

In Search of Malay Landscape Design: Characteristic and Identification of Traditional Landscape at Sungai Perak

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Abstract

Foreign landscape designs such as Balinese, Japanese and English style have a big influence on the local landscape design setting. Even after more than five decades of independence, most of the key and national level projects do not have a clear direction on the national landscape identity. Putrajaya itself for example, adopted foreign landscape design to develop the federal administrative centre of Malaysia. Furthermore, there is no understandable guideline in respect for national landscape identity or local characteristic by the Institute of Landscape Architects Malaysia (ILAM). Malay landscape design should become the main direction towards creating national identity. Moreover, Malay landscape design should be preserved as national heritage for future generations. This paper discusses an exploration that is undertaken to identify and establish the characteristics of Malay landscape design. The study includes observations on the characteristic and identity of Malay landscape design that is based on the functions and cultural community in Perak, at present. The objective of this study is to identify important elements and components in the establishment of Malay landscapes such as the types of vegetation and hardscape at the old houses compound along Sungai Perak in Perak Tengah district. Eighteen (18) Kutai houses were selected as case study, using a quantitative method for the distribution of the components found in residential Malay house to determine the nature, function and overall similarity for each sample. At the end of the study, some characteristics could be obtained particularly Malay landscape to hardscape element and favorite vegetation that was found in the house compound. Result from this research can be used as a guide to design an appropriate Malay landscape which suits current lifestyle and also to introduce the identity of Malay landscape design.

Keywords: Malay landscape; Malay; Cultural landscape

1.0 Introduction

Perak is a state that has high historical value in the history of early Tanah Melayu to its formation as a government, known to all as Malaysia. Referring to Abdul HalimNasir (2007), in 1528 a prince of the Sultan of Malacca was crowned the Sultan of Perak in a place called Tanah Abang (now located in MukimLambor, Perak Tengah district). Tanah Abang is located on the edge, or the right bank of the Perak River. Referring to Mohd.Sabrizaa (2007), Perak River is the second longest river system in Peninsular Malaysia flowing along 400km of river basin and it meanders along traditional Malay villages, vernacular houses, mosques, old fort and royal tombs that hold many mysteries as part of the long established socio-cultural and economic history of the traditional Perak Malays. Perak River also holds the long lost historical data possibly equivalent to the empire of the Malacca Sultanate that should be protected. Protected in the context of this study, is to find the character and identity of the Malay cultural landscape around the river Perak.

Generally, the Malays have to adapt and respond well to their surroundings. Indirectly, their presence does not cause harmful effects to the landscape. The community had developed its own cultural landscape according to local social activities at that time. The Malay community did not have a strong landscape design, compared to other landscape themes that were popular in the modern times. However, the strength of Malay design which can be detected in old Malay garden are plants or soft landscaping: they are so unique because the designs clearly symbolize the civilization of Malays (Zakaria, 2012). Other than that it shows the Malays has a strong knowledge in terms of plant functions in the garden or their environment. Thus, indirectly, the identity and image of Malay

garden can be expanded, and will be a reference for all landscape architects who are actively promoting the design of the Malay culture. This research will explore each element of cultural landscape found in the study area to obtain data on Malay landscape character and identity that can be used in Malay landscape to get the true identity of Perak Tengah district.

1.1 Problem Statements

At present, the characteristics and identity of Malay landscape in Perak Tengah District haven't highlighted while it is an art and a way of life which was inherited a long time ago. Through this study, this paper explore the landscape elements on the house compound of Malay in Perak Tengah District, which form the cultural landscape in search of character and identity to be inherited by the next generations.

1.2 Research Objective

The objective of this study was to identify the characteristics of Malay landscape for traditional Malay houses (Kutai house) along Perak Tengah district for sustainability designs that are relevant in the present environment.

1.3 The scope of the study

The scope of this study covers Kutaihouses, along the Perak River in Perak Tengah district. Furthermore, the study also identifies some sample criteria (see 3.1) in order to facilitate the researchers to obtain a sample of the study. The Kutai house is among the important criteria in the selection of the sample, because it has been classified among the types of the oldest traditional Malay houses in the district of Perak Tengah. Selection the Perak Tengah District as study area is because there are few studies carried out by previous researchers that list this area as one area that has a lot of Kutai houses aside from the Hilir Perak and Kuala Kangsar.

2.0 Literature Review

There are several references used in the research literature. This literature review will focus on the existing design, selection of research methods, introduction to the subject of study, and also the importance of the old manuscripts in this study.

2.1 Design Concept

According to Forman and Godron (1986), to find a landscape, we need to understand the influence of human and cultural practices. It is like a landscape with people, the human role and the role of nature may be alternatively emphasized but cannot be disentangled. This can explain the cultural landscape as a medium that can be used to identify and understand a particular race (Mitchell, 2002). Therefore, the concept of landscape design that is owned by a race could be the basis for introducing the people's identity. According to Abdul Hadi and Julaihi (2010), implicit identity is the main difference between the approaches of traditional Malaysian society with Western society in the aspect of design, including the environmental design. Malaysian Malays are no exception; their cultural landscape and the environment are difficult to be interpreted by researchers.

2.2 The Cultural Landscape

According to Sauer (1925), the cultural landscape is fashioned from a natural landscape by a cultural group. Culture is the agent, the nature is the medium, and the cultural landscape is the result. Another description is given by HazaHanurhaza (2014), cultural landscape is described as human activities on land and past experiences are the elements that shape identities, traditions, beliefs, values, norms and cultural meanings to the place. This shows that the cultural landscape is a result of landscape transformation because of the activities carried out by humans. The rapid transformation without control, can also affect the loss of values or cultural resources itself.

2.3 Malay Traditional House

According Ariffin and Talib (2005), in Perak, there are the old traditional houses dubbed as Kutai House. In the midst of development of technology and modernization, construction of a traditional Malay house had been forgotten and the existing house is already unoccupied again due to mortality and migration. However, its age and also traditional features made it more interesting to be studied.

2.4 Soft Landscape/Vegetation

According by Zakaria (2013) there is a certain strength of which can be detected in old Malay garden: they are plants or soft landscaping. It is so unique because it clearly symbolizes the civilization of Malays. Other than that, it shows the Malays have a strong knowledge in term of plant functions in the garden or their environment.

2.5 Hard Landscape

Hard landscape is an important element in any landscape design. It is necessary to highlight the soft landscape in the garden. There was a study conducted by researchers from Universiti Teknologi Malaysia in 2006, they found that the Malay resident compound contains 8 elements as shown in the table 1 below.

Table 1: The list of landscape furniture recorded by the past researchers.(Sources by Abdullah Sani Ahmad, et al, 2006)

No.	Local Name (As be called by local people)	English Name
1.	Tempayan	Water vessel
2.	Guri	Guri (smaller than common traditional Malay water vessel)
3.	Pasu Bunga	Flower pot
4.	Pangkin	Resting hut (usually without shelter)
5.	Perigi	Well
6.	Perun	Dump site
7.	Reban	Hen coop
8.	Jelapang / Kepok Padi	Paddy store

3.0 Methodology

The method of this research is through observation, conducting surveys and get referrals from sources related to the Malay race and locals. 18 houses were sampled for this study.

3.1 Sample Criteria

The sample is selected according to the criteria that have been set as follows:

Table 2: Sampling selection criteria

Sample Details	Requirements
Age	More than 100 years old.
Type Of House	Only Kutai House was selected in this research
Authenticity	Minor modification without affecting the original garden layout, where the front, side and backyard areas still exist.
Accessibility	By a mutual understanding with only the owners. Restricted to private residential compounds.
Compound distribution	Front, side and backyard preferred
Vegetation type	Native plants preferred, planted with house if possible
In-sight sources	Reliable secondary sources to validate information of the original condition of the selected samples.
Man made feature	Must compliment compound purposed

3.2 Assessing the Cultural Landscape

This study will use Melnick's characteristic method created by Melnick(1984), which states the importance to identify the characteristics and elements of nature, culture, and visual interest. This method facilitates the researchers, for more focus in obtaining the necessary data (Table 3).

Table 3 : Melnick's Characteristics(Sources from Anisa Ani, 2012)

	Characteristic	Example
Process	1. Patterns of spatial organization	Grid, clustered
	2. Landuse and activities	Paddy field, orchard, irrigation
	3. Response to natural features	design follow the climate,type of soil &etc
Features	4. Cultural traditions	Element related to ritual/customs
	5. Circulation networks	Pathways
	6. Boundaries	Demarcations of land
	7. Vegetation related to land use	Orchards,edible garden
	8. Structural types	Barn, storage house, decking
	9. Cluster arrangement	Homestead
	10. Archaeological sites	Abandoned element/historical/memories
	11. Small scale elements	Fencing, water pots, swing set
	12. Perceptual qualities	Views

3.3 Assessing the Malay Landscape

Methods of obtaining data is the "Relevance Theory" approach as introduced by Dan Sperber and Deirdre Wilson (2004). By applying this method, the researchers will use more of the semi-structured in-depth questions in the interview session to obtain intangible data.

4.0 Finding

Generally, researchers can detect the elements and layout of Malay landscape significantly in all houses visited. The table below shows a list of soft and hard landscape that are found with their functions.

4.1 Soft landscape

Result of this research found that there are three categories for the type and function of plants in 18 samples of Malay house compound areas like cooking & herb plants, fruit & shade plants and ornamental plants.

4.1.1 Cooking & herb plants (refer table 4).

These types of plants are usually used for cooking and herb. The leaf, fruit, stem and rhizome are the edible part that can be used for cooking. Most of this plants are found at backyard area and near the kitchen. Table 4 shows the type of plants found in Malay compound areas for this research. The type of plant that are mostly found are *Citrus aurantifolia* (15.31%) and the least plant found is *Morinda* spp and *Areca catechu* (1.02% respectively).

4.1.2 Fruit & shade plants (refer table 4).

These types of plants are usually used for food (fruit & water). Most of these plants are planted at backyard and side areas. Planted trees have leaves that are plenty and they also developed a certain height. This allows the occupants to do some activities under the trees such as to build a bench or swing to rest. Table 4 shows the type of plants found in Malay compound areas for this research. The type of plant that is mostly found is *Musa* spp (26.24%) and the least plant found is *Saccharum officinarum*, *Artocarpus communis* and *Citrus grandis* (0.71% respectively).

4.1.3 Ornamental plants (refer table 4).

Plants of this type are often used as decoration in the front compound area. Trees are usually not edible and produce colored flowers. Most of these plants are located in the front yard to attract and welcome guests that pay a visit. Table 4 shows the type of plants found in Malay compound areas for this research. The type of plant that is mostly found is *Codiaeum variegatum* (56.25%) and the least plant found is *Hibiscus sabdariffa* and *Heliconia* spp (3.13% respectively).

Table 4: Type of plants found in this research by ranking

Ranking	Type of Plant		
	Cooking & herbs	Fruit & shade	Ornamental
1	<i>Citrus aurantifolia</i>	<i>Musa</i> spp	<i>Codiaeum variegatum</i>
2	<i>Curcuma</i> cultivar	<i>Nephelium lappaceum</i>	<i>Bambusa multiplex</i>
3	<i>Cytopogon citratus</i>	<i>Cocos nucifera</i>	<i>Bougainvillea</i>
4	<i>Averrhoa carambola</i>	<i>Duriozibethinus</i>	<i>Euphorbia lactea</i>
5	<i>Manihot esculenta</i>	<i>Artocarpus heterophyllus</i>	<i>Ipomoea tricolor</i>
6	<i>Caladium</i> spp	<i>Carica papaya</i>	<i>Heliconia</i> spp
7	<i>Capsicum frutescens</i>	<i>Elaeis guineensis</i>	<i>Hibiscus sabdariffa</i>
8	<i>Pandanus amaryllifolius</i>	<i>Mangifera indica</i>	-
9	<i>Murayakoeningii</i>	<i>Manilkara zapota</i>	-
10	<i>Polygonum minus</i>	<i>Ananas Comosus</i>	-
11	<i>Citrus hystrix</i>	<i>Canarium</i> spp	-
12	<i>Curcuma longa</i>	<i>Artocarpus communis</i>	-
13	<i>Piper betle</i>	<i>Citrus Grandis</i>	-
14	<i>Areca catechu</i>	<i>Saccharum officinarum</i>	-
15	<i>Morinda</i> spp	-	-

4.2 Categories of vegetation

The results obtained revealed that there are five categories for the use of plants that are found in this research for the Malay compound (see figure 1). Among them are cosmetic, decorative, eating, medicinal values and shade in

which each function depends on the needs the residents of the house itself.

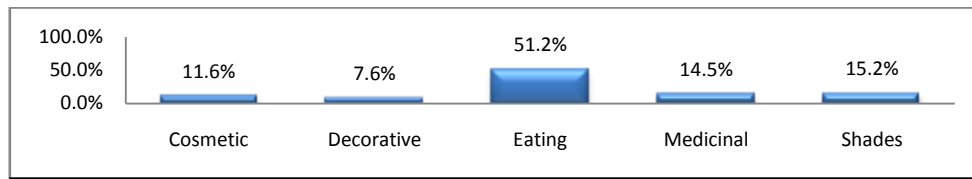


Figure 1: Percentage distribution by category of vegetation in 18 Kutai house in Perak Tengah district, Perak

4.3 Hard landscape

Results of the research found no significant differences for all the samples studied for hardscape element. Table 5 below shows a list of hard landscape that is found with its functions.

Table 5: Landscape Furniture Found During The Site Visit.

No.	Local Name (As be called by local people)	The function of each element of hard landscape, as it has been informed by the respondent.
1	Bangsai / Barn	The barn is a walled thatched building. It is also possible without high walls and floors. It can also be floored soil used for storing goods, such as rice store.
2	Pasubunga / Flower pot	Flower pots have been used down the ages yet to be placed in the courtyard. Made of clay or plastic with various shapes and colors over time.
3	Tempayan / Water vessel	For the Malay community, water vessel usually made without carving and used for storing water and fermenting foods.
4	Kolam / Water feature	Is the place to store water, which was built next to the stairs. It also serves as Guri, a place to store water for cleaning the feet before going up to the house.
5	Pangkin / Resting hut	Resting hut is a four-legged wooden building, or more (depending on size) and slightly lower than the table. Serves as a resting place, afternoon teas and daily activities eg; knitting, and repairing nets. The significant difference between the resting hut with this platform is, in terms of its size and its location.
6	Bilikmandi / Bathroom Jamban / Latrine	Bathrooms in accordance with customary the Malay community, need to be built outside the house with toilet. Toilets, showers and also an ablution place must be separated. Toilets also should not be located opposite the place of prayer.
7	Perun / Dump site	Perun is a hole dug, the location is in the back of the Malay house, and be a place to dump and burn rubbish.
8	Jamban / Latrine	A simple toilet such as a hole in the ground. A latrine is basically a simple waste collector.
9	Reban / Coop	Coop is hard landscape elements, which can be found in traditional Malay houses around a courtyard. Made of wood, can also be made with simple, with just a roof of palm. Usually placed in the back or side of house courtyard.
10	Guri / Guri	Guri or pitcher has the same characteristics as a water vessel, but different from the size and smaller opening mouth. Placed at the foot of the stairs in front of the house, and used to store water for washing the feet before going up to the house.
11	Perigi / Well	Wells is a hole dug to obtain water resources (groundwater). It can be as simple as a hole, allowing a bucket on a rope lowered into, or very complex, using high-powered pipes and pumps to bring water.
12	Ampaian / Suspension	It is a place to hang washed clothes.
13	Kerusi / Bench	Seating in the yard which intended to leisure activities.

(Source: Author, Site visit and Zamil et al. (2015), *The Perak Malay Landscape Furniture Design: An Overview*, i-CADER2015)

The result for this research, is to identify the distribution of landscape furniture that exist in the Malay house compound area in Perak Tengah District as shown in table 6.

Table 6: A distribution of landscape furniture that are found in the Malay house compound area in Perak Tengah District

Sub District of Perak Tengah	Sample ID	Landscape / Hardscape Furniture													
		Ampaian (Suspension)	Bangsai / Sulap (Barn)	Buain (Tree swing)	Guri	Jamban / Tandas (Latrine)	Kolam (Pond)	Pangkin	Pasu (Flower pot)	Pelantar	Perigi (Well)	Perun / perunan (Dump)	Reban (Hen room)	Tempayan (Water vessel)	Wakaf (Gazebo)
Bota	BT1	X				X	X			X	X	X	X	X	
Bota	BT2					X				X					
Bota	BT3		X			X			X	X	X				
Bota	BT4					X					X	X			
Bota	BT5	X			X	X		X		X	X	X			
Bota	BT6									X	X				
Bota	BT7						X								
Bota	BT8		X						X	X	X				
Bota	BT9	X	X	X					X		X	X			
Bota	BT10	X	X			X			X		X		X		
Bota	BT11	X				X			X		X		X		
Bota	BT12	X									X		X	X	

Sub District of Perak Tengah	Sample ID	Landscape / Hardscape Furniture													
		Ampaian (Suspension)	Bangsai / Sulap (Barn)	Buayan (Tree swing)	Guri	Jamban / Tandas (Latrine)	Kolam (Pond)	Pangkin	Pasu (Flower pot)	Pelantar	Perigi (Well)	Perunan / perunan	Dump (Raban)	Tempayan (Water vessel)	Wakaf (Gazebo)
Bota	BT13	X				X		X			X	X			
Parit	PT1	X				X		X	X	X	X	X	X		
Parit	PT2	X	X		X			X			X	X		X	
Parit	PT3								X				X		
Kg.Gajah	KG1	X	X			X		X		X	X				
Kg.Gajah	KG2							X	X	X	X				

4.3.1 Condition of hard landscape

Most of the hard landscape elements which are found in the selected houses are not in good condition. It occurs when elements such as water vessel, guri, toilets and bathrooms, outside the house are no longer used at present. Keep in mind that the presence of hard and soft landscape found in the Malay house compound is caused by its uses and functions.

4.3.2 The landscape furniture arrangement

All of these traditional houses have a spacious courtyard. However, a spacious compound would not be interesting, if there is no landscape design. From these studies, we can see that the community that inhabits traditional house along the Perak River is less sensitive to the landscape around the house. The layout of hard landscape views are unattractive, disorganized and messy. The layout of hard landscape is seen scattered, arranged according to the needs of the homeowner.

4.4 Finding summary by using Melnick characteristic method

Using the Melnick's methods, the importance to identify the characteristics and elements of nature, culture, and visual interest can be achieved by analyse the data with this method. This method facilitates the researchers, for more focus in obtaining the necessary data (see Table 7).

Table 7: The summary of characteristic by using Melnick characteristic method.

No	Characteristic	finding
1	Patterns of spatial organization	Even with unclear boundaries, the “core” of the compound is overall readable. There are definite zones around the house, as Ismail (2003) has found in rural Perak. The zones are not marked by any material indication, yet they appear to be a tacit agreement on their respective function,
2	Landuse and activities	a. The Kitchen Garden b. The Orchard c. The open lawn d. Live stock farming
3	Response to natural features	The Malays adapt and respond very well to their natural environment and this ethic can also be seen in their compound features, such as the construction of the house, to respond to weather conditions.
4	Cultural traditions	The Malays in this study are found to pass these traditions to their heirs, which comprise the method of land demarcation, social and cultural heritage, rituals and customs, as well as symbolism and meaning of things.
5	Circulation networks	The Malays always put networking and relationships with other community members in their priority list. Thus, all samples in this study display a trail as a dominant feature in the compound areas.
6	Boundaries	The study discovers that plants are used for boundary statement between lands. In the countryside areas, tall and steady plants are chosen for the markings of territories. On flat lands and coastal stretches, demarcation methods usually depend on dominant features, such as streams, drains, and sometimes, shrubs or hedges.
7	Vegetation related to land use	The inventory tables produce a summary of plant species relevant to their distribution within a compound area, plus their significance to the house owner
8	Structural types	Listing the landscape furniture from case study. a) River areas-house, barn, coop, well, outdoor store b) Flatland areas - house, coop, kolah, barn, latrine, wakaf, outdoor toilet, well, outdoor store
9	Cluster arrangement	The arrangements of a typical rural Malay house compound are neat, clustered into their functions subject to the resident’s social background and main activities.
10	Archaeological sites	Archaeological feature sometimes is inherited to their children to ensure their prolongness and existence
11	Small scale elements	a) River areas - Bench - Dump site - Flower pot - Outdoor store - Water vessel b) Flatland areas - Bench- Barn - Bird house - Dump site - Flower pot - Kolah - Coop - Barn - Resting hut - Suspension - Well - Suspension - Resting hut - Wakaf - Water vessel - Resting hut - Well - Outdoor store - Outdoor toilet - Wakaf - Water vessel

12	Perceptual qualities	From the analysis, the distribution of compound built-elements shows decreasing numbers for many of its elements. These are caused by the changes in the socio-economic status of the state itself.
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4.4 Site Visit Observation

18 houses were reviewed, and site selection study was performed using "Simple Random Sampling" because in the area there are more than 23 Kutai houses discovered by previous researchers. The results of the observations found that, most of the hard landscape elements are not managed well. In addition, there is a little problem in the interview process: it was caused by the homeowner no longer occupying the house or the owner has passed away or the house is passed to owner's heirs.

5.0 Discussion

The results of this study, explained there are some characteristics of character contained in the Malay landscape. The characteristics for this character are important to identify, design and implement the Malay landscape in Perak Tengah district. Here are the Malay landscape character identified in this study.

Malay landscape is a micro environment of the village landscape and the wider environment. The components of the landscape are influenced by the cultural life of the community and the surrounding circumstances. Malay Landscape is divided into several sections, namely the front yard, backyard and the side yard refer to previous researcher by Nor Atiah Ismail (2015). Front yard has large compound and serves as the home decor areas and social activities. Side yard is continuous with the front page and the types of food crops, medicines and bulky trees as shading. The back yard is classified as a private area where the plant becomes components and has relationships with residents' daily use. The species in the context of the residential environment is influenced by the environment and land use in environments where observations have three levels: original plant, plants grown by the inhabitants of the first generation and the next crop is planted near the house by the current occupants. The layout of the plant is due to the change of the dynamic nature of plants and other landscape components over time. Categories of Malay landscape plants is divided into five, namely the food, medicines, cosmetics, decoration and shade. Landscape furniture such as fences, gazebos, bench, guri, flower pots, platforms, wells, ponds, wood, coop, and the barn has to do with the culture and daily life of the community. Plants and landscape furniture explained that the Malay landscape is a form of life that's full remuneration system based on elements of the existing environment.

6.0 Conclusion

Through this study, researchers were able to identify the strengths and weaknesses inherent to the Perak Malay landscape. There is strength that needs to be highlighted in order to create a new identity of the Perak Malay landscape. Weaknesses in Perak Malay landscape needs to be addressed to enable the new identity of the Perak Malay landscape to be introduced to the public.

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