Malay Heritage Conference in Cambodia, Lao PDR & Vietnam 24-26 June 2010 IN SEARCH OF THE ORIGINS OF THE MALAY ARCHITECTURAL HERITAGE

Ar. Norwina Mohd Nawawi, Dr. Noor Hanita Abdul Majid & Dr. Noor Aziah Mohd Ariffin

Dept of Architecture, Kulliyyah of Architecture and Environmental Design, International Islamic University of Malaysia, Kuala Lumpur.

CONTENT:

1. Why the Search....INTRODUCTION
2. The Approach...METHODOLOGY
3. THE RESEARCH
3.1 Background
3.2 Selected Case Studies:
MASJID TYPOLOGY
HOUSE TYPOLOGY

4. Preliminary...FINDINGS 5. CONCLUSION

1: Why the search? INTRODUCTION

INTRODUCTION -the fact

- Teaching on the subject of Malay Architecture to students of the 21st Century is a challenge.
- While the subject is address widely based on theories implicitly bound to a western framework of knowledge generally written by alien cultures, little known effort were made to reintroduce them based on the true origin of knowledge as revealed by the *Al Quran* and *Sunnah* nor written explicitly by scholars understanding the true nature of the Malays.

INTRODUCTION- the issue

- Our youths, depleted of their built heritage and lived within the alien built environment of international flavour, can only listen to our 'story', as a lamentation of the past.
- Without passion on the subject there will be no lead.
- No one will enquire What is Malay Architecture? What and why has shaped, formed and decorated the built form of the Malay habitat? What are their significance to present architecture? What technology have they applied in their craft to come this far? Were there special rituals in the construction and choosing of building site? There are so many types of Malay houses of many shapes and styles, is there any correlation among the regional habitat to identify as the Malay Architecture?
- Existing theories, hypothesis and perceptions rules in the game of knowledge till the truth are found

INTRODUCTION

• Towards the building up of facts for the near truth basis of the Malay architectural heritage, this paper discussed selected theories and review tangible aspects of the built forms or styles and typologies of architectural forms from examples acquired from Thailand, Indonesia, Malaysia, Cambodia, Laos PDR Vietnam and the Philippines, believed to be part of the greater Malay descendants, where available.

2: The Approach METHODOLOGY

METHODOLOGY

- The search of <u>architectural origins</u> falls within several assumptions/parameters based on *Al Quran and Sunnah*.
 - The first Man, Prophet Adam A.S, was created as a civilised being
 - humans have always lived civilized lives in all periods of history
- The discussion is then developed upon the hypothesis that the ethnic Malays, as a civilised race, thousands of years ago, due to reasons unknown to us, had migrated from mainland Asia towards the archipelago

METHODOLOGY-contd

Primary typologies of the Malay Architecture were selected as basis of comparison for similarities and differences on its built form i.e. <u>Masjid and House</u>

- Case studies were conducted by primary and secondary means found within the region that includes Malaysia, Indonesia, Cambodia, Thailand, Laos PDR, Vietnam and the Philippines, where possible
- Analyse and report preliminary findings on each typology.

3: The Research

3.1: Background

The Malays The Malay Architectural Heritage

Who Are The Malays?



Who are the Malays?

Definition

"*any member of an <u>ethnic group</u> of the <u>Malay Peninsula</u> and portions of adjacent islands of <u>Southeast Asia</u>, including the east coast of Sumatra, the coast of Borneo, and smaller islands that lie between these areas (Sejarah Melayu (2010) and Britanicca Encyclopedia online (2010)*)

- The Malay culture has been strongly influenced by that of other peoples, including the Siamese, Javanese, and Sumatran. The influence of Hindu India was historically very great, and the Malays were largely Hindus before they were converted to Islām in the 15th century".
- Sejarah Melayu (2010) quoted that for almost 2000 years the nonstop trading traffic between India and the archipelago as well as with China, Champa and Cambodia had provided a rich background influences emerging through trade, culture and intermarriages.

What is Malay Architecture?

- Historians suggested that the movement of <u>people from the</u> <u>mainland Asia</u> towards the peninsular and islands in the southern region of East Asia is <u>one of the important governing factors in</u> <u>deciding the architectural style</u> of this region.
- The similarities are now seen on the surviving architectural heritage in the form of *masjids, palaces, houses* and etc. However, most discussion on the Malay architecture dwells mainly on *the traditional houses*.

What is Malay Architecture?

- The story told on reliefs and carvings showed similar architecture of houses raised on stilts, which some historians called it "raise on pile", to belong to the place of origin of those that came either to Java or stayed in the Angkor kingdom.
- The architectural and other heritage of the Malays are reflected in this close knit society of many talents, rulers, warriors and seafarers through feudal social organisation with a sharp division between nobility and commoners.

3.2 Selected Case Studies MASJID TYPOLOGY HOUSE TYPOLOGY

Case Study: Masjid MASJID TYPOLOGY

CASE STUDIES : MASJIDS

Regions / Case Study	Architectural Form
Cambodia	Not available
<section-header></section-header>	 Old Masjid Champa was one of the oldest masjid in the region- built in the 11th and 14th century during the Islamic period in Champa two types of roofs covering the prayer area. The main part was covered by the three tiered roof, while the adjacent space was attached with a two tiered roof. similar to Kelantan Masjid Kampung Laut, the ornamentation at the top of the roof
	differ slightly. Masjid Champa had "Makara" while Masjid Kampung Laut had
Masjid Kuno Campa, di Vietnam.	ducktail as its ridge ornamentation.both are constructed of timber

June 2010

Thailand



Fig. 2 Wadi Al-Husein Masjid, Telok Manok, Pattani, Thailand.

Architectural Form

•Masjid Wadi Al-Hussein was built approximately in 1624 or 17th century part of a madrasah or traditional school
•constructed initially from huge hardwood for the basic space, the masjid was expanded all around as serambi to accommodate the congregation.
•includes the additional tiers to the roof forms. – atap roof was replaced by singgora tiles.
•raised on stilts

•built with timber

•a combination of pitched and pyramidal roof form.

•two tiered roof with ends that resemble a combination of Java, Thai and Terengganu traditional houses.

•gable ends of the second tier are slightly curved that strongly suggested the Thai influence.

•adorned with ventilated floral carved panels and quranic verses are located above the windows and doors.

•there is no minaret in Wadi Al-Hussein Masjid but a tower which forms part of the building to

Architectural Form

Thailand



Fig.3 Masjid Nat Tanjung, Aur Village, Pattani, Thailand (Salleh Mohd Akib.(2003) •Masjid Nat Tanjung was built more than 359 years ago

•formerly located near the coast and had been a pit stop for traders and sailors. Due to the erosion effect, it was relocated to its present site.
•almost but not the same to Malaysia's Masjid Kampong Laut, the architecture of Masjid Nat Tanjung has a gable end to its three tiered roof known a *"pemeleh"* roof.

•constructed of hardwood such as chengal, other parts are using bamboo strips. Originally no nails were used until it was moved to new place at a later date.

Malaysia



Fig.4 Masjid Kampung Laut at original site (Raykinzoku (2010)).

Architectural Form

•Masjid Kampung Laut was belief to be built between 14-17th century

•believed to be part of the evolution of sacred architecture of the Hindus or chandi based on the square plans (the mandala). Differed from its Indian continent, in the Malay archipelago, the square plans are raised with four sacred columns or *tiang seri* to hold the lofty roof which can seen from afar.

•it was originally sited near a river mouth in Kampung Laut before being moved inland to Nilam Puri, Kelantan due to severe erosion which almost collapse the masjid after one of the biggest flood hit the East coast 1966.

Malaysia

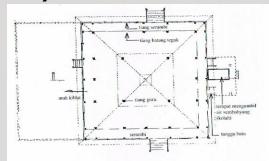


Fig.6 Layout Plan of Masjid Kg Laut (Zulkifli Hanafi (2001))



Architectural Form

•a timber structure built on stilts.

•Masjid Kampung Laut has three tiered pyramidal roof that closes at the top with an ornamentation called *Buah Guntung* or *Buah Buntun*.

• This roof form is synonym to the roof form of masjid and wakafs or place of rest in the Nusantara region.

•Masjid Kampung Laut had a *loteng* or loft as meditation spaces in the building immediately above the prayer hall.

•The ornamentations also adorned the roof ends and based of the columns, hanging column joints as well as at the details. Buah guntung was said to be based on a lotus flower.

Malaysia



Fig.8 Former Masjid Besar Kota Bharu replaced by Masjid Muhammadi (Raykinzoku 2010).

•Masjid Besar Kota Bharu was replaced by Masjid Muhammaddi at the same location

Architectural Form

during the British.

•constructed of timber and tiered roof similar to Masjid Wadi Al-Hussein in Pattani

Regions / Case Study Architectural Form Malaysia year 900) •Built on ground

Fig.8 Masjid Pengkalan Kakap

•Masjid Pengkalan Kakap is one of the oldest masjid in Kedah, believed to be modelled after a masjid in Lembah Bujang, Kedah (built in the year 900)

•has a two tiered pyramidal roof with large Doric columns on a three sided open loggia.

•The masjid is void of decorations and ornamentations.





Fig.10. Masjid Tengkera, Melaka (masjidmalaysia.blogspot.com)

Architectural Form

•Masjid Tengkera was built in 1728

•tiered roof architecture but with the second and third tiers narrowing and heightened.

•Raised from the ground as a platform with serambi all round, ablution is placed separately as a tub on the ground with links to the main building.

•A separate pagoda like minaret accompany the masjid in the ground.

•Ornamentations found on the masjid are a mixture of flora and fauna with animal figurines obviously of Chinese origin.

Indonesia

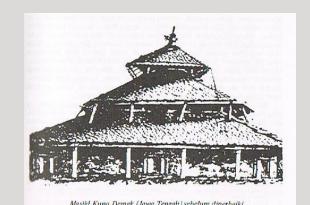


Fig.11. Old Demak Masjid (Abdul Rahman Al Ahmadi 1999)



Architectural Form

•Masjid Agung Demak claimed to be built in the 16th century. This claim contradicted to some sources that Masjid Demak was built later than Masjid Kg Laut and Java Islands received Islam later than Tanah Melayu (the old name for Malaysia). Islam was said to be brought first to *Tanah Malayu* by the sailors and merchants, and also down from Champa via Pattani to Kelantan, Terengganu and Pahang.

- the architectural form of the masjid have resemblance to Masjid Kg Laut in its three tiered pyramidal roof and originally raised on stilt but now rebuilt on the ground during the Dutch.
- bigger than Masjid Kampung Laut but has similarities to Masjid Tengkera and Masjid Kg.Hulu in Melaka (or Malacca)
- the timber construction now stood on the ground, employed a mixed use of brick work and timber as well as having ornamentation of Chinese origin.

Indonesia



Fig.12 Masjid Keraton Kota Gede, Yogjakarta

Architectural Form

•Masjid Kota Gede was believed to be built around 1640s within the vicinity of an old keraton or palace of Surakarta.

•The form was derived from the Javanese style namely limasan that is characterized by pyramid-form of the roof and two different rooms functioning as main room and verandah respectively.

Indonesia



Fig. 14. Masjid Agung, Jogjakarta, Indonesia (2000)

Architectural Form

•Masjid Agung Keraton, Jogjakarta was constructed based on taqwa concept.

•The construction of the masjid was in phases. Similar to Masjid Demak, the masjid has pyramidal roof over its grand prayer hall. Basic area first and the *serambi* or verandah were added later.

4: Preliminary Findings

Masjids

Findings on Masjid

- Islam came to the region through maritime travels via:
 - India-Sumatra- Malacca or
 - Champa-Pattani-Kelantan
 - Or both ways
- Early masjids were of the Malay Archipelago vernacular architecture of the locality and building structures of timber columns and beams, bamboo wall and layout that can be adapted to accommodate a big congregation under one roof.
- The existing architectural elements handed down from generation to generation of craftsman were utilised to the best possible to complement the new faith from the old.

 Design of the masjids were based on the philosophy of the old Hindu *mandala* or square plans requiring 4 pillars or *tiang seri* to hold the 3-tiered colossal roof.

> Mandala of Om www.exoticindiaart.com



- The odd-numbered tiered pyramidical roof was associated with the *meru* or symbolic mountain resembling the movement upwards towards heaven or nirvana
- Old masjids in Indonesia were adapted from *chandis*
- The masjids underwent adaptations from Hindu beliefs to Islam: the tiered roofs for e.g. commemorates *Islam, Iman* and *Ihsan* instead and one of the sides of the *mandala* faces the *qiblat*

- The planning of the masjids in settlement layouts of Demak, Yogjakarta, Kota Bharu and Kuala Terengganu have similarities:
 - All have sultans
 - The sultans' palaces faced the coast or river at one end
 - The masjids were located either on the left or right of the town square or *alun-alun*
 - The masjids come with cemeteries and houses for *imams* and *madrasas*

• Other influences:

- From as far as Laos, Vietnam, through Cambodia and Thailand, many masjids are deeply entrenched with hybrid architecture of Indian and Persian heritage
- The main characteristics include the domes and arches



Fig 15: Symbol of Masjid in Surabaya, Indonesia (2001)



Fig 16: Masjid in Phnom Penh Cambodia (2008)



Fig 17: Masjid in Ho Chin Minh City.

- Towards sustainability
 - Climatic masjid design initiated by Jimmy Lim, rebuilding of the standard pyramidal masjid in Pahang.
 - Square plan and three tiered roof based on Masjid Tengkera as the chosen design for Masjid Al Azim



Fig 18: Jimmy Lim's version of tropical masjid



Fig 21: Masjid Al-Azim. Melaka's state masjid (1980s)

• Towards sustainability • IIUM's contemporary pyramidal roof masjid extension to the Indian type masjid in Belukar Luas, Ketereh, Kelantan.



Fig 22: Masjid Al-Falah - Proposed Contemporary Traditional Masjid for Belukar Luas, Ketereh, Kota Bharu, Kelantan (2009)

Findings on Masjid

- According to Ghafar Ahmad (1999):
 - the design of the vernacular masjid reflects most of the characteristics of the traditional Malay houses.
 - The architectural style of the vernacular masjids are influenced by four major factors including

□ climatic conditions,

- □ availability of building materials,
- □ craftsmanship and
- □ ethnic background.

Findings on Masjid

- Building materials such as timber, bamboo, bricks, stone, clay tiles and attap are widely used in the vernacular mosques as they are easily available locally.
- Like the Malay houses, the vernacular masjid portray high level of craftsmanship which are demonstrated in the windows, fanlights, carving wall panels, fascia boards and well-designed mimbar with intricate flower motifs. Such craftsmanship generally reflects the owners' status and wealth, particularly for the Malay houses.

Conclusion on Masjid

• Malay architecture is indeed a **flexible** architecture: It is able to adopt invariably a new typology as part of the community asset in a gradual manner and enhance it with magnificent roof structures that encompassed function for the believers and aesthetic expression of the craftsmen eager to service the best towards oneness of God in a balance manner.

Case Study : Houses

HOUSE TYPOLOGY

<section-header>

Diagram 3

The Traditional Houses

- Traditional houses definitely have relationship to each other and the development of the styles is closely related to the movement of people.
- Unlike the masjid, houses are closer to man and society.
- The Malays themselves lives in clusters and the concept of kampong living or country living, leaves every household quite free with their respective house design that is literally modularised by the sizes of the building material, rank in society and the family's affordability.
- Malay houses are naturally conceived through years of trial and error of the village craftsmen and the community.

The Traditional Houses

- Malay traditional houses are built in stages that represent the basic and additional needs of the family.
- Section by section may be added in congruent to the growth of the family or acquired wealth.
- Status in society dictates the style and ornamentation including type of timber used.
- Like the masjid, the roof of the house identifies the origin and status of the occupant.

The Traditional Houses

- The Malay houses, depending on its respective belief system and long alienation from place of origin had reinvented their home to respect their adopted faith and new culture.
- The house as abode for the family with the mother as a central figure, the dimension uses to plan and design the spaces are from the mother of the house.
- Pre –Islamic rituals were conducted to appease the spirits lead by the mother of the house.
- The hearth or kitchen as the central core dictate the main activities of the occupants

CASE STUDIES: TRADITIONAL HOUSES

Regions / Case Study

Architectural Form

Cambodia



Fig. 23 Cambodian traditional and rural house (bottom).



•has a distinct on-stilts features where the proportion of the space underneath the houses is almost equal to the living areas (the main body of the house).

- built of timber with simple pitched or gable roof form
- a long roof configuration but used in both parallel or juxtaposed to the entrance or façade.
- •the long roofs are parallel to each other to accommodate extension of the spaces. The roofs are normally adorned with decorations with animal motifs on their ridges.

• the spaces are mainly multifunctional and alternately used as spaces for active and passive utilization, i.e. entertaining, eating, relaxing,

Architectural Form

Vietnam



Fig. 25 Vietnam traditional house

The Vietnam traditional houses resemble the proportions of the Cambodia houses.

Laos PDR



Fig. 26. Laos indigenous house.

Architectural Form

•simple form of construction mainly built from timber with attap roofing (made from palm fronds or long grass).

•The proportions are similar to the Cambodian and Vietnam houses with almost equal proportions for the living areas inside the houses to the underneath spaces.

•void of decorations.

•Nevertheless there are also traditional houses in Vietnam that is not on stilts and resembles its northern neighbour in Korea and China.

The Philippines



Fig.27 Bahay Kubo

Architectural Form

•*Bahay Kubo* or nipah hut is the native house of the Phillipines.

•constructed of indigenous materials-made of *nipa* and cogon leaves or *sawali* or woven bamboo.

•Of square plan and normally cubic in shape, this shelter is also raised on stilts to safeguards the shelter's inhabitants from flood, and from snakes and other wild animals.

•adapted to the tropical climate of the Philippines, the structure can easily be repaired or rebuilt once damaged by typhoon, flood or earthquake.

•Has one large, open, multi-purpose room for dwelling, called *bulwagan*. It has a cellar, or underneath the house like those in Cambodia and Malaysia (kolong), called *silong* where most household chores are done. This area serves as the area for livestock pens, storage space, workspace and granary.

The Philippines



Fig.27 Bahay Kubo

Architectural Form

•Large windows are provided on all sides to keep the interior well-ventilated. The windows have *tukod* or "legs" that hold the swinging shades open during the day, and secure it back in place at night.

•Another feature of the the *bahay kubo* which is the ladder or *hagdan* which can easily be removed at night or when the owners are out.

•The houses has open back porch or *batalan* is also where household chores are done and where the jars of water are placed.

Thailand



Fig.28 Thai or Central Thai houses.

Architectural Form

•The Thai traditional houses are mainly composed of several sections and connected by a raised platform. This platform acts as a common courtyard area for the house.

•have a pitched roof over single spaces with slightly curved sides. This style is also found in Terengganu and Kelantan, Malaysia. The roofs and wall panels are usually adorned with carvings.

•The spaces underneath the houses are utilized similarly to traditional houses in other areas, i.e. Cambodia, Malaysia etc.

•The houses used prefabricated timber panels that can be replaced when required.

Malaysia



Fig. 29 Rumah Traditional, Bagan Serai, Perak.

Architectural Form

•timber structures built on stilts.

•a composition with spaces of different usage, although some spaces remain to be multi-functional.

•There are several types of Malay traditional houses that varies according to regions.

•The most popular roof forms are the long roof and five-ridge house (*perabung lima*/ *limas*). The example of the traditional house in Bagan Serai, Perak is built on stilts.

Malaysia



Fig.30 Rumah Tuan Hj Abdul Rahman, Merbok, Kedah

Architectural Form

•uses timber as the main material for the house that is composed of spaces i.e. verandah, the front house (anjung), the main house (rumah ibu), intermediate area (selang), kitchen (dapur) and washing area (pelantar).

•the spaces underneath the traditional houses are also multifunctional

•normally have verandah that is also common to other traditional houses that may have been a result of socio-culture or climate.

•It is interesting to note that the Tuan Hj Abdul Rahman's house resembles closely the house in Cambodia.

Architectural Form

Indonesia



Fig. 31 Rumah Gadang, Sumatera

•The Indonesian traditional houses varies from a single space house like the Atoni's to a more complicated Rumah Gadang in Minangkabau region or the Nias Houses in Nias Island.

•For the purpose of this analysis the Sulawesi house has been selected due to the similarities that it has to the traditional house forms of other regions discussed in this paper.



Fig. 32 Traditional House, Sulawesi

Architectural Form

•made of timber with on stilts construction that resembles the forms discussed in Cambodia, Vietnam, Laos PDR and Malaysia.

•the roof form is a long roof style that is perpendicular to the entrance. The proportion is also similar to the other houses in the region.

4: Preliminary Findings

Traditional Houses

- The houses on stilts are found along the span of more than six thousand kilometres, which is from Melanesia to Indonesia to Japan while on the Asian continent, as far as Nepal to Southeast Asian and South China (Jumsai).
- In this region, the housing on stilts are manifested in various forms that reflects the beliefs, social and culture of specific regions.
- While the houses in Malaysia are influenced by Islam as a way of life, the Batak house in Sumatera and Torajah house in Sulawesi Indonesia are influenced by the local belief and culture of the people.

- The Malay traditional houses in Malaysia are commonly oriented towards kiblat (Makkah) and are void of decorations accept for some floral motifs in form of carvings.
- The Indonesian version of Batak and Torajah houses have forms and decorations that symbolize their belief system, i.e. lizards and three distinct colours of white (realm of deities), red (the human world) and black (the spirits of the underworld). These tripartite segments of houses are prevailing in many parts of Indonesia including the Torajah and Batak houses

Realm of the Dead

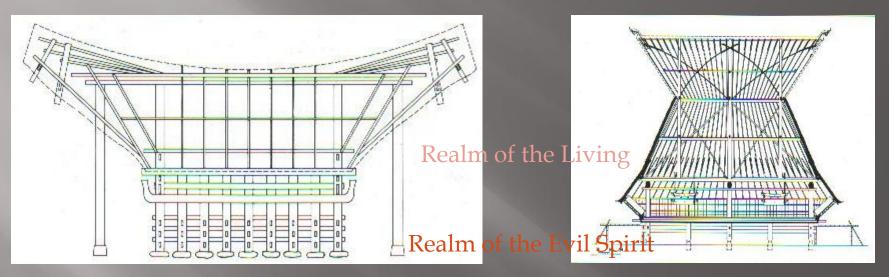


Figure 33: The Tripartite Symbolism in Houses on Stilts in Indonesia BELIEFS

- The raised housing on stilts also has been agreed by many to be a gesture of response to the climate. Hence hypothesized as an environmental reflection.
- The differences have been hypothesized that the houses are reflection of the belief system, culture and behaviour.
- The differences may also occur due to the geographical conditions. The houses on stilts near the body of water, i.e. river and lakes may manifest by having tall stilts as seen on the banks of Tonle Sap, Cambodia or on the shores of Brunei and other settlements fronting the seas.

In Cambodia, the houses are tall and mainly accommodate a set of activities and spaces underneath the houses.





Cambodia



Besides utilizing the underneath of houses as activity spaces, the area sometimes are storage spaces for daily utensils and also livestocks. Usually the areas used for storage are lower and can be seen in Malaysia and Indonesia. These examples show that the utilization of the houses on stilts are similar even though the places are distant from one another





Malay peninsula house

Malay vernacular traditional houses, although varies in its geographical and physical make up, have the similarity of its usage from common defined spaces such *anjung, rumah ibu, serambi and dapur.*

The craftsmanship, including building details and construction techniques were able to adapt to contemporary lifestyle with modifications.

Summary of Findings

- Predominantly houses made of sustainable material found in the locality i.e. timber, grass and bamboo; depending on status, the quality of timber will vary.
- Due to effect of weather and location, will raise their floor to full height or half the height to prevent flood, secure from wild animals, allow coolness as well as spaces below to rest, work, as storage and as animal pen.
- Pitch roof form of various degree, height, gradient and make that will prevent water seepage but will cool or warmth the interior; provide for storages and decorate with meaningful characters based on belief systems.

Summary of Findings

- Building parts and components that can be constructed by module based on need.
- Have lofts or *loteng* at kitchen area
- Created from multifunctional single space dwellings to designate spaces based on function, wealth and status in the society
- Have a water vase or *buyung* at the front steps for washing the feet.
- Adaptable, flexible, transportable and reconstructable

5. Humble

CONCLUSIONS



The physical origin of the Malay architecture as we had now had indeed evolved through many factors of time, place, availability of resources and the effect of physical and sociocultural environment each community interface in their path and lifetime.

Conclusion

- The Malays were known as seafarers and travellers apart from keen craftsmen and agriculture bound.
- As a common culture, the Malays, despite being in different locality and belief systems, have similarity in the craftsmanship and skills whether it is boat building, building construction techniques or weaving.
- New ways are learned and integrated as the Malays mixed with other cultures and places through trades, travels, pilgrimage and even on study mission or as missionaries.

Conclusion

- The Malay architecture we are thriving on at present times are in the form of contemporary concrete or brick masjids and suraus, bungalows, town houses and terrace houses in comparison to just made from timber.
- The built forms are but continuation of the past and into the present following new lifestyle borrowed or assimilated due to the need to change as resources are scarce.



As the Malays migrated to towns and cities, regulatory requirements inserted through Uniform Building by-laws, the Fire Act and insurances on housing had profound effect on the choice of architecture of the town folks in their purchasing of home or building of structures. While the Malays in the country side enjoy their choice of abode and masjid, the town folks had to live within the limitation of the law imposed.

Conclusion

• While it is rather sad that rural folks are mesmerised by town folk's "progress" in their idea and perception of perfect abode and long term nature of their structures, Disney and American catalogue likes houses mushrooming amidst padi fields and fishermen's village in coastal areas; tranquil and quaint timber masjids were also replaced with replica of middle-eastern cum western brick and mortar architecture.

.....and yet in towns and cities

urbanfolks are yearning for their roots...



Fig 37. Sample of 'reminiscing the tradition' houses in tight urban setting of Kg Tunku, Petaling Jaya (2010).



In seeking the origin on just two building typologies, the *masjid and the house*, the study had disclosed the rigmarole of assumptions based on historical evidence of adjacent structures as well as those built within the same period yet to be rediscovered.

Conclusion

■ While we continue our search for the Malay origin in the teaching of architectural history on the Malay architecture to new generation, perhaps it is not too late as a recommendation, to include the essence of the requirements that addresses the climatic and social concern towards sustainability extracted from both vernacular *masjids and houses*; into the neighbourhood planning and design guidelines of our towns and cities.



The knowledge and its application may assure the future that the long lost local technology based on intuition, experiences and hand down wisdoms are here to stay in its contemporary form relieving the progress and adaptation the vernacular architecture of the Malays always brings. *Wallahualam*



THANK YOU ERIMA KASIH & AUGHUN

Heritage Centre, Dept of Architecture, Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia

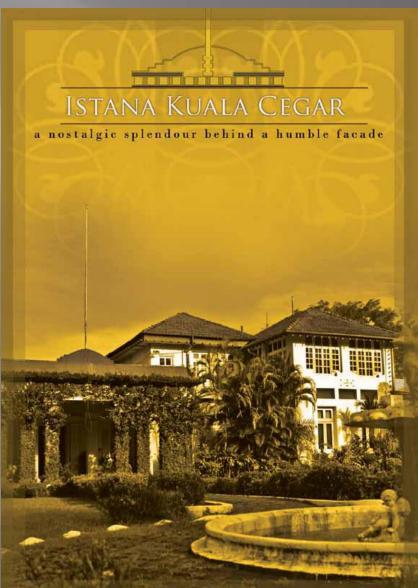
> Malay Heritage Conference in Cambodia,Lao PDR & Vietnam 24-26 June 2010

- Focus on Muslim Architecture at both local and international context
- Have documented
- Local- Georgetown , Alor Setar and Kuala Kangsar
- International-Egypt (Cairo), Turkey (Istambul), China (Xi'an and Hohhot), India (Fatehpursikri), Syria (Bimaristan) and Indonesia (Padang, Jogjakarta and Surabaya)

Studies in The Malay World

- Georgetown, Pulau Pinang- Masjid Melayu, Syed al-Attas House and a few houses in the surrounding areas
- Alor Setar, Kedah- Istana Cegar, Istana Pelamin, Istana Kuning, Istana Sepachendra, Masjid Zahir, Rumah Tok Menteri I and II
 Kuala Kangsar, Perak-Baitul Rahmah, Bytul Anwar, Istana Gahara and Rumah Meor

EXAMPLES OF PUBLICATIONS



Department of Architecture, Kulliyah of Architecture & Environmental Design

Malay Heritage Conference in Cambodia,Lao PDR & Vietnam 24-26 June 2010

TABLE OF CONTENTS

• Preface

- Background Studies of Malaysian Architecture
 - I. The Malay Palace
 - II. Sultan Mansur Shah Palace
 - III. Istana Balai Besar
 - IV. Istana Seri Menanti
 - v. Colonial Influence in Malaysia
 - VI. Palladian Style
 - VII. Indo-Sarcenic
- Background Study of Kedah
 - I. Istana Kuala Cegar
 - II. History of Anak Bukit
 - III. The development of Anak Bukit
 - IV. Site Planning
 - v. Early history of Istana Kuala Cegar
 - VI. Spatial Organisation
 - VII. Architectural Influences

• Art of Construction

- I. Introduction
- II. Foundation
- III. Wall
- IV. Floor
- V. Roof
- VI. Openings
- VII. Staircase
- VIII. Ornamentation
- Conclusion
- Photo Album
- References
- Glossary

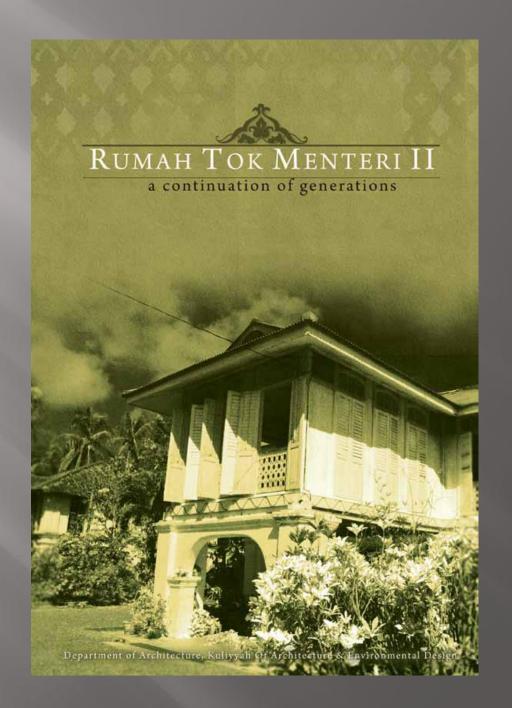


TABLE OF CONTENTS

Preface xv
Introduction

Background Studies of Malaysian Architecture

- I. The Early Settlement
- II. The Early Town
- III. Colonial Influence in Architecture of Malaysia
- **IV.** Colonial Bungalows
- Overview of Rumah Tok Menteri II
 - I. History and Background
 - II. Spatial Organisation
 - **III. Building Morphology**
 - **IV.** Architectural Style and Influences
- Art of Construction
 - I. Introduction
 - II. Foundation
 - III. Columns and Beams
 - IV. Floor
 - v. Roof
 - VI. Openings
 - VII. Ornamentation
 - VIII. Special Character
 - IX. Ventilation and Lighting, Water Supply and Sewerage System
- Conclusion
- Photo Album
- References

