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# Traditional Malay Furniture for Sustainable Infrastructure Development: A Review

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Abstract—This paper will discuss on the literatures of traditional Malay furniture for sustainable infrastructure development, available in Traditional Malay Houses (TMH) that is influenced by culture and daily activities. The objectives of this paper includes investigating the relationship between architecture and the decorative background towards usage of heritage furniture in TMH, and identifying the types of traditional Malay furniture used based on their availability in TMH from the perspectives of the Malays. The research methodologies used in this study includes research through precedent studies and case studies of existing traditional furniture in TMH, analytical studies of reading materials such as books, reports, journals, and through photographic evidence. The findings of this paper will conclude with the different types of traditional Malay furniture available in the main spaces of TMH.

**Keywords:** *Traditional Malay Furniture, Traditional Malay House, Sustainable Infrastructure Development.* 

## 1. SUSTAINABLE INFRASTRUCTURE DEVELOPMENT INTRADITIONAL MALAY HOUSE (TMH)

Since the Malay-Islamic culture is predominant in Malaysia, TMH becomes a functional object that reflects the needs of the family and expresses a strong symbolic meaning (Rodriguez & Siret, 2009). As a domestic domain, TMH are built and designed by the inhabitants themselves, not only to reflect their needs and lifestyle, but also their creativity and aesthetic skills. Therefore, the TMH consists of spaces that have their specific uses which in turn influences the interiors and furniture used, making the house a site for many cultural practices and traditions [12]& [33].

The TMH is the vernacular architecture of the Malays before the colonial period. Its most distinctive vernacular attributes are the raised floor construction, the flexibility of spaces and the use of readily available rain forest materials to counter the hot-humid climate. There are three parts of the house – pillars, walls and roofs. These parts have been interpreted as three stages in man's life – birth, life and death.

The Bugis Malay in Johor believed the house represents the human body such as head, ribs and legs [1]. The uses of

interior spaces of the TMH may vary. Based on Fig. 1, the diagram shows some common activities in the Malay house. Spaces in the house are multifunctional and the use of the space changes during the day and year. There are minimal interior walls and partitions within the house, allowing for flexible use of space and good ventilation and lighting of the interiors. Minimal furniture is used and most activities are done on the floor.

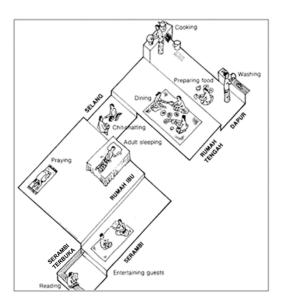


Fig. 1.1: Space in TMH and their activities (Source: Author based of [30])

The main spaces and areas in TMH includes; anjung, serambi, rumahibu, selang, and dapur. Starting at the front of the house is the stairs that leads to the anjung (covered porch). Sometimes unfamiliar guests are entertained here and the porch is the favourite area where the owner of the house usually sits while watching the goings-on happening in the village. It also acts as the focal point for the entrance. The anjung leads to the next space which is the serambi. Depending on the type of house, some may include a serambiterbuka instead of an anjung. Both of these spaces act

as the main area where male guests are entertained, as the low windows allows for good ventilation and lets the breeze come in, effectively cooling the area.

From the *serambi* and onto the *rumahibu*, which is considered as the main female domain and is the core of the whole structure of the house, and to express its importance, this space has the highest head room and the largest of all the other spaces inside the house. This area is where most activities are conducted which includes sleeping, sewing, praying, studying, and feasting (*kenduri*). Moving forward is the *selang*, which is a closed walkway that acts as a link from the *rumahibu* to the kitchen. It's also used as a circulation space where the women of the house spend their time chatting and socializing with each other. Other than that, it is also considered as an effective linking device that leaves an open space between two portions of spaces, while at the same time providing good ventilation and lighting.

The last main space is the *dapur* (kitchen) which is always situated at the very back of the house. It has the lowest floor level of all the spaces and this is where most of all the food is prepared. Other than that, cooking, eating, and washing are all done within this space. The kitchen is another favourite area where the women like to chat with each other.

Spaces in the TMH are not limited to these only; many additional spaces can be added to the main core, as the TMH is very flexible and caters to its users needs. This addition extension system is very sophisticated and follows certain principles.

The system allows the expansion of the house onto additional spaces when the needs arise such as when the family has grown in number. At the same time it allows the house to grow slowly which in turn does not burden financially on the owners and making them to build according to their financial stability over time. The addition system is built around the core house (*rumahibu*) depending on the needs of the family using standard house forms and a variety of construction methods. All those detail explained, contribute to sustainable infrastructure development in TMH.

#### 2. FURNITURE

A few studies have underlined that furniture is an important part of human life. Built-in seats and sleeping-place were incorporated in a neolithic house at Skara Brae in the Orkneys [18]. Based from archaeological findings and artefacts in museums, we know that from the beginning of time when man lived a nomadic life until they gradually settled down, each household had specific equipments and products to hold or store their properties.

With the development of human civilization, discoveries of different and exotic materials such as gold, bronze, metal and ivory, furniture became the symbol of social status and power. Furniture is above all, functional. It is an essential part of the home, and its specific purpose is to the many activities – meals, entertainments, recreation, study and so on - and the inactivities-sleep and rest-of domestic life [15]. Architecture and the decorative background are intimately related to furniture, and any integral study of furniture must always be judged in relation to its architectural environment [7].

According to Beard [4], English furniture are divided into different categories, and these can be evidently seen in the different stages of status of the community, for example there are different furniture for the crown and court and spaces available in lavish houses of the wealthy.

Within these houses there are also different types of furniture that the servants are strictly to use such as the 'backstairs'. Furnishings and furniture both go hand-in-hand and are closely related to each other. Rooms in medieval households are designed like theatres, in which there is a permanent stage, this can be seen as the permanent fixtures, and when all the other portable fixtures are moved and rearranged, the rooms can be transformed and suited to its' purpose for that evening, like movable props in a play [5].

#### 3. DEFINITION OF FURNITURE USED

The definition of furniture that is used in this study is based on a conclusion of all the definitions previously listed, and this working definition will help in defining all the different types of furniture that are available in TMH. The working definition is as follows:

"An equipment used for the necessity of the people in their daily lives whether for storage, utility, or as a tool, characterized by their functions, usage, and types, that are available both externally and internally of a TMH."

#### 4. TRADITIONAL MALAY FURNITURE

The Malays are known for their floor culture, as they sit, eat, work, and pray on the floor [10]. Furniture plays an important role in human life, but its necessity is based on the needs of the people using them, so therefore some might find furniture important while others don't. According to Mohamad Awang[2], furniture can be defined based on their usage, functions and types. Based on this explanation, it shows that furniture is not only movable objects, but he expands them on their usage such as body-supporting, storage, and tool.

He also categorizes furniture into two categories which are built-in and loose. The expansion is done because the Malay house is equipped with plenty of utility furniture such as the *peran* (attic) which is an area above the *rumahibu* that is used to store equipments that are not used regularly such as tools used for gatherings and feastings. The *para* (shelf) is another

example of this utility furniture which is a type of shelf usually used to place and dry utensils that have been washed, and can normally be found in the kitchen of most TMH [2].

To clarify even more, the definition of 'usage' is the degree to which something is used or the way in which it is used, and 'function' can be defined as the useful thing that something does or are intended to do. Based on these explanations, the following table can be concluded:

Table 1.1: Categories of furniture (Source: [2])

Categories						
Usage	Functions	Types				
Body-supporting unit	Sitting, sleeping leaning	g &	Built-in & Loose			
Storage/utility	Storing, keeping					
Tool	Working					

From the table above, a set of furniture that was available inside the space was identified and collected which can be seen in Fig. 1.2 below:

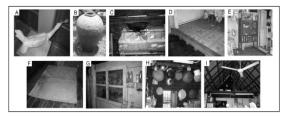


Fig. 1.2: Types of furniture available; (A): KukurKelapa, (B):Tempayan,(C):DapurKongkong, (D):Bendul, (E):Almari, (F): TikarMengkuang, (G):Para, (H): PemidangDinding and Alang, (I):Peran(source: [2])

### 5. MALAY FURNITURE AVAILABLE IN SPACES IN TMH

The following will describe and list down the furniture available in the spaces below:

- a) Staircase
- b) Anjung(Limas house) or Serambiterbuka(Long-roofed house)
- c) Serambi
- d) RumahIbu
- e) Kitchen
- a) Starting with the main staircase leading into the house, which are often used as seating areas while looking out towards the main road or towards paddy fields and see the goings-on and passers-by. The tiled staircases were also a symbol of status for the owners, where important people in the community would have very extravagant ornaments and expensive imported tiles to decorate their stairs.

Before the staircase, some houses have water containers that are made from concrete and are fixed in its place (*kolah*), where guests to the house have to wash their feet first before entering and this is commonly seen in house's of chiefs or head of the village.

Houses of commoners' have instead of the fixed containers (*tempayan*), smaller buckets or pails at the bottom of the stairs where guests wash their feet before entering the house and this is done by using a ladle to scoop the water.

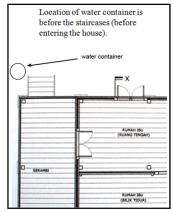
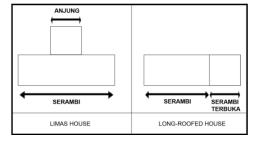


Fig. 1.3: Location of water container

b) Going onto the *anjung*, (which is found in *Limas* houses), whereas the *serambiterbuka* (is found in long-roofed houses). Both these spaces serve the same purpose and some houses have seats that are raised so that people can sit while leaning onto the side railings.

This area is often open aired and are wide and big enough to accommodate a few people where they can watch the environment in front of the house. Smaller houses don't have railings and the area is just an open landing, which still serves the same purpose.

Table 1.2: Anjung in Limas house and serambiterbuka in longroofed house. (Source: Author)



From the *anjung* and *serambiterbuka* and into the *serambi*, this area is considered as a space of social gatherings and feasts. Because this area is commonly very wide in volume, not many furniture is available, as to accommodate the amount of people during these social visits.

What can be seen in these areas of some houses are carved ornaments which are used to hang head gears (*songkok*) of the guests when they enter the house. Richer owners have ornaments that indicate their status or their hobby, for example, some houses have deer antlers as the hangers which indicate that the owner is a hunter. This area is also used as the sleeping quarter for bachelors.

c) Moving onto the next important space or area inside a traditional Malay house is the *rumahibu*. This area is where female guests gather and chat and also includes another space which is the sleeping area of the owners and bedrooms. This area has more furniture compared to the previous space due to the activities that are carried out inside it. These include dressers, where clothing are stored, chests and wooden boxes that are used to store other types of articles.

Various types of mats will also cover the floor as the Malay culture is a floor culture, and among this are prayer mats, and seating mats that are located near low dressers and mirrors. On top of these dressers are small carved metal containers that are used to store jewelleries and other small items. Other than that, there are also clothes racks where the prayer mats and other articles are hung.

d) The most important space inside a traditional Malay house is the kitchen. This area has the most furniture compared to other spaces inside the house, and is where the women of the house spend a major amount of their daily lives in, for mostly each family has at least three meals a day.

The arrangements of the items in this area are placed according to the needs and usage of the cook. Pots and pans are hung on the walls at reachable heights and built-in shelves are used to place and store plates and utensils.

Houses that have their kitchen the same level as the ground, have permanent concrete or clay cooking stoves, while houses with raised kitchens have metal portable stands to place the pots when cooking. This type of kitchen also have floorboards that are laid down with wide spaces between them, to allow the cook to throw away food wastes and water, which will directly go down to the earth below where the ducks and chickens will eat them.

Most of the furniture that is available in the kitchen is used to store and keep food items such as rice, herbs and spices, and other dry ingredients. Wet ingredients such as pastes and mixtures are stored in clay vases, for a longer life span depending on the ingredient they carry, e.g. durian paste (tempoyak).

Most of these furniture are not stored inside closed wardrobes or cupboards because this allows easy accessibility to the user of the area especially during feasts, where the community will gather and help each other, while cooking together inside the kitchen, so everything is outside and can be easily seen and reached.

Based on all the furniture listed that are available in the spaces of a TMH, the table below will further categorise theses furniture into 'built-in' and 'loose' that will elaborate more on sustainable infrastructure development in Traditional Malay House (TMH).[32].

Table 1.3: Built in furniture for sustainable infrastructure development available in TMH, [32].

Change Activity Equation Type M						
Space	Activity	Furniture	Function	s s	al	
Anjung	G:::: /I :	Bendul (Sill)	Body- supportin g unit	Built -in	Wood	
	Sitting / Leaning	Seats	Body- supportin g unit	Built -in	Wood	
	Tools	Light Fixture	Utility	Built -in	Wood	
Stairca se	Sitting / Leaning	Bendul (Sill)	Body- supportin g unit	Built -in	Wood	
		Stairs	Body- supportin g unit	Built -in	Tile/ Concre te	
	Daily Preparation	Well	Storage/U tility	Built -in	Concre te	
	Storing / Utensils / Tools / Equipment	Light Fixture	Utility	Built -in	Wood	
Seramb i		Clothes Hanger	Utility	Built -in & Loos	Wood / Antlers	
		Partition	Utility / Furnishin g	e Built -in	Wood	
	Sitting / Leaning	Bendul (Sill)	Body- supportin g unit	Built -in	Wood	
		Window Rail	Body- supportin g unit	Built -in	Wood	
Rumah Ibu	Storing Clothes / Utensils / Tools/Equipment /Jewellery	Light Fixture	Utility	Built -in	Wood	
		Clothes Hanger	Utility	Built -in & Loos e	Wood / Antlers	
	Sitting / Leaning	Bendul (Sill)	Body- supportin g unit	Built -in	Wood	
Courty ard	Daily Preparation	Rails for drying clothes	Utility	Loos e & Built -in	Wood / Metal	

Kitchen	Sitting / Leaning	Bendul (Sill)	Body- supportin g unit	Built -in	Wood
	Storing Food and Utensil / Tool / Equipment	Para (Shelve)	Storage/U tility	Built -in	Wood
		Pemidangdindi ng(Wall Studs)		Built -in	Wood
		Alang (beam)	Storage/U tility	Built -in	Wood
		Peran (Attic)	Storage/U tility	Built -in	Wood
Extern al	Storing / Tools / Equipment	Toilet	Utility	Built -in	Variou s

Table 1.4: Loose furniture for sustainable infrastructure development available in TMH, [32].

Space	Activity	Furniture	Function	Types	Material
Stairc ase		Flower Pots	Storage/Util ity	Loose	Clay
		Wash Basin	Storage/Util ity	Loose	Clay/Met al
		Shoe Rack	Storage/Util ity	Loose	Wood
	Storing / Utensils / Tools / Equipment	Wardrobe	Storage/Util ity	Loose	Wood
		Cupboard	Storage/Util ity	Loose	Wood
		Clothes Hanger	Utility	Built- in& Loose	Wood / Antlers
		Door Panel	Utility/Furni shing	Loose	Textile
Sera mbi	Sitting/Leani ng	Mats	Body- supporting unit	Loose	Pandanus leaves / bamboo strips
	Gatherings	Guest Mat	Body- supporting unit	Loose	Pandanus leaves / bamboo strips
		Bride / Groom's Mat	Body- supporting unit	Loose	Textile
		Betel Chew Set	Equipment/ Tool	Loose	Metal
		Tray	Equipment	Loose	Wood / Metal
		Tobacco Tray	Equipment/ Utility	Loose	Metal / Stone
	Daily Preparation	Tikarmengku ang (Mat)	Body- supporting unit	Loose	Mengkua ng leaves
	Praying	Sejadah (Praying mat)	Body- supporting unit	Loose	Textile
Ruma hIbu	Storing Clothes / Utensils / Tools / Equipment / Jewellery	Wardrobe	Storage/Util ity	Loose	Wood
		Dresser	Storage/Util ity	Loose Loose	Wood
		Mirror	Utility/Equi pment	Loose	Wood + Glass

	T	Tarrio <sup>11</sup>	Ctoms /TT/1	l	Metal /
		Jewellery Box	Storage/Util ity	Loose	Gold /
		Chest	Storage/Util ity	Loose	Wood
		Clothes Hanger	Utility	Built- in& Loose	Wood / Antlers
		Wash Basin	Utility	Loose	Metal
		Waste Basin	Utility	Loose	Metal
	Sitting/Leani ng	Mats	Body- supporting unit	Loose	Pandanus leaves / bamboo strips
	Sleeping	Bed	Body- supporting unit	Loose	Wood / Metal
	Daily Preparation	Tikarmengku ang (Mat)	Body- supporting unit	Loose	Mengkua ng leaves
	Praying	Sejadah (Praying mat)	Body- supporting unit	Loose	Textile
Attic	Storing	Those not in use	Utility/Equi pment/Stora ge	Loose	Various
	Sleeping	Mats	Utility/Equi pment	Loose	Pandanus Leaves
Court yard	Daily Preparation	Flower Pots	Storage/Util ity	Loose	Clay
		Rails for drying clothes	Utility	Loose& Built-in	Wood / Metal
Kitch	Processing Food Ingredients	Kukurkelapa (Coconut rasper)	Working Tool and Body- supporting unit	Loose	Wood + metal
		Lesungbatu (Mortar and pestle) Batugiling (Metate)	Working Tool	Loose	Granite / stone
		Alaspemoton g (Cutting board)	Working Tool	Loose	Wood
		Tempayan (Jar)	Storage/Util ity	Loose	Clay
	Cooking Food Ingredients	DapurKongk ong (Kitchen bark)	Equipment	Loose	Metal
	Preparation Food and Drink	Tikarmengku ang (Mat)	Body- supporting unit	Loose	Mengkua ng leaves
	Storing Food and Utensil / Tool / Equipment	Almari (Shelve Cabinet)	Storage/Util ity	Loose	Wood
Exter	Storing / Tools /	Bird Cage/Trap	Utility/Tool	Loose	Wood/Ba mboo
nal	Equipment	Spinning Wheel	Equipment	Loose	Wood

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