchard trees. The house would be secure enough to give her freedom of movement in her own lawn, filled with fruit trees. Home, in her words, is a place where I can relax and be myself, where I can grow old with my husband, and a home that can also grows with my kids.

Nina, as she liked to be called, would like to have spring-cleaning, and barbeque activities with the neighbours so that they can get to know each other. She would also like to be able to do religious-cultural activities such as weddings and funerals with the neighbours.

Her thoughts on indigenous dwellings are good ventilation, cool indoor temperature and great shade from the glaring sun. As an architect, she also acknowledged the fact that the building materials and design did not suit the Malaysian climate and were only used to save developers' costs.

5. *NurulHuda M Tahiyuddin*

Location: Taman Melati, Kuala Lumpur

Age: 31

Mrs Tahiyuddin, who prefers to be called Nurul, informed the author that she had rented the house 14 months ago. She chose to live at the four-storey apartment at level two, mainly because of its location, its security and her preference for small sized apartment due to the small family size with one child.

She liked the fact that the kitchen's position in the apartment is at the back of the living space and entrance because this gives her privacy when cooking. She explained that the Malay way of cooking usually requires a lot of space and hence lots of mess. She would not have liked it if the kitchen was placed next to or near the entrance door, because there is no privacy for her. She also

needed freedom of movement in her own house, so the simple plan layout suited her. For example, the living and dining spaces are directly connected i.e. without walls, making the whole space looks bigger.

What she does not like about her apartment is the fact that the toilet can be seen directly from the living room where her guests would normally be sitting. This does not give privacy for her family or the guests who would also want to use it. Further, there was not any space to dry the clothes nor is there any utility space for that matter. Each bedroom is also too small to fix in the bedroom furniture and also limit the movements.

For her ideal house, the orientation of one of the walls should be facing the Qibla direction so that it was easy to exercise congregational prayer, during religious ceremonies or normal occasions. She would like to have a big, spacious kitchen, which included a wet and dry kitchen. She also would prefer that her house was on a flat not split-level so that it would be convenient for kids and elderly to move about.

From a religious-cultural point of view, she suggested that the living area layout must be open without any corner. This would make it easier for many people to sit in the space during special occasions like the wedding ceremony, *khatam* (concluding) Quran ceremony, or funeral ceremony.

From her practical point of view an important consideration before choosing a house is firstly, its location, next, is the size of the property, which should not be too big for ease of maintenance and thirdly, is affordability. For Nurul, a home is a safe and comfortable place to spend the day, a place where one makes daily chores and relaxes.

On traditional houses, the elements that she liked included the floor to ceiling height louvered windows, the Malaccan entrance staircase, and the space beneath the house – very cooling and suitable to sit and have afternoon tea. The area can also be utilised as a garage, den etc. For contemporary houses, she liked some houses that had indoor garden with ponds, and the lighting that can be controlled, according to mood.

She also thought that the contemporary houses were hotter due to the low ceiling height, hence very poor ventilation. Houses also look a lot smaller with a low ceiling height. Another thing she disapproved of the size of the contemporary toilet, which in her opinion, was too small and makes it very uncomfortable and difficult for people, especially the elderly, the disabled, the extra than normal sized individuals and pregnant ladies to use. She particularly disliked the town house and high-rise apartment or flat because of less privacy, difficulty to get cooperation from neighbours if a situation occurs. If there is high density of people in a block, this would cause noise pollution. Further, in her opinion, high-rise apartments always had problems with low water pressure.

Nurul thought that having congregational prayers at the mosque or *surau* was important because in this way, she could implement spiritual activity with neighbours, and also, she could share problems and exchange opinions with them. *Surau* or mosque, she said, was also important during particular events such as weddings, deaths, feasts, emergencies, etc.

Despite suggesting that today's housing offers a variety of choices for the users, she also admitted that most of them are of low quality, and have decreased in size. Hence, she suggested, the authorities ought to have adequate planning before building, and that housing areas should cater for all aspects of life.

The mother of a three-year-old son also views that one could learn through upbringing and exposure to different cultures that would benefit our thoughts on housing design that are responsive to cultural and religious needs. She also suggested that it was important to instil the significance of tradition – be it religious or cultural - to young children in everyday life; and also, to have more TV programmes depicting the modern day houses with traditional influences.

6. Miss Roszalina Ramli

Location: Bandar Tasik Permaisuri, Cheras, Kuala Lumpur

Age: 33

Miss Rosza, as she called herself, had been living alone in her condominium that she bought less than five years ago. She chose to move there from her previous apartment because of its scenery, the spaciousness of the house and also as there were good neighbours at her new residence. As an orthodontist who was also a lecturer, she regarded a home as a place where she can return to and feel like the place is welcoming her, a place where she feels comfortable and secure.

Her ideal house should be spacious enough to accommodate all her furniture, be safe, and with good neighbours. She preferred a quiet environment and tolerant neighbours. As her condo is too near the main road, there were traffic and noise pollution that made her feels uncomfortable. Also, the temperature is hot inside the property because her living room is facing the afternoon sun and the ceiling is too low to allow proper ventilation into the house. When choosing a house, her priorities were that it must be from a good developer, to ensure the quality of the house and its completion date, in a good location and site, and also a low-density housing area as she enjoyed a peaceful and quiet life.

Rosza learned about her cultural as well as religious tradition and worldviews through informal learning at home and her own personal observation. She valued the importance of family or friends' gatherings and get-togethers. She also gave her opinion about ways to preserve cultural values and tradition in our contemporary or future housing design or living environment, that housing design must offer areas where social activities can be carried out, and that houses should be within reach of the mosque and other facilities.

7. *Rasheedy Ishak*

Location: Kg. Dato' Keramat, Kuala Lumpur

Age: 30

Mr Rasheedy inherited his current residence, a twentieth century, single-storey bungalow in the original Malay village – Kampung Dato' Keramat - in the heart of the city from his grandmother who initially willed it to her son, Rasheedy's father. Until today, the village has managed to preserve its identity despite the rapidly changing city surrounding it. For the past six years, he has been living there with wife, his twins, his mother-in-law and his brother-in-law. This is the first extended family that the author came across during the interviews.

Before Rasheedy, who was a pilot, moved to the current property, he was living in an established condominium also in the heart of the city, nearby from the current residence. He chose to live there because it was the most suitable place to raise his children and to take care of the elderly in the family. Because the house is his family's inheritance, and there is no cost to live in it, he had the opportunity to upgrade the interiors of the house such as enlarging the master bedroom, upgrading the toilets and bathrooms and also the kitchen. He also put up a new fence to make clear the boundary of his house, clear the bushes, as well as to prevent flood, theft, and finally to increase the use of space at the back for storage. Storage has always been a problem for modern houses these days, he said.

The residence was a corner lot property that let fresh air breezes through. Rasheedy enjoyed the spacious compound he had in his front lawn as he could do some gardening, can do social gatherings with relatives and friends as well as a safe play area for his kids. The compound of the house also provides ample space for parking his cars. Rasheedy particularly liked the the raised structure of the house, that was two feet above the ground level. This was the feature of the house that was unique from other conventional houses and made the house more appealing.

He would have liked to use solid wood for his ideal house because he thought it was environmentally friendly, reflects heat and is aesthetically beautiful. Solid wood can also be found in many versatile designs, plus it absorbed sound. Concrete was his second choice for building material due to its durability, and the high latent heat that it possessed. He also would be inclined to choose high quality red clay bricks if he had a chance to build his ideal home because they were beautiful and durable.

When asked about today's housing designs, Rasheedy mentioned his disapproval of the open kitchen concept and the high fence enclosing a property. The open kitchen concept, in his view, did not suit the local way of cooking, and the high fence of tall border enclosing a property prevented any opportunity to get to know neighbours. According to Rasheedy, today's impending housing needs includes the need to have an adequate car parking space, a proper and enclosed space for drying clothes, well-maintained parks, residents' union of some sort and a relaxation area. He also

had interests in the *wakaf*, or gazebo, and the well of the traditional house. He liked the natural ventilation system and natural lighting of the traditional dwelling design. The attention to climatic factors made the traditional dwellings cool and refreshing and energy efficient, because they saved on costs for an air conditioning system and artificial lighting like the one he had to use for his current house.

Rasheedy perceived that the location, plot size and sense of neighbourhood are the three most important aspects for consideration before he would make a decision to move to a certain place to dwell. According to him, one needed to be close to the workplace, as well as to the important people in one's life, like relatives and friends; also, to be close to public facilities and amenities for convenience due to the busy lifestyle of urban dwellers. The size of property and its surrounding land were also important because for him, a family, depending on its size, needs to have a comfortable space to live for a very long time. In terms of practicality, he said that the size should not be exaggerated so that daily chores are controlled. By the sense of neighbourliness, he meant that they were important for him because the safety aspects were under control, and the sense of community living usually meant helpful, selfless and tolerant neighbours. For Rasheedy, he understood home as the best place to sleep, eat, rest and relax, and do activities together with family and friends like meetings and gatherings.

As he was brought up with significant religious and cultural understandings, he preferred to live in a Muslim neighbourhood because of convenience, comfort and similar activities that are done by the community collectively. For example, the wedding ceremony, the religious festive (Eid) celebration, death ceremony and so forth, the whole community could be involved. Another reason why he wanted to avoid living amongst other ethnic communities is because of the opposing cultures and living lifestyles.

Living in the heart of the city centre he had witnessed a dramatic increase in the city population especially in his neighbourhood – many of whom were illegal immigrants from Indonesia. His neighbourhood became the attraction for the illegal community due to its village-like identity, abundance of affordable properties to let, and plenty of food stalls business around the area. With the growing city population, the city had become more and more congested, which inevitably affected the place where Rasheedy was living. This concerned him in terms of safety and also as most of the people were uneducated, they did not have civic awareness or concern about the cleanliness of their living spaces.

He then suggested that there should be some kind of control from the authorities on the mushrooming of rented properties open to the under privileged and the illegal immigrants. There must be control of the illegal immigrants. He added that every house should decorate their gardens and that there should be standardised garbage bins so that the environment looked beautiful and people would want to keep maintaining it.

6.7.3.5 Conclusions of the Personal Profiles

The outcome of the personal profile interviews established that people from the same ethnic background, in general, appreciate and are constantly conscious of their cultural-religious aspects in their lives. They strongly maintain many aspects of cultural-religious traditions in their contemporary living environments. It is also established that people continuously associate themselves with nature and the natural environment albeit without the deeper cosmological understandings as earlier generations had had with nature. Nature still plays a significant role in enhancing the sustainability of their living environment. At the same time, people also have to adapt themselves through changes in their surrounding built environment and in their neighbourhood or town. Education, external exposure and globalisation play some significant parts in the enrichment of the society's socio-cultural ways of living. By this, the author means, people accommodate themselves to the changes and assimilate the new inputs into their living system.

A strong and close-knit community is also still important for this society so as to maintain their communal activities during cultural or religious occasions. Therefore, in view of the boundary there is still an apparent need to maintain the boundary among the diverse ethnic cultures in order to sustain the harmony or living among the multi-cultural society.

6.7.4 Conclusions of the Survey Analysis

Referring back to the questions posed earlier in the introduction to this chapter, in which the survey questions attempt to decipher:

1. Whether culture, religion and (or) tradition still have a major influence on contemporary people's way of living⁸⁹?

The answer to it is, yes, culture, religion and tradition do still influence contemporary people's way of living. However, many aspects of cultural traditions have also been lost through the process of modernisation and urbanisation, for instance, people's power of control of their built environment has largely been reduced by current housing development policy.

2. How do contemporary lifestyles, and global knowledge of various design approaches in architecture and living environments throughout the world affect people's views of their own dwelling designs, and today's living environment?

The findings in the survey established that the nature of contemporary lifestyles, exposure to global knowledge about the variety of international design options for dwellings and living environment do, largely and inevitably, affect the way people interpret their own dwelling designs and living

⁸⁹ Do spirituality, cosmology or indigenous worldviews on dwellings, living environment still have a huge impact on the lives of contemporary Malay society?

environments. Inversely, this finding also displays the lack of exposure, knowledge and understanding of the society's own indigenous worldview and knowledge of the architecture of the living environment.

3. At what level of knowledge do people actually value and appreciate their relationship with nature and the environment in their living environments?

From the survey findings, people's level of knowledge of their value perceptions and appreciation of their relationship with nature and the environment is interpreted as being maintained at the surface level i.e., people do consciously tend to relate to the social, physical and natural environments. However, there is a lack of realisation of a deeper connection with the spiritual, cognitive dimensions of the cultural meanings and cosmological understanding of their own culture, religion, tradition and worldviews.

4. From which sources of knowledge are people's interpretations of the meaning of an ideal house/home⁹⁰ based on?

The sources of knowledge that people based their interpretations of the meaning of an ideal house, are based on the cognitive dimension, and the quality dimensions derived from the survey. These sources are, in fact, derived from the innate inherited cultural-religious-tradition that has actually driven the formation of the sustainable and satisfying indigenous living environment.

5. Aspects of indigenous and/or traditional living environments in which people still connect with or relate to.

People still do relate to many aspects of the socio-cultural-religious aspects of the indigenous/traditional living environment in their daily activities in the modern-day urban setting, despite the obvious substantial physical limitations (e.g., spatial design, space quality) imposed by the contemporary housing provision and they do this by making changes and alterations to their dwellings so as to satisfy the need to fulfil these inseparable aspects of their ways of living.

This chapter concludes by responding to the first statement, that to some degree, people are connected to the environment, and that there is indeed an innate tendency for the Malay society to maintain the continuity of their culture, their relationship with nature and their boundaries among themselves and in the multicultural society. However, these desires are constricted by the limitations of choice, knowledge and contemporary life's demands and circumstances that perhaps hinder people from actually actively being involved in the creation and evolution of their living environment and practically realising their indigenous identities.

⁹⁰ The idea is to give one the freedom of creating one's ideal home - what would it be, what would it look like, would one have any connection with nature and the natural environment and what are the reasons?

7 Indigenous Dwelling Survey & Analysis

7.1 Introduction

Chapter seven analyses a selection of indigenous Malay architecture and the living environment to illustrate the dominant role of culture and tradition in physical manifestations of indigenous living architecture in the country. It also attempts to decipher the meaning of cosmology and symbolism in the arts and architecture of indigenous Malay dwellings. All this describes the significant relationship between humans and nature.

The chapter also attempts to trace the genesis of indigenous Malay dwelling architecture, of which some may have originated in neighbouring countries. One can find symbolic similarities as well as cultural boundaries in these dwellings samples. The data compilation begins by assembling and recording information of various types of indigenous traditional housing typologies, in order to illustrate the variety of forms and architectural styles of the indigenous Malay dwellings that have gone through regional, historical and developmental transformations over time. For the purpose of the thesis, however, the research only selects the most prominent architectural and historical examples – one from each indigenous dwelling sample of the four regions in the Peninsula and one indigenous tribe-dwelling example from East Malaysia.

This chapter gathers a variety of indigenous dwelling typologies from in and around Malaysia. For the purpose of this study, these typologies are based on historical, architectural and traditional values that each of the typology possesses. The chapter presents a variety of styles and forms of indigenous architecture throughout Malaysia as well as the constant similarities in the general aspects of the forms. This suggests varying interpretations of nature, based on the origin of the regional cosmological or ontological influences, albeit from the same ethnic origins.

This chapter also explores the intellectual and cosmological motivation for the manifestation of indigenous dwelling architecture throughout Malaysia. As noted in Chapter Three, Malay culture and civilisation are intimately linked to Islamic traditions and worldviews. The Malays have adapted and adopted Islamic teachings and traditions into their culture so well now it can only be comprehended as one. Islamic worldviews, knowledge, and tradition have also become the dominant influence in Malay worldviews, evident in many aspects of Malay culture and civilisation – more specifically with regard to the thesis, in the arts and architecture.

Ujam (PhD Programme Environmental Discourse, 2006) ideates, “a fundamental attribute of Islamic culture is its inherent tendency towards the abstraction of nature”. It transforms the physicality of the ‘real’ world into ideas, ideals, images and symbols. The processes of transformation and abstraction crystallise across various scales, leading to further maturation in abstraction until buildings and artefacts reach the ultimate status of holism and spirituality. These

ideals become culturally embedded and are shared by the society. Built forms become a symbol and the means for the unification of man and the natural world, whose boundaries begin to disappear (ibid: 97). In other words, the purpose of this study is to demonstrate the consequence of centuries of evolutionary process of adaptation and transformation in which the Malay culture, cosmology, and worldview have played crucial roles in the development of the society's indigenous dwelling designs.

Information-gathering Method

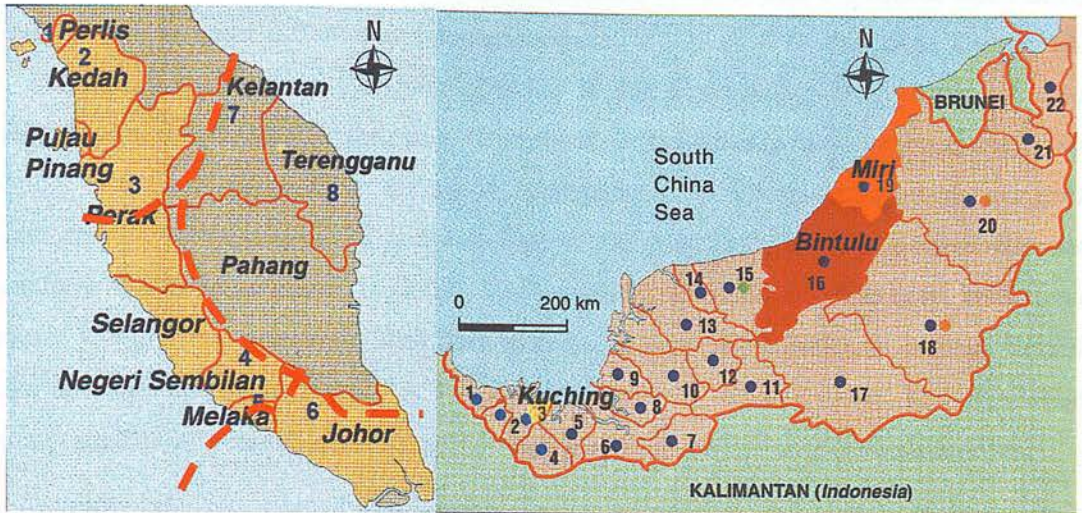
The information-gathering method for the empirical study here was undertaken by assembling various related documentation and archives (i.e. reports, literatures, articles, journals, conferences and the like); and also through recording visual images, and photographic information from various references, as well as by the author's own work and experience during her fieldwork. The objective was to gather as much information about evolution, development, changes, and transformation in living (dwelling) architecture and ways of living that have occurred through time, in order to choose some relevant selections for analysis, according to the thesis context.

Study Classification and Focus Group

The study is classified into two parts. First, there is an analysis, starting with an illustration of the regional house form variations (similarities and differences) in and around the Peninsula as well as in East Malaysia. This section presents an elucidation of the physical manifestations of the cultural meanings and cosmological understandings of nature and indigenous worldviews in the architectural construction of the indigenous dwellings. The second part is an evaluation of the findings, leading to the conclusions of this chapter.

The focus group in this study is the indigenous Malay society, including one of the indigenous attic tribal societies in East Malaysia, the Iban society. The main intention was to focus on illustrating the manifestation of the cultural meanings and cosmological understandings of these societies in their indigenous built environments.

7.2 The Survey



Source: Fee (1998), modified by the author

Figure 7-1 In the Peninsula, the dwelling typologies are from the 8 regions as illustrated and in East Malaysia, the indigenous dwelling typologies are collected from the three state divisions highlighted in yellow (Kuching), red (Bintulu) and orange (Miri).

7.2.1 Introduction

The survey is composed of recorded information in the forms of documentation and images, from which the author obtained insights into the various aspects of the indigenous dwellings from different regions in the Peninsula and from the Bintulu division in East Malaysia. The survey is divided into two categories: regional similarities and regional differences – so as to illustrate the existence of a variety of indigenous housing typologies in Malaysia.

This is followed by an analysis of a selection of indigenous dwellings in an attempt to describe the manifestation of cultural meaning, cosmological understanding, as well as the characteristics of the indigenous model that were discussed earlier in Chapter Three and Chapter Four.

7.2.2 The Regional Differences:

Manifestation of boundary and identity

The notions of boundary and identity are manifest in the Malaysian multicultural societies. In terms of the traditional indigenous Malay dwellings these notions are also expressed physically (visually) as well as ontologically (spiritually). The thesis presents an example of the manifest representation of identity and boundary in the structure or layout or the indigenous Malay dwelling settlements in two different region, site and location. It is acknowledged that the traditional Malay societies mainly settle either in the main land's open plain settings in the villages, and also along the coastal areas. This is mainly due to their main occupations at the time as farmers and fishermen. The following demonstrates the difference of identities in the two regions (locations), i.e. in the structure of the dwelling settlements and in the house forms of the indigenous dwellings architectures.

7.2.2.1 Variations of House Forms

The traditional houses chosen at random for the documented research data collection, share many similarities as well as some different architectural aspects, which shall be explained later in this chapter. Traditional houses give particular attention to the surrounding environment, climate, materials and resources suitable for the place. From the choice of site, the customary process of site construction, to the way of building, the spatial arrangements, to the way that people use each space built for the various functions and activities of the occupants, many considerations and responses have had to be addressed regarding socio-cultural needs and environmental conditions. Most houses would have some engravings with floral motives, at least at the front part of their houses. The richer or higher the owner's status is, the more elaborate the engravings are. The engravings are normally used as air ventilation shafts, as sunscreens, for privacy, or merely for decoration.

This section explores the regional variations of architectural styles and forms in the indigenous dwelling designs across the Peninsula. The objective is to trace evidence of the transformation of the dwellings, based on regional influences, worldviews, and the beliefs of the native society in the Peninsula and East Malaysia. The following records of dwelling images were collected from different regions of the Peninsula.

In order to ensure the authenticity of the indigenous dwelling typologies, most, if not all, of the indigenous dwelling typologies investigated are more than 100 years of age. Some may have been restored as museums and some remain as their original or modified versions. The classification of the styles of Peninsula Malay houses according to Hilton (1992, in *JMBRAS*⁹¹, VOL. 65: 52), is divided conveniently into four regions:

North West	-	Perlis, Kedah, Pulau Pinang, and North Perak
Central West	-	South Perak, West Pahang, Selangor, Negeri Sembilan, and Melaka
East Coast	-	Kelantan, Terengganu, and North-East Pahang
Southern	-	Southeast Pahang and Johor.

Below is the list of documented data of traditional Malay houses from various regions of the Peninsula that the author obtained from KALAM⁹², University Technology Malaysia:

1. Daeng Mat Diew's house, Muar, Johor
2. Tok Jamaliah's And Tok Aishah's houses, Langkawi, Kedah
3. Itam Bahak's house, Kuala Kangsar, Perak
4. Penghulu Mohammad Natar's house, Merlimau, Melaka
5. Kampung Pulau Panjang' house, Kota Bharu, Kelantan
6. Kampung Losong Haji Su's house, Kuala Terengganu, Terengganu
7. Dato' Haji Muda Haji Omar's house, Batu Kikir, Negeri Sembilan
8. Encik Khatib Akub's house, Lancang, Pahang

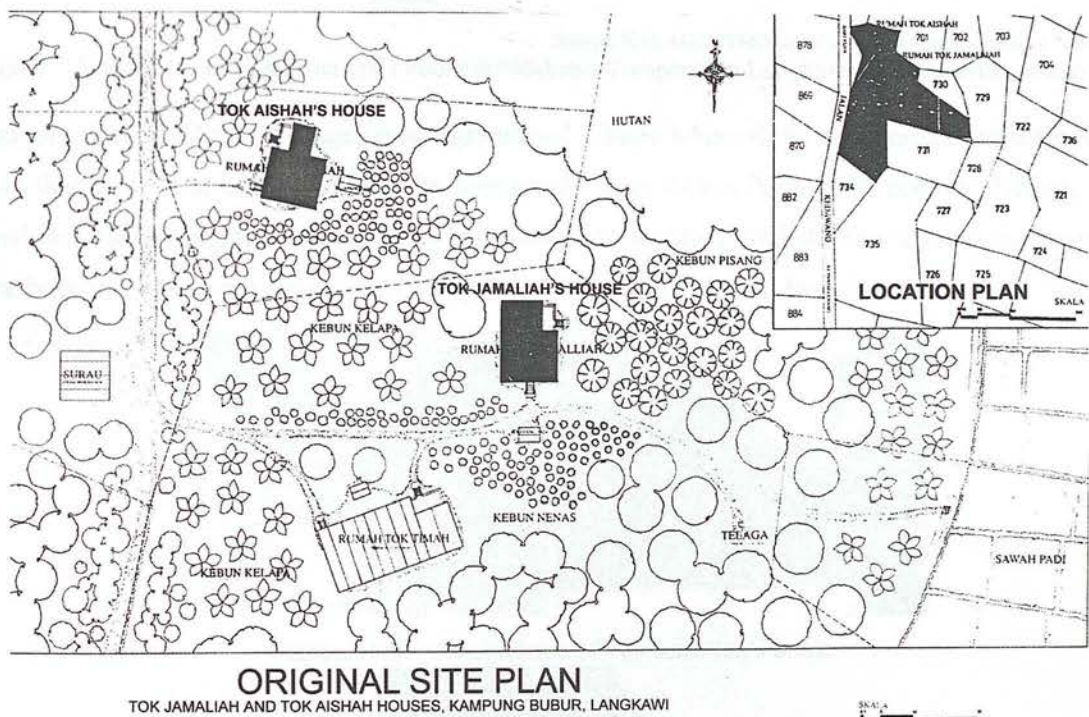
⁹¹ *Journal of Malaysian Branch of Asiatic Society*

⁹² KALAM stands for *Kajian Senibina Alam Melayu*, or in the English translation, Malay World Architectural Research

From the eight houses, five of the indigenous dwelling typologies are selected to demonstrate the existence of boundary and identity notions in the regional house forms:

1. Tok Jamaliah's house and Tok Aishah's house, Langkawi, Kedah (Northwest region)

According to its source, the two case-study houses are believed to be the oldest versions of Malay dwelling architecture in the state of Kedah. The indigenous Malay dwellings are situated in Langkawi island. Langkawi is the northernmost island in the west coast of the Peninsula i.e. 112 km to the north from Penang and 27 km from Kuala Perlis, Perlis, the northernmost state in the west coast. For the sake of cultural preservation, one of the two houses, Tok Jamaliah's house was moved from its original location in the outskirts village to the Kedawang district at the the "Mahsuri"⁹³ Complex" in November, 1988, which the author visited during her research field trip.



Source: Kalam, UTM Skudai's architecture department, Malaysia
Figure 7-2 the original site plan of both Toka Jamaliah and Tok Aishah's house

The people of Langkawi can be divided into three main sub-ethnic Malay groups: (i) The Malays of the Peninsula, (ii) the Malays of Indonesian descendants from Sumatera Island, especially from Aceh and Padang, and (iii) Siamese descendants from the coastal fringes of Southern Thailand. Most of them still practise their ancestors' traditional ways of living, hence there is indeed a manifest difference in cultural interpretation of their respective dwellings as demonstrated in the two case-study houses below:

⁹³ Mahsuri is a legendary figure in the history of Langkawi.

Tok Jamaliah's house

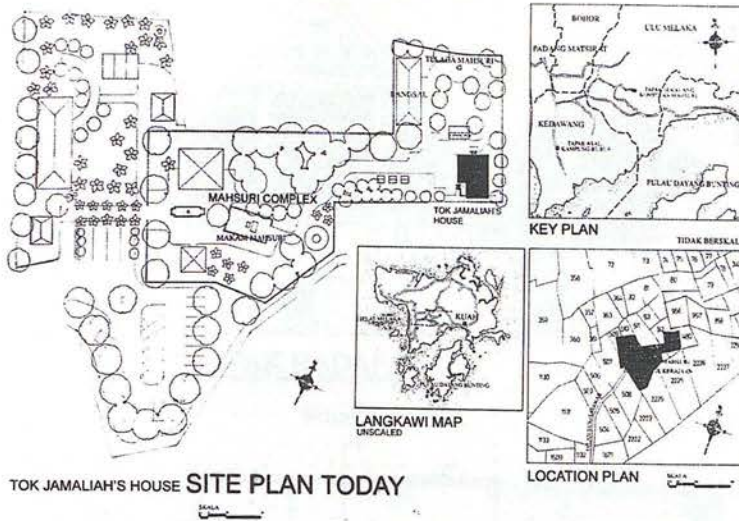


Figure 7-3 Site plan of Tok Jamaliah's house at "Mahsuri Complex" in Langkawi Island, Kedah, Malaysia
 Source: KALAM, UTM Skudai's architecture department, Malaysia

Kampung Bubur (Bubur Village) is an agricultural village where these two houses originate from those that were first established by the immigrants from Aceh in the 16th century. Hence, Tok Jamaliah's family practised the tradition and custom of the Malay Aceh. The house was estimated to be built in 1889 as a wedding present for Tok Jamaliah to Tok Mat from her father, Tok Yahya.



Entrance and front elevation of Tok Jamaliah's house



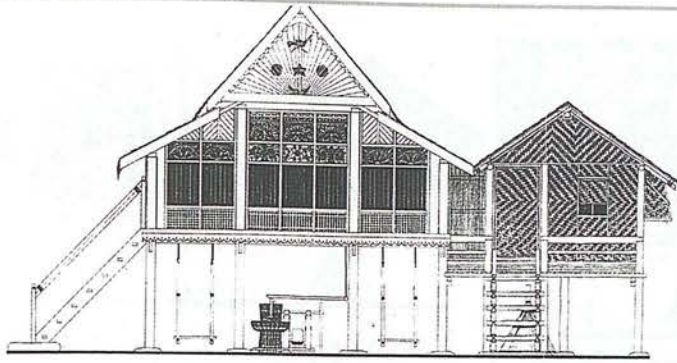
A view of the vast window openings at the front of the house



A view of the space underneath the elevated floors and how it has been used as a resting place and storage space for equipments.

Source: author

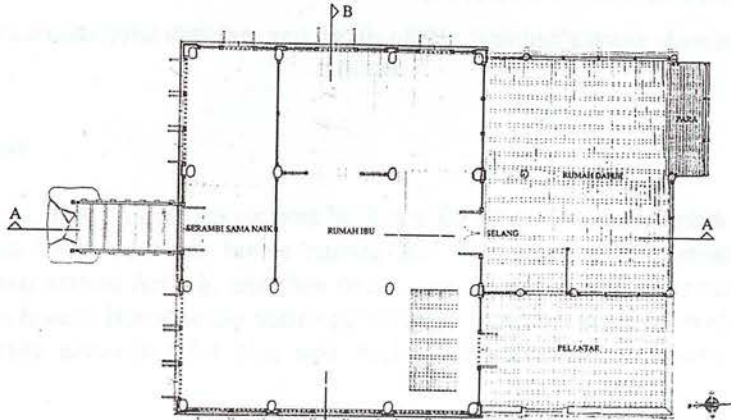
Figure 7-4.. Perspectives of Tok Jamaliah's house and its features



TAMPAK HADAPAN
RUMAH TOK JAMALLAH, KAMPUNG BUBUR, LANGKAT

SEKALA

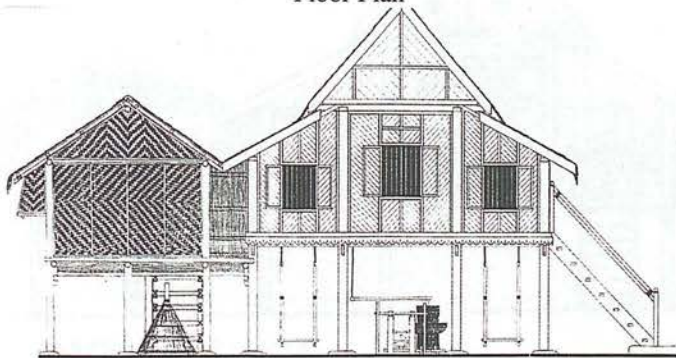
Front Elevation



PELAN LANTAI
RUMAH TOK JAMALLAH, KAMPUNG BUBUR, LANGKAT

SEKALA

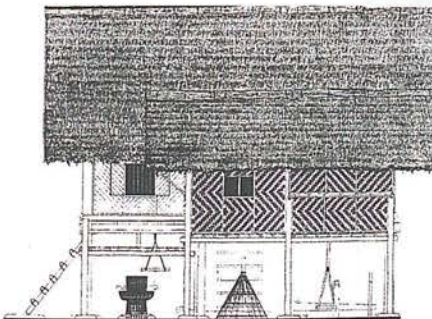
Floor Plan



TAMPAK BELAKANG
RUMAH TOK JAMALLAH, KAMPUNG BUBUR, LANGKAT

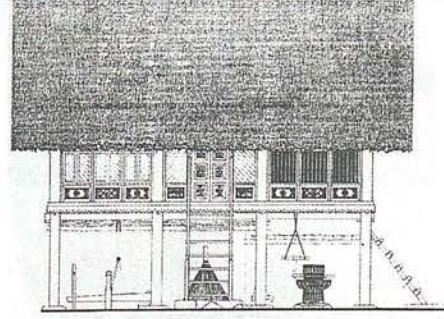
SEKALA

Back Elevation



TAMPAK KANAN
RUMAH TOK JAMALLAH, KAMPUNG BUBUR, LANGKAT

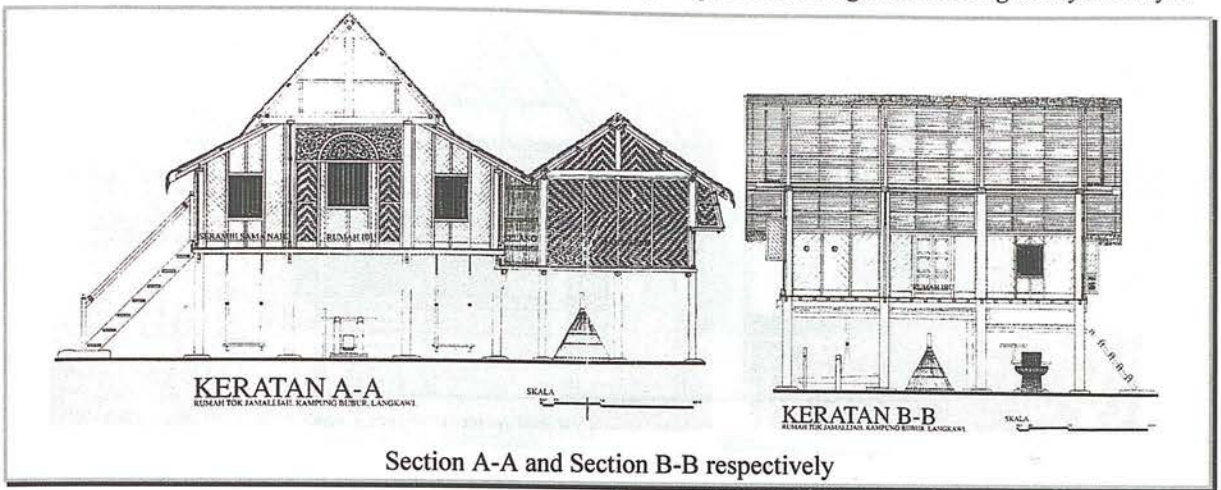
SEKALA



TAMPAK KIRI
RUMAH TOK JAMALLAH, KAMPUNG BUBUR, LANGKAT

SEKALA

Right and left elevations respectively



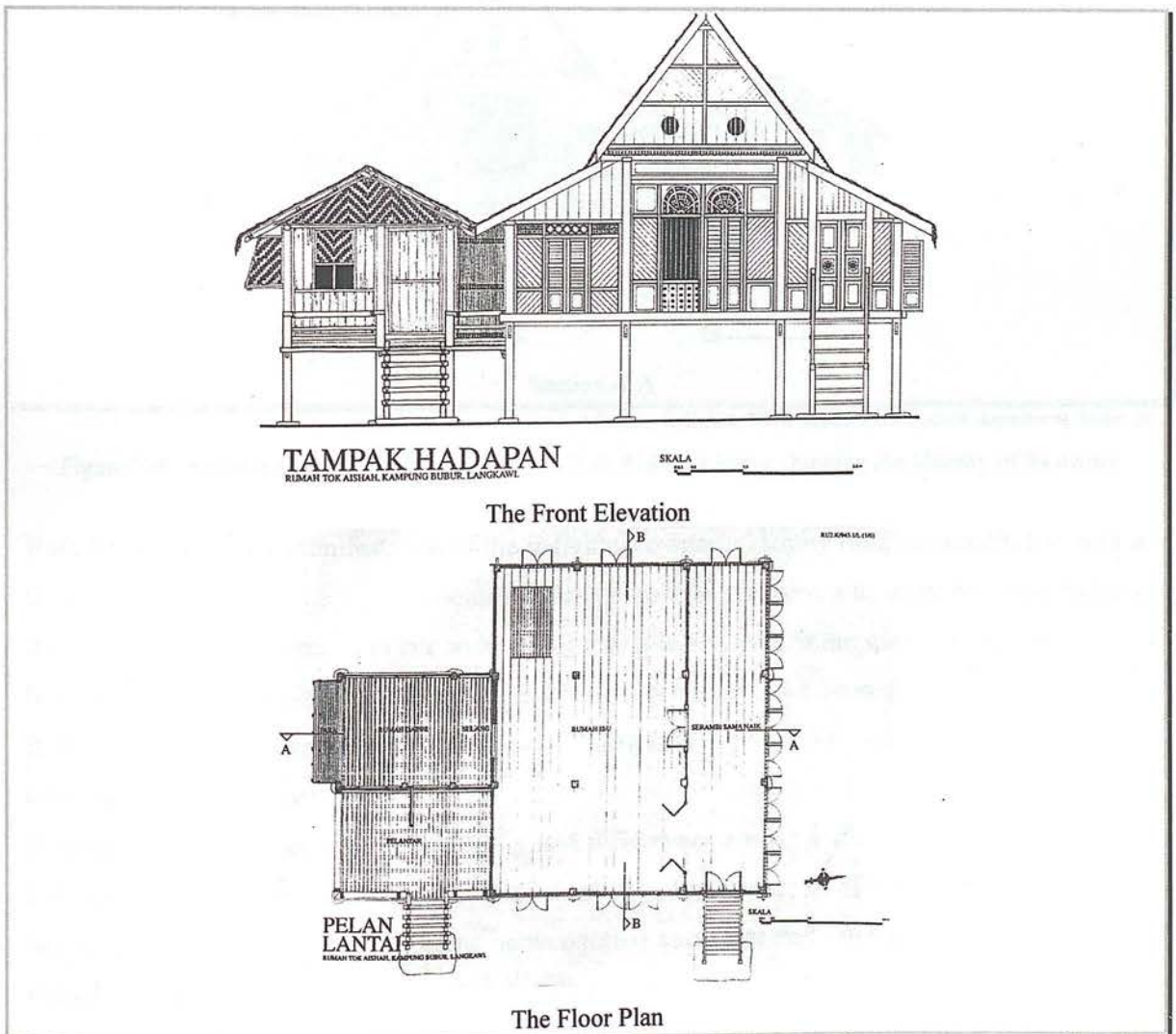
Section A-A and Section B-B respectively

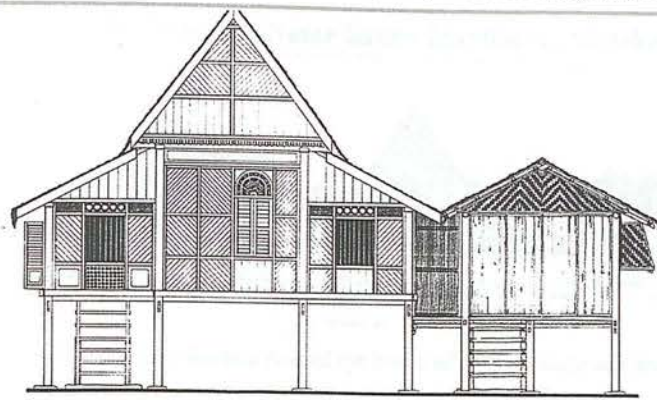
Source: KALAM, UTM Skudai's architecture department, Malaysia

Figure 7-5 Detailed architectural drawings and details of Tok Jamaliah's house showing the identity of its owner

Tok Aishah's house

Within the same site, Tok Aishah house was built not far from Tok Jamaliah's house. Tok Yahya had a nephew who lived near his house named Mat Nos. Tok Yahya arranged his nephew's marriage to a woman named Aishah, and then built a new house named after her, next to his house and Tok Jamaliah's house. Because the marriage between Jamaliah and Mat were at about the same time as the marriage between Mat Nos and Aishah, therefore, both houses were constructed simultaneously.

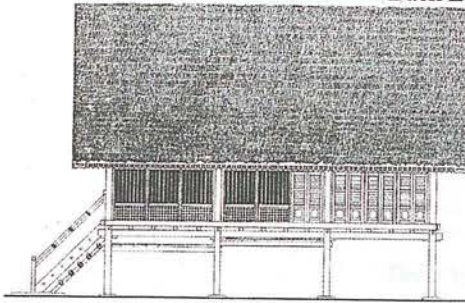




TAMPAK BELAKANG
RUMAH TOK AISHAH, KAMPUNG BUBUR, LANGKAWI.

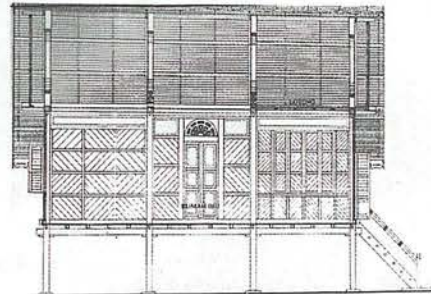
SKALA

Back Elevation



TAMPAK KANAN
RUMAH TOK AISHAH, KAMPUNG BUBUR, LANGKAWI.

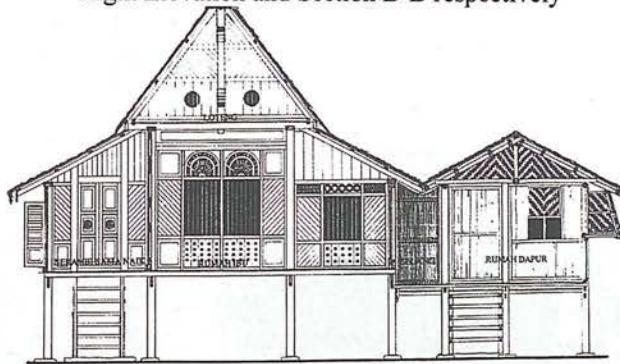
SKALA



KERATAN B-B
RUMAH TOK AISHAH, KAMPUNG BUBUR, LANGKAWI.

SKALA

Right Elevation and Section B-B respectively



KERATAN A-A
RUMAH TOK AISHAH, KAMPUNG BUBUR, LANGKAWI.

SKALA

Section A-A

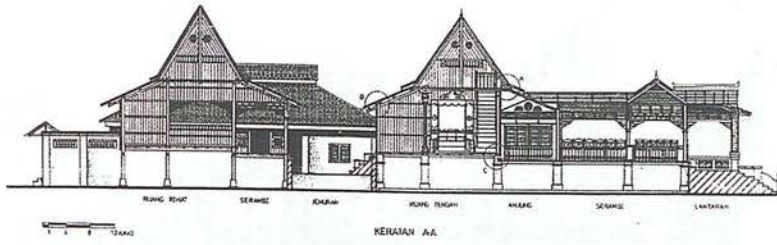
Source: KALAM, UTM Skudai's architecture department, Malaysia

Figure 7-6 Architectural drawings and details of Tok Aishah's house showing the identity of its owner

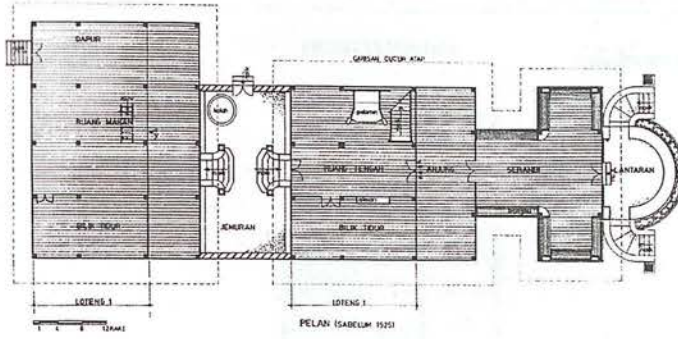
Both houses display a manifestation of the individual owner's identity (and personality) as well as the notion of boundary, i.e. the two houses, although built in the same site, using the same building materials are still different from one another, for example, in terms of the spatial organisation of the houses, and the orientation of each and the aesthetical qualities of the houses.

It is generally an accepted notion that every individual is different, one from the other. This conception is also apart of the genesis of the notion of boundary in the thesis. This section demonstrates the existence of individuality and differences among individuals, manifested in the architectural forms of the respective owners' dwellings. Boundaries or differences are innate in the nature of human existence and it must be recognised and respected. Hence, the dwelling here is indeed a manifest representation of the individual owner's personality, otherwise known as identity.

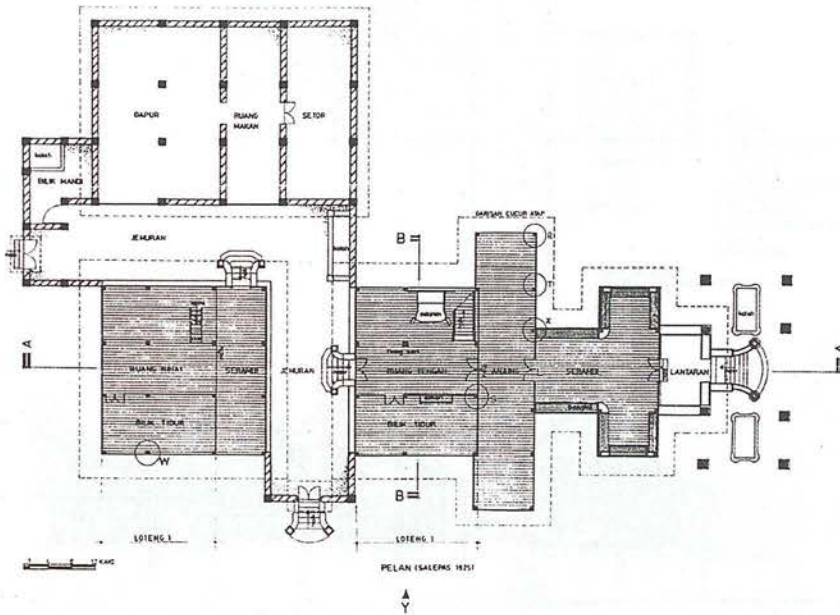
2. Penghulu (Head Chief) Mohammad Natar house, Merlimau, Melaka (Southern region)



Longitudinal Section A-A of the house after the change and addition.



The Original Plan



Change and addition to original plan

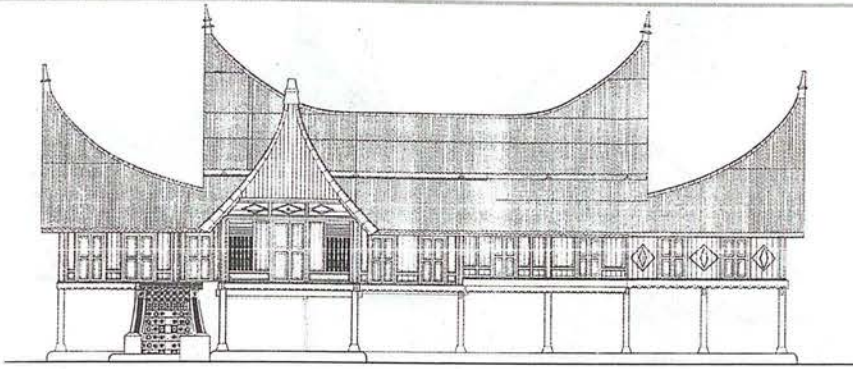


The Front Elevation after the changes and addition.

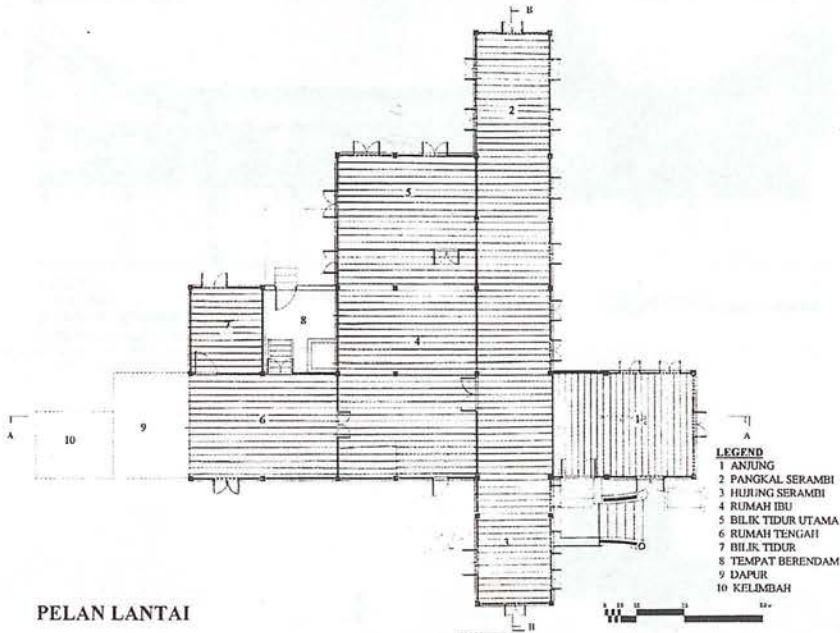
Source: KALAM, UTM Skudai's architecture department, Malaysia

Figure 7-7 Architectural drawings of Penghulu Mohammad Natar house showing regional architectural identity and the changes to the house that has occurred through time

3. Dato Haji Muda Haji Omar house, Batu Kikir, Negeri Sembilan (Central west region)

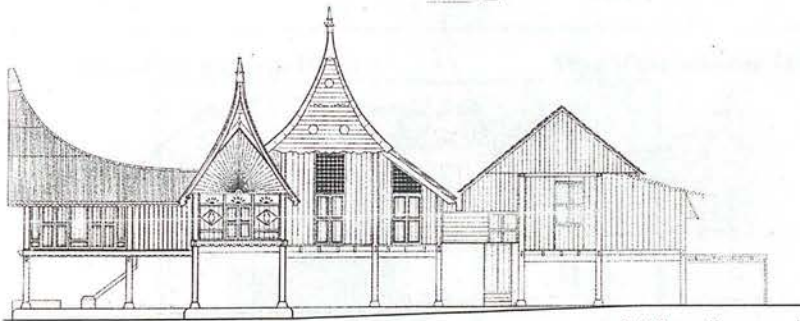


FRONT ELEVATION

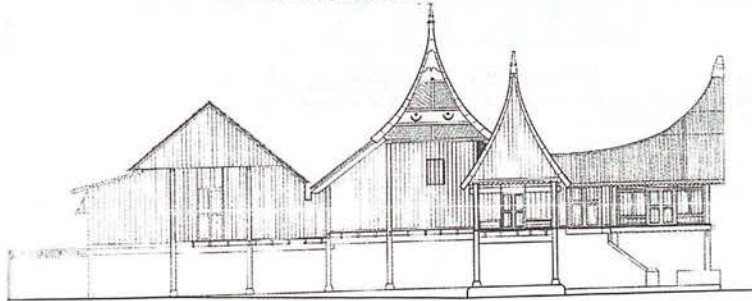


PELAN LANTAI

- LEGEND
- 1 ANJUNG
 - 2 PANGKAL SERAMBI
 - 3 Hujung SERAMBI
 - 4 RUMAH IBU
 - 5 BILIK TIDUR UTAMA
 - 6 RUMAH TENGAH
 - 7 BILIK TIDUR
 - 8 TEMPAT BERENDAM
 - 9 DAPUR
 - 10 KELIMBAH

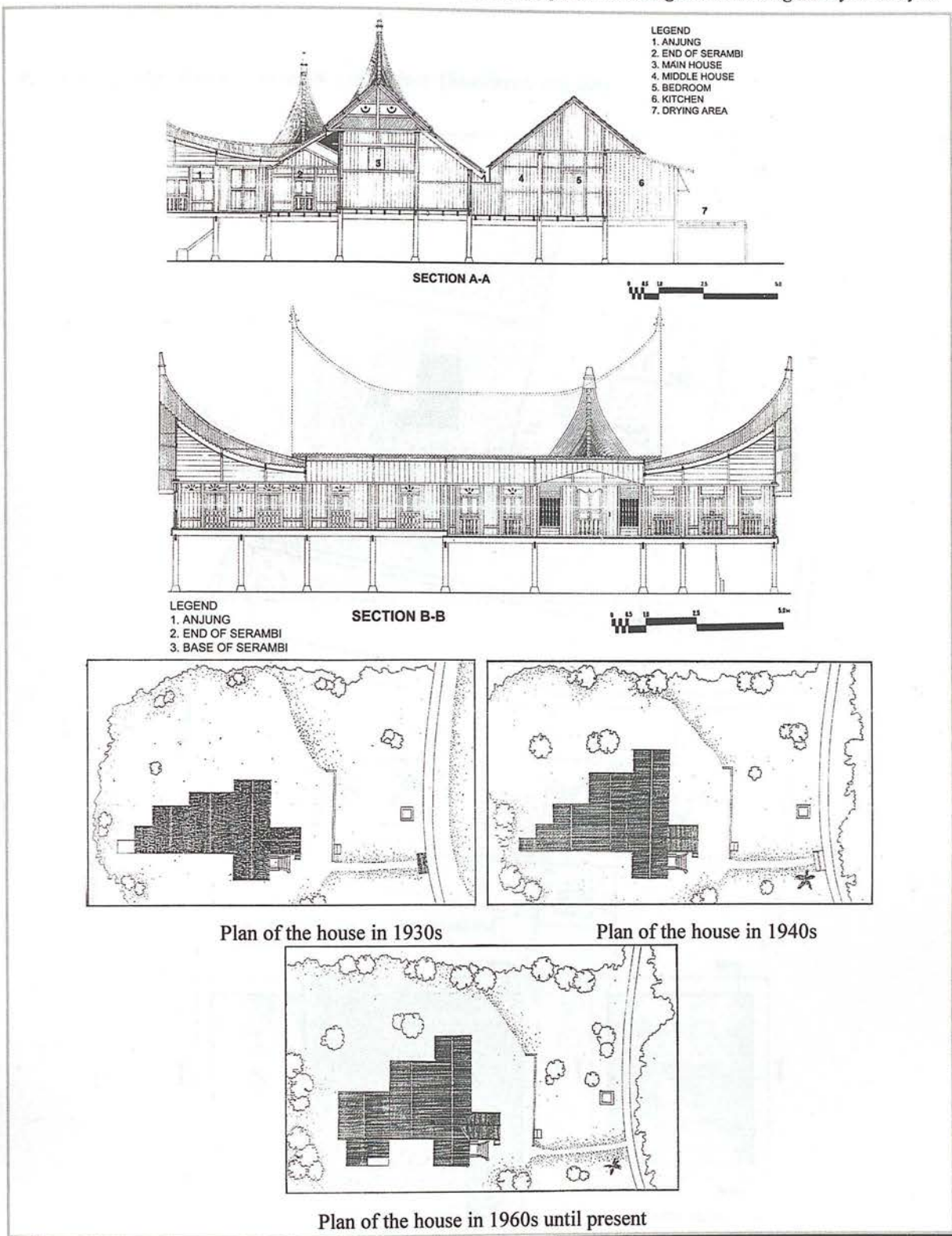


RIGHT SIDE ELEVATION



LEFT SIDE ELEVATION

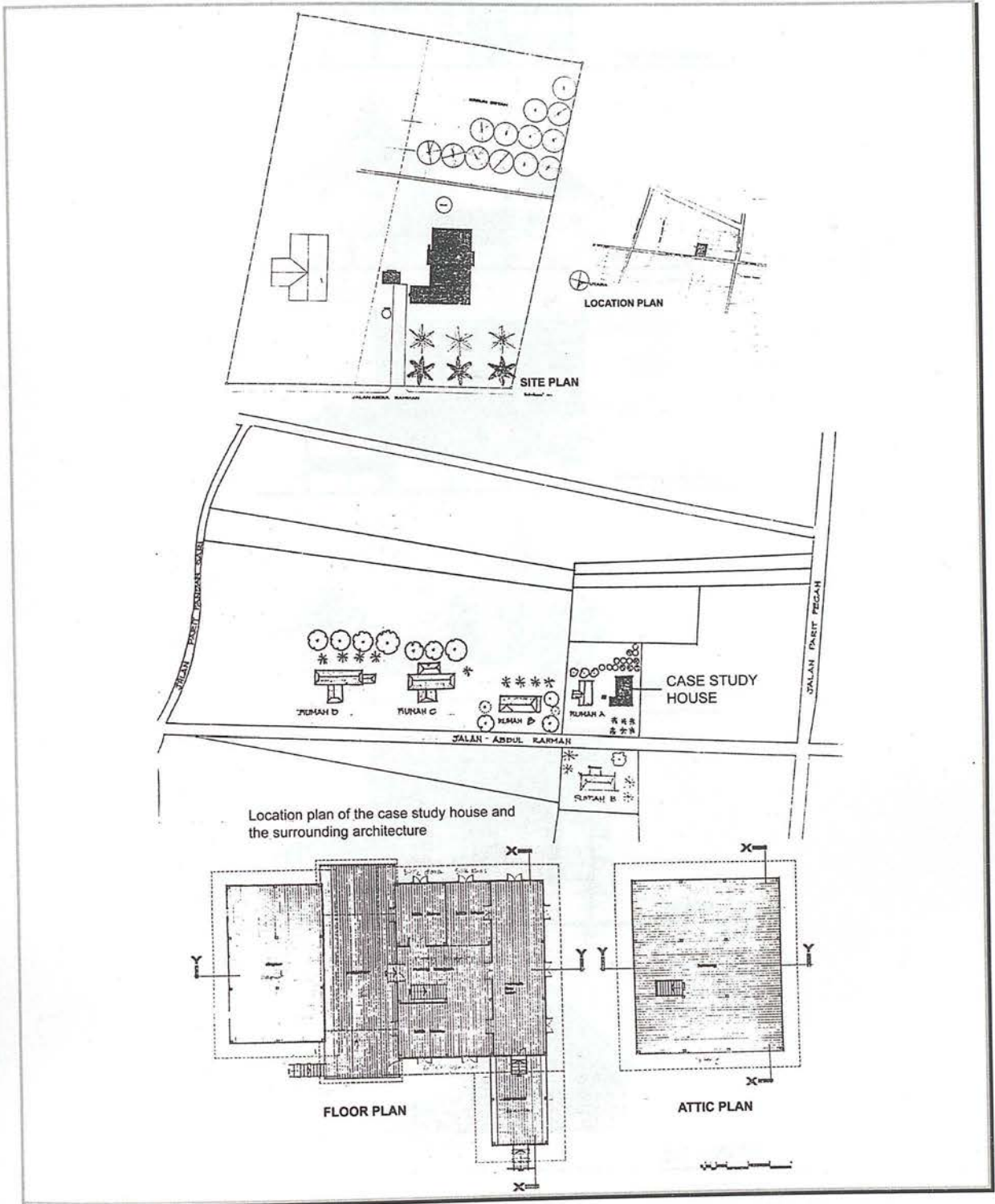


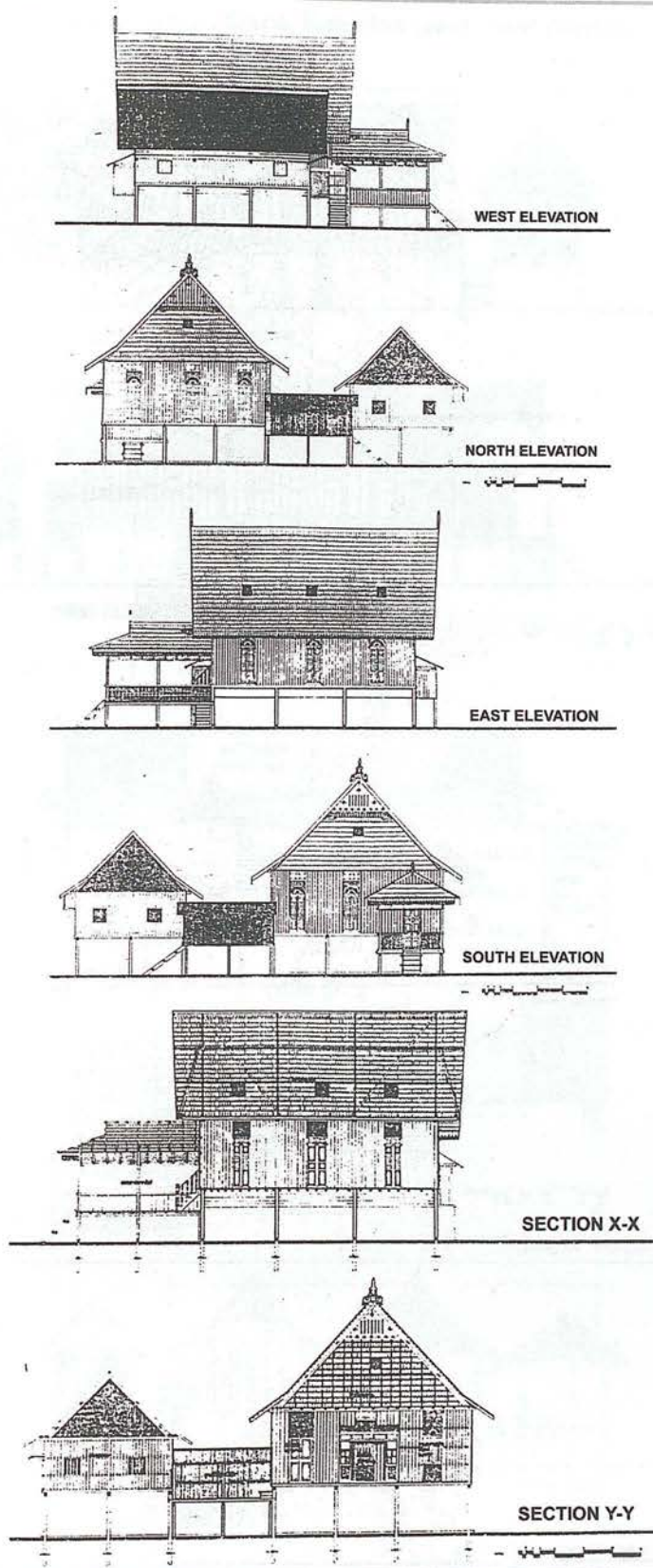


Source: KALAM, UTM Skudai's architecture department, Malaysia.

Figure 7-8 Architectural drawings and plans of Dato Haji Muda Haji Omar's house illustrating the regional identity, the changes and additions to the original plan of the house in three decades

4. Daeng Mat Diew House, Muar, Johor (Southern region)

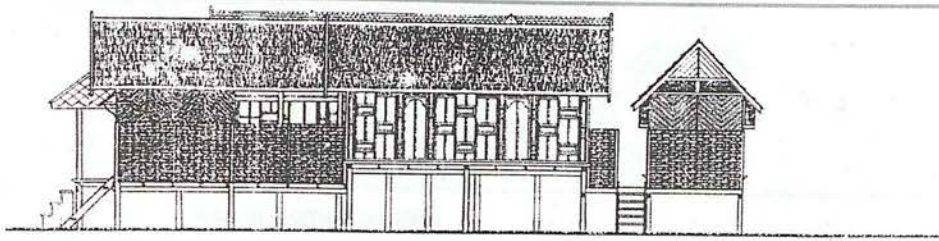




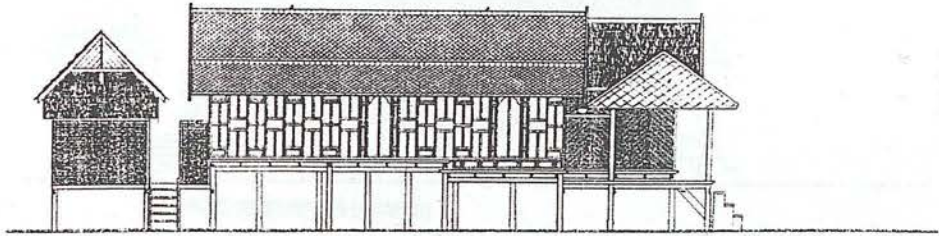
Source: KALAM, UTM Skudai's architecture department, Malaysia.

Figure 7-9 the site plan and architectural drawings of Daeng Mat Diew's house showing the identity of dwelling architecture in the southern region

5. Kampung Pulau Panjang, Kota Bharu, Kelantan (east coast region)

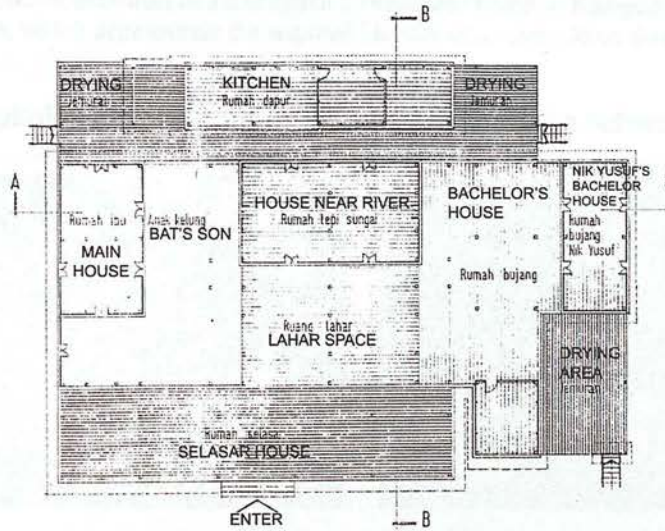


SIDE ELEVATION (NORTH)



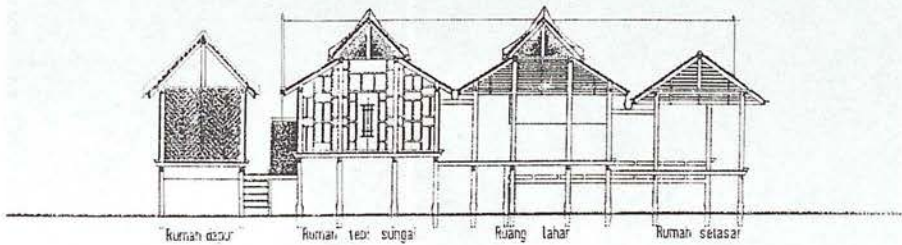
SIDE ELEVATION (SOUTH)

Sekil 0 25 5 10 15 20
kak

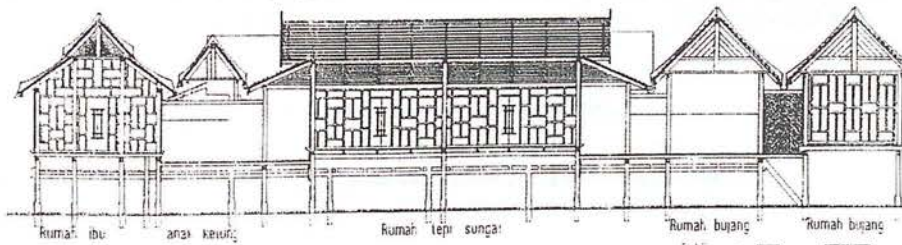


PLAN

Scale 0 25 5 10 15 20
kak



SECTION B-B



SECTION A-A

Sekil 0 25 5 10 15 20
kak



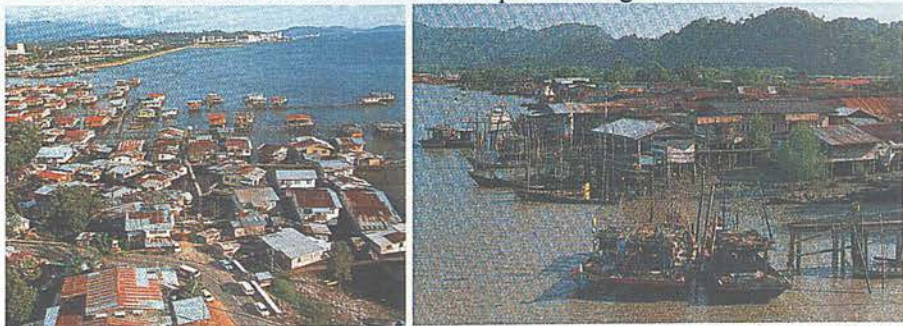
Source: KALAM, UTM Skudai's architecture department, Malaysia.

Figure 7-10 Architectural drawings of a traditional Kelantanese house in Kampung Pulau Panjang, Kota Bharu, Kelantan, which demonstrate the regional identity of its indigenous dwelling architecture

7.2.2.2 The morphological structure of indigenous dwelling settlements



The pictures above illustrate two different village settings, according to their geographical context. The former is situated inland and the latter is placed along the river or seaside.



Water villages like these can be found in many coastal settlements in both Peninsula and East Malaysia. The pictures above illustrate the water village in Kota Kinabalu, Sabah (East Malaysia) and a fishing village in Perlis, northwest of Peninsula Malaysia. As one can see, the organisation of the houses is much more compact, compared to the inland settlements.



The two contrasting settings of *kampung* living environments: Above left: in agricultural land, mainly paddy-growing areas surrounded by coconut palms and fruit trees; and above right: a scene of a fishing village at Marang, Kuala Terengganu, northeast of the peninsula Malaysia.

Source: Fee (1998), modified by the author

Figure 7-11 Pictures above demonstrate two contrasting morphological dwelling patterns in two different settings, i.e. (1) the main land and (2) the coastal side.

7.2.2.3 Manifestation of regional identity in house forms and design

The groups of photos below show variations of house forms in the Peninsula dwellings' architecture, as well as some examples of indigenous tribes' dwelling architecture in East Malaysia. These dwelling typologies are more than a century years old, and are representations of cultural adaptation, and transformation through evolutionary and historical developments.

1. North-west Region, Peninsula Malaysia



Sources: A mix of the author's records and KALAM's archive photos

Figure 7-12 Above photos illustrate variations of dwelling architecture in the north-west region from the states of Perlis and Kedah

Hilton (1992) states that the North-west region includes what may be the most ancient part of the Peninsula, i.e., the region around the Kedah Peak [*Gunung Jerai* – Jerai mountain]. It is a region exposed to the influences of Malay Patani, non-Malay Siam, and Muslim Aceh directly across the Straits. For Kedah, Zaharah (1970) names only the Lower Muda and Merbok, and the Lower Sungai Kedah as areas of traditional settlement, but the settlement has spread steadily out from these centres, taking the Kedah house's style with it (ibid: 52).



Source: Fee (1998)

Figure 7-13 The North Perak traditional house, called the Kutai House (above), here was influenced by Dutch architecture (Lim, 1987: 26; Wardi, 1981: 62-63) due to its contrasting difference from the typically gamble-roofed *rumah Perak* (Perak house).

Historically, local Malay farmers established traditional indigenous houses in this region. Hence, the dwelling architecture has been referred to as peasant architecture. Before the arrival of Islam as the society's main religion, the dwelling architecture, Malay society's ways of living and worldviews were mainly influenced by either their animistic beliefs or the Hindu-Buddhist religion. However, once the society accepted Islam, Malay ways of living and the dwelling architecture were adapted to the new religious principles and guidance. The following are examples of traditional indigenous Malay dwellings found in this region:

Tok Piah's House (*Rumah Tok Piah*), Perlis.

Tok Piah's house is a typical example of an ordinary peasant dwelling architecture in the north-west region. More than a hundred years old, the house still stands (although dilapidated) with its original patterned woven (*pelupuh*, or some people call it *kelarai*) walls.



The front views of the house, with the garden



Perspectives from the back of the house compound





The views of the entrance porch and details of its roof structure



Details at the corner of the barge board below the roof.



The void ground space below the house is used as a car porch, a resting place and clothes' drying area



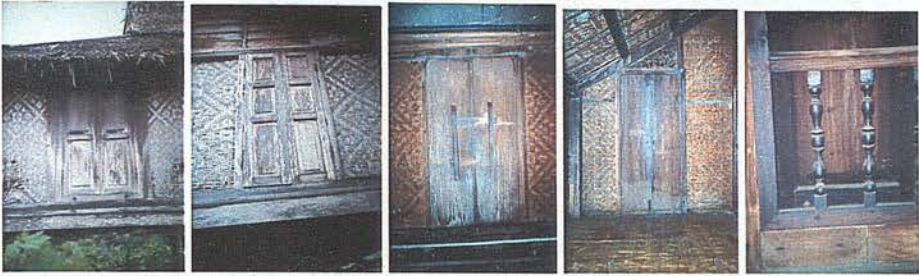
The interior living spaces: evidently, the only space still being used here is the living room (above left), while the other interior living spaces seem to have been left abandoned



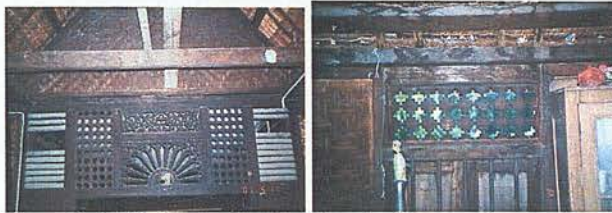
Roof and walls' connection: same materials are used for both, but the walls are woven into patterns.



It is typical for a Malay house to have two entrances via the staircase, but this simple peasant house has also adopted a traditional Malaccan stone staircase (without the tiles) for its second entrance, adorned merely by the potted plants.



Openings: the pictures above illustrate views of the doors and windows from the outside and inside. The last picture (above right) is called 'kekisi', which is put in the middle of the full height window opening, as a border to scale down the size of the opening, simultaneously letting maximum air ventilation passing through the house.



The air ventilators are designed to let the house 'breathe', i.e. to allow maximum air ventilation through the house

Source: KALAM's Malay dwelling architecture photo archive

Figure 7-14 various images of Tok Piah's house showing its built form, materials used, architectural design elements

Kampung Tok Senik Resort, Langkawi Island, Kedah.

Kampung Tok Senik Resort is a useful source, which showcases a variety of house form design examples, from various places of the northern region in one area as tourist attraction sites.



Welcome sign of the Kampong Tok Senik Resort, Langkawi island, which displays an array of traditional Malay houses in the northern region of the Peninsula, rebuilt as resort houses for tourism purposes.



The pictures above show examples of the variety of house forms in different settings.



A front approach to a replica of a traditional Malay house situated next to a paddy field. Above left: the main entrance of the house is at the side, as indicated by the staircase and the water pitcher.



Rumah Tok Chik (Tok Chik's House), Rumah Tukang Kayu (Carpenter's house), and the Penghulu's (Head Chief) house.

Source: Author

Figure 7-15..A display of variations of indigenous Malay house forms collected from many places in the states of Kedah (north-west region) and assembled here at Tok SenikResort, as a tourist attraction.

2. Central-west Region, Peninsula Malaysia



Source: KALAM's Malay dwelling architecture photo archive

Figure 7-16 The Central West region's dwelling architectures: The Negeri Sembilan's Minangkabau influenced houses.

The following are examples of traditional indigenous Malay house typologies found in this region:

Haji Kulup Derais's House in Perak, Central West region, Peninsula



Owner: Haji Kulup Derais



The front elevation of the house and a close-up of the front entrance staircase.



Approach towards the house, which faces the main road, the front view and the longitudinal perspective view of the house.



Above and middle: back perspectives of the house

Side entrance staircase



The main entrance porch ('anjung') from exterior, and its view from the inside, with lots of openings so as to allow maximum ventilation to pass through the house, that will cool the entire rooms. This demonstrates how much importance is being put into the traditional design's response to the environment, particularly, the climactic as well as cultural conditions.



The interior spaces of the house are open and spacious, which allow for many social, religious and cultural activities to occur.



Materials used for the construction of the traditional Malay house also embody the status of its owner. In the case of this house, the owner is very privileged to be able to afford square masonry columns for his house.



Garden features of the house.



Above: details of the air ventilators below the roof.

Source: KALAM's Malay dwelling architecture photo archive
 Figure 7-17.. Various perspectives of the dwelling form, design elements, materials, external and interior spaces of Haji Kulup Derai's house.

3. Southern Region, Peninsula Malaysia



Figure 7-18 The dwelling architectures of southern region found in the states of Melaka and Johor. Source: Fee (1998)

The traditional Melaka (also known as, Malaccan) house

The Melaka house is a popular example of a cultural fusion of two cultures, that is, Malay and Chinese architecture. The Chinese architectural influence that has been adopted into the Melaka house includes the use of decorated or coloured tiles for the entrance staircase and a middle open courtyard, dividing the front and back spaces of the house. The staircase has a very appealing design and welcoming shape, and is a good place for chatting and resting. It also acts as a transitional space between inside and outside. The courtyard acts as a huge air well (cross air ventilation) for the Melaka house, which has a similar function for the open central courtyard of a traditional Chinese house.



Source: Author

Figure 7-19 A traditional Melaka house

Rumah Orang Kaya Taha, Alor Gajah, Melaka



The owner of the house: 'Orang Kaya' (rich man) Taha, and his wife



Front perspectives of the house



Views of the house from various angles



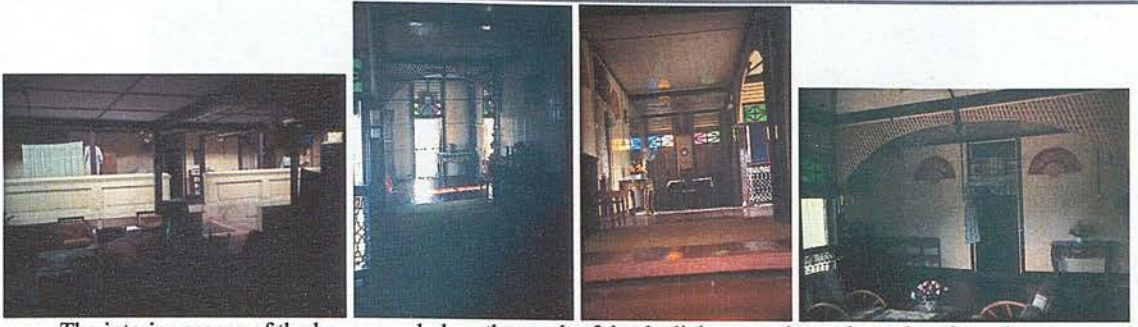
The perspectives of the 'Anjung' or entrance porch of the house and its view from the interior



The tiled stone staircases are trademarks of the traditional Malaccan houses.



The huge air well space is favoured because it is the space that provides a very cooling and refreshing environment since air is able to flow right through it. The space is also energy and cost-efficient that it minimises the use of air conditioning and provides natural lighting without cost.



The interior spaces of the house are dark as the result of the daylight control to reduce glare from the sun.



A typical traditional Malay house built on columns, where the floors are raised above the ground as a response to the environment – climate and other circumstances. In addition, the space left beneath the house can be used in many ways, either as a storage, or resting, or for today's circumstances, as a car park.



Motifs and decorations indicate the identity of the owner of the house. In this case, it is obvious that the owner of this house is a Malay from the floral motifs, both on the external and interior doors, as well as the symmetrical geometrical patterns on the railings.

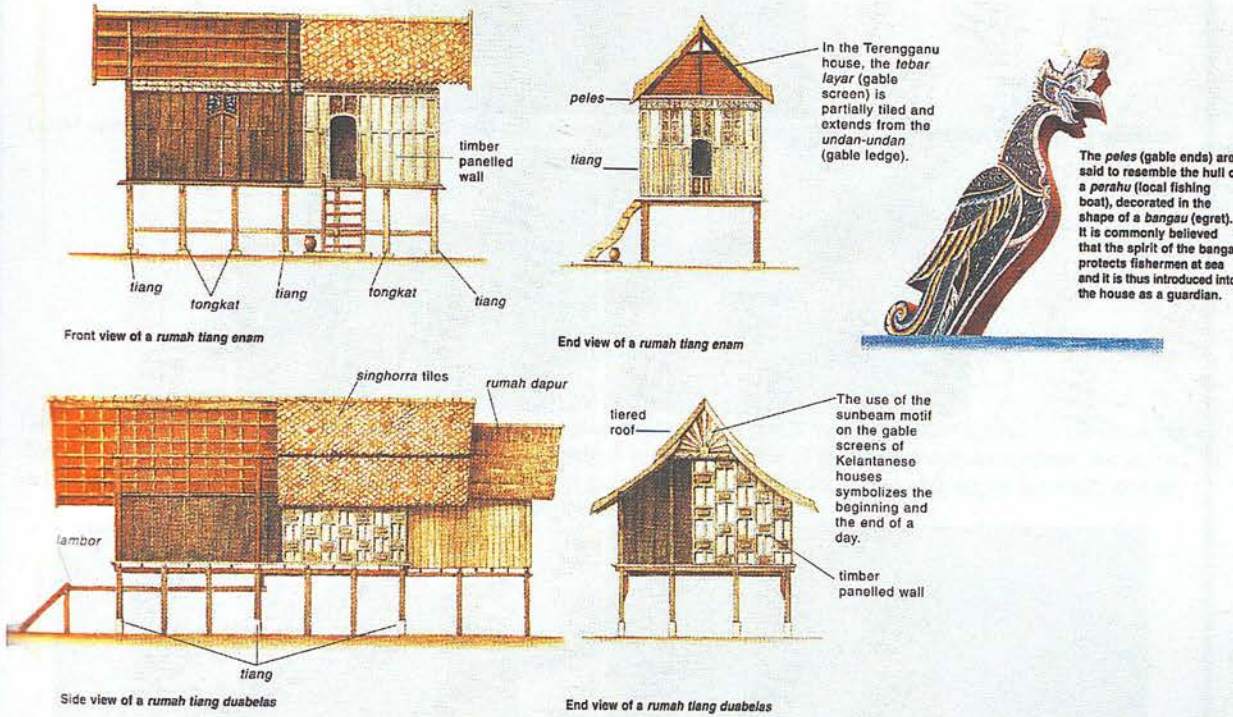
Source: KALAM, Malay dwelling architecture photo archive

Figure 7-20 An example of a traditional Melaka house with its architectural features, including a middle open space courtyard, dividing the front and back spaces, an influence from the Chinese dwelling architecture

4. East-Coast Region, Peninsula Malaysia



Figure 7-21 Examples of centuries old indigenous dwelling architecture from the states of Kelantan and Terengganu.



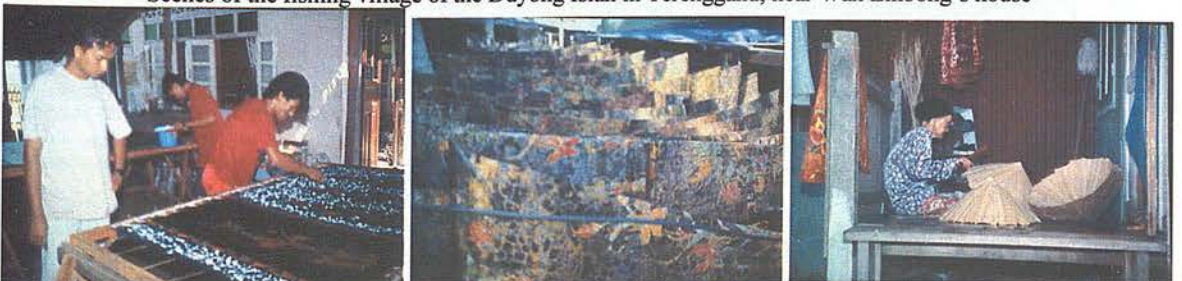
Source: Fee (1998)

Figure 7-22 Above: photos show architectural illustrations of an indigenous dwelling in Terengganu.

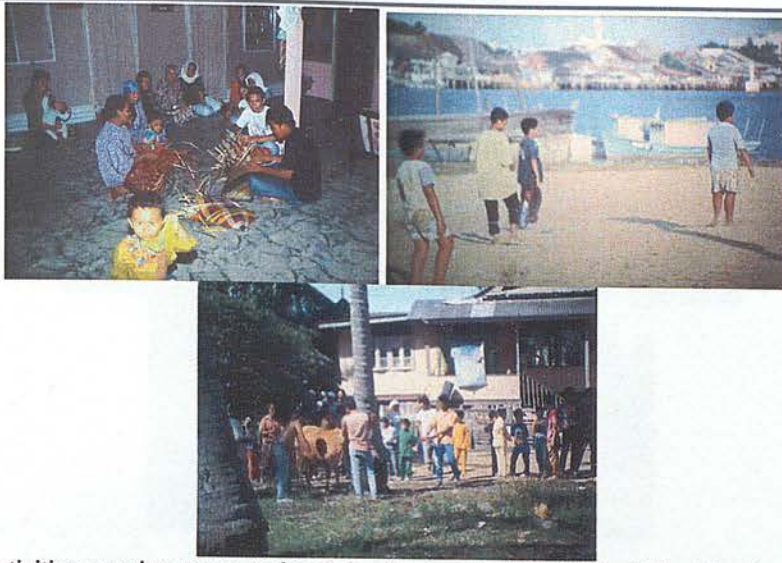
Wan Embong House in Duyong Island, Terengganu, in the eastcoast of the Peninsula.



Scenes of the fishing village of the Duyong Islan in Terengganu, near Wan Embong's house



Besides fishing activities, the locals main occupations include the 'Batik' industry, and weaving artworks.



Local communal activities: weaving, sports, and cow slaughtering events during the Eid celebration in the Hajj seasons.



This centuries old house of Wan Embong in Terengganu is an example of a surviving timber-built house, which chose the Cengal type to create the components of the house, and which includes the leaf of the door, the archway door, the *kekisi* (a line of vertical panels placed in between the opening of the window), the *tebar layar*, the *sisir angin*, the walls and the *tunjuk langit* (Said, et al, 2002).



The exterior perspective of the front entrance porch and its interior perspective, i.e. the *serambi*, or guest reception area.

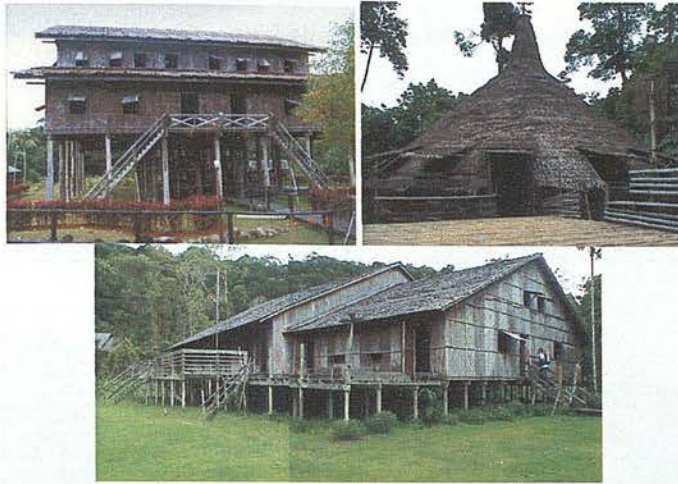


Interior perspectives of the space, which indicate the volume, spaciousness and response towards the climactic needs for maximum ventilation and natural lighting, as well as control of daylight's brightness in the interior spaces.

Source: KALAM's Malay dwelling architecture photo archive.

Figure 7-23 This centuries old house is an example of an indigenous dwelling architecture set close to the coastal line of a fishing village in Terengganu

5. Bintulu Division, Sarawak, East Malaysia



Source: Author.

Figure 7-24 The indigenous housing typologies in Sarawak, East Malaysia: the Melanau house, the Bidayuh house and the Iban longhouse at the Sarawak Cultural Village, as recorded by the author.

7.2.2.4 Summary of Regional Differences

This section demonstrates a series of documentary samples centuries old indigenous dwelling typologies in and the Peninsula and the East Malaysia. These images also illustrate the existence of boundaries among the different regional cultural and environmental contexts.

7.2.3 The Regional Similarities

This section traces the regional architectural similarities of indigenous Malaysian architecture with neighbouring countries that are believed to be the origin of indigenous Malaysian architectural influences. Figure 7-25 below illustrates some examples of such similarities, in terms of the indigenous dwelling forms:

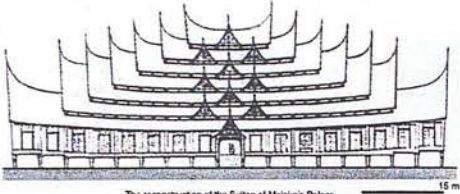





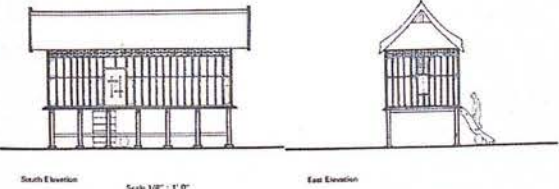

MALAYSIA	NEIGHBOURING COUNTRY
 <p>The reconstruction of the Sultan of Melaka's Palace. Source: Ariffin (2001), adapted from Sherwin, 1981: 104.</p>	 <p>The Minangkabau Royal Palace of Pagarruyong, Indonesia, recently rebuilt as a museum. Source: Waterson: 1997.</p>
 <p>A surviving Minangkabau style house in the state of Negeri Sembilan, Malaysia. Source: the internet</p>	 <p>A typical Minangkabau house in the village of Kampal near PayaKumbuh, West Sumatera. Source: Waterson, 1997.</p>
 <p>The Kelantan house (Northeast coast, Malaysia) Source: Fee (1998)</p>	 <p>The Thai house (Thailand) Source: Fee (1998)</p>
 <p>The Terengganu House (Northeast coast, Malaysia) Source: Yahya (1995)</p>	 <p>The Cambodian House (Cambodia) Source: Fee (1998)</p>

Figure 7-25 Similarities in house forms between indigenous dwellings in Malaysia and the neighbouring countries

7.2.3.1 Summary of the regional similarities

The similarities displayed by the dwelling typologies above can be found in the physical outlook of the dwellings, which then adapt to the contexts of the local culture, climate and the surrounding environment. For example, the elevated houses, the openings, general roof shape, the general concept of spatial organisation, openness and privacy; the choice of building materials, elements, and the functions of spaces. The similarities also display that the manifestation of the cultural meanings and symbolism in these indigenous dwelling typologies are influenced by one region to another throughout the course of historical and evolutionary process.

7.3 The Analysis

7.3.1 Introduction

The analysis attempts to elucidate the thesis hypothesis or proposal that the model for housing in Malaysia should be based on the indigenous characteristics described in Chapter Four that is, based on cultural meanings and a cosmological understanding of the local cultural society and its contextual requirements.

7.3.2 Manifestation of Relationship: Nature, Humans and the Living Environment

7.3.2.1 Nature, man, cosmic views and man's abode

This section attempts to elucidate the existence of the interactive relationship among man, nature, the cosmic view and his abode, according to the indigenous worldviews, religion, beliefs and traditions. The section focuses on two sub-topics: (1): the "concept of unity" in the architectural elements of the indigenous dwellings; and (2): decision-making factors that influence site choice when building an indigenous house.

7.3.2.2 The "Concept of Unity" in the indigenous dwelling

The concept of unity in the architectural design of the indigenous Malay house mainly refers to the unity concept of Allah (Muslim's God) and His Divine Essence. As an exemplary representation of the general concept of unity in all traditional (indigenous) Malay houses, the thesis adopts Jasmon's (1983) case study approach in his dissertation to the traditional Malay houses in the state of Johor, which is in the southern-most region in the Peninsula. The following figure illustrates the concept of unity, based on the Divinity Concept of Allah's essence, as adopted from Jasmon (1983: 1-2):

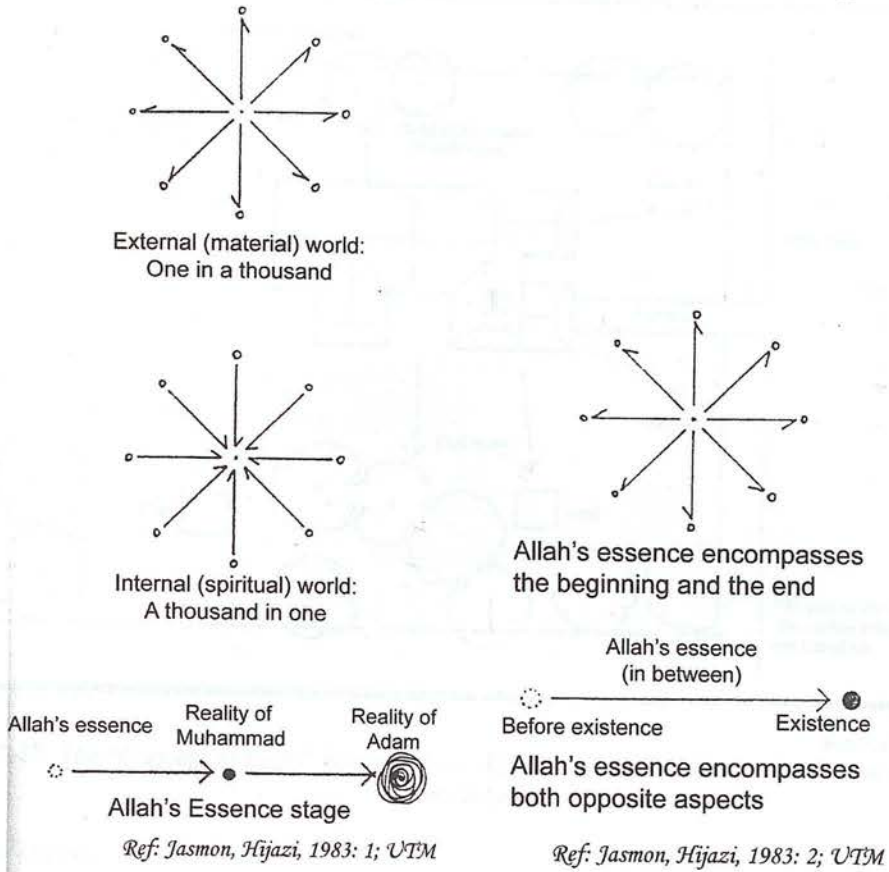


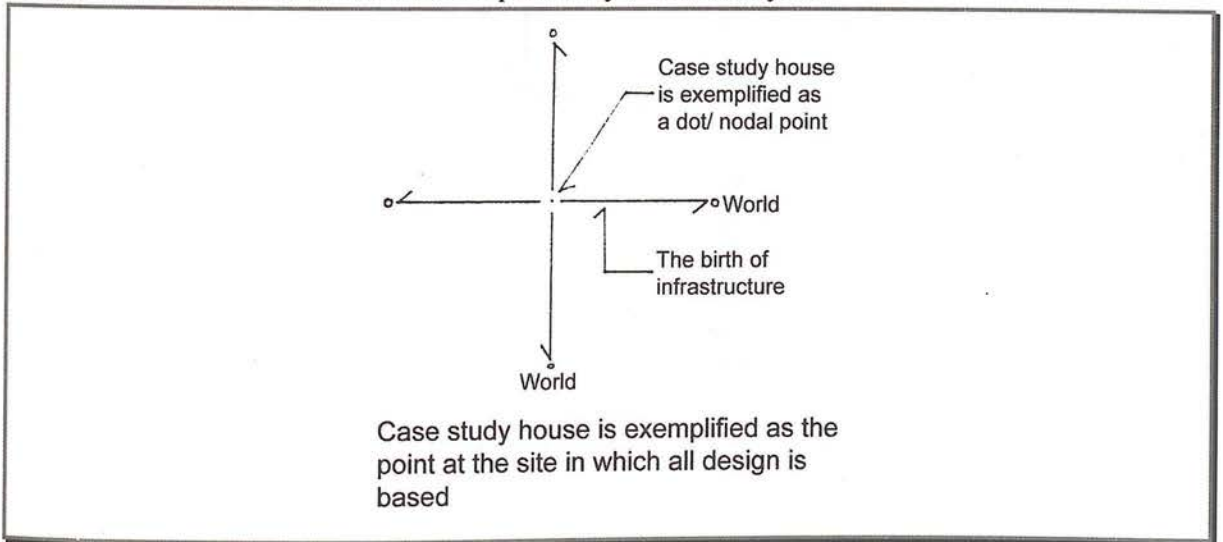
Figure 7-26 The concept of unity based on the Divinity Concept of Allah's essence Source: Jasmon (1983)

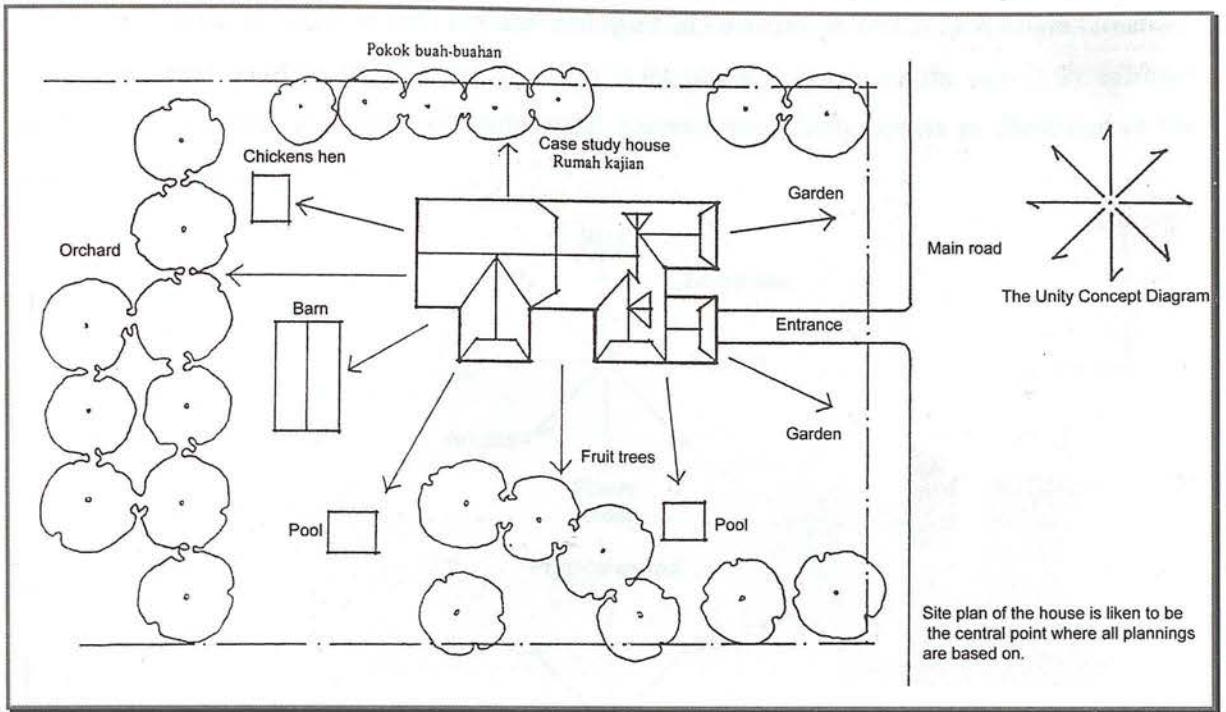
The following diagrams elucidate the existence of the concept of unity as mentioned by Jasmon (1983) in terms of the site layout principles, the design of the case-study house (as studied by Jasmon), as well as the architectural design elements of the house:

The "Concept of Unity" in the site layout

Source: Jasmon (1983)

Figure 7-27 below illustrates the concept of unity in the site layout:



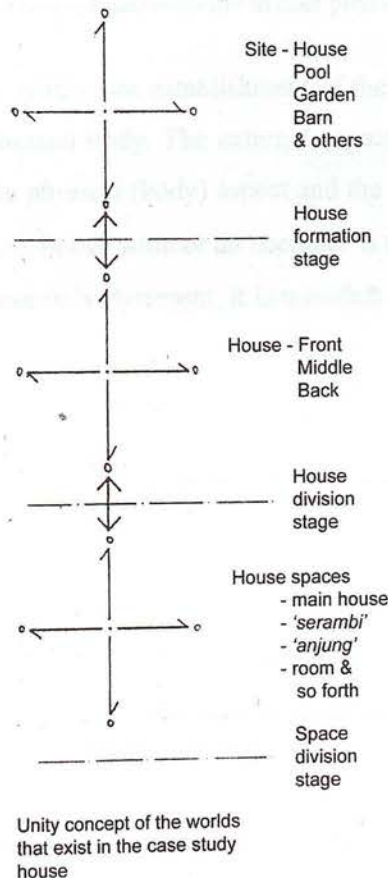


Source: Jasmon (1983)

Figure 7-27 The "Concept of Unity" illustrated in a diagram as the focal point for the site layout and orientation.

The design aspect

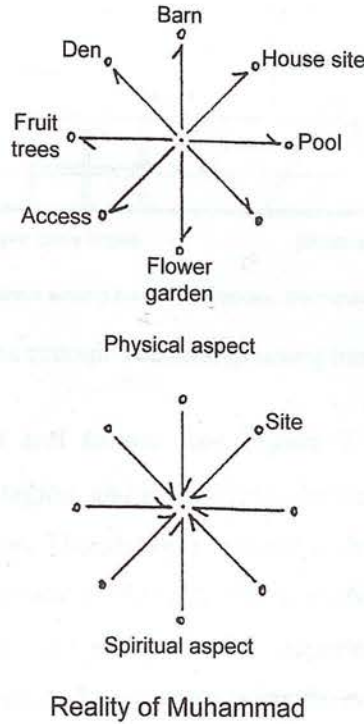
The case-study house, in general, is the microcosm (small world). Within it contains a much broader world as illustrated in Figure 7-28 below:



Source: Jasmon (1983)

Figure 7-28 Diagram above illustrates the Unity Concept of the microcosmic worlds that exist in the case study house

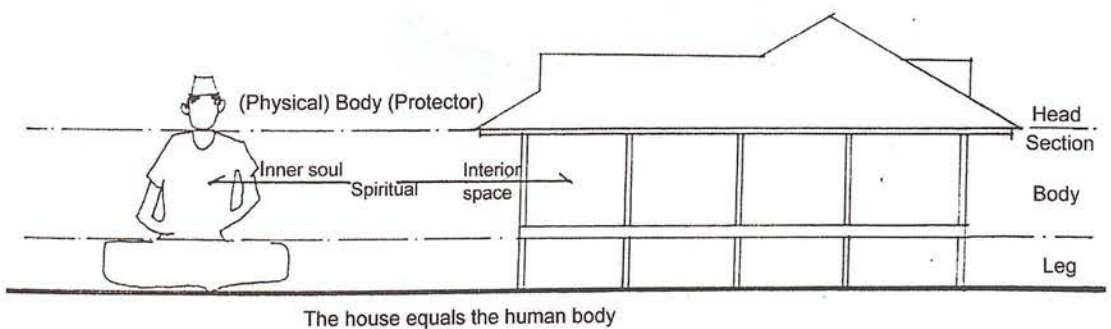
The house design is based on both physical and spiritual concepts, in which each origin (creation) is the consolidation of the two aspects. The body is the physical aspect and the soul is the spiritual aspect. Life becomes the reality of Muhammad, encompassing both aspects as illustrated in the Figure 7-29 below:



Source: Jasmon (1983)

Figure 7-29 Concept of unity, illustrating life in both physical and spiritual aspects

Jasmon (1983: 21) asserts that in reality, the establishment of the case-study house can be viewed as taking the same form as the human body. The external aspect of the case-study house and the human body can be said to be the physical (body) aspect and the interior space, the spiritual (soul) aspect (see Figure 7-30 below). A house without an occupier is considered to be lifeless and so is a human without a soul. From Jasmon's statement, it is manifest that a human can be described as the life of a house.



Source: Jasmon (1983)

Figure 7-30 Relationship among human's inner soul, the house, and the human's physical body.

The indigenous Malay house can be divided into three parts: the leg, the body and the head like the division of a human body, as illustrated in Figure 7-30 above. From the previous explanation, one

can decipher that the house symbolically is the expressions of the home designer/ architect himself. A house is the manifestation of a protrusion and the externalisation of the designer's soul in the form of wood (Jasmon, 1983: 21).

The platform concept

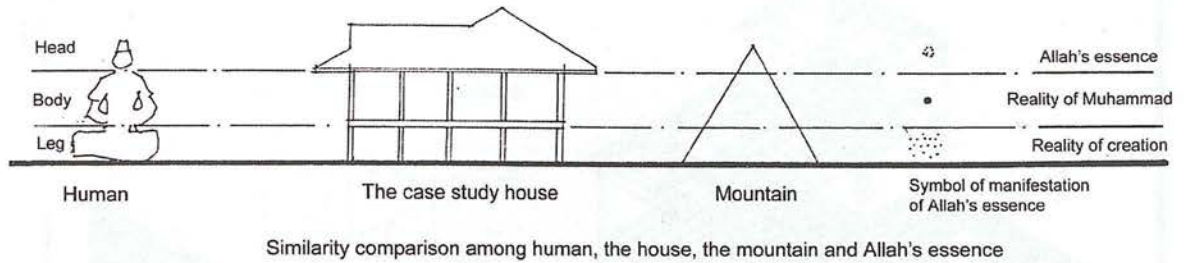
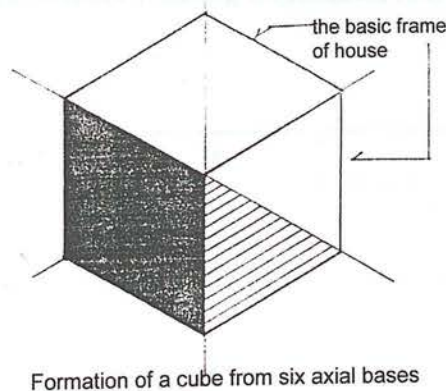


Figure 7-31 the platform concept: relationship among man, the house and nature

In general, the platform concept and its use (see Figure 7-31 above) are applicable to all traditional Malay houses in every region, and in this particular case-study, the concept is applied in the Johor's traditional Malay house. The platform concept is defined as the position of the floor that is raised above the ground. Jasmon (1983: 22), mentions that the height of the floor for each internal space sometimes differs, according to the importance of the space. From these characteristics of the Johor's case-study house, there exists the concept of "the crown", originating from a spiritual concept, and is symbolically represented as "the mountain". The mountain, the house and the crown are divided into three parts as illustrated in Figure 7-31 above. (ibid). Jasmon further adds that the mountain provides a meaning for the word "Meru", as an expression of the Holy Kingdom of Allah's Heaven. The Kingdom of Heaven is the genesis of "Muhammad's Light" (*Nur Muhammad*) himself, in which it is portrayed that Muhammad's light is always in unity (ibid: 22).

The "Concept of Unity" in the structural design and material

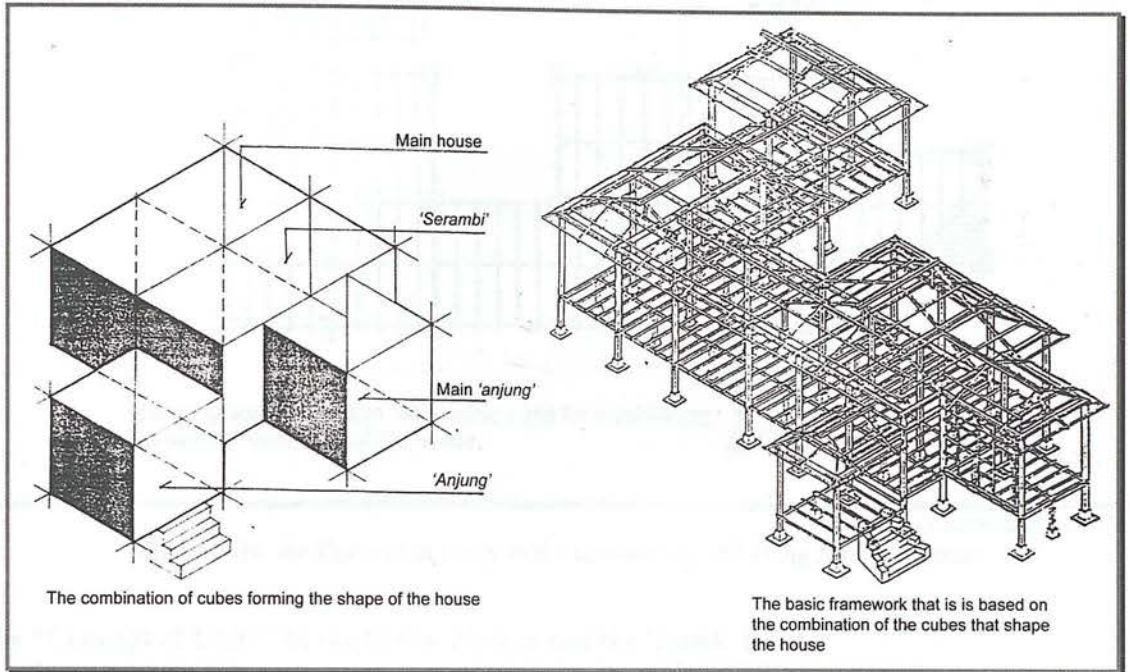


Source: Jasmon (1983)

Figure 7-32 According to the concept of unity, the design creation of a house is based on six axial bases

Jasmon (1983: 29) describes that the design of the indigenous house construction covers the framework and order. The framework aspect emphasises the symmetrical and geometrical equation calculation principles in establishing the stability and perfection of the house. The calculation

principle is based on the 'order' of the frame in each creation. Each creation is shaped, based on six axes, as shown in Figure 7-32 above (ibid). The case study house in Johor is composed of a combination of cubes in which the frames are sketched on top of the six axes, as illustrated in Figure 7-33 below:



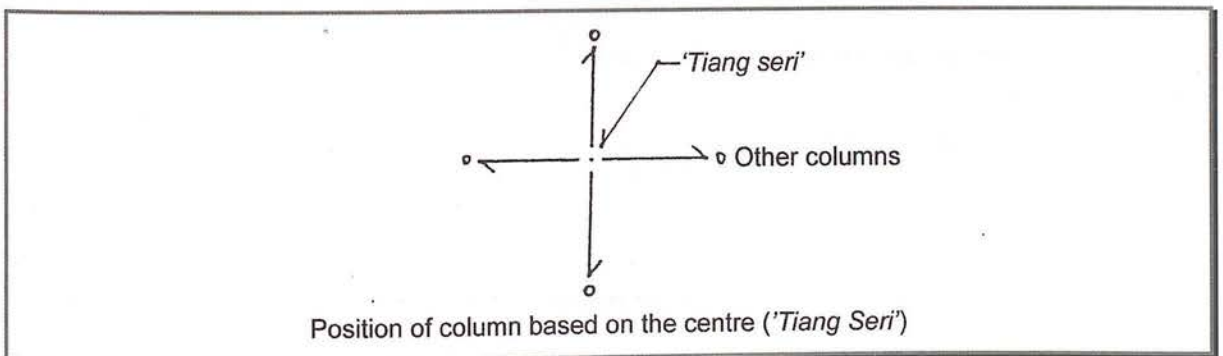
Source: Jasmon (1983)

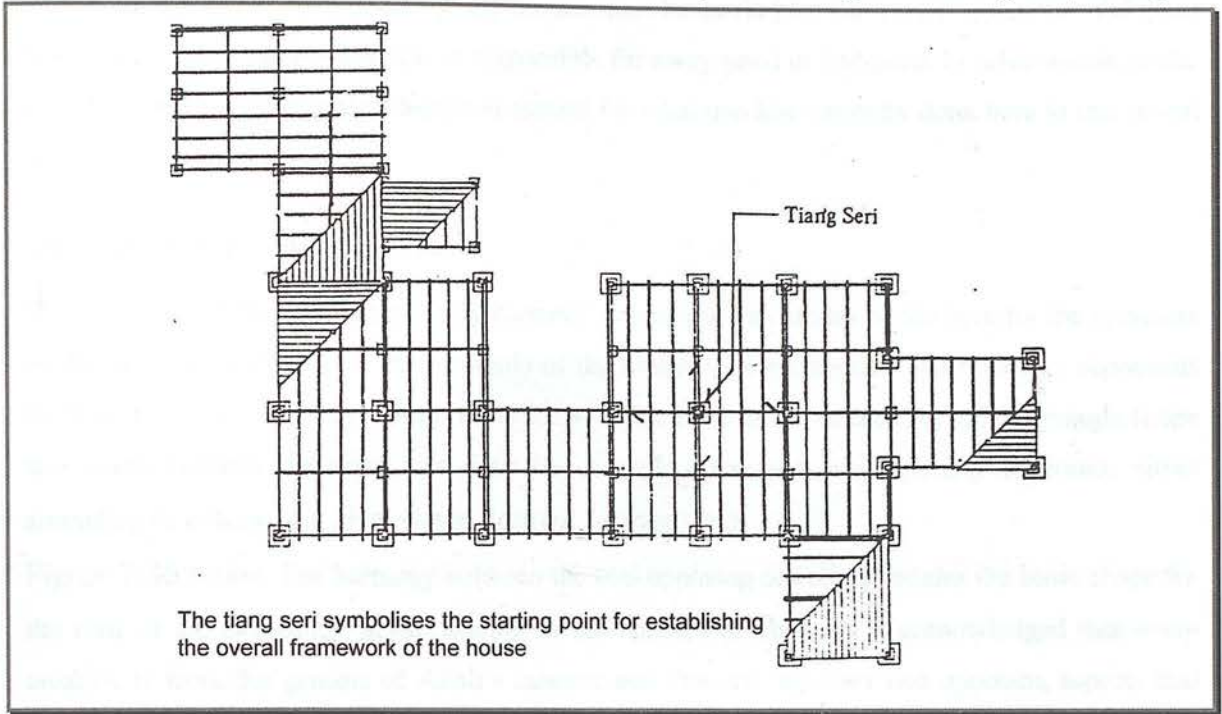
Figure 7-33 Above left: combination of cubes forming the shape of the house and above right: the basic framework as a result of the combination of the cubes.

The “Concept of Unity” in the construction of the ‘Tiang seri’ (first column erected on the site of the house)

The ‘*tiang seri*’ of the traditional Malay house is the primary post/column that is constructed at main house before any other columns. It acts as a starting point for the whole structure of the case study house (Jasmon, 1983: 33). This symbolic meaning is illustrated in Source: Jasmon (1983)

Figure 7-34 below:



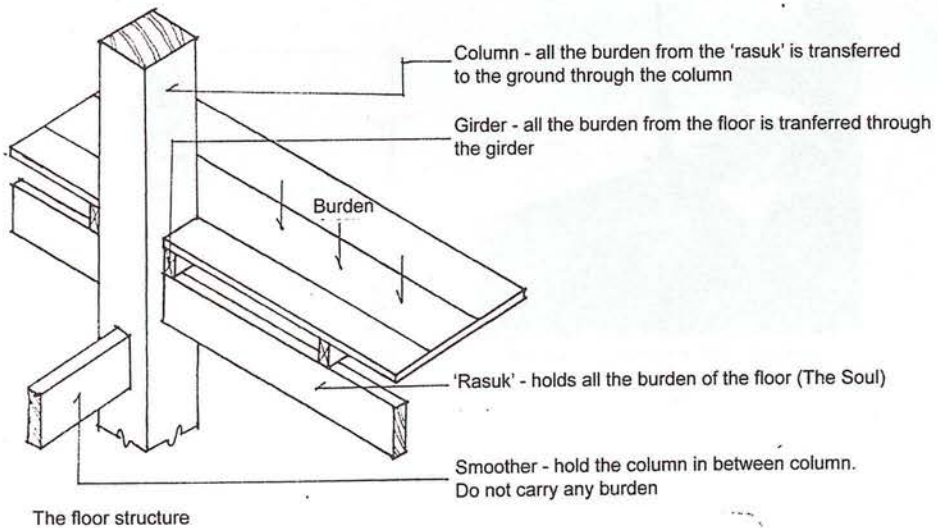


Source: Jasmon (1983)

Figure 7-34 the Concept of Unity in the construction of 'Tiang Seri' of a house

The “Concept of Unity” in the floors, girders and the ‘rasuk’ (joists)

Symbolically, the floor is metaphorically viewed as the world in which the microcosm⁹⁴ is based. It is acknowledged that things in the house exist because of the existence of the floor. This is symbolically similar to our own actions because of the existence of the base for the heart/mind (Jasmon, 1983: 31). The floor is raised above the ground so as to reflect a deep respect for the ‘crown’ concept of an elevated house as a symbol of the nobility of the place (ibid).



Source: Jasmon (1983)

Figure 7-35 The “Concept of Unity” in the floors, girders and joists as illustrated in the diagram above

The floor structure is strengthened by the ‘rasuk’ (joist), the receiver, and the girders from below. The joist is the part that carries all the burden of the house. Therefore, the joist is a parable for the

⁹⁴ Microcosm here is the small world that is referred to the case study house, i.e. the indigenous Malay house in the state of Johor, Peninsula Malaysia (Jasmon, 1983: 21).

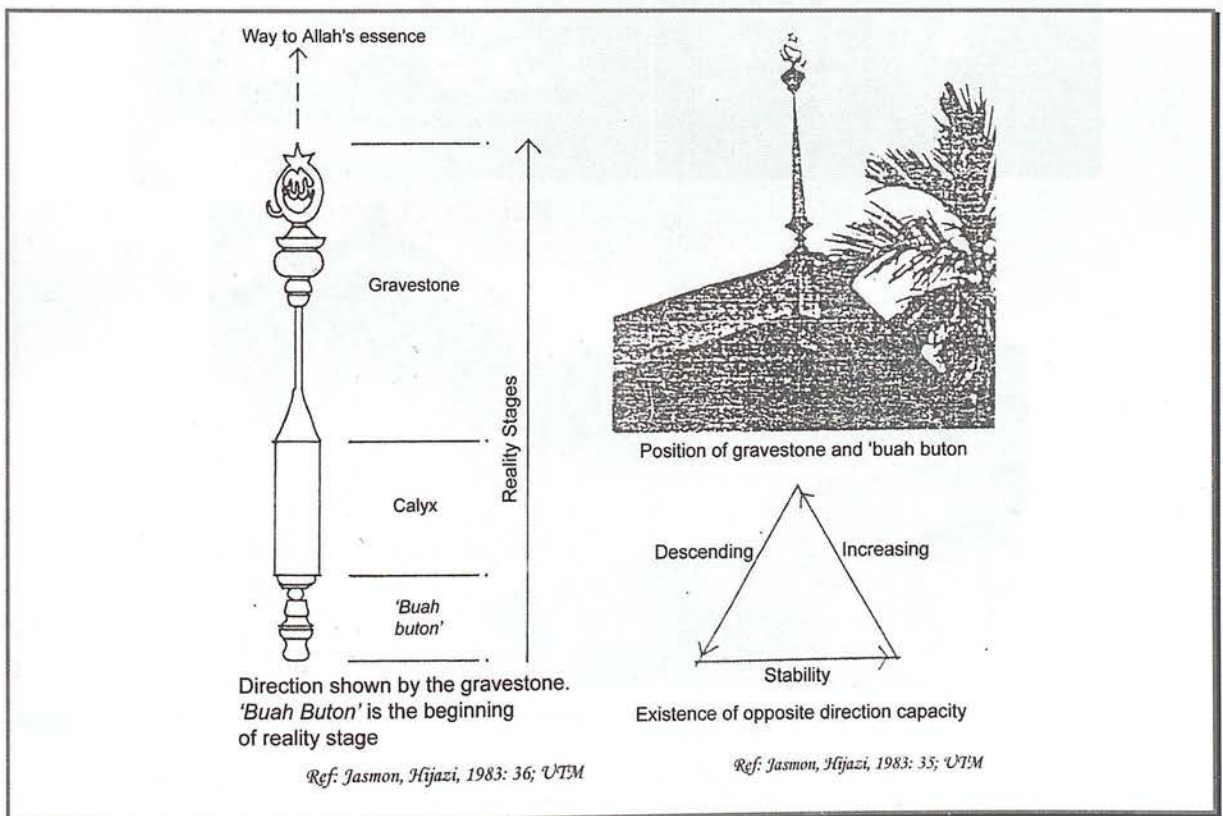
human soul, whether light or heavy, the burden must be carried by the 'rasuk' (joist) i.e., the soul. Similarly, it is the human soul that is responsible for every good or bad deed. In other words, in the hereafter, one would receive a balanced reward for what one has currently done here in this world (ibid: 31).

The "Concept of Unity" in the roof

The formation of the roof is caused by humans' expression that abides by the love for the creations of the universe. The upright characteristic of the roof reaching the skies, symbolically, represents the journey towards Divinity (Jasmon, 1983: 35). The basic shape of the roof is in a triangle shape that points towards the skies, and from this triangle, there are two opposing directions, either ascending or descending, as shown in Source: Jasmon (1983)

Figure 7-36 below. The harmony between the two opposing directions creates the basic shape for the roof of the case-study house leading to the concept of unity. It is acknowledged that every creation is from the genesis of Allah's essence and that encompasses two opposing aspects that emphasise the unity concept. (Ibid: 35-36).

The gravestone symbolically reminds men of the hereafter, and the fact that life in this world is temporary. The grave of the house is symbolised by the gravestone. 'Buah buton' portrays the 'level of reality" and is connected with the gravestone, whereas the empty space i.e. the skies above the roof, symbolises "Allah's essence" that cannot be described or shown as the direction's destination (see Figure 7-36 below) [Jasmon, 1983: 35).



Source: Jasmon (1983)

Figure 7-36 Above left: Diagram showing the positions of the gravestone and the 'buah buton', bottom right: A diagram showing the triangle shape that points towards the skies, in which from this triangle, there are two opposing directions that is either ascending or descending.

The “Concept of Unity” in natural lighting

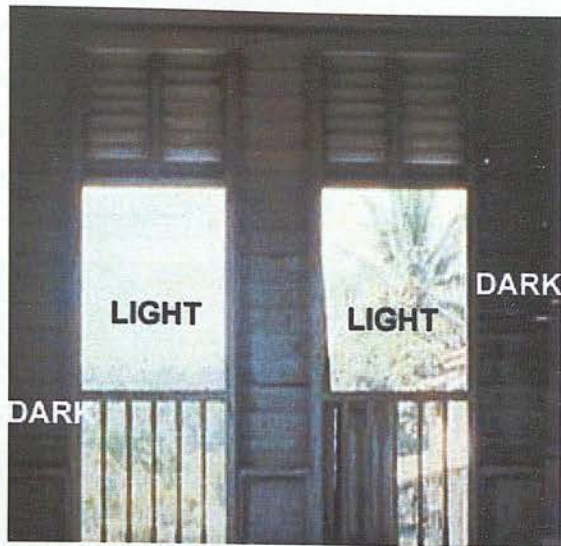
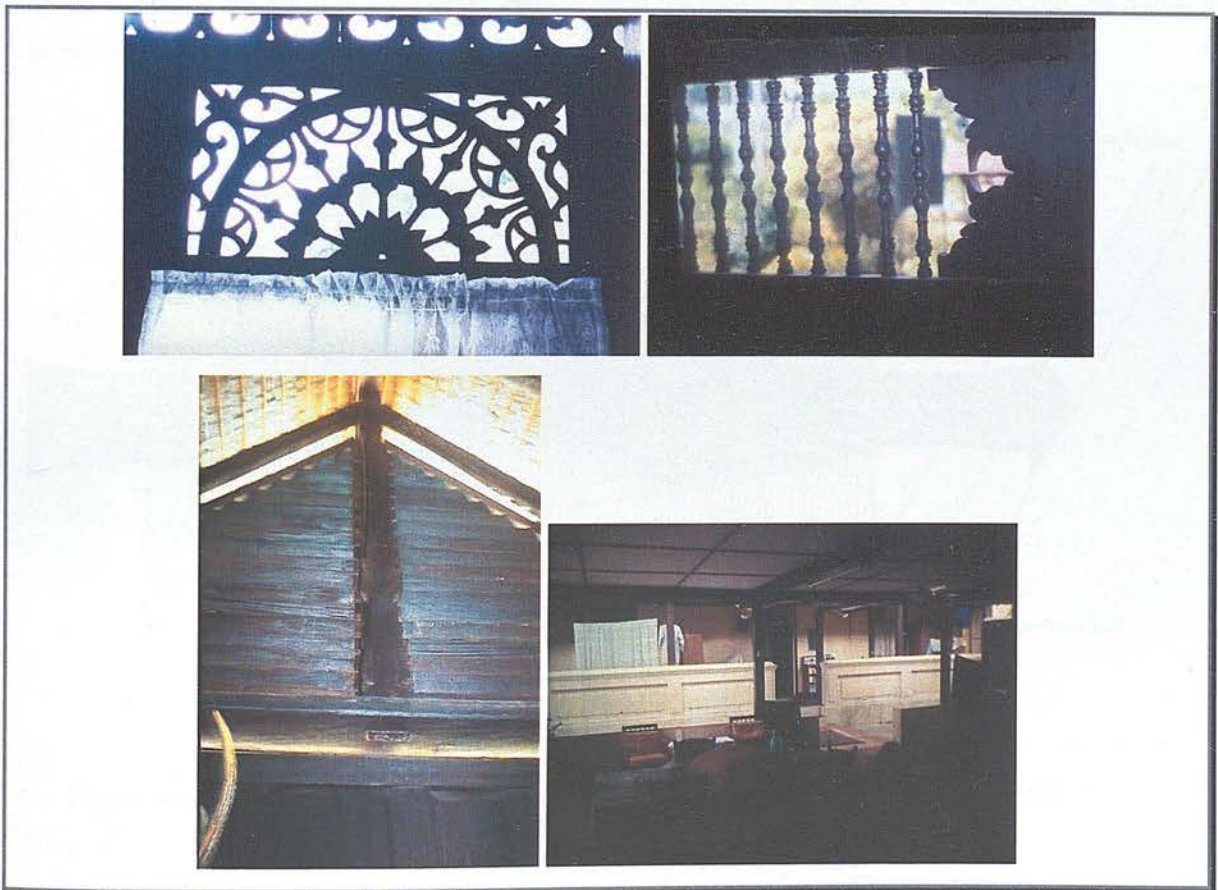


Figure 7-37 Picture above shows the light and dark effects within a traditional Malay house

The lighting concept in the traditional Malay house mainly depends on the sun and natural lighting sources. With regard to the concept of unity, Jasmon (1983: 37) explains that Allah’s essence encompasses both light and dark aspects, hence there exists a unity within the two situations, either in between external and interior space, or in the spaces inside the house. The following images demonstrate the light and dark effects in various openings of traditional dwellings:



Source: KALAM’s Malay dwelling architecture photo archive

Figure 7-38 The group of photos above show various openings that allows light to penetrate creating the light and dark effects inside the traditional house

Jasmon (1983) notes that in the ‘serambi’ and ‘anjung’, there are many openings, as mentioned previously. Obviously, the external space is lighter than the interior spaces, which also shows that the external space is hotter than the interior space of the particular traditional house. This is because light possesses heat. From this, one may establish that between the heat (outside) and the cold (inside) of the house, there exists a unity where in Allah’s essence embraces both situations (ibid: 37).

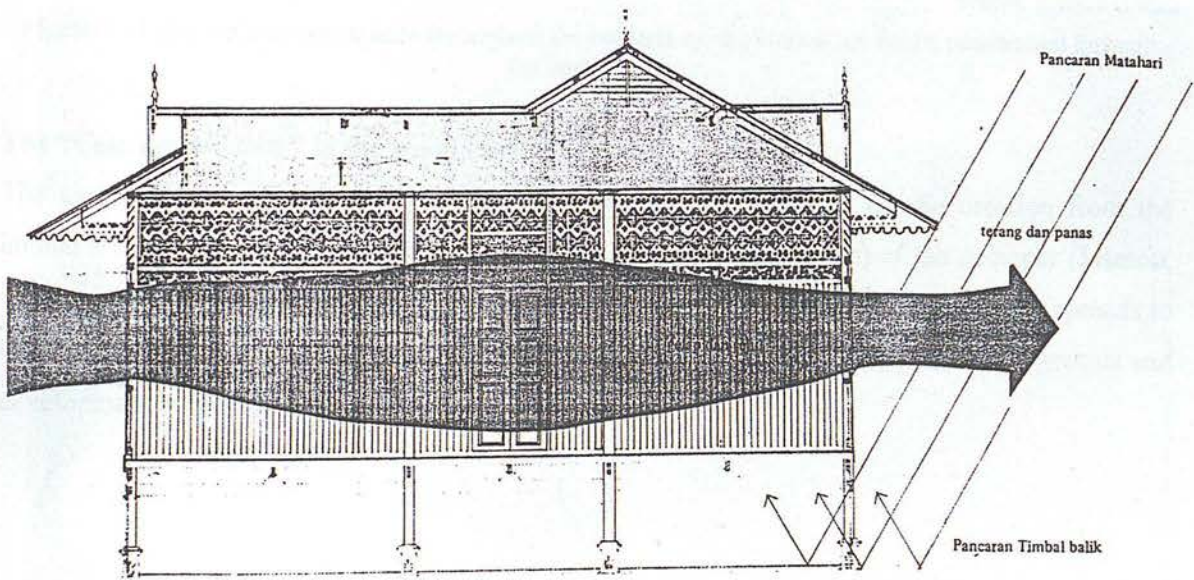


Source: KALAM’s Malay dwelling architecture photo archive

Figure 7-39 Above left: the ‘anjung’ and above right: the ‘serambi’

The “Concept of Unity in the cross air ventilation

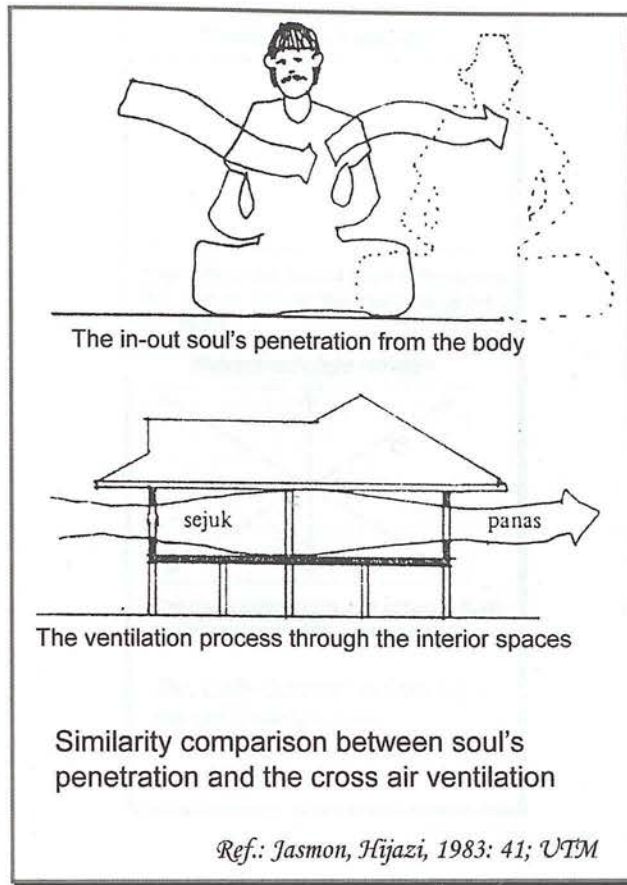
It is evident that one of the identities of an indigenous or traditional Malay house is the possession of multiple and wide openings which envelope the external façade of the house. This is mainly due to the climactic response of the design and the need for cross air ventilation throughout the house, in order to keep the cool temperature of the interior spaces.



Rajah 39: Pengudaraan terus menerus di dalam sebuah rumah kajian.

Source: Jasmon (1983)

Figure 7-40 The above diagram shows cross-air ventilation throughout the house and the reflection of sunlight entering the house

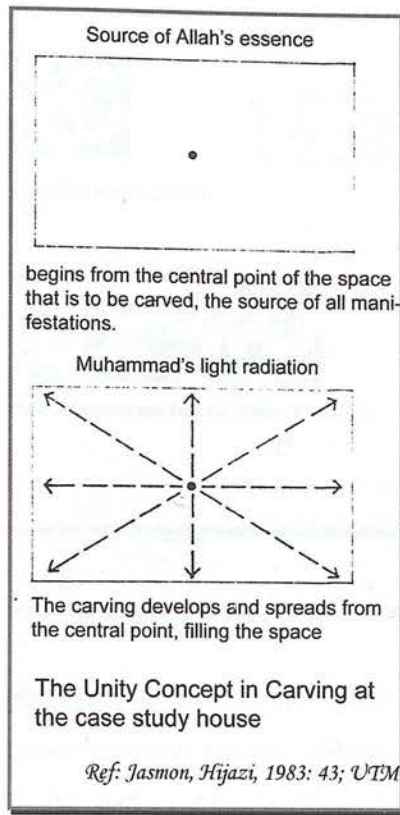


Source: Jasmon (1983)

Figure 7-41 the cross air penetration throughout the house is symbolised as the soul's penetration through the human body

The "Concept of Unity" in the wood carving

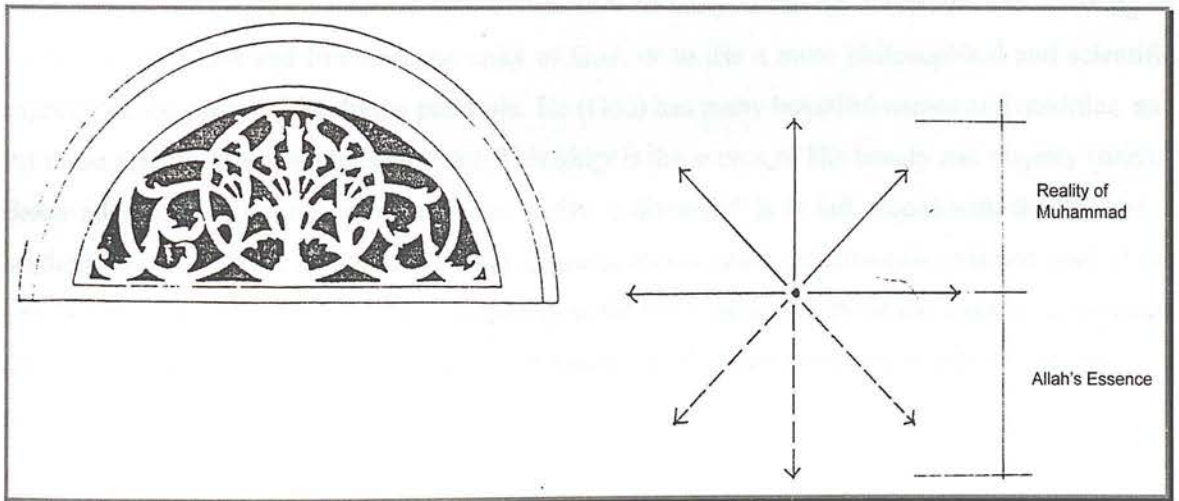
The carvings or engravings of the wood represent the expression of artistic creation from the human soul itself. It is the manifestation or the origin of the soul (spirit) of the designer (Jasmon, 1983: 42). Each wood carving in the case-study house begins from the middle point and spreads to fulfil the whole space that is to be carved. This is a concept of unity in which the whole genesis and development begins from one (see Figure 7-42 below):



Source: Jasmon (1983)

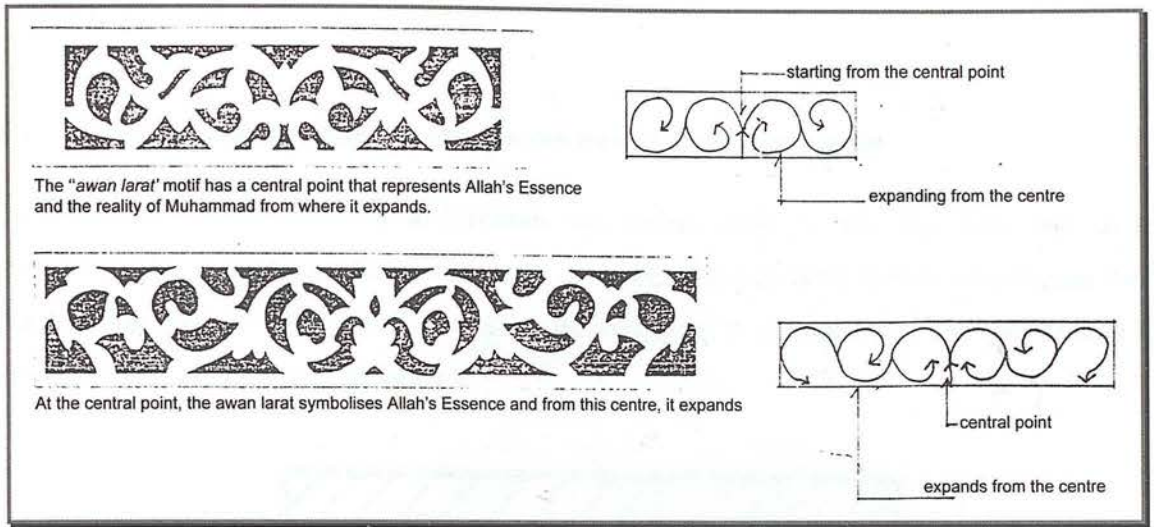
Figure 7-42 The above diagram shows the concept of unity in the wood carving

“The One” expresses unity and the sovereignty of the magnitude of the essence of Allah (One God). The carving products are established from the symbolic forms such as plants, the sun, moon. These symbols represent hidden and deep meanings about the concept of unity (ibid: 42).



Source: Jasmon (1983)

Figure 7-43 The 'awan larat' design and its unity concept



Source: Jasmon (1983)

Figure 7-44 the carving starts from a point in the middle and spreads to the right and left

Figure 7-44 above shows the perforated wood carving, which demonstrates the light and dark effect. The essence encompasses both opposing aspects, without limit. Obviously, there exists the unity concept of external space (light) and internal (dark) in the case-study house. The motif of creations in the art of wood carving has an intimate relation with the designers' beliefs about the concept of Tassawuf knowledge that may make us appreciate the immensity of the essence of Allah (Jasmon, 1983: 42-43).

7.3.2.3 Summary of the "Concept of Unity"

Bakar (1997: 4) mentions that the idea of '*tawhid*' or unity is the most fundamental teaching of Islam. There is first and foremost the unity of God, or to use a more philosophical and scientific expression, the unity of the divine principle. He (God) has many beautiful names and qualities, and yet these constitute a metaphysical unity. This unity is the source of His beauty and majesty (ibid). Bakar adds that the definition of beauty as "unity in diversity" is in full accord with the 'tawhidic' aesthetics in Islam. Similarly, the idea that aesthetic appreciation constitutes a common goal of the arts and the sciences is very much in harmony with the Islamic theory of the unity of knowledge (ibid). The manifestation of the "Concept of Unity" in this section demonstrates the reflection of cosmic unity in the forms of dwelling designs and human arts.

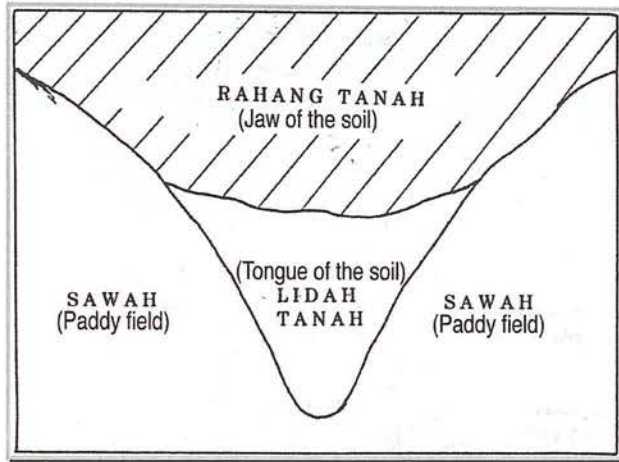
7.3.2.4 The Human Body and Its Cosmological Relationship

The following discusses the human body and its cosmological relationship, which involve factors influencing the decision to choose a suitable site for a house, factors influencing the architecture of the house, the house-building rituals and the mystical beliefs of the house construction. Before deciding on the most suitable site on which to build a house, traditional Malay society based their considerations on several factors that link to nature, such as the type of soil (see Figure 7-45 below), the appropriate position of the site, based on the left palm (see Figure 7-46), and the

division of land is also based on certain symbolic names in the site choice custom (see Figure 7-47 below).

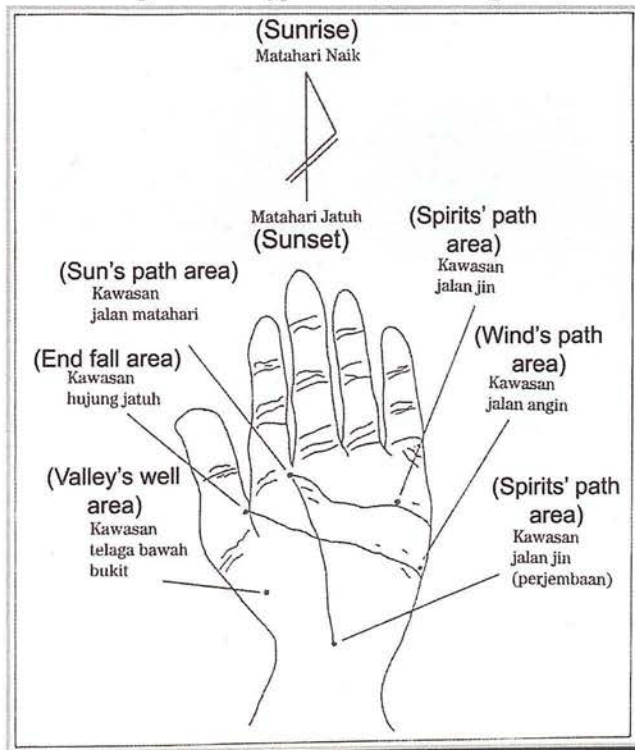
Decision-making factors when choosing a site on which to build a house

In indigenous Malay dwelling architecture, the human body is also the main part of the cosmological interpretation. The human body is used as the measuring system (see Figure 7-48) for building the traditional dwelling and is also compared to the natural forces surrounding the environment (see Figure 7-49 below):



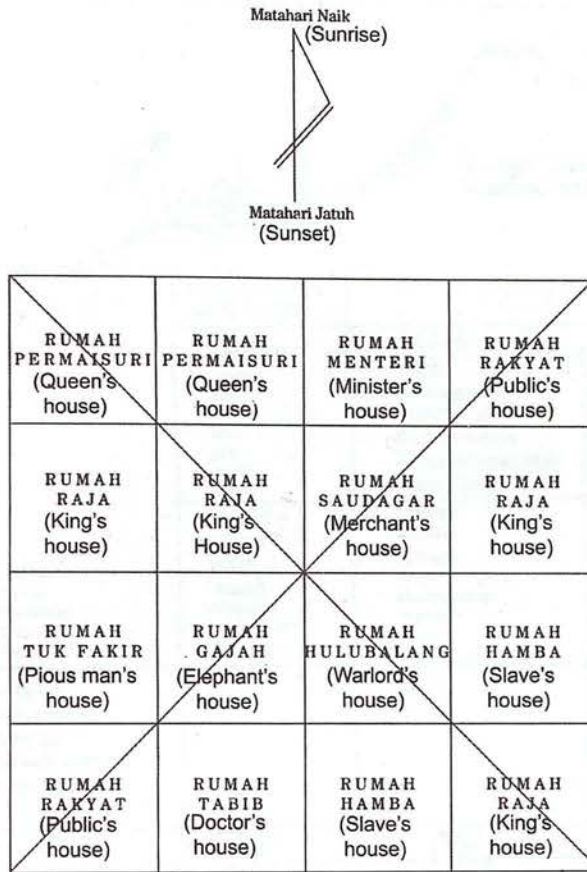
Source: Yahya (1995)

Figure 7-45 Type of soil, with 'tongue'



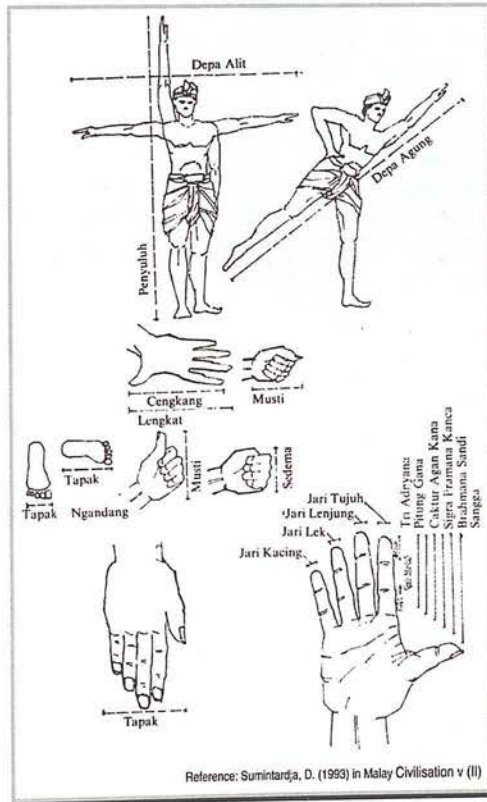
Source: Yahya (1995)

Figure 7-46 Way to choose a site, based on the left palm



Source: Yahya (1995)

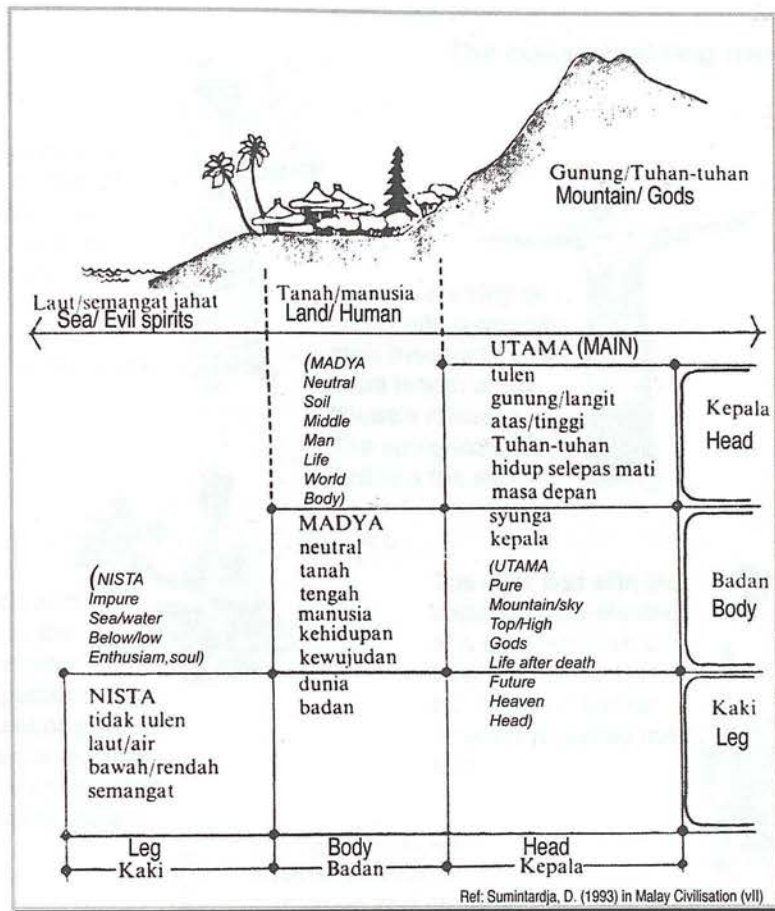
Figure 7-47 Division of land, based on certain symbolic names in the site choice custom.



Reference: Sumintardja, D. (1993) in Malay Civilisation v (II)

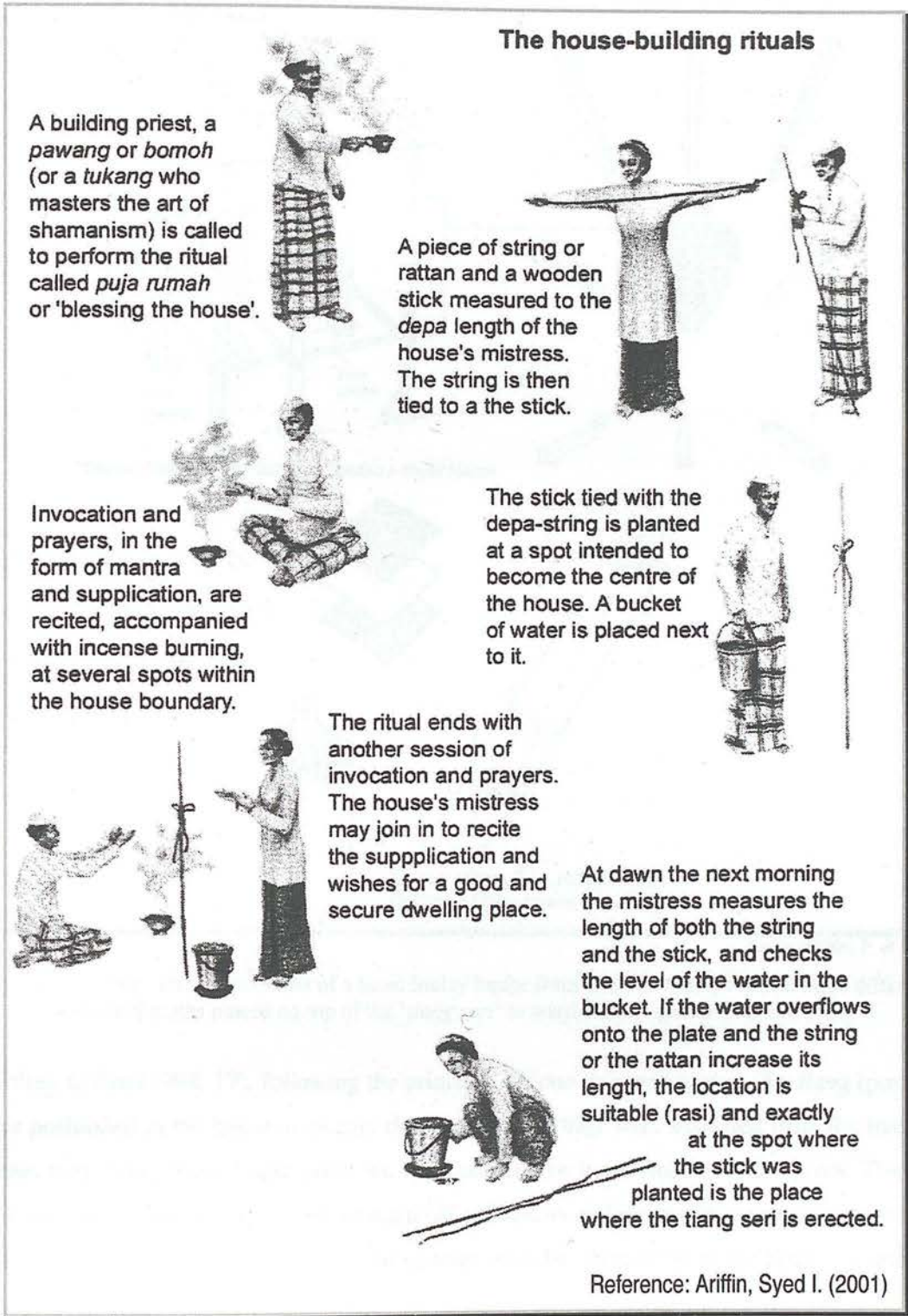
Source: Sumintardja (1993) in Malay Civilisation (vII)

Figure 7-48 The "Depa" unit of measurement, using a man's body as the measuring instrument



Source: Sumintardja (1993) in Malay Civilisation (VII)
 Figure 7-49 The diagram above shows the cosmological relationship between man, nature and the environment.

The house-building rituals

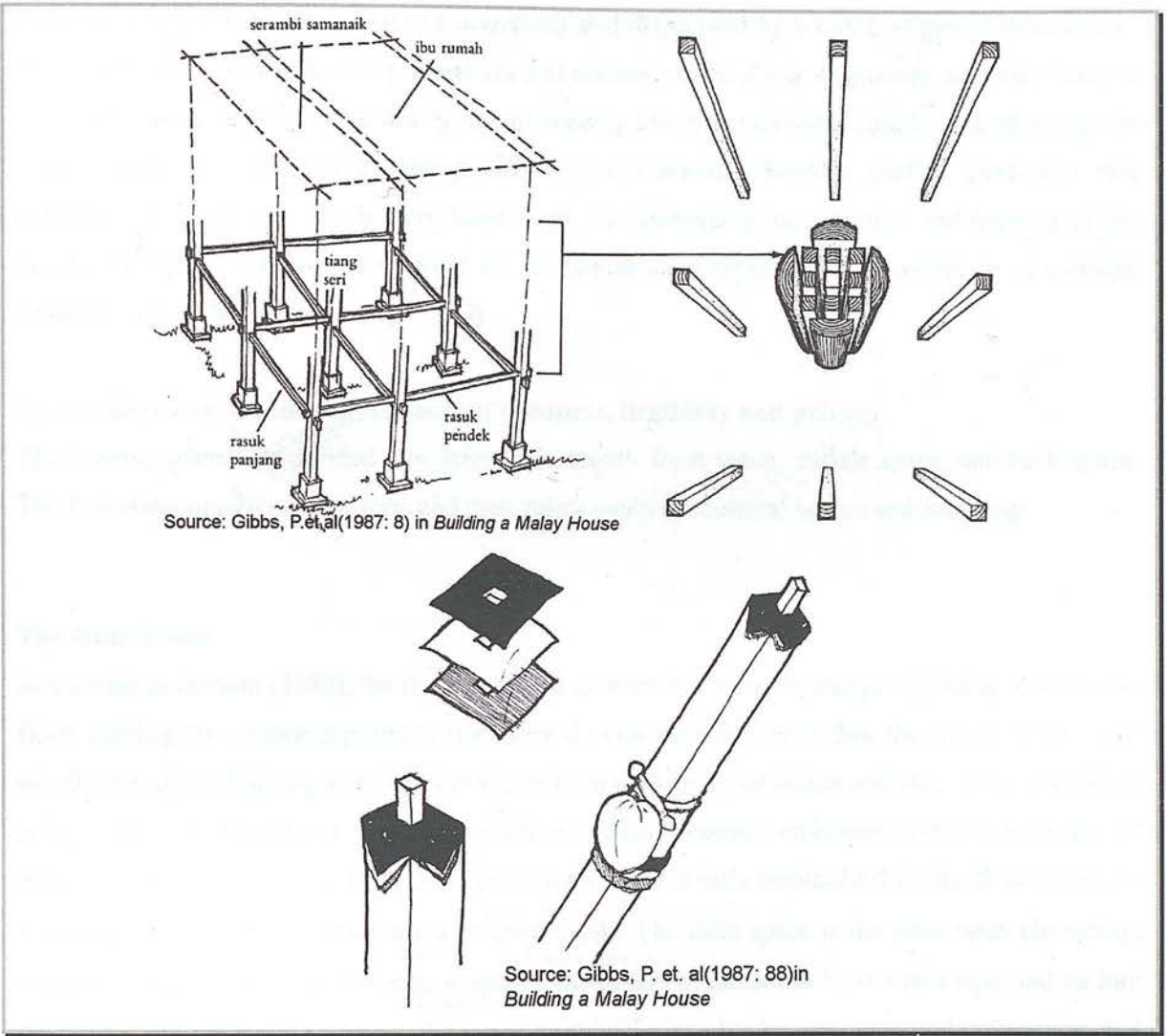


Source: Ariffin (2001)

Figure 7-50 the figure above illustrates the process of building rituals performed by the building priest and the home owner's wife

The house building ritual is performed to receive blessings, ward off any evil spirits from disturbing the peace of the dwelling occupants and to ensure the longevity and prosperity of the family members. This is a part of the animistic beliefs that still dominate the procession of house building ritual in traditional Malay society.

Mystical beliefs in the construction of the house



Source: Gibbs, P. et al (1987)

Figure 7-51 Top: The construction of a basic Malay house from one tree trunk; bottom: three different coloured cloths placed on top of the 'tiang seri' to ward off evil spirits from the house

According to Fee (1998: 17), following the principle of 'one tree, one house', the *tiang* (posts) are always positioned in the house in exactly the same way as they were extracted from the tree. Like the trees they come from, house posts are regarded as live items imbued with spirits. The black cloth is placed at the top of each post to ward off evil spirits and represents mysterious powers; the red cloth in the middle, represents life and courage and the white cloth at the bottom, symbolises purity (ibid).

7.3.3 Manifestation of cultural meanings in the indigenous houses

This section presents the physical manifestations of cultural meanings, society's innate values, as well as the innate boundaries that symbolise the identity of the genesis of sub-ethnic cultures within the indigenous societies, i.e., the Malay societies and the Iban indigenous tribe society in Bintulu Sarawak, which has been selected to represent the indigenous tribes dwelling in the country.

7.3.3.1 Cultural Values

Cultural values are **the deep-seated convictions and ideas held by a cultural group** (Mazumdar, 2000: 162). They can influence preferences and choices positively or negatively, and may involve the environment directly, or indirectly, by influencing lifestyle, activities, rituals, and other aspects (ibid). Rapoport (1969, 1977), the pioneer of environment-behaviour studies, postulates that cultural values affect design in very basic ways, by influencing the selection and framing of the design “problem,” the process selected for the search for solutions, and the selection of a design solution, materials, and technology (ibid).

Spatial organisation, zoning, concept of openness, flexibility and privacy

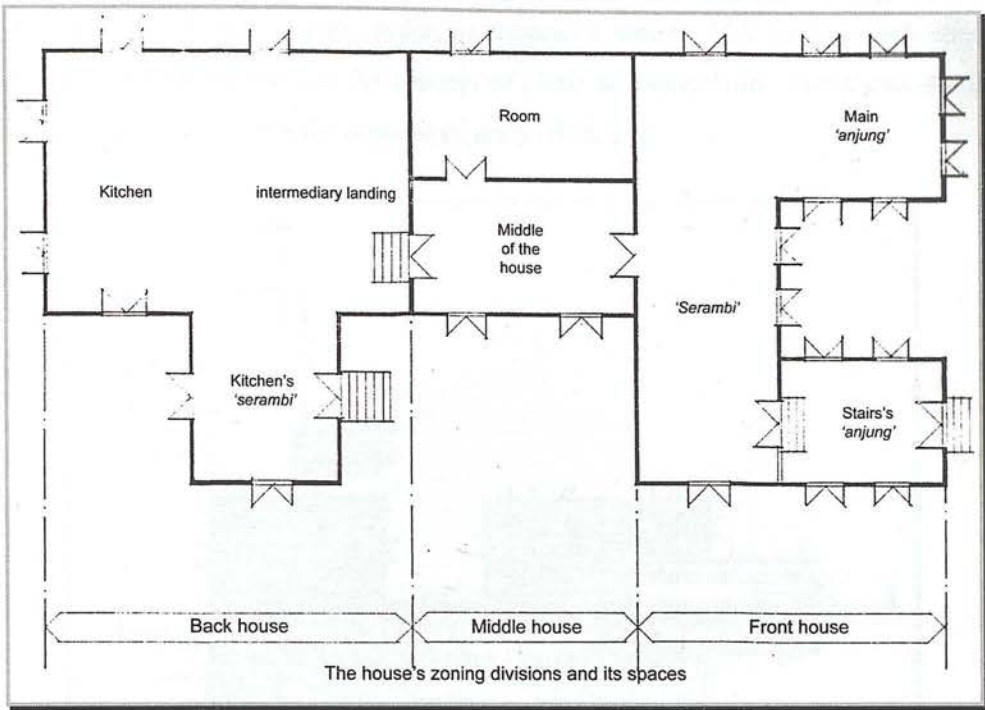
The interior spaces are divided into three main areas - front space, middle space, and back space. The following describes each zone and their relationship the cultural values and meanings.

The front house

According to Jasmon (1983), the front house, in general, has many openings that hang down to the floor, making them more exposed to the external environment. Due to this, the spaces allow cross ventilation, direct lighting and clear-cut vision from outside to the inside and vice versa, and hence bring a unity to the external and internal spaces. Allah’s essence embraces both the external and internal aspects of the house (bid: 24). The privacy factor is little emphasised for the front house, as it exposed itself to the external space (Figure 7-54). The front space is the most open physically, visually and internally. For climactic purposes, the design of the house must admit light and air into the house, and for social purposes, the house must be designed to be very open and welcoming, and visible to outsiders. For functional purposes, the public space must be flexible, in terms of the use of space, such as for entertaining guests, male guests, and at other times, the space shall be used as a relaxation and sleeping area.

Hence, architecturally, the design for the front (public) space is very open and airy, has a direct exposure to light, wind and a view inside out. This is shown through the elements of the design used - openings such as doors and windows; the floral and plant-based engravings, which mostly act as sunscreen and allow for ventilation across the interiors.

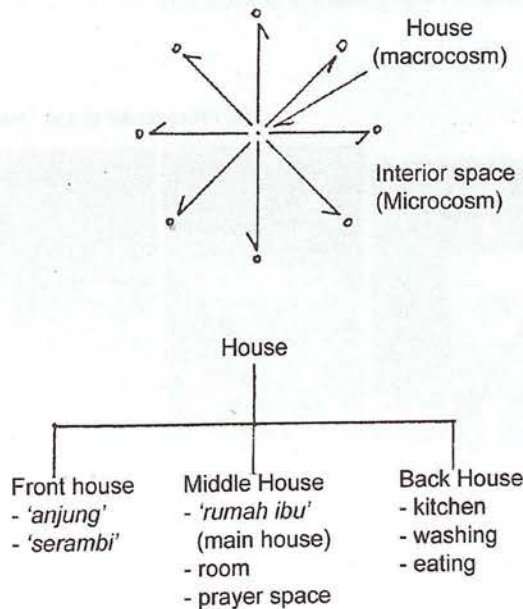
The spatial organisation and function portray the society’s cultural values and meanings. In general, the interior spaces are organised, according to the occupier’s needs and the general public’s needs, based on the sociological aspects of the Malay society that sustain their respect for custom and tradition, courtesy and the religious principles that have become the society’s core beliefs and values.



Source: Jasmon (1983)

Figure 7-52 Interior spatial zoning in a traditional Malay house adopted from Jasmon (1983: 22)

The same principle is also applied in the case of the traditional Malay house, as studied by Jasmon (1983) who describes it in the form of the unity concept. Jasmon (1983: 22) illustrates that within the house, it contains a combination of spaces that is called the small worlds, as demonstrated in Figure 7-53 below. The union of these spaces creates the shape of the traditional Malay house in Johor (ibid).



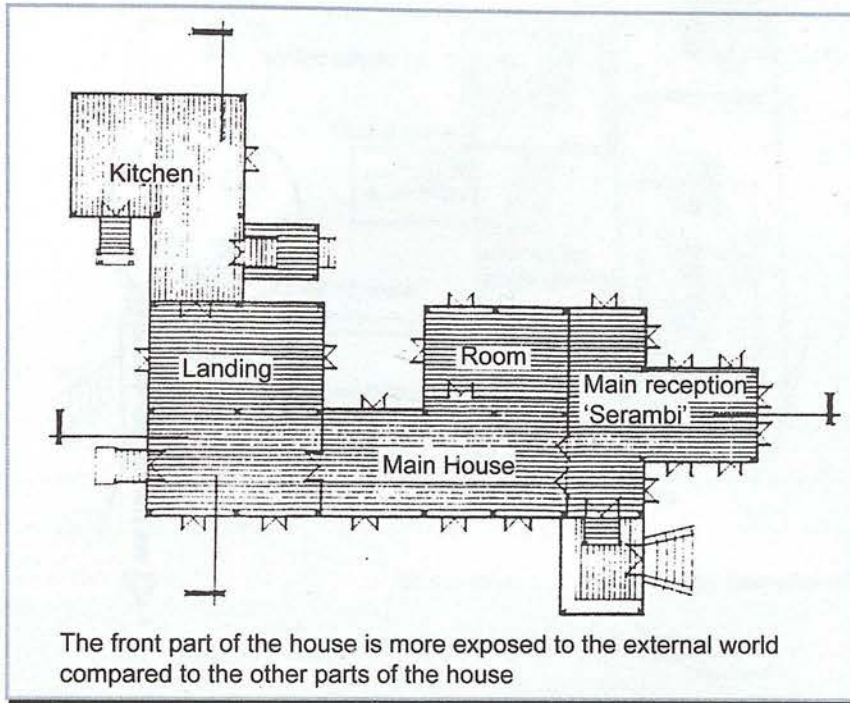
Source: Jasmon (1983)

Figure 7-53 Division of the "Microcosmic (small) Worlds"

He adds, that there is a manifest segregation between the front house (men's zone) and the middle house (women's zone), with the intention of avoiding the mixture between the non-*muhrim*⁹⁵

⁹⁵ The term *muhrim* here means the males and females that have no blood relationship or are able (i.e., allowed) to marry

genders. These spaces have a certain order, as described earlier. Due to this, each space has a particular rank in which there exists the concept of place or ‘mausoleum’ at the case-study house. This concept of place establishes the concept of unity (ibid: 24).



Source: Jasmon (1983)

Figure 7-54 Hierarchy and order in the spatial zoning of the house based on gender

There are two basic spaces at this part of the house, i.e., the ‘*anjung*’ (entrance porch) and the ‘*serambi*’ (guest reception space). Their symbolical meaning are illustrated in the figures below:

The meaning of the ‘*anjung*’ (entrance porch)

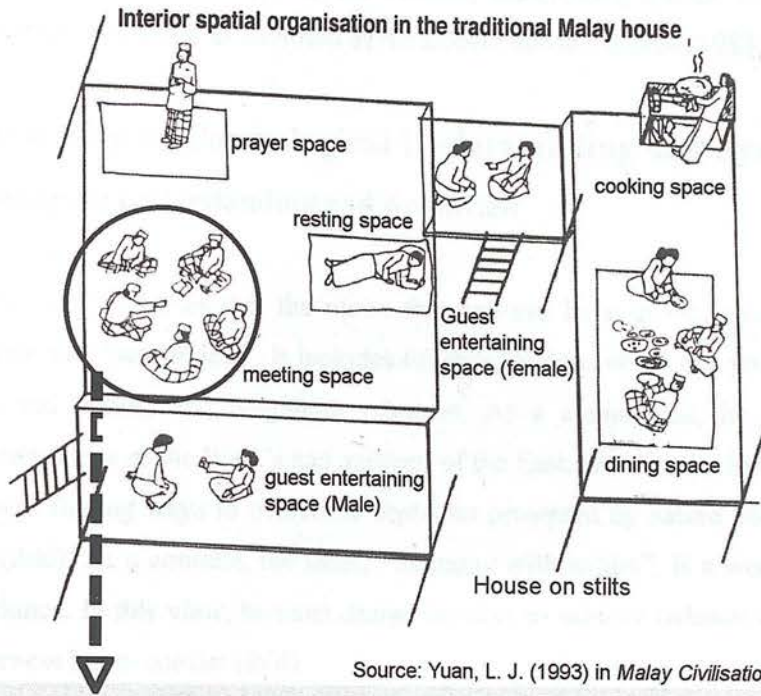


Sources: Author and KALAM (last photo)

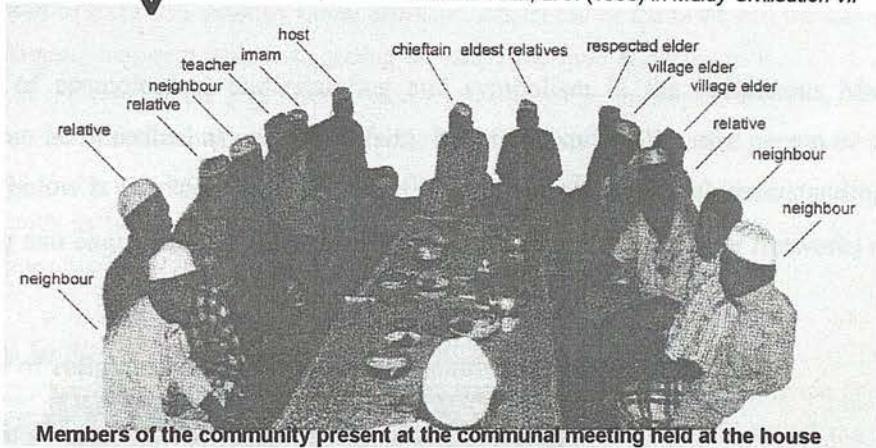
Figure 7-55 Perspectives of two types of traditional ‘*anjung*’: the first three pictures show the ‘*anjung*’ as a transitional space, and the last picture shows the ‘*anjung*’ as family relaxation space as well as guests reception area.

According to Jasmon (1983: 27), ‘*anjung*’ or the entrance porch acts as a transitional space between the interior and exterior areas. This can also be referred to as a transitional space between two worlds i.e. the earthly world (corporeal world) and the hereafter world (spiritual world).

The meaning of 'serambi'



Source: Yuan, L. J. (1993) in *Malay Civilisation VII*



Members of the community present at the communal meeting held at the house

Source: Ariffin (2001)

Figure 7-56 Aerial perspective sketch of the spatial organisation of a typical Malay house and a typical example of the community members at the meeting as adopted from Ariffin (2001)

The 'serambi' (guest reception area) is defined through six basic axial surfaces as described in the formation of form in the design construction of the house (Jasmon, 1983: 27, see Chapter Four, under sub-topic 4.3: 29).

The middle house

This part of the house is more enclosed, with fewer openings, which expose the interior spaces towards the external environment. It consists of the 'rumah ibu' (main house) and the room(s). The privacy factor is much more emphasised in this space. The room is an enclosed and secretive space, in which the owner of the house makes plans for everything, whether it is for the worldly life or for a life in the hereafter (Jasmon, 1983: 27). Therefore, the room represents the heart or mind of a person (see figures Figure 7-52 and Figure 7-53 above).

The back house

The back house consists of the dining area, the washing and cooking spaces. These spaces are not as exposed as the front house nor as enclosed as the middle house (Jasmon, 1983: 28).

7.3.4 Manifestation of Cosmological Understanding and Symbolism

7.3.4.1 Cosmological understanding and worldview

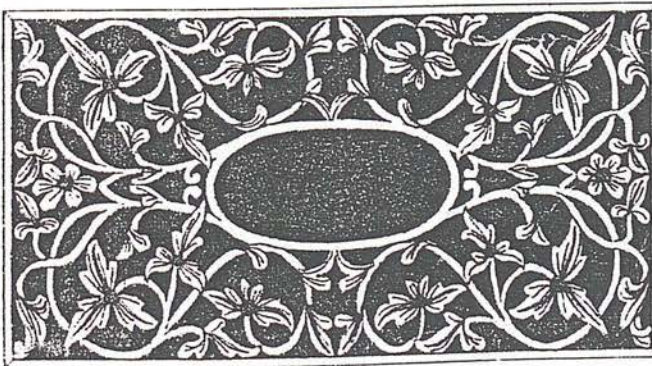
Mazumdar (2000: 162) proposes that the views that cultures have of this world, its nature and operation is known as a “worldview”. It includes lifestyle, notions of private property, the attitude towards private and public, and neighbour relations. As a comparison, he demonstrates two opposing worldviews, one of the West’s and another, of the East. He calls the former “mastery over nature”. It involves finding ways to overcome obstacles presented by nature and thereby, gaining mastery over it (ibid). As a contrast, the latter, “harmony with nature”, is a worldview that seeks harmony and balance. In this view, humans design in ways to achieve balance with nature, not to overpower or harness but to coexist (ibid).

The notion of cosmological understanding and symbolism in the indigenous Malay religious dimension can be described as aspects of faith, belief and spirituality of a person or a community. Figure 7-57 below is an example of the notion of religious cosmological understanding in the art of woodcarving and engravings, as interpreted in the ‘*awan larat*’ (curvilinear fretwork) design.

Expressions of religious cosmological understanding in the floral motifs:



This picture illustrates the perforated engraving at the front panel part of the ‘*rumah ibu*’ (main house) painted with gold paint, shaped in ‘wide’ leaves. Its patterns and organisation is based on the Divine concept and nature

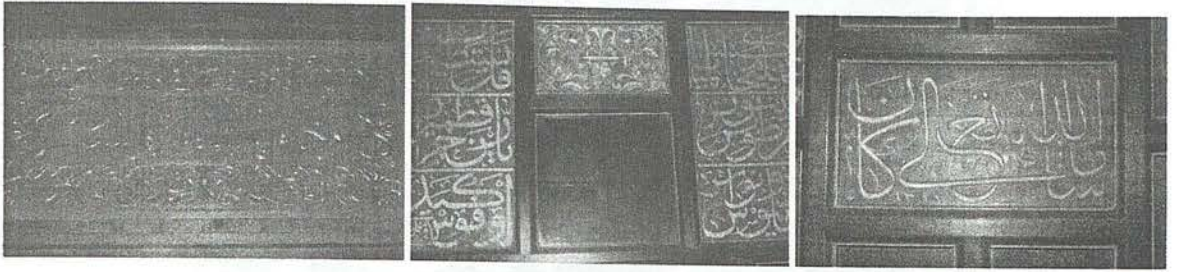


The oval shape in the middle symbolises the Essence of Allah (God) from the Divine Concept.

Source: KALAM, UTM, Skudai, Malaysia

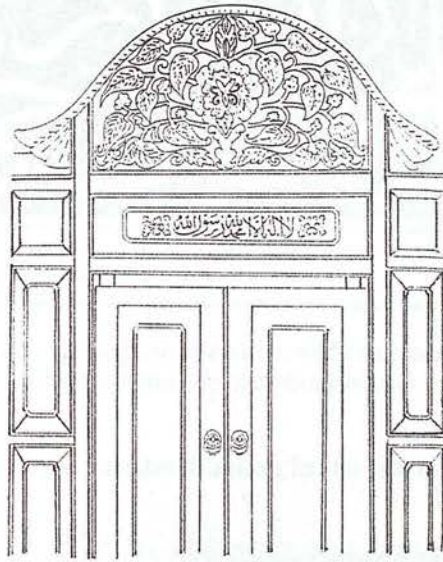
Figure 7-57 Cosmology based on the religion as expressed and illustrated in the floral motifs

Expressions of religious cosmological understanding in calligraphic motifs



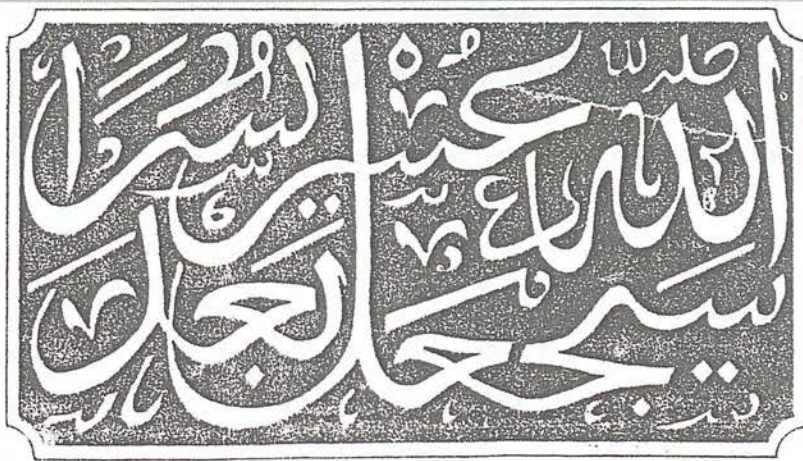
Source: Yahya (1995)

Figure 7-58 Calligraphy motifs on embossed walls and upper walls – Top left: Calligraphy work containing verses from the Quran on top of the door and on the upper walls (middle picture). The third picture illustrates 'Tuluth' calligraphy motif on the embossed wall. The Quranic verses are symbol of religious beliefs and protection for the whole family or dwellers of the house.

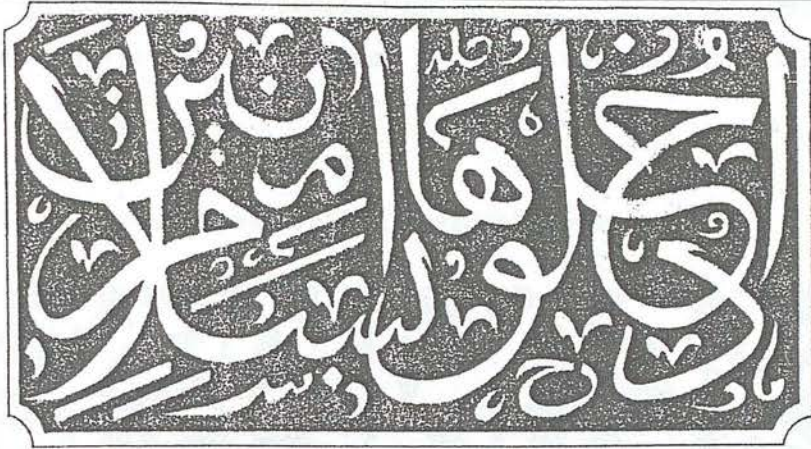


Source: Yahya (1995)

Figure 7-59 The woodcarving style typically found in the front door of the Kelantanese (people of Kelantan) houses are mainly based on the floral and calligraphic design motifs that portray the symbolic cosmological and religious meanings.



Allah akan jadikan kemudahan selepas kesusahan (Allah (God) shall reward ease after suffering)



Masuklah ke dalamnya dengan selamat dan aman (Come in safely and peacefully)

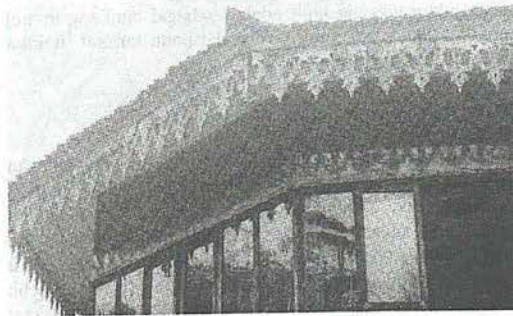


This is a 'wirid' (mystical reading). This ayat (verse) is used as the 'guardian of the house', it is also read when there is a storm or hurricane. The verse tells about the characteristics of God.

Source: Bahauddin et al (2004)

Figure 7-60 Calligraphic motifs from the Quranic verses and their meanings are common decorative elements found in the Malay houses

Expression of religious cosmological understanding in the fascia board decorations



Source: Yahya (1995:

Figure 7-61 Above, left: 'Andam-andam' decoration at the fascia board of the rooftop as a symbol of faith

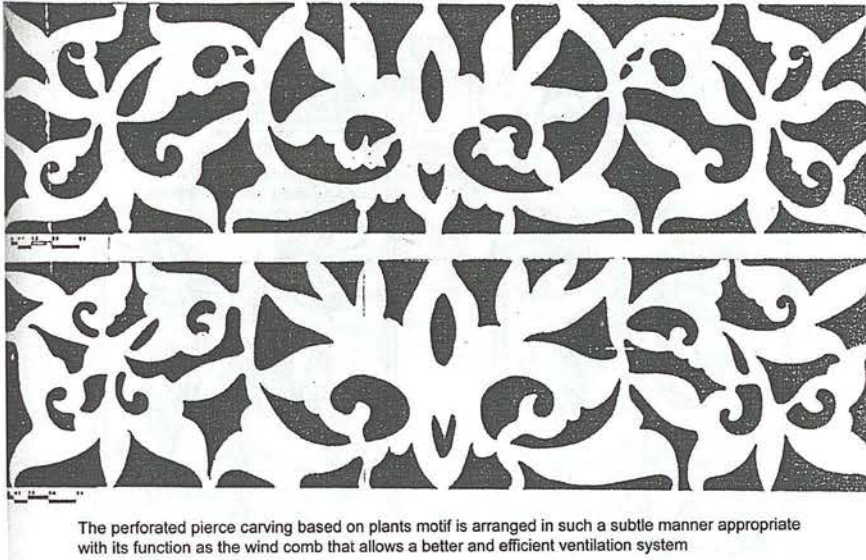
7.3.4.2 Symbolism in wood carving – curvilinear fretworks, decorative elements

The art of engraved decorations

Engraving is a traditional heritage used as decoration in indigenous Malay homes, especially for those with high status, or who can afford it. Apart from that, it also serves as unique wind ventilation panels, as well as beautiful sunlight screens. In the past, engravings were the medium of language being interpreted through its practical and visual image. What one can establish from the engraving patterns of the indigenous Malay houses is the difference between two cultural influences - one is Hinduism 15th century, another is the Islamic patterns, based on aspects and philosophies of plants motives, fauna and the embedded meaning in the engravings embraces the

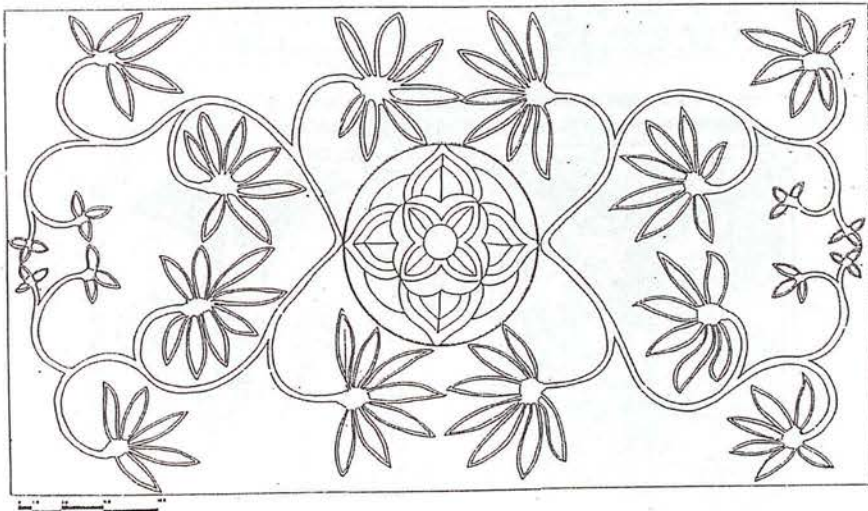
principles, feelings, and experiences expressed and delivered by the artisan himself (*The Art of Engravings*, in Rumah Tok Jamaliah dan Rumah Tok Aishah, Kampung Bubur, Langkawi, Kedah: 100).

Meanings of the curvilinear fretworks of Tok Jamaliah's house



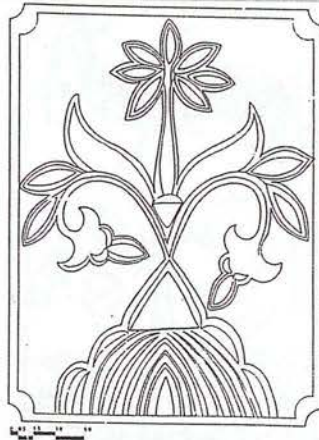
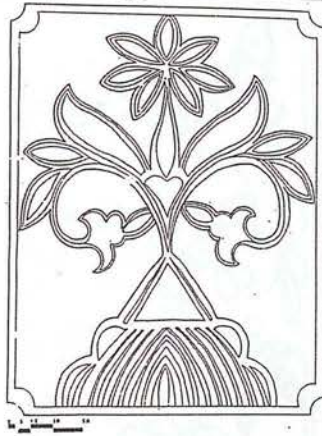
Source: KALAM, UTM Skudai, Malaysia

Figure 7-62 The direct piercing curvilinear fretwork originates from a point in the middle and spreads towards right and left, forming a symmetry in the design

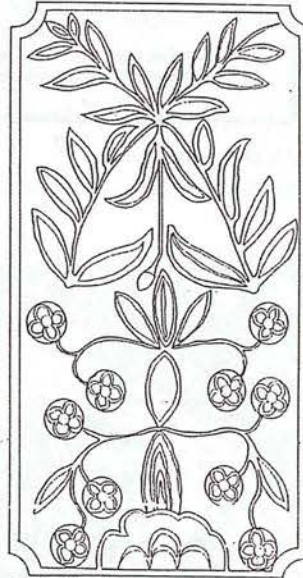
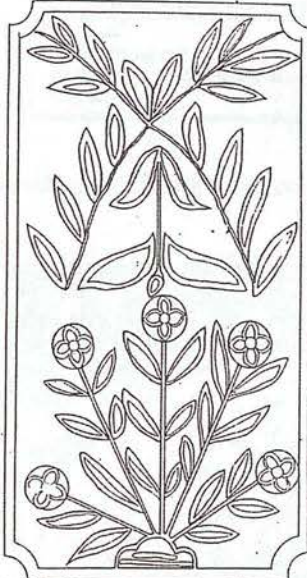


Source: KALAM, UTM Skudai, Malaysia

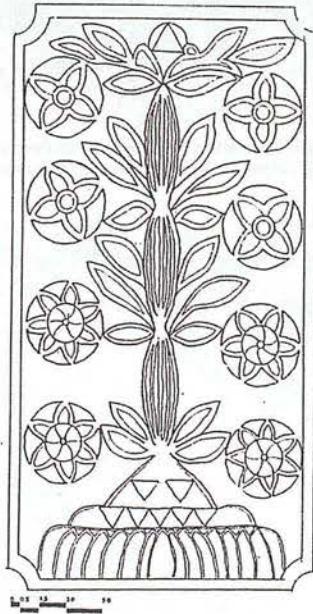
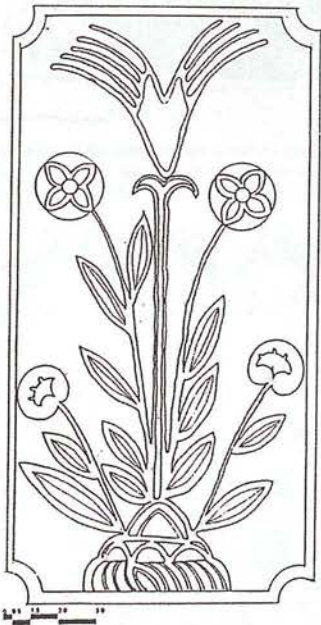
Figure 7-63 Symbolic meanings illustrated in the floral motifs carving pattern



The first pair of carvings are based on flowered plants motif and the 'ketamguri' leaf together with two pistils for each.



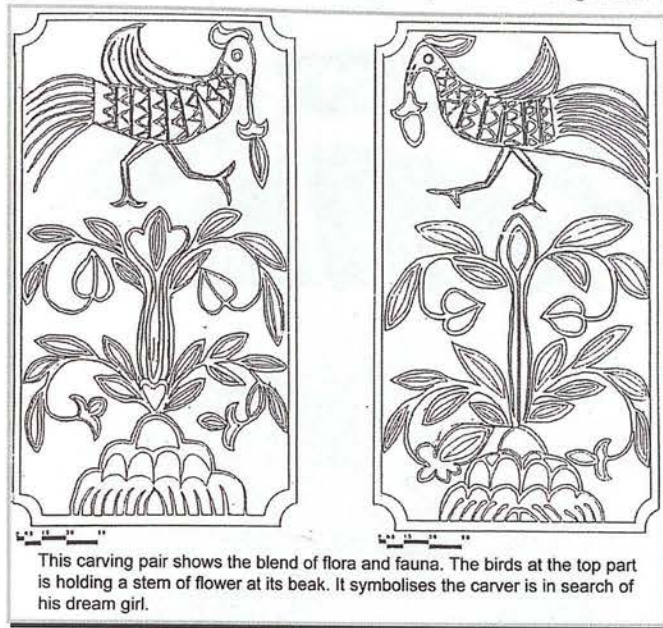
This carving pair demonstrates the flower arrangements that are carved to show closeness to nature and the hope the flowers of love always blossom.



This pair of carvings are the "Pitis Flower" carvings that are arranged from plants motif. It indicates the influence of Siam that has a strong effect upon Langkawi Island.

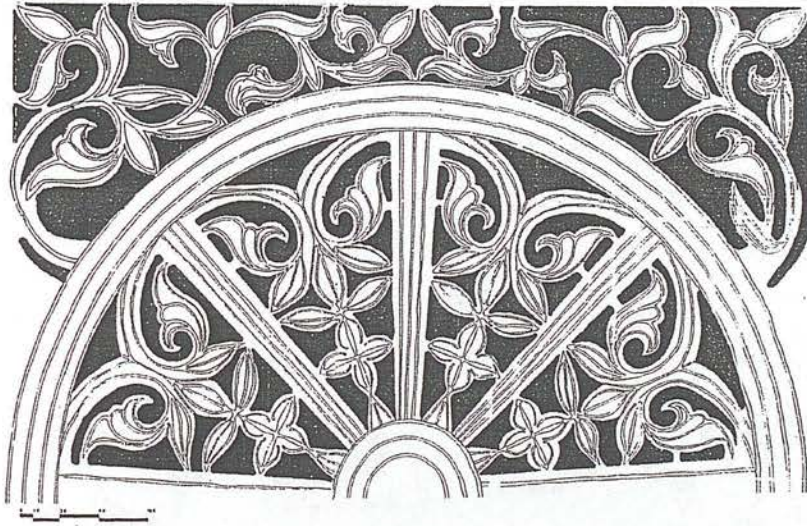
Source: KALAM, UTM Skudai, Malaysia

Figure 7-64 Curvilinear fretwork based on plant motifs with meanings

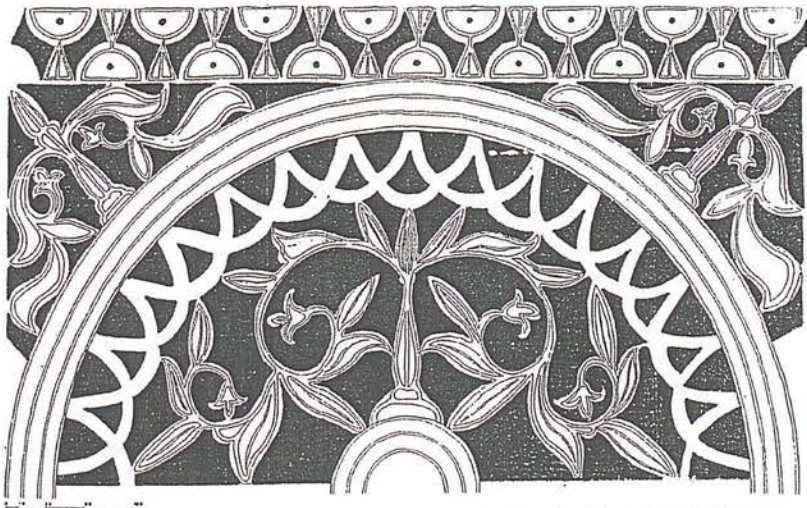


Source: KALAM, UTM Skudai, Malaysia

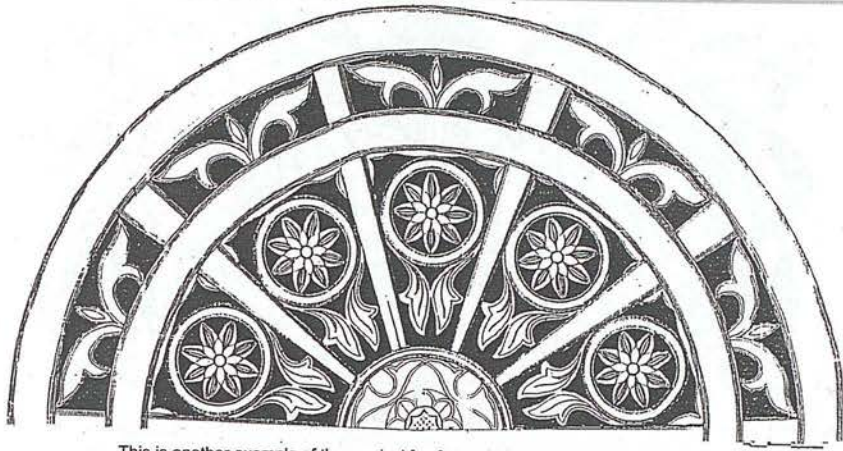
Figure 7-65 Curvilinear fretwork based on combination of flora and fauna motifs with meanings



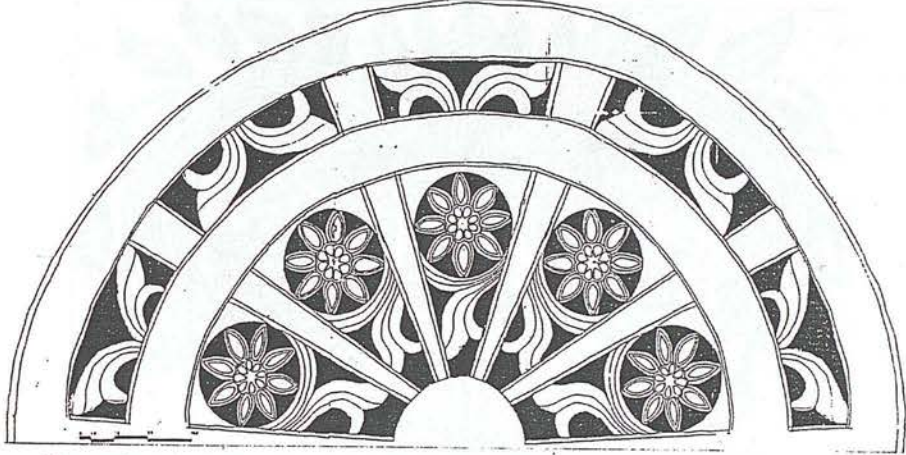
This magical fan fretwork set is carved more subtly and more complicated. The pattern is similar to the radiating morning sun shine. the carving adorns the most important visual and its position is also significant in which it symbolises "a happy family".



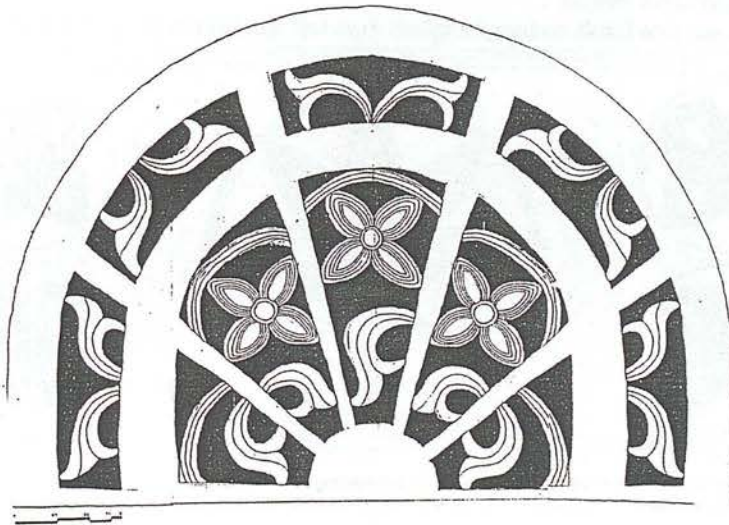
Seven pieces of magical fan fretwork carving are carved as the front elevation wind comb. There are three carving pieces from the same set and the geometrical patterns fulfill the top space. The carver begins the carving with a basic concept i.e. the central point manifestation that radiates outwards.



This is another example of the magical fan fretwork designed for the interior spaces.



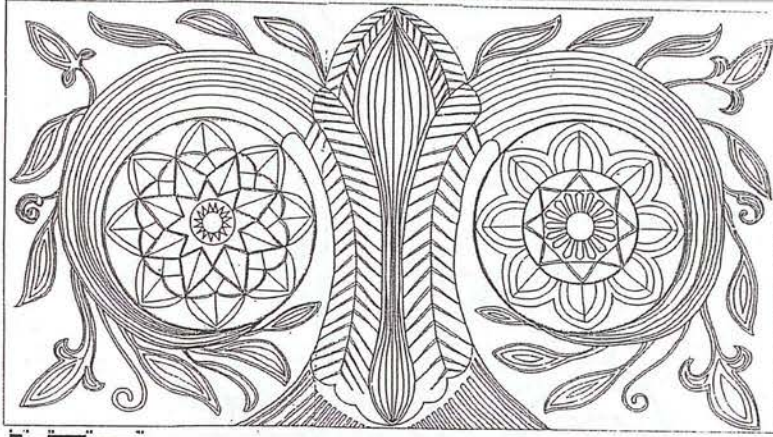
The carving at the interception in the house consists of two types, i.e. the perforated pierce and the engraved carving. For the former, the magical fan fretwork is taken from the floral motif, carved into entangled carving. It is positioned as the sign for the entrance door into the middle space (room).



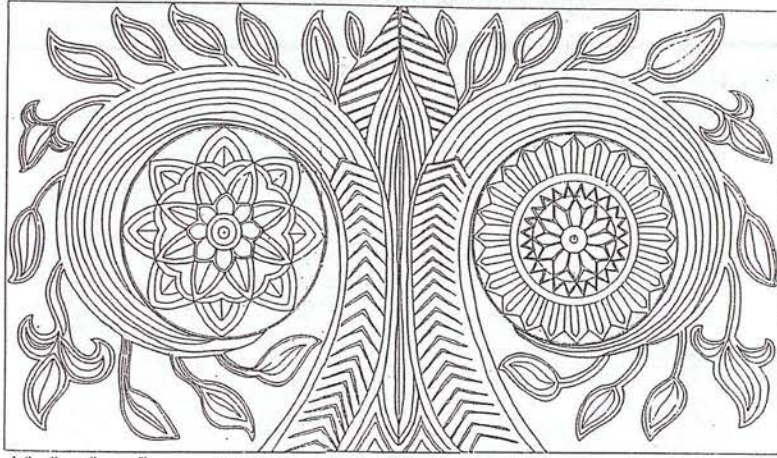
The first wind comb set is the magical fan fretwork that is the perforated pierce kind. It is placed in the middle area of the main house at both right and left side elevations. The fretwork is simply designed, not too complicated, and symmetrical. It symbolises the shining sun.

Source: KALAM, UTM Skudai, Malaysia

Figure 7-66 Different styles of "Magical Fan" shaped curvilinear fretworks, with similar functions and different meanings



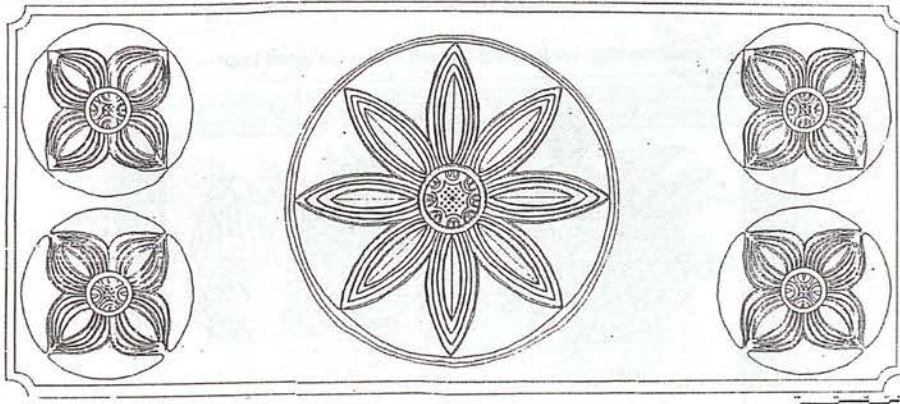
The pair of spiralling 12 carving illustrates the stars that are transformed from flower motifs.



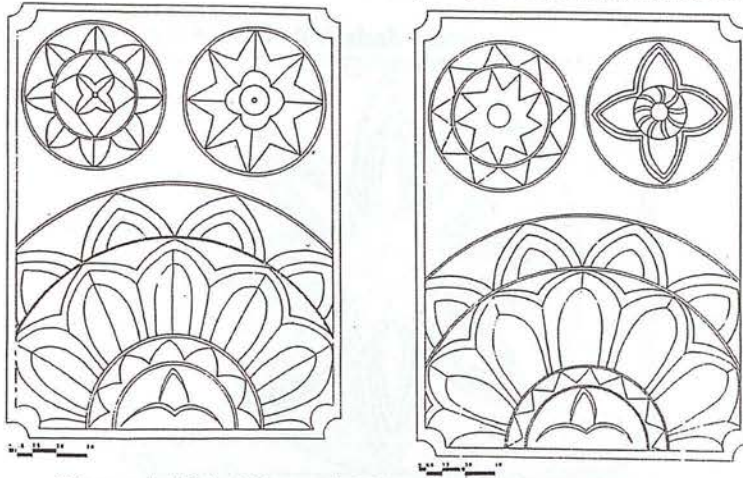
A more fierce and energetic 12-rolls carving pair

Source: KALAM, UTM Skudai, Malaysia

Figure 7-67 Spiral curvilinear fretwork designs based on floral and star motifs



A set of carving at the inner intersection wood panel, which is of the engraved type. It depicts a big circle in the middle and accompanied by four small circles at each corner. This implies the 12 stars and 4 corners of the universe.



The second pair is the 12-stars carving inside 2 smaller circles at the top and a big half circle at the bottom.

Source: KALAM, UTM Skudai, Malaysia

Figure 7-68 Curvilinear fretwork designs based on geometrical and the 12 star shapes



Female winged horse carved on the wall panel at the right entrance door

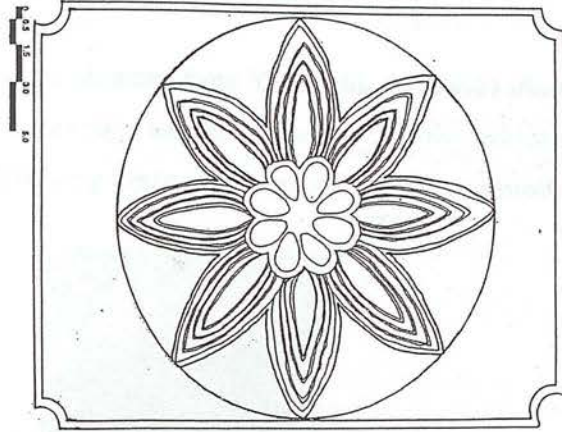


The winged horse is believed to have influence from Hinduism and also Islam (as the Prophet's riding animal to the heavens). It is carved in pairs. The male horse is carved at the left wall panel beside the entrance door.

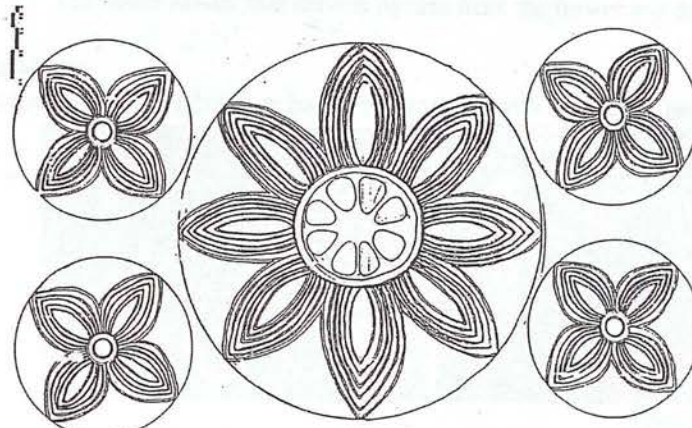
Source: KALAM, UTM Skudai, Malaysia

Figure 7-69 Fauna motifs show religious influence in the fretwork design

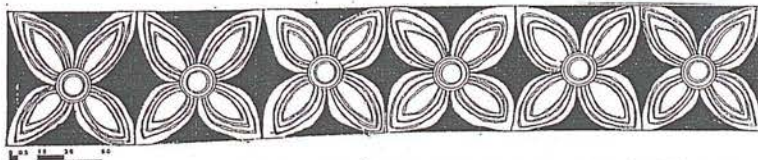
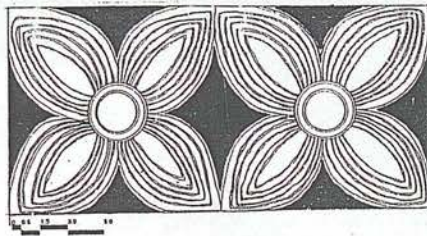
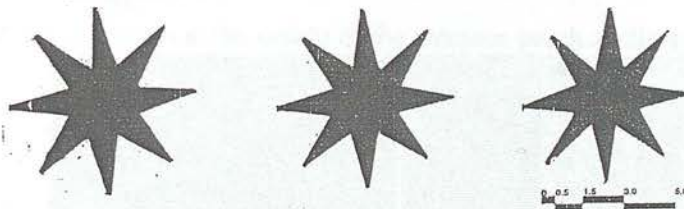
Meanings of curvilinear fretworks in Tok Aishah's house:



Carving at the entrance door represents the flower motif transformed into the 12-star. It's positioned in the middle of the door leaf stresses its significance as the symbol of good fortune.



Some perforated pierce carving, placed side by side with the engraved carving. It is the 12-star motif transformed into the shape of a flower. The carving is composed of a big circle in the middle and is surrounded by other smaller circles.



The wind comb carving set, placed at the serambi (same height with the main house) and the space next to the kitchen, in which the roof angle is more gently sloping. The set is rectangular shape and possess the star and flower motifs, demonstrating the sense of cheerfulness.

Source: KALAM, UTM Skudai, Malaysia

Figure 7-70 A set of fretwork designs based on the 12 star and geometrical shapes are also found in Tok Aishah's house

7.3.4.3 Manifestation of the spirit of wood in the traditional Malay house

The elements of architecture

The following diagrams are obtained from Yahya, M. A. (1995) illustrating the Malay designers' interaction with nature, cosmology and indigenous worldviews, which result in the manifestation of symbolic forms of art reflecting the beauty of nature, and the relationship with God.

1. Sesiku



Source: Yahya (1995: 128)

Figure 7-71 The house *sesiku* that derives its idea from the flower and tendril sources.

2. Ceiling decorations

The decorative elements in the ceiling are based on floral motifs as shown below:

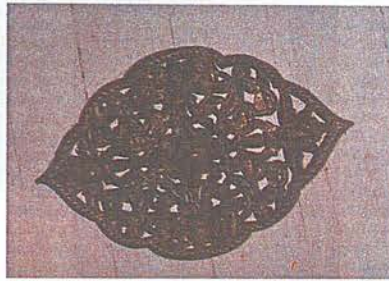


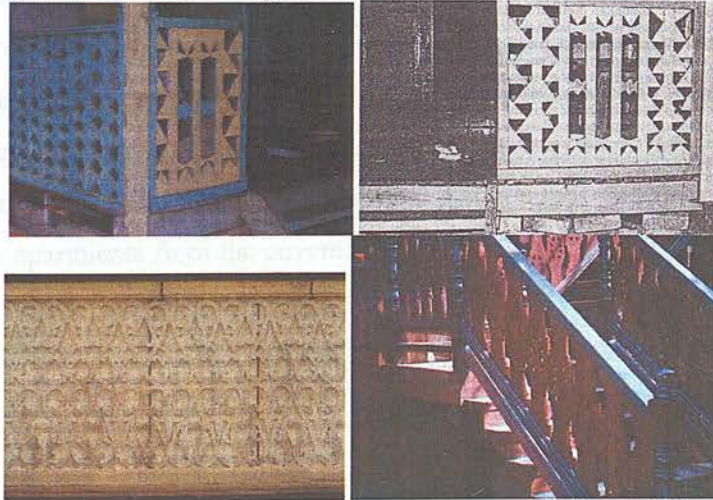
Figure 7-72 *Awan sa'mayang*⁹⁶ motif on the ceiling



Source: Yahya (1995: 126 & 118)
'Ketumbit' flower motif on the ceiling

3. Entrance porch design

Symmetry in nature, reflected in the design of the entrance porch as illustrated below:



Source: Yahya (1995: 136-137, & 127)

Figure 7-73 Geometrical shapes motif: Triangle shape motif organised horizontally (first picture) and vertically (second picture) at the '*anjung*' (covered reception area) of the Malay house. The third picture above demonstrates a geometrical shape, combined with flower and plants motifs on the wall of the house.; and the fourth picture shows a floral design motif divided by eight at the '*kekisi*'⁹⁷ (series of vertical panel supporting the frame) of the staircase

⁹⁶ The fretwork that is almost identical to '*awan larat*' and is normally concaved.

⁹⁷ Alternating panels forming a balustrade for window, or staircase and part of *serambi* wall.

4. Animal representation



Source: Yahya (1995: 113 & 135)

Figure 7-74 Above: End of the *pemeles* (barge board) shaped like the tail of a duck. Above right: *Siku Keluang* (bat's elbow) a nickname for the wave shaped motif at the pillar, which functions to strengthen the joint between the pillar and the horizontal beam that support the roof.



Source: Yahya (1995: 115)

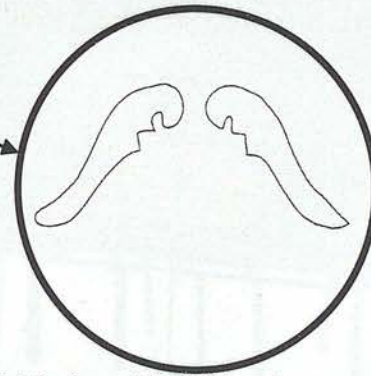
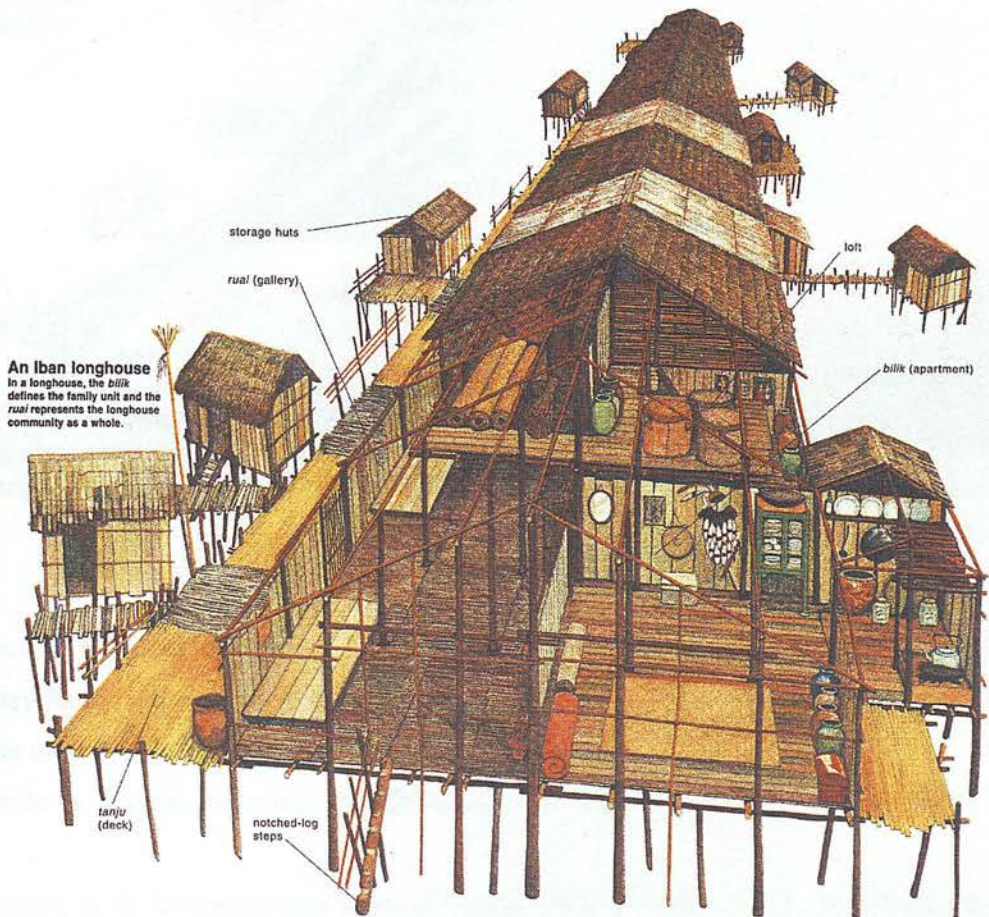


Figure 7-75 Sea-horse motif at the barge (fascia) board.

7.3.4.4 Symbolism in the Iban longhouse

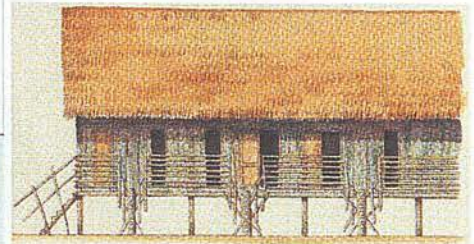
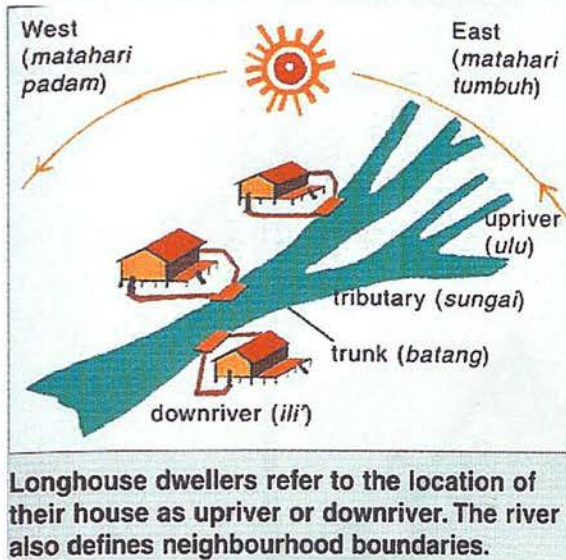
Sather (2001) mentions that the Iban people view the longhouse as, in many ways, a microcosm of the larger social and natural world they inhabit. He adds, in the Iban society, the longhouse (rumah) is the principal local community. Structurally, each house consists of a series of family apartments (bilik). These are arranged side by side and open onto a continuous gallery (ruai). The walls that separate the family apartments from the covered gallery (the *dinding ukoi* or dog wall) bisect the longhouse into two equal parts. On one side of these walls, the individual apartments, separated from each other by thin side walls, represent each family's domestic space and symbolise its existence as a discrete corporate group, while on the other side, the unpartitioned gallery is, by contrast, a public space that symbolises the longhouse as a whole and its membership in a larger riverine society that encompasses a number of neighbouring houses, arrayed along the same river or tributary system (ibid: 158).



Source: Fee (1998: 34)

Figure 7-76 Interior perspective of a traditional Iban longhouse showing the spatial division.

As a microcosm, the longhouse, at the time of its construction, was traditionally oriented in relation to two principal features of the physical universe: First, the east-west movement of the sun, from rising to setting, and secondly, the upriver-downriver i.e. the direction of the principal river along which each house was ideally built. The construction of the Iban long house is in accordance with the sun's orientation i.e., from east to west, or according to the flow direction of the river, from upstream to downstream (see Figure 7-77). The east-west orientation is linked to the journey of life that starts from birth, and ends with death. The flow from upstream to downstream denotes the complex meaning in which the longhouse is built consistently with the '*pemun*' columns and '*ramu*' wood (Sather, 2001: 158-164).



Source: Fee (1998: 31 & 35)

Figure 7-77 The cosmology of the Iban longhouse

Consequently, these two orientation features crosscut one another, with the result, that, in symbolic terms, they lend themselves to a series of symbolic oppositions and complementarities (ibid: 159-160). The east-west is associated in ritual contexts with life, particularly its beginnings, and with death, while the upriver-downriver orientation expresses a more complex range of meanings.

Sather illustrates the longhouse as a series of botanic metaphors, like a trunk of a living tree, which begins with 'pun' (main stalk) in the middle and 'pucuk' (sprout) at both ends that can develop, with the addition or a patch of new rooms to the existing longhouse. In constructing a longhouse, through the arrangement of its main posts (*tiang pemun*) and timbers (*ramu*) upriver and down, the living orientation of the trees from which it is built is preserved and the longhouse itself is represented, by a series of botanic metaphors, as a living tree, with its originating "stem" (pun) at its centre, and its outer "tips" (*puchok*) at each of its two lateral ends, representing points of increase from which the longhouse continues to grow (*tampong*) (ibid: 164).

7.3.5 Adaptation to the local context

Climactic factors

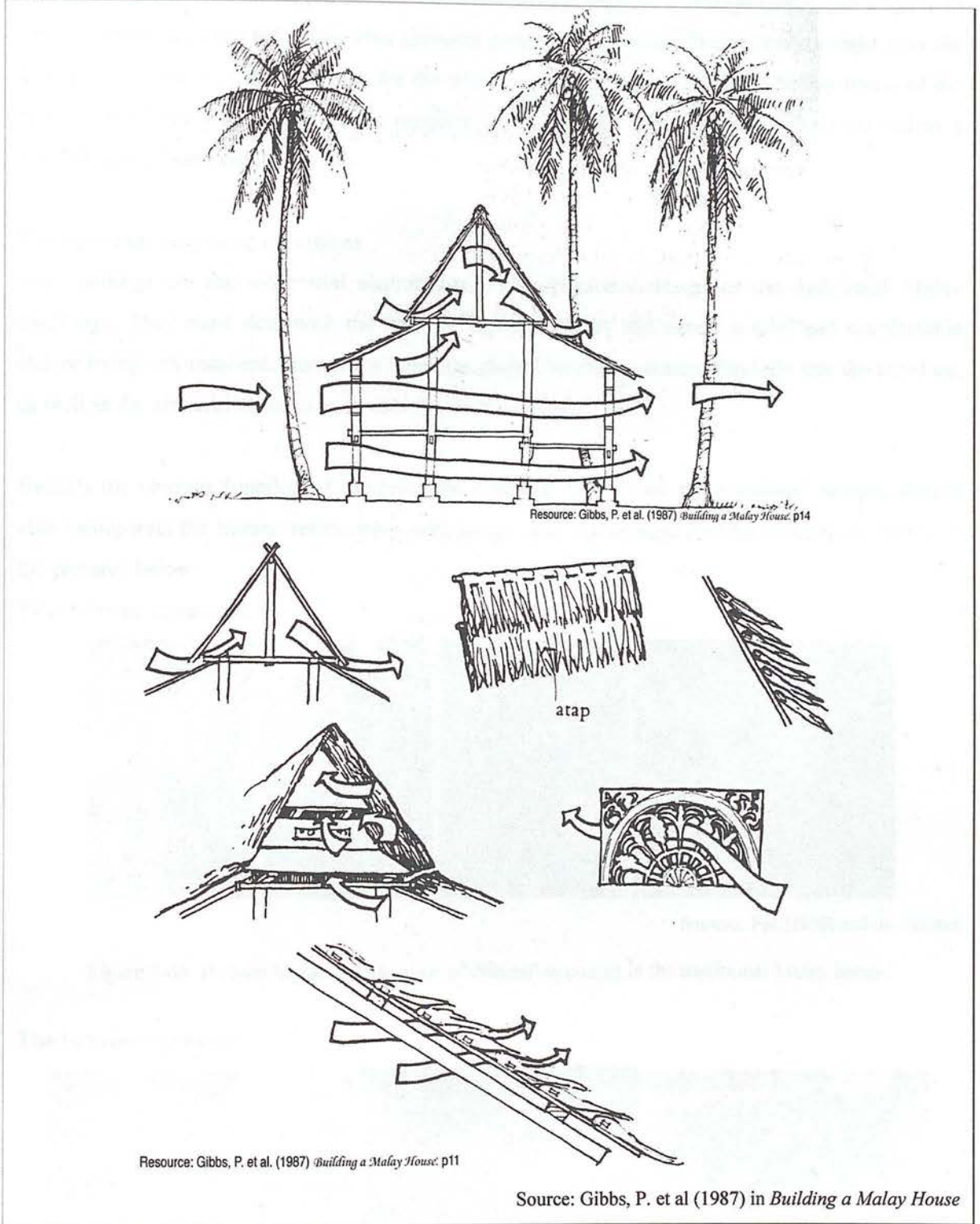


Figure 7-78 The traditional Malay house is designed to respond to the hot and humid climate, by providing maximum ventilation throughout the interior of the house, control of the bright daylight and protection from the rain

The elevated house

The daily activities of the homeowner influence the architecture of the house. Apart from the climactic and safety requirements, the spaces of the house are built according to the needs and the nature of work or activity of the owner. For safety from natural disasters, like floods and security

from wild animals, also for cooling ventilation, the traditional Malay house is elevated from the ground, as high as one to two metres.

The space beneath the house is used for various functions, such as a storage space, and a space to keep animals. An elevated house also prevents people from outside from viewing right into the house. This gives a sense of privacy for the whole family since the traditional Malay house of the past did not have a fence around the property to divide each house because this is viewed as a conflict against harmony (ibid: 86).

The openings and their variations

The openings are the most vital elements in the architectural design of the traditional Malay dwellings. They must deal with the hot and humid weather and create a cool and comfortable indoor living environment. Hence, the openings should be able to control daylight into the building, as well as the air ventilation so as to cool the indoor spaces.

Besides the obvious function of resolving the climactic conditions, the openings' designs should also incorporate the human relationship with nature, and cosmological understanding as shown in the pictures below:

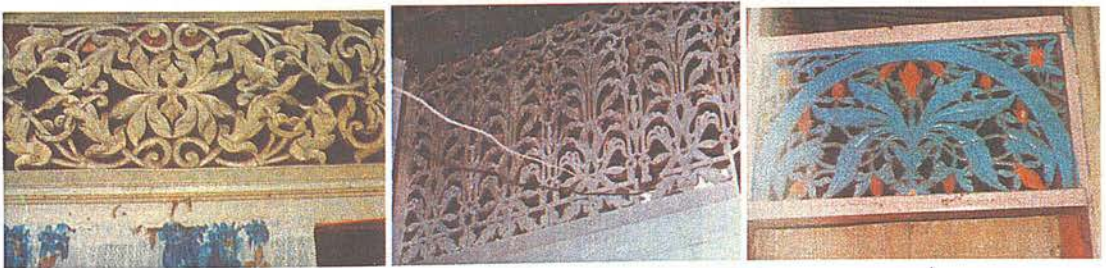
The exterior openings:



Sources: Fee (1998) and the internet

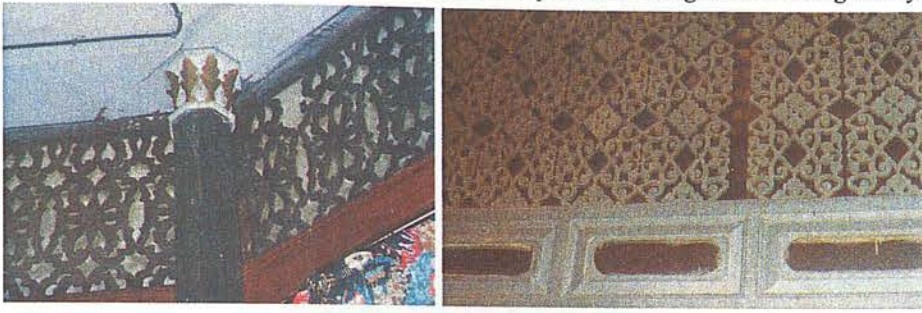
Figure 7-45 Pictures shows the variation of external openings in the traditional Malay house.

The interior openings:



Source: Yahya (1995)

Figure 7-46 Above left: Leaf motif above the door; Middle: *Pokok Hayat* (Hayat plant) motif; Above right: '*Sulur Meliding*' another plant motif above the door and on the '*kekipas*' functioning as the air ventilators to let hot air pass through the higher part of the house, leaving the cooler air to remain within the house.



Source: Yahya (1995)

Figure 7-47 Another set of air ventilators between the ceiling and the wall. Above left: Clove flower motif divided by four on the 'kekipas' (air ventilator top of the wall) and 'Sakat' leaf motif on the top of the column, and above right: flower motifs divided by four and divided by eight on the 'kekipas'.

Foreign cultural adaptation to the local context

The following pictures demonstrate examples of a foreign cultural adaptation – in this case, the Chinese- to the indigenous dwelling design and the context of the living environment:

1. Original Chinese miner's house, adapted to the local dwelling architecture



Source: Fee (1998)

Figure 7-48 This is an illustration of a Chinese miner's house from Isabella Bird's *The Golden Chersonese* (1883), adopted from Yee (1998: 21)

The picture above shows the way the Chinese miners, when they first arrived in Malaysia erected their houses, which were basically built in accordance with the local context, e.g. the climate, and building material resources.

2. A Chinese house in the Kelebang village in Melaka

This century-old domestic dwelling of a Chinese family also illustrates an example of a foreign culture, which adapted to the surrounding living environment, i.e. the local neighbourhood of Kelebang village in Melaka.



Source: Fee (1998)

Figure 7-49 A traditional Chinese dwelling, which adapts to the local dwelling architecture

3. The dwelling architecture of “*Peranakan Cina*”⁹⁵ community called “*baba*” (for the male gender) and “*nyonya*” (for the female gender)

This is an example of a cultural assimilation between the Malay and Chinese societies being manifested in the form of dwelling architecture in the historical Melaka city.



Source: The internet and Fee (1998), respectively.

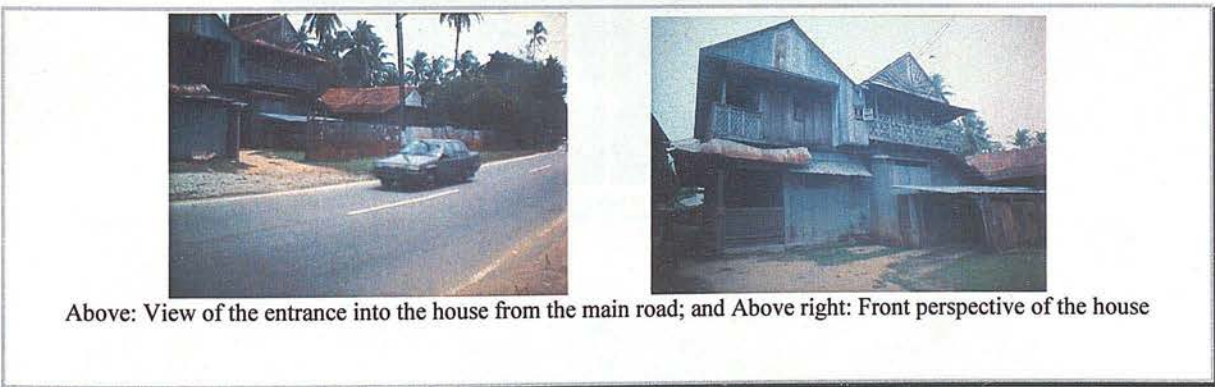
Figure 7-50 The traditional “*baba*” and “*nyonya*” family who embraced the Malay culture; the front and side elevations of a traditional Malaccan house showing a fusion between Malay and Chinese architecture.



Source: The internet

Figure 7-51 Another form of dwelling architecture for the “*baba*” and “*nyonya*” community in the Melaka city centre is the traditional Chinese shop house, with elaborate design at the front façade of the building.

4. The house of Wan Mek Nui, in Kelantan (East coast region)



Above: View of the entrance into the house from the main road; and Above right: Front perspective of the house

⁹⁵ This term is used for the descendents of the Chinese community from mainland China who immigrated and settled in Melaka during the reign of Melaka Sultanate.



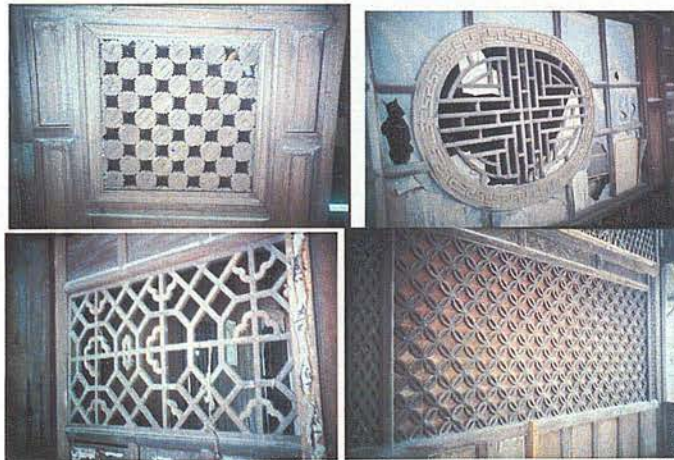
The balcony, as the main entrance space into the house is similar to the traditional Malay house's concept of the entrance porch



The interior spaces in the house is also open and spacious as in any traditional Malay dwelling.



The owner keeps the Chinese tradition of having an open courtyard in the house



A variety of sun screen/air ventilation openings in Chinese architectural design.



Details of the joints are similar to the traditional Chinese dwelling architecture, but the roof design is similar to the local traditional Malay dwelling architecture.

Source: KALAM, UTM Skudai, Malaysia.

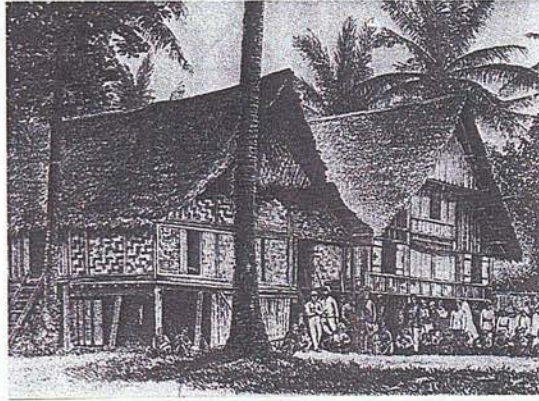
Figure 7-52 The views and perspectives of the centuries old Chinese house, which has adapted to the local architectural concept and environmental design. This also proves that cultural adaptation does not only occurs socially, but also physically and environmentally. Indeed, the local environment is a crucial factor to consider when designing dwelling with identity and sense of belonging towards the place.

7.3.3 Evolution, Transformation and Changes to Indigenous Dwellings

In this section, the thesis focuses on one of the research objectives, that is, to trace, extract and demonstrate the interaction pattern between humans and the surrounding environment through the centuries, and the transformations that have occurred as a result of external influences and cultural assimilation, as well as the changes that have taken place.

The house, as a manifestation of culture, worldview and man's interactions with nature and the environment is embodied in the variations of architectural representations of the indigenous dwellings, from the peasants' dwelling architecture, to the royalty dwelling architecture. This section also traces the origins of the housing designs and form from neighbouring countries, based on the similarities in their architectural representations of the dwellings.

The main problem of tracing the origins of the indigenous Malay dwellings is the availability of documented resources. Before the 19th century, there is no single Malay house, even a royal palace that has been maintained until today (Nasir, 1985:16).



Source: Nasir, (1985: 17) in "Perak and the Malays"

Figure 7-53 The illustration above shows the house of Cik Midah at Bukit Chandan, Kuala Kangsar Perak in around 1870s. The house has been demolished to accommodate a British resident's house.



Source: as above

Figure 7-54.. The sketch above shows the *Sungai Perak* (Perak River) riverside houses, around the 1870s.

The Iban Longhouse, Sarawak East Malaysia

In the East Malaysia, the researcher visited three states divisions – Kuching, Bintulu and Miri in search of indigenous housing typologies and their history. For the purpose of the thesis, the main topic of discussion in this section focuses on the Iban society and its built environment although general descriptions of other indigenous tribes' housing typologies shall be included to illustrate the diversity of the indigenous house forms in the East of Malaysia as in the Peninsula. The following images are recorded to trace the evolution of the Indigenous Iban longhouse, in Sarawak, East Malaysia, from the early times until today.

1. A sample of centuries old indigenous Iban longhouse as displayed in the Sarawak Cultural Village



The Indigenous Iban tribe's longhouse typology taken at the Sarawak Cultural Village, Kuching, Sarawak's capital city



Above: an example of the Iban longhouse's external space at the Sarawak Cultural Village; far right: the function of the space in the actual longhouse.

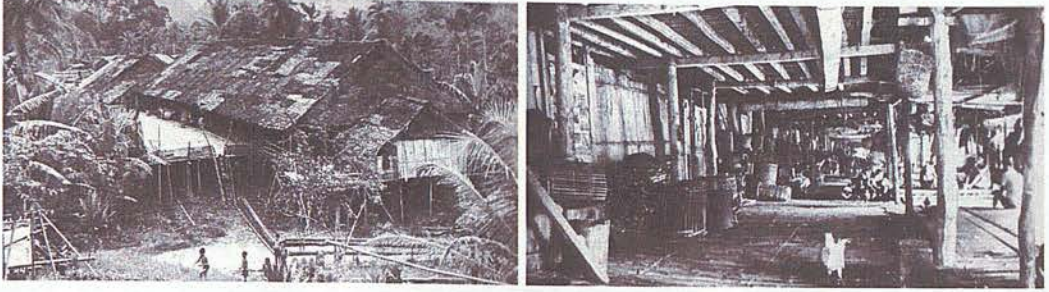


The main gallery (ruai) space in the Iban longhouse. Flexible use of space: an Iban lady doing her bead crafts work at the space(above).

Source: Author

Figure 7-55 The perspective views of a traditionally design Iban longhouse that has been documented at the Sarawak Cultural Village in Kuching, Sarawak, East Malaysia

2. A surviving Iban longhouse built in 1968



Source: Waterson (1991, 1997)

Figure 7-56 Perspective views of the longhouse and the space underneath the elevated floor structure, which are similar to that of a traditional Malay house.

3. The contemporary Iban tribe's living environment at Kg Kuala Tatau, Bintulu, Sarawak, Malaysia

The author captured the following images of contemporary Iban longhouse from the community's residence at the River Tatau, in Bintulu, Sarawak.



View of the front approach of the longhouse from the River Tatau



Front perspectives of the longhouse of Kg Kuala Tatau in Bintulu, Sarawak, visited by the author.



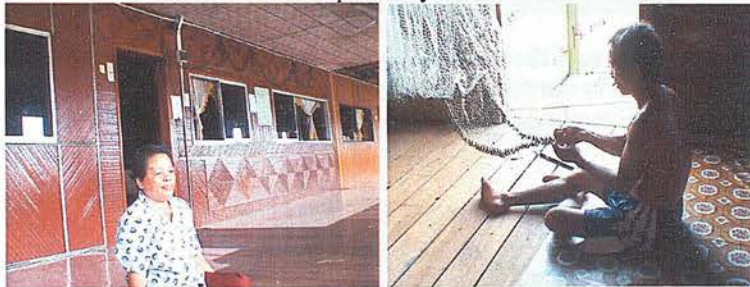
Two opposing perspectives of the Open Gallery (*Ruai*) space



Perspectives of the interior living space of the individual family apartment units



One of the house occupants uses the interior of their house to keep rice; above right: equipment used to chase the evil spirit away.

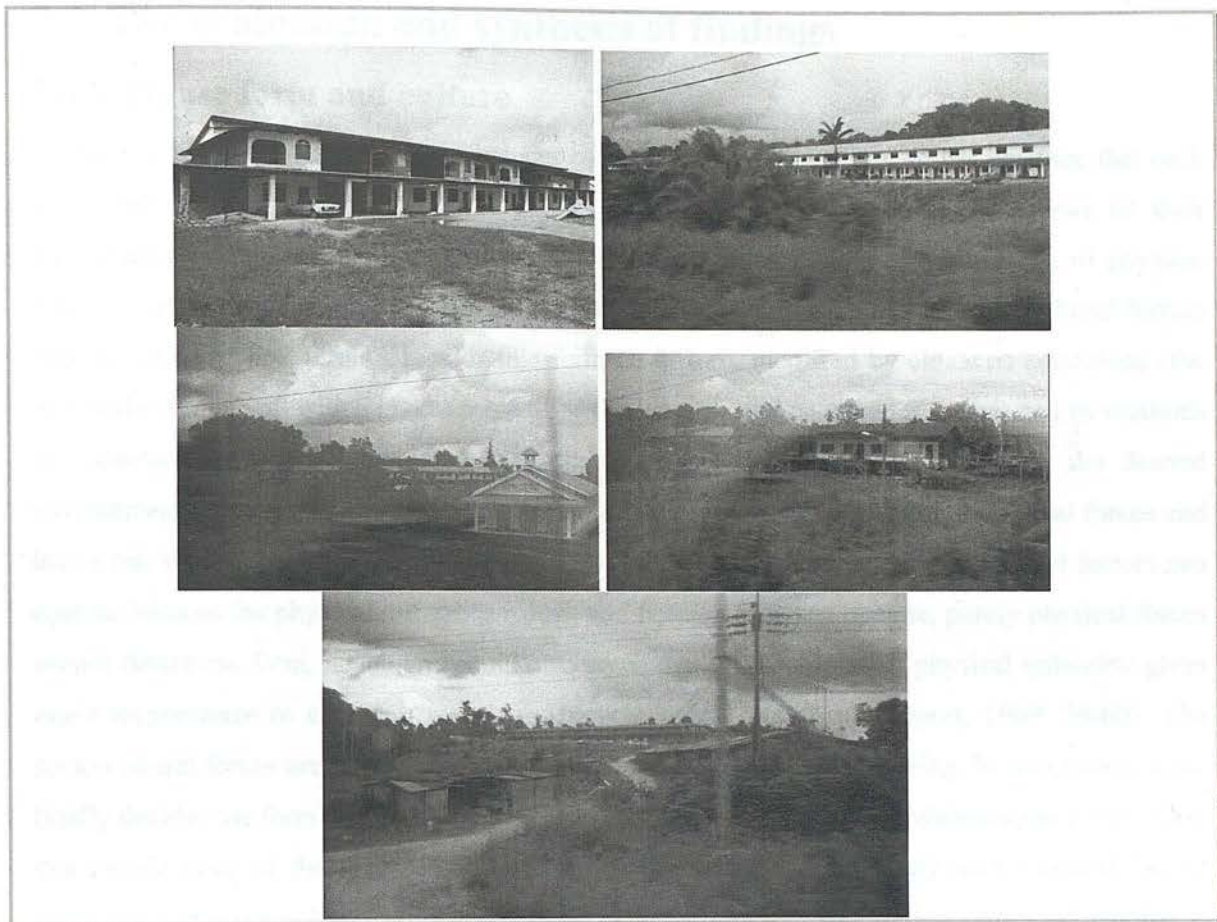


The head chief's wife, in front of their apartment, which has the most elaborate wood design (above left); and a man sewing a fishing net at the gallery area (above right)

Source: Author

Figure 7-57 A contemporary Iban Longhouse at Kuala Tatau village, in Bintulu, Sarawak, which was visited by the author during her field trip, demonstrates the persistence of cultural ways of living and the architectural form of the indigenous dwelling and its site choice.

According to the head chief, the longhouse extends longitudinal for each family and horizontally for the next family and so forth. It accommodates around 60 families at the moment and they will continue to build new extensions once a new family union takes place. The Iban families make their living through farming, fishing and craftworks. The Iban people do not normally stay at one place for a long time. Once their crops are finished, they will move to a new site and build another dwelling there. The above photos show that although time has passed, the contemporary Iban community here still maintains its traditional ways of living, including the way they build their homes. This is a prominent example of cultural continuity through time. The following pictures are examples of other types of modern Iban longhouses taken along the author's journey from Bintulu to Miri, Sarawak:



Source: Author

Figure 7-58 Photos above illustrate other types of contemporary built Iban longhouses between Bintulu and Miri states divisions of Sarawak, East Malaysia, showing the persistence of house forms and design concepts although the choices of building materials have been changed.

7.4 The evaluation and synthesis of findings

7.4.1 House form and culture

Variations in the similarities and differences of the indigenous dwellings forms illustrate that each individual culture's interpretation of its respective culture, tradition, and worldviews of their environments. Rapoport (1969) hypothesises that house form is not simply the result of physical forces or any single causal factor, but is the consequence of a whole range of socio-cultural factors seen in their broadest terms. He adds that form is, in turn, modified by climactic conditions (the physical environment which makes some things impossible and encourages others) and by methods of construction, materials available, and the technology (the tools for achieving the desired environment). He also argues that these forms of houses are not determined by physical forces and hence can show great variety because of the low criticality of buildings. Socio-cultural factors can operate because the physical criticality is low, and because they can operate, purely physical forces cannot determine form, hence one could also argue that this low level of physical criticality **gives more importance to cultural, social and psychological factors** (Rapoport, 1969: 59-60). The socio-cultural forces are primary, while the others are secondary or modifying. In conclusion, what finally decides the form of a dwelling, and moulds those spaces and their relationships is the vision that people have of the ideal life. The environment sought reflects many socio-cultural forces, including religious beliefs, family and clan structure, social organisation, ways of gaining a livelihood, and social relations between individuals (Ibid: 47).

Secondly, the differences of house forms, according to the various regions, also illustrate the existence of boundary among the indigenous ethnic cultures, albeit they originate from the same root, i.e., the Malay archipelago society. This is mainly due to different symbolical interpretation of nature, culture and society for each of the ethnic communities. Rapoport (1969) asserts that *"Buildings and settlements are the visible expression of the relative importance attached to different aspects of life and the varying ways of perceiving reality... they therefore have symbolic values, since symbols serve a culture by making concrete its ideas and feelings. At the same time, house forms, more than other artefacts, are influenced and modified by climatic forces, choice of site, and availability and choice of materials and construction techniques."* (Rapoport, 1969: 47). This denotes an important point that clarifies the thesis search in understanding the significance of symbols and innate values from culture, tradition and religions of the studied indigenous culture in its dwelling architectures (see Chapter Six).

In order to rationally reason the forms of house and settlements, Rapoport (1969) argues that it may be useful to think of them as a physical embodiment of an ideal environment. He proposes that the house should be considered as a physical mechanism, which reflects and helps create the world view, ethos, and so on, of a people, comparable to the various social institutions (or mechanisms) which do the same (Ibid: 48). He reasons that since religion forms an essential part of most primitive and pre-industrial cultures, it forms a suitable starting point to start the discussion of the forces leading to the symbolic nature of buildings, beginning with considering the impact of the cosmic image on form in general (ibid: 49-50); in this context, the cosmic image of the traditional Malay dwellings. It is thus imperative to understand the identity of the place first, before one is able to create architecture with a sense of place and more importantly, a sense of belonging.

7.4.2 Nature's role in the living environment

Mazumdar (2000: 162) writes that the cultural notions about the cosmos, how it came about, how it operates, and how people should relate to it, whether factual, historical, or mystical, is called the *cosmic view*. For example, the cosmic view of the Atoni of Indonesian Timor is one of conceptually subordinate pairs in opposition to a superordinate unit (Cunningham, 1964, 1972). The earth is seen in opposition to the sky, which is conceived as a dome over it. The earth itself is divided into "dry land" and "sea", which is divided into the "female sea" near the shore and the outer "male sea", both opposed to dry land. The Atoni consider themselves as, "People of the Dry Land." Cunningham suggests that the Atoni house is a model of this cosmos. The complete house under the roof is on an elevated area in opposition to the further outside. The inner section is divided into two parts, male and female (right and left) in opposition to the yard (male) [Ibid].

In the 3rd millennium (BC), the Sumerians of Mesopotamia had another holistic model of the cosmos. Sumerian cosmology views that the universe consisted of heaven and earth (*An-Ki*), which were united until *Enhil*, god of air, separated them (Ujam, 2006: 96). Since then, heaven and earth have become driven by a great passion for each other and the longing to reunite. The Sumerian response to this was the creation of a courtyard architecture, which realised this unification. Therefore, the court's spiritual quality, to which the people of Iraq and elsewhere relate, can be attributed to the embodiment of the longing for reunification between earth (the court) and heaven (the sky) [ibid].

7.4.3 Symbolism and architecture in the traditional Malay house⁹⁹

Yahya (1995) wrote about the concept of symbolism in the traditional Malay house in Kelantan, a state in the east coast of Malaysia. He suggested that, "symbols and symbolism have a close relationship with man and his culture". Therefore, Yahya claimed that the world of culture is a world full of symbols. He also agreed with the view of Ernst Cassirer that marks humans as *animal symbolicum*, i.e. the animals with symbols.

7.4.3.1 Defining Symbolism

In an effort to decipher the meaning of symbolism in the context of the thesis, the author invites the reader to look into the definition of the term, "symbolism" itself. It is derived from the word symbol. There are various definitions of the word symbol. As an example, Syarifah Fatimah Zubir (1980:41¹⁰⁰) divides symbols in two categories. The first, being natural symbol such as the process of universe, and next is the revealed symbols i.e. specific symbols recognised by different traditions. She talks about the transcendental symbolism, which is normally used in the field of art. This type of symbolism portrays the superior world apart from the reality world. This stream prioritises matters pertaining the primordial ideas. This phenomenon, according to Ms Zubir (1980:40, ibid) causes man to seldom understand the meaning of the particular symbol. This is due to lack of knowledge and skills, until one fails to differentiate the physical form and sign from the transcendental source and that, which is derived from revelation.

On the topic of the function of symbolism, Yahya (1995) asserts that symbolism has meaningful importance and is closely related to the community's life. Its existence has become a system which demonstrates that man makes his experience as a representative, in other words, symbolism means the replacement of a certain object to another object. The example given was, that the crown, is a symbol of the monarchy. (Yatim, Osman M, 1989:p75)

⁹⁹ Extracted from, "Bab 1: Simbolisme dan seni bina rumah melayu tradisional" dalam *Simbolisme dalam Senibina Rumah Melayu: Kelantan*, (Chapter 1: Symbolism and Architecture in Traditional Malay House, in *Symbolism in Malay House Architecture: Kelantan*), Yahya, Muhammad Affandi (1995); Kuala Lumpur: Dewan Bahasa dan Pustaka.

¹⁰⁰ Zubir, Syarifah Fatimah (1980) "*Simbolisme dalam Kesenian Islam*" (Symbolism in Islamic Art), Dewan Budaya, June.

Symbolism or representation has its own exceptional value and effect on a creation or on the community that produces it and accepts it as part of daily life. In this sense, symbol is the natural gift towards the development of man's image. This means, with consciousness and practice, the symbolic form has unique meaning, which represents the image of the artist. Symbolism also adds importance to the subject being symbolised. In sociological terms, symbolism may urge people to obey and follow the value of life together (Yatim, 1989: p75-76).

7.4.3.2 The Image and Factor of Producing Symbols in Malay Architecture

Yahya (1995) asserts that symbolism or a symbol is a form of pressure or is a community's cultural expression, either from the past or in the present. This includes matters pertaining to the ethos, values and the community's own worldview. Turner, V. (1966:19) claims that in the visual arts, such as architecture, symbol is formed from the community's own development or civilisation, based on its living experience. The symbolic visual form is the product of historical influence and everyday life, beliefs, religion as well as the surrounding environment.

7.4.3.3 Symbolism in the traditional worldviews:

In Malay traditional worldviews, beliefs and religious factors play important parts in establishing symbols. According to Ismail (1985: p23), based on H.B. Taylor, beliefs are divided into four categories: belief in soul, belief in deity, belief in nature and belief in the one God.

Hamid (1988:p185) suggests that animistic symbolism plays a vital role in traditional Malay architectural aspects. Dwelling construction is done with full custom and ceremony, from the process of site construction to the entrance to the new house. There is an extensive use of pure magical charms and the witch doctor or the medicine man is important, as he symbolises the mediator and peacemaker with inexplicable power. The form and structure of the house is also built, based on this belief. For instance, the roof part is always marked by *buah buton*¹⁰¹, which is believed to prevent evil spirits from sitting on the capping that covers the peak of the roof.

The introduction of Hinduism-Buddhism into the "Malay Archipelago" in the 4th and 5th centuries AD, marked the change in pattern and thoughts of the indigenous Malay community. The traditional Malay architecture began to accept external influence (N. A. Halim 1990:21). Here, occurred the process of syncretism, in other words, adaptation between the new religions and the indigenous animistic beliefs of the local community.

The influence of Hinduism-Buddhism started to influence the traditional dwelling architecture, either in the art of engraving or in decorations based on nature, flora and fauna and connected to the religious beliefs. When Islam was introduced in the region, there was a complete transformation

¹⁰¹ *Buah buton* is a vegetal embellishment applied to the end of a suspended vertical structural member such the *petunjuk langit* (King post)

of the rationality, intellectualism and aspects of the Malay community structure. The Islamic religion brought innovation to the indigenous-based Malay architecture and its Hindu-Buddhist influence into Islamic-based principles. The use of symbols and symbolism were now based on the principle of monotheism, and Islamic worldview avoiding any practice, which diverted from the Islamic faith. For instance, Islam forbids any kind of painting or sculpture of the living souls, humans, and other living creatures such as the animals. Hence, geometric and calligraphic works of art or motifs are derived as decorative elements in the traditional houses.

In essence, symbolism is the community's own expression that relates its ideas to each other. The idea functions as a manifestation of the particular environment – past or present - and the real community's cosmological desire. It is also a method of revealing the truth about nature and its birth is due to man's aptitude for invention and use of the symbols themselves.

7.4.4 Deciphering the concept of traditional Malay architecture

According to Al-Bakri (1981: 3), traditional Malay architecture is basically a building built as a dwelling place and for human use. It is the product of the Malay community's way of living in which their values and organisation is about being surrounded by family members, customs, religion and the community as a whole. He stressed that the Malay house architectural concept must be based on the architecture being practised by the Malay Archipelago that has the same core but each has different characteristics as a result of the exploration and developments which have occurred locally (Wardi, 1983: 28).

An important factor relevant to the research found here, is that the Malay house architecture plays a significant role in the history of Malay civilisation, as a symbol of family life and community living environment. The form and shape, the majesty and wealth of the occupants are symbolised by their houses (Al-Bakri, 1981: 4). Yahya (1995) adds that the traditional Malay house is the solution to natural housing. It is developed and built by the Malays from generation to generation. It adapts to the needs and surrounding environment and also utilises the local natural resources available around the house.

The traditional Malay house is a product of vernacular architecture, derived from the grassroots of the Malay community. The functions of spaces are according to the social needs and the Malay community family system. These characteristics can give unique identities to Malay architecture (Al-Bakri, 1979: 11). Lim Jee Yuan (1989: 724), on his statement about the use of building materials says that they do not necessarily have to be grand, special or inspired from the designer's consciousness, instead they should portray other qualities that establish culture and the way of living of a particular culture.

7.4.5 Factors influencing indigenous dwelling architecture

As a concluding remark about the synthesis of the findings in this chapter, the thesis adopts Nasir's (1985: 23) outline of the factors (both manifest and subjective) that influence the architecture of the indigenous dwellings as follows:

7.4.5.1 The environment

Observation of the environment is one of the most significant sources, which influence the form of traditional Malay dwellings' architecture. The observation is not simply based on looking at the trees and plants, with their individual attributes and characters, but people in this community also give deeper attention to how the birds make their nests by choosing materials from the surrounding resources, and making their nests not far from the resources. That situation is close to humans', except for the differences in shape and level of achievement. The environment related to the topography, as part of the elements that influence the particular architectural form, has each building established on its site and it cannot be separated with the characteristics of the site and its topography (ibid: 23).

7.4.5.2 The climate

Climate is an important factor that is given extra attention in the production and materialisation of a certain form of architecture in this region. The sun's scorching heat and heavy rain all year long are the twin situations that must be resolved, by building houses based on appropriate forms. It is from this influence that the whole traditional houses in the region chose the house type with columns, with ample space underneath the house, in which the floor of the house is higher than the ground surface. The raised floor level is one of the ways to reduce the dampness of the soil, as well as giving ways for the air to circulate through the house, and it can also prevent the interior spaces of the house from being drowned by flooding caused by heavy rain. The floors and walls from the bamboo are woven with artistic holes, the open space under the roof eaves are parts of the climactic and ventilation concepts, meant to prevent heat and solve the dampness within the house. The climactic concept is a preparation process to let clean air into the interior and to release the dirty air out from the enclosed space; indirectly, the surface of the air ventilator can prevent bad influences from affecting the health of its occupants. The shape of the roof that is high and steep until sometimes its opening angle is more than 45°, is also one of the ways to speed the rainwater's flow without absorption and leakage in the roof that is made from the *rumbia* (Sago-palm) leaves, *bertam* (*Eugeissona tristis*) leaves, *nipah* (*Nypa fruticans*) palm leaves and so forth (ibid: 23-24).

7.4.5.3 The way of life

Architecture and the Malay's way of life cannot be separated, both are interconnected and influence one another. The Malay way of life is always amending, improving, changing, and reacting with its architectural world, to accommodate its constantly changing lifestyle. It is a fact that the architecture of the indigenous (traditional) Malay house is an architecture that is known as

“informal architecture”, that is, its construction is achieved without an architect, unlike today, where any modern building needs a specific plan that is produced by architects.

The Malay way of life also encompasses many things, such as the heritage passed down from generation to generation, whether it is to do with the customary traditions, beliefs, animism, religion and so forth. The form of the Malay culture until today is also derived from several cultural characteristics that have become integrated, such as the Malay culture inherited from the ancestors, the culture from Hinduism, Buddhism and Islamic influences, western influences, Eastern influences such as from India, the Middle East and China, and finally, the region's (Malay archipelago) cultural influences.

Religious influences hugely embrace the Malay's worldviews, that is, the Hindu-Buddhist influences or subsequent Islamic influence. Traditional Malay dwellings also cannot be split from such influences, either from their physical or conceptual and spatial functions that are changed and organised, according to Islamic religious principles (ibid: 24).

7.4.5.4 Religion and custom

Religion and custom are the main determinants of Malay society's life principles. Hilton (1956) includes in his findings that the additional factors affecting the design and construction of the Malay house, even when the owner has small resources and cannot improve on the materials, are primarily those of custom; i.e. privacy for the womenfolk, together with hospitality for casual guests. This notion calls for three parts to the house: the main body (*ibu rumah*), a kitchen (*dapur*) with separate entrance at the rear, and a reception room for guests at the front (ibid: 135).

7.4.5.5 Values

The architecture of traditional Malay dwellings was also influenced by values. Furthermore, these values may also vary. In the traditional period, an architectural form, besides the influence of its functional values, also paid attention to the spiritual, aesthetics, and ethical values, because the Malay worldview was more empowered by an appreciative attitude to a spiritual way of living that is based on good moral and rational/sensible values. Eventually, with the arrival of western influences that were more inclined towards material values, the new influence has become attractive to the Malays. The rise in material wealth has apparently spread to the latter forms of the traditional Malay dwellings architecture, and because of these factors, the various types and forms that have continued to flourish for centuries can now be seen throughout the Peninsula (ibid: 24).

7.4.5.6 Summary Conclusions of the Evaluation and Synthesis of the Findings

Architecture is a product of the natural creation and development of the community itself (Yahya, 1995). The architectural form is the product of everyday life, beliefs, culture, history, the natural environment and technical skills. The symbolism in domestic architecture should not be limited

only to its physical interpretations, but must also be viewed in terms of its innate values (ibid: 144). In this view, innate values are the intangible and intrinsic components of worldviews, cultural meanings and cosmological understanding that actually drive the tangible formation of the dwelling architecture.

7.5 Conclusions to Chapter Seven

History has shown that from the earliest century of civilisation in Malaysia, the indigenous dwelling designs, or more accurately, architecture, had evolved, flourished and accepted external influences but **had** actually successfully maintained the core values (deep structures) of the original dwellings' aspirations – just as the characteristics of a structure in a system, possesses qualities of homeostasis as well as self-regulation, as discussed in previous chapter (see Chapter Five, under the sub-topic: **Culture**). In this case, the indigenous dwelling, posing as the structural system, and after going through such transformations from various external influences and pressures, is still able to maintain itself back to its original state, i.e., self-regulating itself to its normal operational system, and above all, enriches the qualities of its own structure that is, the living architecture.

In this context, the thesis has manifested and justified the theoretical claims of the research. The thesis repeatedly emphasises that it is the qualities within indigenous dwelling architecture that actually contribute to its “*awet muda*” (evergreen) status. That is actually the reason for its sustainability and its success in finding natural environmental solutions to design as well as establishing and accomodating human relationships with nature – the physical, visible environment, the cosmos, the spiritual world and the rest of the unseen world.

8 The Beginning at the End of a Journey

8.1 Introduction

The central aim of the thesis is building a discourse on housing, highlighting the necessity to maintain quality through sustaining the cultural meanings, which originate from nature, cosmology, worldviews, and traditional values of Malaysian society. The thesis critically examines the housing policies and strategies, in which the visions of quality are still very ambiguous. The Malaysian government has adopted a housing policy, which imposes homogeneity and similarity on the diverse multicultural ethnic societies that are affluent with indigenous knowledge, tradition and unique identities in their dwelling architectures. The thesis identifies the philosophical notion of boundary, as a valuable intellectual tool in developing an indigenous model for housing. Boundary has subconsciously driven the formation of various cultural and architectural identities in the Malaysian indigenous dwelling environment. The philosophical structure of the thesis explores components of cultural meanings as the motivating forces responsible for the formation of indigenous dwelling architecture, derived from the worldviews of the indigenous Malay society. Further support is obtained from the theoretical discussions related to the components of cultural meanings, and the Empirical Study. The empirical findings present the intangible aspects of cultural identity through open-ended questionnaire survey and the embodiment of identity of the indigenous society through its dwelling architecture.

This chapter distils the information gained from the findings of both theoretical framework and empirical studies, by identifying the crucial domains for obtaining quality through cultural meanings in the living environment. It must be reminded that the thesis shall not give any detailed outline in terms of design, planning or development approach as it gives the freedom for the architects, designers, planners, developers and housing policy makers to decide and interpret them from their own individual understanding of the thesis discourse. Instead, it provides recommendations concerning the future housing policy, strategies, planning, and design for housing in which the architects, planners and housing authorities are able to interpret, and implement in search of a national architectural identity for housing in Malaysia, which is tolerant, sustainable and unifying.

8.2 Reviews of the discourse

In this section, the author overviews the findings of the whole thesis discourse by distilling the main points of discussion. Its diverse ethnical races, religions and cultures, trigger the thesis aspiration on the housing discourse. Within the cultural diversity, the author identifies a common attitude and appreciation towards nature in their worldviews, philosophy, religious and cosmological understanding. This shared perspectives towards nature is identified as a call for unity within the diversity of this nation.

The thesis also recognises the diversity of cultural and architectural identities as the ontological notion of boundary, which distinct the cultures from one another. The boundary emerging from individual culture or community has traditionally been the driving force for people to transfer their indigenous worldviews, develop and transform them into their dwellings architecture. The notion can become a valuable intellectual tool in developing a discourse on housing in Malaysia.

The roots and resources of the cultural meanings gained also act as the thesis's insight for the discourse. The outcome of the whole discourse is aimed to be a guideline for the architects, developers and housing policy makers to strategise and develop their own interpretation of housing design and policies according to the criteria provided by the thesis. In the following, the research would like to highlight some important indicators arising from the discourse:

1. Housing crisis and a call for the return to culturally rooted architecture

Chapter Two indicates that the contemporary predicaments in Malaysia's housing are the result of irresponsible planning and design approach towards the local living environment. In line with the thesis arguments, many scholars are suggesting that the best solution for most of these problems are to revert back to the traditional patterns for living (housing) environment, the enhancement of environmental sustainability and community living; as well as and the call for a return to the culturally rooted architecture. In other words, this demonstrates that there is a crucial demand to include the quality based on cultural meanings that has been inherited throughout the centuries into the Malaysian housing approach.

2. Failure of the contemporary dwelling design

From the findings in Chapter Six, it is obvious that the modern terraced-linked type housing design is the most common house type being developed in Malaysia at the moment. But the design scheme has also failed to satisfy social, environmental and cultural requirements due to its irresponsiveness to the human needs, climactic needs, and the local cultural ways of living such as in the spatial organisation, and the rigidity of its design.

3. Responsibility and control

Responsibility and control should be shared among the individual, society and the local authorities at some degree, while at a certain extent, both responsibility and control should be given to the home owner as motivations for them to adapt, develop and transform their dwelling environment in response to their cultural and cosmological meanings.

4. Socio-cultural factors

Social-cultural factors do mostly influence the form of living architecture in Malaysia because architecture IS a reflection of the way of life. People relate to many aspects of the socio-cultural-religious aspects of the indigenous/ traditional living environment in their daily activities of the modern day urban setting, despite the apparent physical limitations (e.g., spatial design, space quality) imposed by the contemporary housing development by making changes and alterations to their dwellings so as to satisfy the needs to fulfil the socio-cultural-religious aspects of their ways of living.

However, many aspects of cultural traditions have also been lost through the process of modernisation, and urbanisation, for instance, people's loss of control over their built environment by the current housing development policy. Contemporary lifestyles, and global exposures in various design approaches in living architectural designs throughout the world have also largely (and inevitably) affected people's views towards their own dwelling designs and living environments today, instead of referring to their traditional cultural roots.

5. Conquest of, versus collaboration with nature

Reflecting back on the relationship among man, nature and the environment in Chapter Five, Rapoport (1976) suggests that the importance of knowledge about the evolutionary background of man, both physical and social environment within which man evolves – provide ranges and sets certain limits on the ways the environment can best respond to human needs.

The thesis emphasises that contemporary housing approach should have a holistic worldview of nature instead of merely using its resources to gain profit. As Rapoport (1969: 76) suggested earlier (refer Chapter 2) primitive (indigenous) man's primary worldview is of harmony with nature rather than conflict or conquest; the concept of man/ not man in primitive (indigenous) society is above all one of mutuality. The general attitudes of respect and reverence for the site mean that one does not browbeat or rape it (i.e., nature in general) but work with the site (ibid).

From the survey findings, people's level of knowledge in their value perceptions and appreciation towards their relationship with nature and the environment maintain at the surface level. This indicates that at the conscious level, people relate themselves with the social, physical and natural environments. But at the core level, there is a lack of realisation of the deeper connection with the spiritual, cognitive dimensions towards their cultural meanings and cosmological understanding of their own culture, religion, tradition and worldviews.

6. Roles of culture

The thesis emphasises that aspects of culture are imperative in the formation of dwelling designs, which portray identity and quality. Culture possesses a dominating role in the embodiment of dwelling designs of every country that are nurtured and civilised by their social, religious and indigenous traditions. The evolution of culture as an open system as well as an empowering

fundamental structure and thought system of a society indicates both embodied and embedded knowledge systems that are responsible for the existence of principles and orders for the social, political, economical as well as built environmental designs. Each culture that is indigenous to its own society practises a holistic worldview towards the physical, humans, and environmental developments. This notion is portrayed in both manifest and symbolic aspects of the indigenous dwelling designs and its social cultural traditions.

Culture continuously evolves and expands its knowledge through adaptation and transforming, i.e. enriching a society's existing system making it more sophisticated through time, without losing the cores of its values. Society is an open system that can self-regulate its system, i.e. to move from a simple to a more complex form, and also possesses the element of homeostasis, which enable it to maintain itself to its natural state after the occurrence of external pressures, such as natural catastrophe.

Cultural embodiment in the indigenous dwelling design, for example is apparent in the roof forms, spatial organisation, the articulation of space and the zoning of living spaces. In the articulation of spaces, the front entrance porch i.e. the '*anjung*' is slightly raised above the ground, then, the floor is raised higher into the main interior spaces of the house such as the '*serambi*', and the rooms. This leads to the transitional space between the main front parts of the house with the end part of the house – the kitchen, dining and washing areas.

7. Authenticity

The thesis claims that housing approach in Malaysia, based on the current housing policy are chaotic, homogenous and fails to represent the authentic qualities of the local contextual aspects of the social, cultural nor environmental identities. Authentic architecture should represent and reflect a way of life, an image of life (Pallasmaa, 1995: 143). In this respect, he criticises that today's architectural avant-garde, has deliberately rejected the notion of home, in which the problem of mass housing has been abandoned, which is the core issue of the modern project. From the empirical study, the thesis also proves that social and cultural factors, rather than physical forces are the most influential in the creation of the form as suggested by Rapoport (1969: 49).

8. Deciphering the tangible and the intangibles

In the race for global recognition for a developed status, the Malaysian urban development and planning authorities have taken for granted the country's own cultural richness as the country's asset for development strategies. Instead, they turn to the global, fragmented worldview from the proclaimed developed countries around the world.

The architecture of indigenous dwellings should be well studied, analysed and transformed. Every feature that the thesis showed has a deep meaning rooted in the culture and therefore provide valuable source of inspiration to designers and housing policy makers. For instance, the tangible

meaning of the '*serambi*' design or the guest reception and entertaining space is that it responds to the climactic condition of the environment that is hot and humid. Hence it provides a space that is open, cooling and comfortable by being light and airy, and also possesses architectural elements such as the embellished '*awan larat*' decoration that acts as air ventilator as well as screening device to control the bright day light from entering the interior space. Whereas, the intangible aspect of the airiness and brightness of the '*serambi*' symbolically portrays the Malay's openness and welcoming nature when receiving guests and the intricacy of the '*awan larat*' design reflects the owner's personality, his personal expression of the beauty of the natural surroundings and his interaction with nature (refer Chapter Six: 268-269).

Aesthetics and beauty are also notions of intangible values that cannot be grasped by anyone who has no knowledge of them. The thesis recognises aesthetics as one of the intrinsic qualities possessed by indigenous Malay worldviews, which is transformed into the physical forms of art, architecture and built environment of the indigenous society. Indeed, there is a crucial need to incorporate both the tangible aspects built environment and the intangible aspects of culture and society into the housing design and development. This integration of the tangible and intangible aspects has never failed to inspire and motivate people to improve the quality of meaningful living.

9. Adaptation and motivation

It is human nature to have needs. Adaptation is a dynamic process, while motivations behind this process represent a 'natural stimulation' inherent in human nature. People adapt to the physical, social and cultural environment (Masaud, 1996). The process of adaptation requires human being to make adjustment not only to the physical environment, but also to the social and cultural requirements. As been discussed in both Chapter Four and Chapter Seven, the notion of adaptation is biological and socio-cultural in which the former refers to the contextual aspects of a place and the latter refers to the cultural aspects of a particular region or neighbourhood.

Housing development should consider the aspects of adaptation, which covers the responsiveness towards the surrounding environment and the local neighbourhood, the climactic conditions, and also adaptation towards the cultural needs of the local community, i.e. to recognise the local culture, and its values. Human's motivations would also increase with the fulfilment of their basic needs and their freedom to satisfy their self-esteem and self-actualisation.

10. Indigenous cultural resources

Indigenous cultural resources include 'indigenous knowledge' and the 'cultural attributes' of community bonding, 'self help', 'mutual aid', social responsibility, and a 'traditional polity' striving to satisfy the needs and aspirations of its people (Islami, 1998: 37).

Local knowledge is found easily adaptable to its own people, in which it covers the whole spectrum of the physical, social, cultural and political disciplines and issues. Cultural values are seen to arise

out of the interaction between transformational concept and the environment. These concepts give rise to meaning placed on an environmental phenomenon. Indigenous cultures have frequently helped people to place each development project and program into an appropriate holistic model by their intuition, wisdom and worldviews, as described below:

10.1 The traditional Malay values

Ariffin (2001: 269) maintains that the values – spiritual, emotional, and material – are rooted in the mind and soul of a society, in which all the above natural and man-made forces nourish and sustain. The values associated with the culture of a Malay society include kindness, bashfulness, and empathy. Its value system, as discovered in Chapter Three demonstrates three main components, which are the mutual assistance, equality, loyalty and unity. These are part of the elements of deep structure of the Malay culture, i.e. the intangible aspects of the community that actually have a dominant impact on the laws of tradition, social, economy and political affairs of the society.

The civilised Malay tradition in history has successfully incorporated the essences of cultural meanings into the country's social, and physical development, motivated by the values system and a holistic worldview towards the notion of progress and development. In Chapter Three (refer 3.4.3.1: 59), the thesis explains that motivations for the Muslim Malays in their artistic and architectural productions follows the ethics as suggested by Haider (1990): metaphysical, aesthetic, devotional, and praxic. The result of such approach is establishment of quality. In the context of the dwelling design, the traditional Malay values provide principles of hierarchy and order in determining the dwelling forms, spatial organisation, articulation of space and zoning, site orientation as well as the symbolic cultural meanings.

10.2 Holistic worldview

Design in response to the indigenous worldviews means that housing designers should develop a holistic worldview towards the design encompassing all aspect of physical, social, religious (spiritual) principles. The forces of the worldviews of the indigenous society are based on tradition and religion. This type of worldview, if incorporated with the contemporary worldview may resolve many dilemma of the contemporary housing.

To illustrate that there is an interdependent relationship among men, culture and the environment, the thesis adopts Barati's (1997, 211-212) proposal that, "**person-perception-environment is a unity - not three but one [...]. Once we accept that knowledge of the environment is local and interdependent on culture, we can begin to examine the qualities of different cultural knowledge systems without compromising our search for 'reality'**. [...]. In place of planning and design theories driven by different ideologies, political views, technology, etc., and instead of seeing people, their culture, environment, and thoughts as different and independent concepts and making decisions based on such way of thinking we can instead look to the totality and search for appropriateness and consistency in expression of a culture and its knowledge."

10.3 Religion

Another important asset of the indigenous cultural knowledge is religion, as it possesses a dominant energy in determining the thinking paradigm and pedagogy of a cultured society. Religion is an integral part of human culture. As a dimension, it plays a dominant role in shaping the worldviews and cosmological understanding of any religious society. Over a long period of time, it has influenced the ways of life, the component structures of human settlements, such as the dwelling layout, architectural forms, art forms and etc.

As an important cultural construct, Mazumdar (2000: 164-165) describes religion as a set of beliefs held by a community of followers, incorporates a worldview, notions about appropriate lifestyles, ideas of good and bad, directives about activities, and for some, ideas about building design. Religion can influence design in many ways directly or indirectly. Direct statements about design, though not very common do exist, occurring in the form of descriptions of an ideal physical environment for its followers, direct specifications of designs, and standardised expectations of its followers. Indirectly, religion provides notions of a good life, influences choice of lifestyle, defines what is pure and impure, sacred and profane, and provides values, norms, rules and codes of conduct, all of which have implications for the design of space (ibid).

Ideas of orientation and sacred-profane spaces are also empowered by religion. In the Muslim Malay community, it is obvious that the dwelling orientation towards Mecca is based on the Islamic belief, which symbolises cleanliness, purity and faith. Mazumdar (2000) adds that in other religions such as Hindu, the east is the favourable direction, for the Jews, it is the direction towards Jerusalem, the Zoroastrians in Iran, the preferred orientation for the house, or at least the primary room, is the south.

The analysis section in Chapter Seven demonstrates the “Concept of Unity” according to *Tassawwuf* (one of the branches of Islamic philosophy) in many aspects of indigenous dwelling design, such as the site layout, the design aspect, the platform concept, the zoning division of interior spaces, the structural design and material, the construction of ‘tiang seri’ (first column erected on the site of the house), the floors, girders and joists, the roof, the lighting, cross air ventilation and the wood carving. The analysis also illustrates the expressions of religious cosmological understanding in the floral and calligraphic motifs, and the fascia board decoration.

11. Transformation

Transformation is the enrichment of the existing (original) system. It increases the value and quality of the original system with new knowledge. It is a process of change that is inherited in a structure and never leads beyond the system but always produces elements that belong to it and maintain laws (Piaget, 1971).

All aspects of forms, design materials, decorations, and technologies are the result of years of transformation, which is derived from human experiences and interactions with God, nature, symbolism, and the environment socially, culturally, and politically. The aspects of transformation also occurs in the world of built environment generally, and particularly in the dwelling designs. The thesis has demonstrated the manifestation of transformation in the indigenous dwelling typologies in Chapter Seven such as the addition of space, and changes to the entrance staircase in the Penghulu Natar's house in Melaka, and evolutionary transformation (in a few decades) of the interior layout of Dato Haji Muda's house in Negeri Sembilan (Chapter Seven: 356-358).

12. Dimensions

Dimensions are the **motivating forces behind any occurrence in the environment**. The sources of knowledge that people base their interpretations on in terms of the meaning of ideal home are derived from their material, qualitative, cognitive and religious dimensions in which the thesis has extracted from the survey (refer Chapter 6 on Dimensions). These sources are in fact derived from the innate inherited cultural-religious-tradition, that have actually driven the formation of the sustainable and satisfying indigenous living environment.

13. Quality

The thesis emphasise is on the quality dimension, in which the quality of life is determined. As mentioned in the Chapter Six, the quality of life is a crucial factor to determine people's satisfaction in their perceptions of their respective dwelling architecture and living environments. The fulfilment of the quality of life would alleviate the stress level, create a sense of happiness and contentment in people, hence, create a healthy, safe, and culturally sustainable living environment. Values, health, happiness and beauty are some examples of the aspects of quality of life. Bakar (1997: 3) proposes that beauty in its true nature is a quality that is non-measurable and non-quantifiable. It is at once a spiritual and an intellectual quality whose reality transcends the physical objects in which it may manifest itself.

Quality is the "umbrella" for people as it originates from maintaining meanings, cosmology, worldviews and nature, and it has been proven that people are a part of and united with nature. It represents a successful example of natural environmental solutions in dwelling design. Quality allows freedom in a particular cultural system, which is demonstrated in the individual personalisation and expression of identity in the built environment.

14. The essence of home

It is imperative to decipher the meaning of home. The contemporary local built environment professionals and the housing policy makers should decipher the meanings of the terms home, house and housing in order to appreciate the values of their meanings in the creation of a responsive and appropriate housing design and development. It is important to recognise their differences and the depth of their meanings towards people so as to recognise their characteristics

in order to shape the indigenous model for the future living environment. From the discourse findings, the thesis has illustrated the definition of home as the cultural interpretation tool (refer 2.4.1.1: 30). It is sad that today's dwelling architecture has deliberately rejected the notion of home.

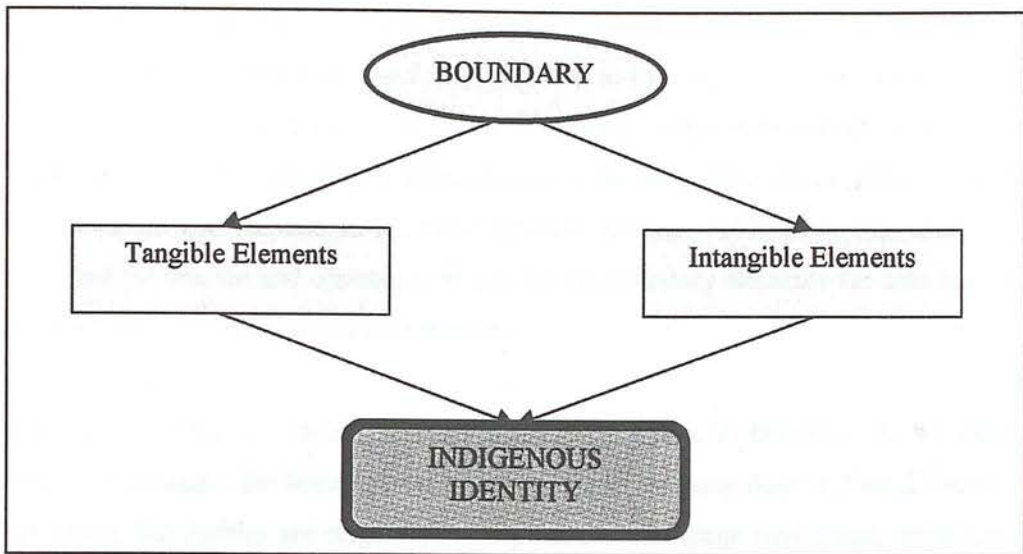
15. Perception and its components

Human perception, cognition, schemata and aesthetics needs, are also highlighted as the significant elements, which contribute to the process of transformation that are responsible for the visual formation, i.e. manifestation of the built environment.

Our perception is highly influenced by culture. In design and built environment, human perceptions towards the environment are expressed through cultural and religious worldviews. The architectural entities affected by human perception include the built forms, the choice of building and decorative materials, colours, and so forth. Cognition is the processes by which man acquires, transforms and uses information about the environment and about the world in general (Shouksmith, 1970). Schemata is a structured cluster of concepts; usually involving generic knowledge and may be used to represent events, sequence of events, perceptions, situations, relations and even objects (Eysenck, 1994). The way people perceive the world depends on the concepts that he already has i.e., the 'schemata', which determines perception (Jencks, 1969).

8.3 On the idea of Boundary

In the first chapter, the author introduces the ontological notion of boundary and identifies it as a valuable intellectual tool that will assist architects, designers and the housing development authorities to develop an indigenous model for housing in the country. In other words, to propose a model that is able to connect people with people, and people with the environment. Boundary will assist the model to identify the differences, tensions and opposition among the diversity of cultures and transform them into a positive invitation for the diverse cultures to exist in opposition among each other, simultaneously, uniting under the same umbrella of understanding, i.e. attitude towards nature. Hence, boundary becomes the indigenous identity for the unique Malaysian society. The meaning of boundary here is clarified by the two categories as illustrated in the diagram below:



- a) Culture-specific (emic), which are the tangible elements such as-
- a. Physical boundaries
 - Orders or laws, which dictate the limits and confinements of ways of living
 - System – Structure, configuration patterns in the living environment
 - b. Place, Territorial
 - Geographical – Countries, location
 - Urban, towns, cities
 - Neighbourhood
 - Homes, housing and houses
- b) Culture-universal (etic), which are the intangible elements that are metaphorical such as:
- a. Metaphysical worldviews
 - Attitude towards the environment based on ontological and cosmological foundations
 - Community attitude and behaviour among each other and towards the environment based on cultural orders and traditions
 - b. Symbolism and cosmology within the arts & crafts, architecture in the built environment and within community's ways of life.

In the context of the thesis, boundary is understood as *an ontological notion that persists as inherited existential or ontological force that has consciously, or subconsciously driven the formation of our environment*¹⁰². It exists innately within the main components of the indigenous model, and also acts as a bridge linking them together. The indigenous model support the notion of “Diversity in unity” by encouraging people to respect each other’s boundary and persist their own identity in their living environment. The diverse cultures, religions and traditions of the Malaysian multi-cultural society should be accepted as the unique identity of the Malaysian people.

In the case of dwellings or living environment there is innate tendency for people to ‘flock together’ within their respective cultures because of the tension and opposition that exist among

¹⁰² Refer Saridakis (1999) thesis on Boundary.

different cultures. Many of us, if not all, tend or prefer to choose to live with people of same/similar culture, in other words, our ideal choice is to live among a community who possesses commonality with us. As Rapoport (1977) had suggested, people may unconsciously like to live with others who belong to the same culture, to share with them their values, ideas and norms and also to understand and respond to the same symbols (Barati, 1997: 274). Therefore, it can be suggested that the tension and opposition as part of the boundary elements are also indigenous to the people's worldview towards the environment.

The boundaries should be retained so as to ensure people live in harmony. As an example, in Lebanon, the Christians, the Jews and the Muslims live in harmony despite their different cultural ways of living. Similarities are stagnant, but differences encourage movement, development and transformation. The positive notion of differences is what the author is highlighting in the thesis.

8.4 Recommendations

It is not the intention of the thesis to provide a comprehensive design guidelines or a model for housing in Malaysia. Its main intention however, is to create an awareness among housing designers, policy makers and developers, thus, inviting them to transfer their understanding of the thesis to develop an indigenous model for housing based on cultural meanings in Malaysia. Hence, the followings are a list of recommendations for housing based on individual, dwelling, neighbourhood and national levels:

8.4.1 Individual level

At the individual level, the thesis recommends the following factors into housing development and design approaches:

1 Response to needs

The main aim of housing design and development is to response to human needs. Sungur & Cagdas (www.spacesyntax.net/symposia/sss4/shortpapers-posters/Sungur_Cagdas.pdf, 2007) suggests that the parameters related to human needs are: convenience, safety, need for social contact, freedom, activity, work & presence, beauty, meaning, value and social approval (need for social status).

▪ Human basic needs, psychological needs and social needs

The thesis supports Al-Sari's (2005:98) model of human basic needs based on Sharia comprising religion (*din*), life (*nafs*), intellect (*aql*), posterity (*nasl*) and property (*Mal*) because of its holistic goal to fulfil the interests of people and prevent losses. Each need can be partially satisfied, i.e. man does not need to satisfy his physiological needs in order to be motivated to fulfil his security or social needs. The basic needs are preserved through legislation, in which its implementation may be the responsibility of an individual, the state, or a group of individuals of the whole nation (ibid). The thesis views that this model should be incorporated in the contemporary housing design and development schemes.

The thesis suggests that housing design should also fulfil both fundamental needs and higher needs (as described by Maslow's hierarchy of needs, 1954), including the psychological and social needs as proposed by Kocowski (1982) such as safety, attention, appreciation, importance, contact, affiliation, independence, activity, work and peace, beauty positive self-appraisal and sense of value.

▪ **Aesthetical needs**

One gains aesthetical experience in the built environment through existing information directly from the environment and secondly, from the past knowledge or the experienced knowledge encoded by the brain (Ujam, 1987). The knowledge consists of sensory aesthetics, formal aesthetics and the symbolic aesthetics as suggested by Lang (1987). In design, the most commonly recognised forms of aesthetics are both the sensory and formal aesthetics. Sensory aesthetics is achieved through the pleasure of sensing the forms, of colours, textures, and odours, whilst the formal aesthetics is associated with the forms, shapes, scale, rhythm, and lines. Contemporary built environmental designs, particularly in housing lack the attention towards the symbolic aesthetics, as suggested by Lang (1987) who claims that the notion is embedded in the associated meanings of the environment which provides us with happiness and satisfaction, and also permitting us to understand the hidden dimension of the architectural language.

Aesthetics is also part of the human cognitive needs as suggested by Maslow in his "Hierarchy Theory of Human Basic Needs". The aesthetical needs in the thesis context are generally related to people's perception of the overall physical outlook of building, decorations, nature (water, wood, natural materials), colours, the green environments (such as gardens and landscapes), sense of spaciousness. In contemporary globalisation era, the society's living lifestyles are also influenced by external concepts for the aesthetical fulfilment. The ability to portray the aesthetical needs in the individual's dwelling environment is part of the psychological aspects, which if fulfilled, can actually motivate people to appreciate and value their lives more, hence creating a secure and healthy social development. Hence, the dwelling designs should also be able to incorporate aesthetical qualities within the dwelling unit.

Personalisation

People are aspired to make changes to their homes according to individual, religious, and cultural needs. Personalisation in the thesis context refers to its symbolic aspects, which originate from the individual's understanding of cultural meanings that depend largely on his upbringing. Personalisation is also an agent of identity, and should be allowed to occur not just at the individual level, but also at the dwelling and neighbourhood level.

▪ **Human motivations**

The thesis recognises that people's motivation for making changes and improvements in their dwellings represents and act of human response to fulfil their aesthetical and spiritual (religious) needs. This kind of motivation can only originate from the inherited knowledge embedded within a society's social and cultural tradition.

▪ **The needs to transform**

Cultural practises often result in the modification of the environment (Aiello et al., 1980: 108). In the process of adaptation, people attempt to control or alter the physical setting, hence the built environments are constantly being modified to meet human needs and to reflect the prevailing attitudes, lifestyles and customs. Thus, cultural values influence people's perceptions and views about the environment, which in turn affect environmental design. Since the built environment is a product of culture, it helps shape future generations by serving as a medium for transmission of norms, customs and values (Chapter Six: 193, or refer Aiello et al., 1980: 108).

Privacy

Housing environment should also be able to provide a sense of security and privacy, while simultaneously promoting a sense of communal living environment. Another important aspect of consideration in the design of housing is the aspect of privacy. The thesis has identified the lack of attention to privacy in contemporary dwelling design such as in the case of terraced-linked houses, the multi-storey flats. Privacy is a part of the indigenous design principles, which still persists and maintains the cultural-religious meanings in both traditional and contemporary societies.

Comfort

Comfort refers to the level of people's satisfaction of their current living environment – the living spaces, the surroundings (environment and neighbours), convenience, etc. The sense of comfort can also be achieved when people are able to enjoy privacy, security and thermal relieve in their own living spaces. Comfort increases people's sense of belonging and security to stay in a certain residential neighbourhood.

Individual roles and responsibilities

The thesis strongly suggests that dwelling design and development approach should increase users' individual and communal responsibilities within a particular residential area, by promoting the traditional principles of community living such as the public participation in maintaining public properties and the neighbourhood's environment for the benefit of the whole community, and being responsible for one's own property by constantly maintaining it, preventing public eye sores, being involved in the communal activities and festivities and etc.

Childhood cognitive development

People's cognitive needs and experiences are heavily influenced by the values of their particular cultures. Cognition is a more complex and higher level of thought process than perception, as a human response from external stimulation. It is defined as the memory, mental imagery, comprehension, moral sentiments, aesthetic appreciation, suggestibility, and judgement of visual space (Abdalla (1998), adopted from Shouksmith, 1970). Cognition involves evaluation, preference and choice, while cognitive structures prepare the perceiver to accept certain kinds of information rather than others.

Many scholars agree that the cognitive dimension is associated with the notions of a sense of place, sense of belonging and identity. It is developed through childhood experiences, in which the cognitive memories are transformed into the embedded values, as the origin of the identity of a communal living in a particular living neighbourhood. In view of this, the author suggests that for a healthy childhood cognitive development it is crucial to engage the young children and young generations with the aspects of nature, aesthetics and qualities of the cultural meanings within the context of their own living environments. Hence, housing design approach must include this aspect into the individual dwelling unit design scheme for instance, the spatial balance between indoor and outdoor spaces that allows direct contact with nature and surrounding environment, and a provision of secure and healthy open spaces for children's physical activities and social developments.

8.4.2 The dwelling level

The thesis suggests that housing design at the dwelling level should include the establishment of design concept, house forms, spatial organisation in response to the identity and local cultural requirements. The recommendations are as follows:

Design concept

The design concept of a dwelling is a product of the culture from which it originates. A successful design concept for a dwelling and its living environment should possess a holistic worldview, which responds towards both objective and subjective aspects of the environment, the socio-cultural-religious needs as well as the recreational needs.

The thesis emphasises that contemporary housing design concept in Malaysia can benefit very much from its own indigenous resources such as the forms of dwelling, location, the spatial organisation, the orientation of the site, connection with the surrounding environment, values, and so forth.

▪ Flexibility in design

Dwelling design should anticipate and allow transformation to occur within a dwelling unit through time. Hence, designs should be able to be more flexible in terms of providing the occupiers freedom to change and transform their dwelling environments. The design should also be able to integrate between indigenous concept of transformation and the changing lifestyle of contemporary living. It should also allow the changes and transformation to evolve according the individual's pace and standards of living.

▪ Balance in design: indoor and outdoor

The dwelling designs should provide considerable balance between the interior and external functional spaces within a dwelling unit, as well as respecting the surrounding environment and the whole residential community. Indigenous design concept promotes integration with nature and expression of symbolism (based on cultural meaning) in the dwelling design. As an example, the thesis recognises the existence of the "Concept of Unity" and the duality concept (openness and privacy, lightness and darkness, simplicity and intricacy, male and female and so forth) in the

indigenous dwelling design, which manifests both physical and symbolic meanings for the dwelling. The thesis encourages housing architects to implement such indigenous concept into their housing design schemes.

Sungur & Cagdas (2007) suggest the parameters affecting users' satisfaction include: family type (with or without children, or crowded), socio-economical structure/ social status, profession, previous environment (appropriateness of dwelling to housing stereotype), sex, age, education, income, and period of stay, which have been dealt with in Chapter Six's open-ended questionnaire. The thesis argues that indigenous dwelling design concept is able to adapt and be transformed to suit the contemporary social and economic needs, while simultaneously maintains the sustainability of cultural ways of living.

Choice of material

The choice of building materials for housing may determine the aesthetical quality of building appearance. Appropriate choice of building materials that suit the local climactic context is imperative in order to ensure the sustainability of the dwelling.

The thesis recommends that housing design should also take advantage of the resources available locally, such as a wood, bamboo, clay brick, rock, and so forth as building materials in housing construction. These building materials are not just physical objects that possess the aesthetical qualities, and endurance towards the local climactic pressures, but also convey deeper symbolic meanings for the living environment in many cultures.

Technology

The choice of design technology for housing is also one of the most crucial factors in determining the architectural type relevant to any place or culture. Technology should be chosen from the available resources in term of skills, maintenance and allow people to afford it both financially as well as technically. It should be local and has the ability to cope with environment, social tradition etc.

Quality of space

The everyday use of spaces within the dwelling unit may serve to shape the relations of those who inhabit it (Waterson, 1990, 1997). Rules about the uses of space provide one of the important ways by which the built environment can be imbued with meaning (ibid: 167). Parameters related to the dwelling and spaces in the dwelling are: quality of spaces, physical comfort, spatial organisation (design quality + functional relations between spaces and location of spaces in respect of each other), size of house, location of the house and dwelling aesthetics (Sungur & Cagdas, 2007).

▪ Spaciousness

In the design of the indigenous houses, in particular the traditional Malay houses, the sense of spaciousness is achieved by having open plan design for the main living space and the kitchen areas that requires the most flexible activities and movements for various social, cultural and

religious traditions, even if in actual reality, the total built-up area is not as grand as it seems. The high walls, and exposed high pitched roof forms, and full height windows that connect the inside and the outside also add up to the sense of spaciousness and pleasing comfort to the occupants. These factors should be taken into account by contemporary housing design in order to respond to the need for a sense of spaciousness in the living environment.

▪ **Orientation**

Orientation of the dwelling is determined by climate and the natural landscape. It is also influenced by the religious and philosophical principles of the multicultural Malaysian community.

▪ **Number of bedrooms**

In the context of the thesis, the Malay family requires a minimum number of three bedrooms for a sensible living environment. It is also the norms for the Malay society to have overnight guests or elderly parents who live together with them. Hence, an extra bedroom is usually needed for the circumstantial needs. Current models of housing do not cater for this need, therefore, in many cases, people need to change, or renovate their houses to respond for the cultural-religious needs.

▪ **Storage space**

Storage space is another major issue being faced by homeowners, which has not had much attention in the contemporary housing models. Besides providing adequate number of bedrooms, the housing architect should not abandon the crucial need for a sensible storage space that is pertinent for a satisfactory living. In the traditional dwelling design the situation is solved by the provision of attic space and the space underneath the raised floors, which can be used as the storage areas. In the contemporary dwelling design units, however, due to the size constraint of the total built-up area, which is already very tight and rigid, there is no room for storage, nor improvements, additions or renovations. The thesis urges that housing designers and developers take this matter into serious consideration for the sake of the long-term investment in producing quality and value in housing provision.

Views, natural surroundings and open green space

It is human nature for people to be engaged with nature as various studies have proven, and being exemplified in the thesis. Having a house with views towards natural surroundings provides a more healthy, peaceful and satisfying living for everyone.

Housing design should give extra attention in incorporating natural surroundings with the dwelling design units, complex as well as the entire residential neighbourhood, so as to provide as many natural surrounding views for the residents. By this the author means, either the site of the housing site preserves the natural setting, or if the site is an open plain space, then a man-made landscape should be created within the residential setting. Another option can also be to provide a green open plan space that can become a shared responsibility for the permanent local residents to manage and maintain the space as a natural site for green recreational activities (such as garden creations, communal orchard for planting fruit trees, designing landscapes, etc), social and cultural activities.

Hierarchy and order

Designers must also consider the aspects of hierarchy and order within the system, which correspond to the cultural tradition, custom and belief system of the society. The thesis finding suggests that the value system of the Malay society clearly emphasises on the establishment and stability (of order), which are derived from interaction with the natural elements. In terms of housing design the concept of hierarchy and order in design can be transferred into the articulation and organisation of the interior spaces, including the outdoor and transitional spaces within the dwelling unit. An example of the establishment of hierarchy and order is found in the structural organisation of space in the indigenous dwelling design, its public, semi-public, private and semi-private zonings.

8.4.3 The neighbourhood (community) level

The implementation of the indigenous model should also start at the community level in which the most crucial aspects to look into must consider the following:

Social, cultural boundary and identity

Each culture produces different styles of dwelling architecture and living patterns. This manifestation of boundary is the embodiment of social and cultural identity for many indigenous dwelling settlements in Malaysia and worldwide.

The existence of boundary is sensed immediately especially in the multicultural society of the Malaysian people. The identity of each culture is apparent in the physical outlook of their dwelling environment as well as in the interior and external embellishment within the compound of their dwellings. The elements of design in each society's garden or landscape designs also portray individual ethnic identity. The notion of boundary displays the hierarchy of tension and cultural opposition, which are deeply embedded within the core structure of each society's cultural system, hence, creating the unique identities for the diverse society.

Housing development should allow and encourage people to connect, transform and evolve from their own local background and resources instead of imposing foreign concepts, so as to nurture the local cultural continuity. In other words, housing development approach should be able to reflect the cultural identity of the local neighbourhood.

Communal participation – social inclusion

The housing development approach should emphasise on a strong communal living environment, as opposed to the existing individualistic, discriminating housing structures. Dwelling design should be encouraging more public engagement in the design process and after, in order to establish quality and meanings in the housing scheme.

The concept of communal participation in housing development approach can be induced through implementing the sense of attachment within the residential neighbourhood context for instance, by creating a mixed house types and a small density housing development scheme within a site, that is focused more on creating community bonding and social integration, as described below:

▪ **Attachment**

The housing environment should emphasis on creating a place with characters that fosters community kinship and a sense of belonging. Hence the local community should also be given greater freedom as well as responsibilities in maintaining their living environment individually as well as communally. This approach will enhance people's attachment to their dwelling place. People's attachment towards their living environment shall create a sense of belonging towards the dwelling place. Hence, the essence of home can be established.

In response to this notion, the thesis views that mixed house types and small density developments within a residential site should be able to encourage more social contacts, developing a strong community bond, as opposed to the current housing situation that is alienating people from one another by the physical boundaries.

Enhancement of the environmental sustainability

The thesis suggests the inclusion of green concept within individual dwellings as well as within the residential area. For example, the housing scheme may provide an open green space or land for the residents of a residential neighbourhood, in which these people are responsible for. This agreement can be reached once a homebuyer signs the contract to buy a particular house in the particular housing project. In other words, dwelling design and development approach should encourage shared responsibility among the residents of a certain living environment. By having shared responsibility, this can motivate people to improve their living environment, encourage communal bonding and also ensure the sustainability of the environment. This approach can also educate children to have contact with nature, which is beneficial for their healthy cognitive development.

Convenience – appropriate provision of facilities and infrastructures

Appropriate and adequate provision of facilities and infrastructures are also vital in achieving quality in living environment. Infrastructure and services are instruments, which provide convenience that caters the needs and desires of contemporary living. Emhemed (2005: 296) suggests the availability and quality of infrastructure at the neighbourhood and city level plays an important role in determining the qualitative rank of housing and enhance its prestige (refer Chapter Six: 270-271).

8.4.4 The national level

The following sections describes in brief the thesis recommendations for housing design and development at the national level, towards the aim for establishing the indigenous model for housing based on cultural meanings in Malaysia.

The thesis argues that there need to be a long term holistic perspective in both housing policy and planning strategies towards the aim of establishing quality, so as to achieve sustainability of

people's cultures, physical, and social development. This vision can be achieved by considering the following:

Housing policy and planning approaches

At the national level, the implementation of housing policy and planning approaches are crucial to achieve the aim of a national identity for housing in Malaysia. Housing policy should revert to a holistic approach and a more humanistic scheme towards housing design and developments. It should, in the best possible way respond to the locals' social-cultural needs and aim towards providing satisfactory living environment. As suggested by Sungur and Cagdas (www.spacesyntax.net/symposia/sss4/shortpapers-posters/Sungur_Cagdas.pdf, 2007), low satisfaction levels from the dwelling can result in stress, health and adjustment problems and pathologic symptoms. It is very important that housing policies should encourage various structure types, which meet the needs and expectations of different social groups. In addition to this, insufficiencies in the fundamental dwelling norms may be harmful for health. Thus, it is very important to predict the fundamental housing norms and standards for housing policies (Ukoha, O., Beamish, J., 1997).

Development approach

▪ **Development from within (endogenous development)**

The thesis views that the best development approach for housing in Malaysia should be in harmony with nature rather than conflict or conquest. In this light, the thesis strongly recommends the development from within, which is a method of development progress generated from the innate (indigenous) knowledge, and internal potential powers of people and their transaction. It is also known as the endogenous approach towards development. Endogenous development is a progress, through which a concern is given to innate knowledge, and internal potential powers of people and their transaction play and essential role in development plans (El-Fiki, 2003).

This approach encompasses the indigenous intellectual resources as well as public engagement. Under the circumstance, this also means that there should be a huge reduction on the reliance of external, foreign housing policies that disconnect people from their own local cultural roots.

▪ **Housing development pattern**

In terms of the housing development pattern, the thesis recommends the re-adoption of the traditional pattern of dwelling development (supported by Hassan, 1999's thesis; refer Chapter 2.2.; 20) for the contemporary housing approach.

Under the proposed development approach, the thesis also suggests the following:

- Provide balance among urban housing developments and ecological sustenance; human's social development, and economic development.
- Encourage user participation in housing development and design process, in the bottom-up manner, in addition to the existing top-down approach. This approach should encourage an

- interactive relationship between the public and local authorities in the creation of sustainable living environment; and,
- o Promote a more humane housing development and architectural designs, social inclusion and environmentally friendly living environments.

The thesis stresses that development in every aspects, especially in housing must be structured to suit the people's own speed and criterion. This is in order to ensure, that people are capable of appreciating and adapting to the process of changes and transformation incurred by a particular development. The notion of indigenous characteristics embodied by cultural meanings should be promoted at every level of development. It is also imperative to bear in mind the notion of boundary as a design tool in creation living environments for the multicultural and religious society.

Education

The thesis suggests that the education system in Malaysia can be structured to build public (general) and professional (specific) understanding of the significance of quality and cultural meanings in the living environment. The types of education are divided into two categories: formal and architectural as the followings suggests:

i. Formal

- Introducing a holistic thought system based on the indigenous intellectual knowledge, its worldviews, and cultural values in the formal education system at all levels, i.e., from the primary to the tertiary education.
- Engaging children with nature and the environment from the earliest stage of learning.
- Establishing school programmes and the multimedia programmes as mediums to create awareness, consciousness and appreciation among children and the majority public to recognise, and learn about the qualities of cultural meanings and the importance of maintaining them in the contemporary society's living environment.

ii. Architectural

- Introduction of a holistic thought system in design decision-making from the very start of introductory architectural education so as to encourage the application of indigenous thought system in the contemporary design solutions
- Inclusion of indigenous intellectual worldviews in architectural education at every level so as to encourage students' understanding and appreciation of genuine quality of the indigenous cultural resources
- Encouraging knowledge on ecological sustainability, ecological psychology
- Learning the architectural language, developed from the society's own particular social group's behaviour, culture, norms, ethics and tradition.

8.5 Contribution of the thesis

In summary, the thesis contributions towards the contemporary urban and housing developments are as follows:

1. The thesis discourse is not only restricted for the Malaysian housing, but also for other countries worldwide that continue to practise their understanding of the indigenous resources in the establishment of their local dwelling architectures.
2. It brings new insights towards the implementation of indigenous solutions for housing with emphasise on maintaining quality and meanings based on the indigenous cultural resources in the dwelling architecture and all aspects of living environment. For instance, a courtyard house in many parts of the middle-eastern country carries its own symbolic cultural, religious and indigenous beliefs, apart from the obvious forms of the dwelling typology and morphological patterns of the residential neighbourhood.
3. The thesis also offers a pedagogical resource for building a national identity (which responds to the local contextual stipulations) for housing environment around the world.
4. The thesis provides a source of inspiration on how traditional concepts of dwelling architecture and the living environment can be transformed to adapt and integrate with the contemporary social, cultural and economic demands of housing; simultaneously allowing boundaries among cultures to persevere.
5. The outcomes of the discourse offers guidance for the built environment professionals, housing policy makers, developers and academic scholars to build their own interpretations on housing design and development based on cultural meanings and the criterion provided by the thesis.

8.6 Concluding Remarks and Future Research Possibilities

This research discourse marks a new paradigm for a more holistic approach towards housing in Malaysia. It focuses on the worldviews of the indigenous Malay society in search of quality based on cultural meanings, which invites a holistic transformation of a universal housing model. The author has demonstrated the society's most innate, intrinsic traditional knowledge and values, embodied in their dwelling design architecture and its elements, then extracts them into a discourse, which is aimed to be a **guiding principle for the living environment and architectural identity in Malaysia.**

Quality in the context of the thesis, tackles both aspects of tangible and intangible elements of human behaviour and development, for instance, the responsiveness towards people's various levels of needs and the sustainability of cultural ways of living (physically, spiritually and psychologically).

Housing developments that simply focus on profit, can be found anywhere in the global world devoid of identity, but to develop a home for living, which carries meanings, a sense of belonging

and users' satisfaction, one would have to understand the roots of the culture, and the meanings associated with it. It is high time that people start to realise the real potentials of indigenous dwelling architecture and the roles of cultural meanings as well as the ontological notion of boundary, and their benefits for the whole society

The future research could perhaps widen the scope of research by including other ethnic societies in their studies for comparative purposes, simultaneously recognising the values of boundary among them. Perhaps the anticipated outcome could become more conclusive and stronger.

APPENDIXES

Appendix A

Open-ended Questionnaire Survey Form in English Version

THANK YOU.

UNIVERSITY OF CALIFORNIA
BERKELEY
SCHOOL OF ARCHITECTURE (HOUSING)
EDWIN CHAY
HEART-BLIND FOUNDATION

Dear Sir / Madam / Ms/ Miss,

I am carrying out a research to explore into cultural influence on people's perception of their dwellings and living environment designs as part of my PhD study that I am currently instigating at the Research School of Housing, Edinburgh College of Art, Heriot-Watt University, Edinburgh, Scotland. I would appreciate it very much if you could kindly respond to the open-ended questionnaire that I have prepared here. It will contribute significantly towards my studies.

THANK YOU.

Sincerely,

AIDA KESUMA AZMIN

Ph.D CANDIDATE

SCHOOL OF ARCHITECTURE [HOUSING]

EDINBURGH COLLEGE OF ART

HERIOT-WATT UNIVERSITY

EDINBURGH, SCOTLAND

UNITED KINGDOM.

QUESTIONNAIRE DESIGN SURVEY 2003/4

Cultural influence on people's perception of their dwellings and living environment designs and relationship between nature and built-environment (ontological and cultural thoughts in architecture of dwellings)

General description of respondent

NO:

Name (no obligation): Age: Occupation: Educational Status: Current address:	Sex:	Interviewer: Date of interview: Time start: Time end: Place of interview: Permanent address: (if different)
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i. Dwelling level

1. What kind of family do you have?
 - a. Nuclear
 - b. Extended

2. How many people living together in your house?

Person No.	No of family member related to the head of household	sex es		Age							Observation
		M	F	0 to 5	6 to 15	16 to 25	26 to 35	36 to 50	51 to 65	over 65	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

3. What is the nature of ownership of your house? Please circle your answer.
- Own
 - Rent
 - Parents' house
 - Other
4. How long have you been living in your present house? Please circle your answer.
- 0 – 5
 - 6 – 10
 - 11 – 15
 - 16 – 20
 - 21 – 25
 - 26 years and above
5. What type of house did you live in previously? Please circle your answer.
- High-rise Flat
 - Medium-rise Flat
 - Apartment
 - Condominium
 - Link/ terrace house
 - Semi- detached house
 - Bungalow
 - Traditional
 - Malay style
 - Chinese style
 - Aborigine style
6. a. What type of house are you living in currently? (You can use the same category for the house type as on question 5)

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- b. Mention (3) reasons for choosing to stay at your present house:

1)

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2)

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3)

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7. Mention 2 changes that you have done to your house and/or its compound since you live in this property. Please give (2) reasons for each change that you have done.

a.
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Reason (1)

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Reason (2)

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b.
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Reason (1)

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Reason (2)

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8. Mention 3 things you like in your present house. Please give (2) reasons why you like them.

a.
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Reason (1)

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Reason (2)

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b.
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Reason (1)

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Reason (2)

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c.
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Reason (1)

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Reason (2)

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9. Mention 3 things you do not like in your present house. Please give (2) reasons why you dislike them.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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c.

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Reason (1)

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Reason (2)

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10. Mention (3) architectural or decorative features/detailing that you aspire to have / have already had in your present house. Please give (2) reasons for each feature.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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c.

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Reason (1)

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Reason (2)

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11. Please mention 3 things that YOUR ideal house and its surrounding environment should have and please give (1) reason for each thing you mentioned. [Note: To give more information, you can also sketch your ideal house at the blank page provided at the end of the questionnaire].

a.
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Reason 1:

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b.
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Reason 2

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c.
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Reason 3

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12. Mention 5 spaces that you most prefer to have for your ideal house and its surrounding. Please give (1) reason for each space.

a.

Reason.....
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b.

Reason.....
.....

c.

Reason.....
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d.

Reason.....
.....

e.

Reason.....
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13. Mention (3) building materials for your ideal house starting with one your prefer most and give (2) reasons for each of your choice.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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c.

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Reason (1)

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Reason (2)

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14. Mention (3) things that you think most important to consider before choosing or building an ideal house. Please give (2) reasons why they are important.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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c.

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Reason (1)

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Reason (2)

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15. Mention (3) aspects of your cultural, traditions or religion that have influenced your thinking of choosing or building an ideal house or design of a house. Please give (2) reasons for each.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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c.

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Reason (1)

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Reason (2)

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16. Mention (4) important cultural, social or ritual traditions you have already done / would like to be able to do within the space of your house and its compound. Please give (2) reasons why they are important.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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c.

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Reason (1)

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Reason (2)

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d.

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Reason (1)

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Reason (2)

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17. What is the meaning of home to you?

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18. Mention (3) characteristics of an indigenous or traditional dwelling design such as the architectural or decorative features that you like. Please give (2) reasons why you like them.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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Reason (1)

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Reason (2)

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19. Mention (3) characteristics of a contemporary dwelling design that you like most such as the architectural or decorative features. Please state (2) reasons why you like the features.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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c.

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Reason (1)

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Reason (2)

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20. Mention (3) characteristics of a contemporary dwelling design that you dislike most. Please state (2) reasons why you dislike them.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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c.

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Reason (1)

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Reason (2)

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Neighbourhood level

21. Mention (2) residential areas that you would like to live within your neighbourhood. Please give (2) reasons why you choose to live in each area.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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22. Mention (2) criteria of housing design in your neighbourhood that you like. Please give (2) reasons for each criteria that you like.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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23. Mention (2) criteria of housing design in your neighbourhood that you do not like. Please give (2)

reasons for each criteria that you do not like.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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24. Mention (2) customs, social or ritual traditions that are important for most people in your neighbourhood community living. Please state (2) reasons why they are important.

a.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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25. Mention (2) important characteristics that you recognise as identity of your neighbourhood. Please give (2) reasons why they are important.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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City Level

26. Mention (2) changes you like that have happened (within 10 years) in housing development in your city/town. Please give (2) reasons for each.

a.

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Reason (1)

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Reason (2)

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b.

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 ...
 Reason (1)

Reason (2)

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27. Mention (2) changes you dislike that have happened (within 10 years) in housing development in your city/town. Please give (2) reasons why you dislike the changes.

a.

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 Reason (1)

Reason (2)

.....

b.

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 ...
 Reason (1)

Reason (2)

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28. Please give (2) suggestions for changes that you would like to see in future housing development in your town. Please give (2) reasons for each.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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29. Mention 2 ways that you have learnt about values / teachings of life through cultural/traditional worldviews that are beneficial for dwelling designs.

a.

b.

30. Suggest (2) ways or preserving or maintaining cultural values and traditions in dwelling designs and living environment.

a.

b.

* Please use the following space to make any other observation that you think might be useful for my research.

THANK YOU FOR YOUR COOPERATION.

Appendix B

Open-ended Questionnaire Survey Form in Bahasa Malaysia Version

Survei terbuka mengenai persepsi pengguna terhadap aplikasi Persepsi Pengguna Terhadap Aplikasi (PPTA) yang telah dihasilkan oleh Sistem Persepsi Pengguna (SPP) yang dihasilkan oleh Sistem Persepsi Pengguna (SPP).

Saya ingin mengetahui segala maklumat yang anda sukakan untuk membantu meningkatkan kualiti sistem yang saya telah dihasilkan ini. Maklumat yang anda berikan akan digunakan untuk meningkatkan kualiti sistem yang dihasilkan oleh sistem ini.

Terima kasih.

Yours truly,

Dr. Siti Nur Hafizah

Ph.D. in Information Systems [Ph.D.]

Kuliah Sentinas (Penunahan)

Edinburgh College of Art

University of Edinburgh

Tuan / Puan / Cik,

Saya sedang menjalani kajian menerokai pengaruh budaya terhadap persepsi masyarakat tentang rekabentuk rumah dan persekitaran tempat tinggal sebagai sebahagian daripada Kursus Ijazah Sarjana Kedoktoran saya di Kuliah Kajian Perumahan, Edinburgh College of Art, Universiti Heriot-Watt, Edinburgh, Scotland, UK.

Saya amat menghargai segala maklum balas dan kerjasama anda terhadap borang kaji selidik yang saya telah sediakan ini. Ia akan memberi sumbangan yang bermanfaat kepada pengajian saya.

TERIMA KASIH.

Yang benar,

Aida Kesuma Azmin

Calon Sarjana Kedoktoran [Ph.D]

Kuliah Senibina (Perumahan)

Edinburgh College of Art

University Heriot-Watt

Edinburgh

Scotland

United Kingdom.

BORANG KAJI SELIDIK TERBUKA 2003 / 04

Pengaruh kosmologi budaya terhadap pandangan orang ramai tentang rekabentuk rumah dan persekitaran tempat tinggal dan hubungan antara alam semula jadi dan persekitaran sekitar (ontologi dan pemikiran budaya di dalam senibina rumah)

Makluman am pemaklum balas

NO:

Nama :
 Umur: jantina:
 pekerjaan:
 Tahap pengajian:
 Alamat sekarang:

penyoalselidik:
 tarikh soalan selidik:
 Masa bermula: masa berakhir:
 Tempat soal selidik:
 Alamat tetap: (sekiranya berbeza)

ii. Tahap rumah

1. Bagaimana anda tinggal di dalam satu rumah tangga?

a. Keluarga individu

b. keluarga bergenerasi

2. Berapa ramai orang yang tinggal bersama di rumah anda?

Individu No.	Bil. ahli rumah yang Ada hubungan dengan Ketua keluarga	Janti na		Umur							pemerhatian	
		M	F	0 ke 5	6 ke 15	16 ke 25	26 ke 35	36 ke 50	51 ke 65	lebih 65		
1												
2												
3												
4												
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6												
7												
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10												
11												
12												
13												
14												
15												

3. Apakah taraf hakmilik rumah anda? Tolong bulatkan jawapan anda.

e. sendiri

- f. sewa
- g. rumah ibu bapa
- h. lain-lain

4. Berapa lama anda tinggal di rumah anda sekarang? Tolong bulatkan jawapan anda.

- g. 0 – 5
- h. 6 – 10
- i. 11 – 15
- j. 16 – 20
- k. 21 – 25
- l. 26 dan lebih

5. Apakah jenis rumah yang anda tinggal sebelum ini? Tolong bulatkan jawapan anda.

- i. Flat tinggi / kos rendah
- j. Flat sederhana tinggi
- k. Apartment
- l. Kondominium
- m. Rumah teres (1, 2, 3 tingkat)
- n. Rumah berkembar (1, 2, 3 tingkat)
- o. Banglo
- p. Tradisional
 - i. Rekabentuk rumah Melayu
 - ii. Rekabentuk rumah tradisi cina
 - iii. Rekabentuk rumah orang asli

6. a. Apakah bentuk rumah yang anda duduki sekarang ini? (anda boleh menggunakan kategori rumah yang sama seperti di dalam soalan ke 5)

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b. Sila beri (3) sebab kenapa anda memilih untuk tinggal di rumah anda sekarang:

1)
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2)
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3)
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7. Sila berikan (2) perubahan yang anda telah lakukan kepada rumah anda dan / atau halamannya semenjak anda tinggal di sini. Tolong berikan (2) sebab untuk setiap perubahan yang telah anda lakukan.

c.
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Sebab (1)

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Sebab (2)

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d.
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Sebab (1)

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Sebab (2)

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8. Berikan 3 perkara yang anda sukai pada rumah anda sekarang. Tolong berikan (2) sebab kenapa anda sukakan perkara-perkara tersebut.

d.
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Sebab(1)

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Sebab (2)

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e.
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Sebab (1)

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Sebab (2)

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f.
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Sebab (1)

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Sebab (2)

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9. Berikan 3 perkara yang anda tidak suka pada rumah anda sekarang. Tolong berikan (2) sebab mengapa anda tidak sukakan perkara-perkara tersebut.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Reason (2)

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c.

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Sebab (1)

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Sebab (2)

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10. Berikan (3) ciri-ciri senibina atau hiasan dalaman yang anda inginkan / telah memperolehi di rumah anda sekarang. Tolong berikan (2) sebab untuk setiap ciri.

a.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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Sebab (1)

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Sebab (2)

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11. Namakan 3 perkara yang rumah ideal anda dan kawasan persekitarannya patut ada dan tolong berikan (1) sebab untuk setiap perkara yang telah anda sebutkan. [Nota: Untuk memberikan maklumat lanjut, anda boleh juga melukis gambaran rumah ideal anda di muka surat kosong yang disediakan di penghujung borang kaji selidik ini].

d.
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Sebab 1:

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e.
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Sebab 2

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f.
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Sebab 3

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12. Namakan 5 ruang / bilik yang paling utama untuk ada di rumah ideal anda serta kawasan halamannya. Tolong berikan (1) sebab untuk setiap ruang yang anda pilih.

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Sebab.....
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g.

Sebab.....
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h.

Sebab.....
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i.

Sebab.....
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j.

Sebab.....
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13. Namakan (3) bahan binaan bangunan untuk rumah ideal anda bermula dengan bahan yang anda rasa paling sesuai dan berikan (2) sebab untuk setiap pilihan anda.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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c.

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Sebab (1)

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Sebab (2)

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14. Namakan (3) perkara yang anda fikir paling mustahak untuk dipertimbangkan sebelum memilih atau membina sebuah rumah yang ideal. Tolong berikan (2) sebab kenapa perkara-perkara ini mustahak.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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c.

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Sebab (1)

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Sebab (2)

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15. Namakan (3) aspek budaya, tradisi, atau agama yang telah mempengaruhi pemikiran anda dalam memilih atau membina atau merencanakan rumah yang ideal. Berikan (2) sebab untuk setiap aspek.

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Sebab (1)
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Sebab (2)
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b.
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Sebab (1)
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Sebab (2)
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c.
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Sebab (1)

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Sebab (2)

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16. Namakan (4) budaya, sosial atau tradisi ritual yang mustahak yang anda telah lakukan / ingin lakukan di dalam ruang dalaman rumah serta halamannya. Berikan (2) sebab kenapa ianya mustahak.

a.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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c.

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Sebab (1)

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Sebab (2)

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d.

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Sebab (1)

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Sebab (2)

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17. Apakah makna rumah kediaman pada anda?

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18. Namakan (3) ciri rekabentuk rumah asli atau tradisi seperti senibina atau hiasan dalaman dan sebagainya yang anda sukakan. Berikan (2) sebab kenapa anda sukakan ciri-ciri ini.

a.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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c.

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Sebab (1)

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Sebab (2)

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19. Namakan (3) ciri-ciri rekabentuk rumah masakini yang anda paling suka seperti senibina atau hiasan dalaman dan sebagainya. Berikan (2) sebab kenapa anda suka ciri-ciri ini.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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c.

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Sebab (1)

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Sebab (2)

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20. Namakan (3) ciri rekabentuk rumah masakini yang anda paling tidak suka. Berikan (2) sebab kenapa anda tidak sukakan ciri-ciri tersebut.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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c.

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Sebab (1)

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Sebab (2)

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Tahap kawasan tempat tinggal

21. Namakan (2) perumahan yang anda ingin tinggal di dalam kawasan anda. Berikan (2) sebab kenapa anda memilih untuk tinggal di setiap kawasan.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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22. Namakan (2) kriteria rekabentuk perumahan di kawasan tempat tinggal anda yang anda sukai. Berikan (2) sebab anda memilih kriteria-kriteria tersebut.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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23. Namakan (2) kriteria rekabentuk rumah di sekitar tempat tinggal anda yang anda tidak suka. Berikan (2) sebab untuk setiap kriteria yang anda tidak suka.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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24. Namakan (2) tradisi sosial, kebiasaan yang penting kepada kebanyakan masyarakat dikawasan persekitaran tempat tinggal anda. Berikan (2) sebab kenapa ianya mustahak.

a.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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25. Namakan (2) ciri-ciri utama yang anda camkan sebagai identiti kawasan tempat tinggal anda. Berikan (2) sebab kenapa ianya mustahak.

a.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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Tahap Bandar/ bandaraya

26. Namakan (2) perubahan yang anda suka yang telah berlaku (dalam 10 tahun) di dalam pembangunan perumahan di kawasan bandar / bandaraya anda. Berikan (2) sebab untuk setiap perubahan yang anda suka.

a.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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27. Namakan (2) perubahan yang anda tidak suka yang telah berlaku (dalam masa 10 tahun) di dalam pembangunan perumahan di kawasan bandar/ bandaraya anda. Berikan (2) sebab kenapa anda tidak sukakan perubahan-perubahan tersebut.

a.

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Sebab (1)

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Sebab (2)

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b.

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Sebab (1)

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Sebab (2)

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28. Sila berikan (2) cadangan perubahan yang anda ingin lihat pada pembangunan perumahan akan datang di kawasan bandar / bandaraya anda. Berikan (2) sebab untuk setiap cadangan.

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Reason (1)

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Reason (2)

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b.

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Reason (1)

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Reason (2)

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29. Berikan 2 cara anda mempelajari tentang cara kehidupan melalui pemikiran budaya tradisi yang bermanfaat untuk mereka bentuk rumah yang sesuai dengan budaya dan agama.

a.

b.

30. Cadangkan (2) cara untuk memelihara atau menjaga budaya dan tradisi di dalam rekabentuk perumahan dan persekitarannya.

a.

b.

* Tolong gunakan ruang yang disediakan untuk membuat apa-apa komen atau pemerhatian yang anda fikir berguna untuk kajian ini.

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