

HARD LANDSCAPE TREND ANALYSIS: A CASE STUDY AT PERAK TENGAH DISTRICT

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ABSTRACT

Hard landscape as known is made up of man made materials found in gardens or in house compounds. At the moment it is difficult to obtain accurate information on the existence of hard landscape in the compound of Malay community houses. This is due to the hard landscape of the Malay community which is not very significant (intangible factors) compared to soft landscape elements which are more prominent (tangible factors). The aim of this study was to identify the needs and functions of each hard landscape elements in the Perak Malay landscape. The objective of this study was to determine the elements of traditional hard landscape and its use in the present. As a conceptual framework, this study will focus on the results of previous research findings that are relevant to the “user preference” of hard landscape elements used by the Malay community. Quantitative and qualitative methods were used to obtain information for this study. Case studies include the Malay traditional house in the Perak Tengah District. Researchers expect the study to be a benchmark for the survey in other districts in Perak. The results of this study concluded that the hard landscape element that is used by the Malay community is not the same as used by other communities in the world. Differences have made the study more interesting, and this information can be used by other researchers in the future.

Keywords: *Perak Malay garden, Malay landscape, Malay garden concept, Malay, cultural landscape*

INTRODUCTION

This study was to determine the trend of using hard landscape elements in the compound of the Perak Malay traditional house. According to National Landscape Department (2008), hard landscape is composed of all kinds of man-made structures such as street furniture, pedestrian walkways, gazebos, fountains, garden lights, sculpture and so on. The definition given by the agency refers more to the modern landscape. For the Malays, hard landscape is mostly composed of structures that have a function in daily use. In many residential sites, the most significant outdoor spaces include an outdoor arrival and entry space, entertaining or living space, eating or dining space, recreation space, work/storage space, and garden space (Booth, 2011).

A good landscape design should cover the functionality, is easy to maintain and visually pleasing. Culture, which expresses itself in the locality, and which in turn is expressed by placing, brands our spaces and our built forms with identity and character (Waterman, 2009). From the observations, most landscape materials have the potential to be recycled. The Malay community has also used a variety of material as hard landscape elements in their garden. In the context of sociology, the term cultural landscape does not mean just to show the status of progress and sophistication of an area, but it could also reflect the identity, culture, social and the local economy (Zamil *et al.*, 2014).

LITERATURE REVIEW

The Traditional Malay House

According to Simonds and Starke (2006), cultural approbation allows for obvious improvement and some innovation, but rejects vociferously, and sometimes violently, that which seems out of place or offensive. Understanding the relationship between the community and the environment is the basis of traditional conceptualisation. For example myths, thought and cosmology, should be given attention in more detail because it contains elements of local culture.

The form of traditional Malay house was greatly influenced by factors such as the natural surroundings, the way of life of the owners, their economic status and the climate (Wan Hashim & Abdul Halim, 2014). This indicates that there are differences in the use of hard landscape elements in the compound of the traditional Malay house. Hometown (kampung) is intended; an element of the village as a place of residence as a whole, and as a compound surrounded by plants.

Malay Garden Elements

In the context of internal and external space relationships, the placement of the ‘gerbang’, ‘kolah’, ‘kolam’, flower pots/vase and ‘guri’ on the front compound serve as a sense of welcoming and as a tool to clean feet before entering the house (Zamil *et al.*, 2013). This shows that people in the past have considered interior space philosophy of the Malay house for the arrangement of garden elements. At the foot of the stairs there is a jar/water vessel which serves to wash their feet before entering the house. Apart from the cleanliness factor, this practice is associated with the Muslim way of life (Abdul Rahman, 2006).

Cultural Landscape

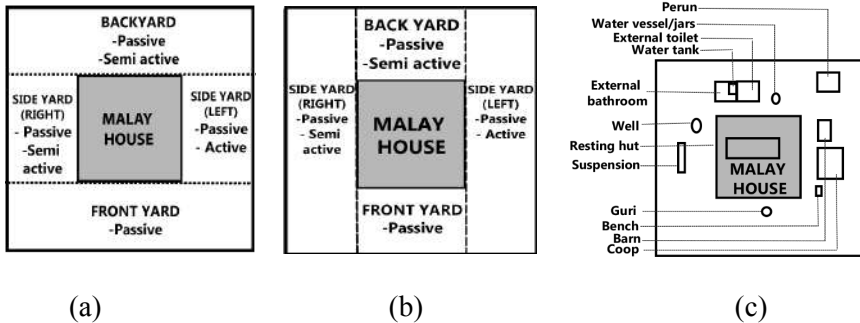
According to the Laws of Malaysia National Heritage Act 2005, Act 645a “historical object” means any artifact or other object to which religious, traditional, artistic or historic interest is attached and includes ethnographic material such as a household or agricultural implement, decorative article or personal ornament. This means that Malay landscape is also considered one of the national heritages.

The problem today is how to maintain and manage the cultural landscape of the Malay race. With reference to Waenerberg in the book entitled ‘Landscape Theory’, case studies on local material where ever has been an important way of gathering questions, opinions, points of view and insight (Elkins & DeLue, 2008). Issues that are used throughout the research process must take into account the local culture. This is because an investigation had failed due to the lack of concern related to culture, way of life and current issues. The emphasis on local culture will have an impact on a firm understanding of the Malay culture (Zamil *et al.*, 2014).

The cultural landscape is a special technique for maintaining land use, by considering the characteristics and limitations of nature, and spiritual relationship with nature.

Design Concept

In general, a good idea is to start with a good design concept. Developing a design concept is something of an individual process and there are parts of the process that everyone should go through (Bradley, 2010). Nowadays, there are a lot of landscape design concepts that have been established. For example Balinese Garden, Chinese Garden, Japanese Garden, Italian Garden and Moorish Garden. The Malay community existed hundreds of years ago, they cannot retreat and will have to have its own landscape design concept of religion, race and nation. Identity is a quality that makes a place known indirectly, it results from the special character compared with other places.



(a) (b) (c)
Figure 1: Common Model 1 (a) and 2 (b) The placements of landscape furniture based on its function on different compound. (c) The general model of hard landscape of the Malay house compound

METHODOLOGY

The method used in this research is through observation on site and obtained information from the old Malay manuscripts. A total of 60 traditional Malay houses in Perak Tengah District was studied to obtain the information about the use of hard landscape elements and its functions nowadays. The selection of the sample was done randomly, and the method of obtaining data was

through semi in-depth interviews and site observations. The advantages of collecting data using the interview method is it to find out a person's value, preferences, attitudes, beliefs and feeling and has the opportunity for direct verbal interaction, encouraging in-depth response (Gray & Malins, 2004).

Sample Criteria

Perak Tengah District has 119 villages according to a survey conducted by the Ministry of Housing and Local Government (KPKT). Traditional villages in this study is intended; a settlement area by the Malays inherited from generation to generation and has features of Malay architecture, the environment and the residential compound implements the concept of Malay village. The sample criteria specified is as stated below:

1. The traditional Malay house.
2. The Malay traditional village.
3. The age of traditional house.
4. Hard landscape elements in the house compounds.
5. Inhabited or vacant.

Assessing the Malay Landscape

A method of obtaining data that was used is the "Relevance Theory" approach introduced by Sperber & Wilson. The researchers used the semi-structured in-depth interview session to obtain intangible data. The hypothesis is the ability to obtain the first interpretation, and the sensory information based on knowledge of a particular topic. The researchers hypothesised that the Malay Landscape is easy and interesting and expect the Malay landscape to have existed since hundreds of years ago, along with the golden age of the Malay race.

Assessing the Trend

Trends in the use of hard landscape elements can be discovered when the researchers conducted a division of the sample according to the age of the house. According to Dewan Bahasa & Pustaka, the word "trend" is a mean flow direction, which shows the progress or movement, however, it does not necessarily apply to the volatility.

The Old Malay Manuscripts

Till the present we do not know the starting point of the history of Malay manuscript writing (Ministry of Culture, Arts and Heritage Malaysia, 2006). Malay manuscripts recorded a lot of information about the practices and behaviour, as well as the survival and lifestyle of Malays at that time. The use of old manuscripts is one of the methods to get information in this study.

FINDINGS

The findings of the present study are listed according to the topics and analysis of them. In general, some of the findings were reused by the researchers in this study. These findings are from a survey previously conducted by the researchers. For hard landscape analysis, selection is made on the four (4) highest frequencies available to the landscape furniture around the house compound which was used as a sample. The sample is divided according to the age of the house, which was classified into five, namely: -

1. Built before 1900. (18 nos.) - year
2. Built around 1901 to 1920. (5 nos.) - year
3. Built around 1921 to 1940. (8 nos.) - year
4. Built around 1941 to 1960. (14 nos.) - year
5. Built around 1961. (15 nos.) - year

For material analysis, it focused on the use of hard landscape materials available around the house compound. It is also divided according to the age of the house, which has been classified as above.

The Discovery of Hard Landscape Elements in the Old Malay Manuscript

The table below shows the hard landscape elements that have been listed by previous researchers. It shows that there are 20 hard landscape elements which have been recorded in the old manuscripts. If we look at this data, researchers can conclude that the Malay community will have the opportunity to accentuate the great concept of landscape design in the future.

Table 1: The List of Hard Landscape (states in Peninsular Malaysia) Recorded by the Researchers (Zamil *et al.*, 2013)

No	Local Name (As be called by local people)	English name
1.	<i>Ampaian</i>	Suspension
2.	<i>Bangsai/Sulap</i>	Barn
3.	<i>Buaian</i>	Tree swings
4.	<i>Gerbang</i>	Arch
5.	<i>Guri</i>	Guri (smaller than common traditional Malay water vessel)
6.	<i>Jamban/ Tandas</i>	Latrine
7.	<i>Jamung andang/ Kandil</i>	Torch
8.	<i>Kepok padi/ Jelapang</i>	Paddy store
9.	<i>Kolah</i>	Water tank
10.	<i>Kolam</i>	Pond
11.	<i>Pagar</i>	Fence
12.	<i>Pangkin</i>	Resting hut (usually without shelter)
13.	<i>Pasu bunga</i>	Flower pot
14.	<i>Pelantar</i>	Open timber platform (usually for washing clothes)
15.	<i>Perigi</i>	Well
16.	<i>Perun</i>	Dump site
17.	<i>Reban</i>	Hen coop
18.	<i>Tempayan</i>	Water vessel
19.	<i>Titi</i>	Log bridge (usually made from Areca nut trunk)
20.	<i>Wakaf</i>	Gazebo

The table below shows the study of hard landscape elements of the Malay community in the state of Perak by previous researchers. This table tells us that the Malays in Perak also use hard landscape elements that are similar to the Malays in other states.

Table 2: The List of Landscape Furniture (Perak only)

No.	Local name as be called by local people	English name	Placement of hard landscape
1	<i>Tempayan</i>	Water vessel	Side yard
2	<i>Guri</i>	Guri (smaller than common traditional Malay water vessel)	Back yard
3	<i>Pasu</i>	Flower pot	Front yard Side yard
4	<i>Pangkin</i>	Resting hut (usually) without shelter	Side yard
5	<i>Perigi</i>	Well	Back yard
6	<i>Perun</i>	Dump site	Side yard Back yard
7	<i>Reban</i>	Hen coop	Back yard
8	<i>Jelapang/Kepok Padi</i>	Paddy store	Side yard

Source: (Nor Atiah, 2003)

From the table below, it can be concluded that there have been some hard landscape elements used in the past, and still used today. Elements such as a “pond”, “torch” and “arch” are the element mentioned in most manuscripts used for this research.

Table 3: List of landscape furniture recorded in the old manuscripts (Zamil et al., 2013)

Types of Landscape Furniture (as it appears in the manuscript)	Bangsas/ Sulap	Gerbang	Guri	Jamban/Tandas	Jamung andang/ kandil	Kepok padi/ Jelapang	Kolam	Pagar	Pangkin	Pasu	Pelantar	Perigi	Reban	Tempayan	Titi	Wakaf
Bustan al-Salatin (The Garden of Kings)		x			x		x			x					x	x
Tale of Abdullah	x			x	x	x	x	x		x		x		x	x	
Tale of Hang Tuah	x	x			x	x	x	x		x	x			x		
Tale of Inderaputera		x			x		x	x								x
Tale of Merong Mahawangsa	x	x	x		x	x	x							x		
Sulalatus al-Salatin (Malay Annals)	x	x					x	x		x		x	x	x	x	x

Among the evidence that convey the existence of hard landscape elements in ancient times is as recorded in an old Malay manuscript:

“...kita datang jua, negeri itu pun jauhlah jua pelayarannya itu hingga sebulan belayar maka sampailah; terlalu banyak segala yang ajaib di dalam negeri itu, daripada tempayan dan guri dan pohon kayu malau-tahi-semut dan lagipun banyak pula kayu yang besar-besar dan di hulu sungainya jauh serta dengan luasnya, tuanku.» Maka titah Raja Merong Mahawangsa,...”
 (Hikayat Merong Mahawangsa)

Analysis of Hard Landscape Elements

The study focused on the hard landscape around the compound of the samples. It is to identify the types of hard landscape that has the highest frequency. See the table below.

Table 4: List of landscape furniture with the highest frequency

No	Duration of year	Type of Hard Landscape	Nos.	Percentage %
1	<1900	Dump site	13	72.2
		Well	11	61.1
		Flower pot	10	55.6
		Suspension	9	50.0
2	1901-1920	Flower pot	5	100.0
		Water vessel	2	40.0
		Bench	2	40.0
3	1921-1940	Outdoor Toilet	1	20.0
		Flower Pot	8	100.0
		Bench	6	75.0
		Well	2	25.0
4	1941-1960	Water vessel	1	12.5
		Flower pot	11	78.6
		Bench	5	35.7
		Water vessel	5	35.7
5	1961-1980	Well	3	21.4
		Flower pot	13	86.7
		Bench	10	66.7
		Water vessel	7	46.7
		Fence	5	33.3

The results of the surveys found that nowadays there are many types of hard landscape around the compound of a sample. Selection is made on the four (4) highest frequencies of hard landscape and by the age of the house, which was classified before. For the house built before 1900 years, “dump site” scored the highest frequency of 72.2% ($n = 13$) and “the well” got a score of 61.1% ($n = 11$). “Flower pot” too obtained 55.6% ($n = 10$) and “suspension” obtained 50.0% ($n = 9$) out of 18 samples studied.

For the houses built from 1941 to 1960, the highest frequency score of the hard landscape is “flower pot”, which obtained the percentage frequency of 78.6% ($n = 11$). The “water vessel” and “bench” obtained the same frequency percentage of 35.7% ($n = 5$) and “the well” obtained the percentage frequency of 21.4% ($n = 3$) out of the 14 samples studied.

The houses that were built from 1961 onwards, the highest score is the “flower pot”, which gained 86.7% ($n = 13$). While the “bench” has a frequency of 66.7% ($n = 10$), while “water vessel” acquired 46.7% ($n = 7$) and “fence” too obtained the percentage frequency of 33.3% ($n = 5$) of the 15 samples studied.

It can be concluded here that the most frequent number of hard landscape elements made of 60 samples was “flower pot” with a percentage

of 78.3% ($n = 47$), followed by “bench” of 38.3% ($n = 23$) and the third highest is “well” with a frequency percentage of 26.7% ($n = 16$).

Analysis of Material of Hard Landscape Elements

The study focused on the type of material used for the hard landscape around the compound of the samples. It was to identify the type of hard landscape material that has the highest frequency in each category of the sample studied. The table below shows hard landscape elements and their frequency in different periods of time.

Table 5: List of materials for landscape furniture with the highest frequency

No	Duration of year	List of Material		Percentage %
		Type of Material	Nos.	
1	<1900	Ceramic	18	26.5
		Concrete	17	25.0
		Wood	17	25.0
		Steel	9	13.2
		Stone	7	10.3
2	1901-1920	Ceramic	7	46.7
		Wood	4	26.7
		Concrete	3	20.0
		Steel	1	6.7
3	1921-1940	Ceramic	9	42.9
		Wood	8	38.1
		Concrete	3	14.3
		Steel	1	4.8
4	1941-1960	Ceramic	16	50.0
		Concrete	8	25.0
		Wood	6	18.8
		Steel	2	6.3
5	>1961	Ceramic	20	39.2
		Wood	16	31.4
		Concrete	8	15.7
		Steel	6	11.8

The results of the initial survey have shown that there are five (5) types of material were used to build hard landscape around the compound of a sample. The analysis performed on the hard landscape material contained in a sample of residential compound. The groups of house are classified according to the previous classification.

Houses built before 1900 found that scores for “concrete” material gained the highest frequency of 27.0% ($n = 18$), followed by “ceramic” and “wood” material with the same frequency of 25.0% ($n = 17$). The frequency of the use of “steel” material was 13.0% ($n = 9$) and “stone” was 10.0% ($n = 7$) out of the 18 samples studied.

For the sample that was built from 1901 to 1920, the highest frequency score is for “ceramic” material as much as 46.0% ($n = 7$), followed by “wood” material with a frequency of 27.0% ($n = 4$). The use of “concrete” material is 20.0% ($n = 3$) and “steel” material was 7.0% ($n = 1$) from five samples studied.

Usage of “ceramic” material scored the highest frequency in groups of houses built from 1921 to 1940, with a value of 43.0% ($n = 9$). The frequency of “wood” material used was of 38.0% ($n = 8$). while “concrete” material is 14.0% ($n = 3$) and the material of “steel” is 5.0% ($n = 1$) of the eight samples studied.

For the houses built from 1941 to 1960, the highest frequency score is “ceramic” material at gained 50.0% ($n = 16$), followed by the “wood” material at 19.0% ($n = 8$). Meanwhile “concrete” material made up of 25.0% ($n = 6$) and “steel” material 6.0% ($n = 2$) of the 14 samples studied.

The highest frequency score for the group of houses built from 1941 to 1960 is “ceramic” material, at 50.0% ($n = 16$), followed by “wood” material, at 19.0% ($n = 8$). While “concrete” material obtained a frequency of 25.0% ($n = 6$) and “steel” material, at 6.0% ($n = 2$) of the 14 samples studied.

For the group of houses built from 1961 onwards, “ceramic” material was the highest with a 39.0% ($n = 20$), followed by the “wood” material with 31.0% ($n = 16$). While “concrete” material got 16.0% ($n = 8$), the “steel” material frequency percentage was 12.0% ($n = 6$). The percentage frequency of stone material was 2.0% ($n = 1$) out of the 15 samples studied.

Hard Landscape Function Analysis

Through the observation by the researchers, hard landscape and its functions are not the same from one sample to another sample.



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.



Tempayan / Water vessel
For the Malay community, water vessel usually made without carving and used for storing water and fermenting foods.



Pasu bunga / Flower pot
Flower pots have been used down the ages yet to placed in the courtyard. Made of clay or plastic with various shapes and colours.



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.



Pangkin / Resting hut
Resting hut is a four-legged wooden building, or more (depending on size) and slightly lower than that table. The significant difference between the resting huts with this platform is, in terms of its size and its location.



Tandas luar / Outside Toilet
Bathrooms and toilet 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.



Ampaian / Suspension
It is a place to hang washed clothes.



Kerusi / Bench
Seating in the compound which intended to leisure activities.



Pagar / Fence
Fence is not a major element in the Malay landscape. The house compound of the Malay community in today's mostly having a fence; it was due to safety reasons.

Figure 2: The function of hard landscape elements (source by author)

Trend Analysis

By dividing into five (5) year groups, the researchers can identify the differences and similarities in the use of hard landscape. The trend shown in this paper should not be considered to represent a particular era on factors such as the following:

1. Date of study.
2. Homeowners had died.
3. Changes to the modern stuff.
4. The attitude of society at present.
5. Public awareness of cultural issues.



**Figure 3: Modern house versus traditional house at Bota Kanan
(source by author)**



**Figure 4: The old house styled with modern landscape features at Bota Kanan
(source by author)**



Figure 5: The old house that still maintains the traditional hard landscape at Parit (source by author)

DISCUSSION

Perception of the environment is one that can stop us from thinking positive. It appears when we look at something that is beyond our expectations. It is translated from a comparison between the experiences that we have had with new experiences encountered today. This perception is always present throughout the duration of the research conducted.

The Need for Hard Landscape in the Past

From the survey it was found that there were differences in hard landscape elements of the past with the present. The difference is in terms of shape, color, material, size and placement in the house compounds. People in the past required hard landscape not only for decoration, but it also had specific functions, for example, jars or water vessel used as containers to be filled with water.

The Importance of Hard Landscape Elements in the Present

At present, the uses of hard landscape elements are solely decorative. From the survey, the researchers have asked the residents every function of the hard landscape elements that are in the house compounds. The response given was that the hard landscape elements are too old, they do not want to use it anymore and more difficult to maintain. Finally, the hard landscape elements were damaged and some were not placed in the proper place.

Culture Versus Modernisation

Traditional hard landscape elements problem is that of less maintenance and less interest to understand its value. Modernisation is seen as a factor in the extinction of the traditional values of the Malay community. Although the house is located in the village, the effect of modernisation cannot be avoided. For example, there are homeowners who have styled their houses with a contemporary landscape concept in the compound of the house. The use of this concept would lead to mixing modern elements and popular concepts such as the “Balinese garden”.

Sustainable Versus Ephemeral

Sustainable design concept is seen as making traditions of the Malay community to continue to be used by the society in the future. From the study conducted it was found that the trend of using traditional hard landscape elements is difficult to continue and to expand in the future. People no longer think about the aesthetics and culture value, they are more likely to not use it.

Art Versus Culture

The Malay community is rich in art and culture. The Malay people are also rich in cultural heritage in terms of musical instruments, music and dances. Malay art as mentioned earlier have been promoted and maintained by the government and NGOs as well, but the opposite has happened to the Malay landscape. The Malay landscape probably will not be lost if the community still adhere to the philosophy of Islam that emphasizes cleanliness in everyday life. Consequently the Malay landscape characterized today does not reflect the life of the Muslim community.

CONCLUSION

Hard landscape elements used by the Malay community are limited. The advantage that exist in the Malay community hard landscape elements is that they are not used as hard landscape elements by other races in the world. The trend shows the Malays tend to use hard landscape elements made of ceramic material. The trend of the data shows there is a “dump site” often

found in old houses. Other elements that are commonly found are: outdoor toilet, water vessel, flower pots, suspension, well, resting hut, benches and fences. Data shows that the shape, size and colour of hard landscape elements look different due to the age factor of a house. From this study, the researchers have detected a trend of using hard landscape elements and found no significant difference between the past and the present. The distinguishing elements are functionality, usability and placements for hard landscape now which is seen to less imitate what is practiced by the ancestors.

FURTHER RESEARCH

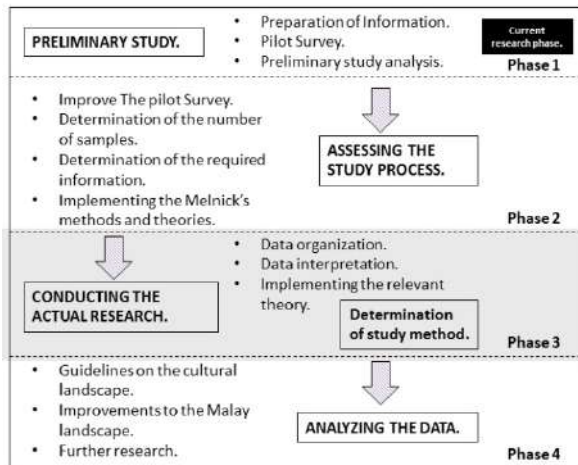


Figure 6: Phase and involvements of the development of the research

The figure above shows the phase and achievements of the present research. For the study, researchers have placed it at the third stage. After this, the researchers will conduct a study on the comparative hard landscape elements with other garden concept elements. This study will be a benchmark for studies in other districts throughout the state.

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REFERENCES

- Al-Ahmadi, A.R. (2006). *Petua Membina Rumah Melayu: Dari Sudut Etnis Antropologi*. Kuala Lumpur: Perpustakaan Negara Malaysia.
- Booth, N.K. and Hiss, J.E. (2011). *Residential Landscape Architecture: Design Process for the Private Residence*. Sixth Edition. Upper Saddle River: Prentice Hall.
- Bradley, S. (2015). Thoughts on Developing a Design Concept. Retrieved on 20 March 2015 from <http://www.vanseodesign.com/web-design/design-concept-thoughts/>.
- Dewan Bahasa dan Pustaka. (n.d.). Maksud Perkataan Trend. Retrieved on 25 March 2015 from <http://prpm.dbp.gov.my/Search.aspx?k=trend&d=10>
- Elkins, J. and DeLue, R.Z. (2008). *Landscape Theory*. Routledge: University College Cork.
- Gray, C. and Malins, J. (2004). *Visualising Research: A Guide to the Research Process in Art and Design*. United Kingdom: Ashgate Publishing Limited.
- Ismail, N.A. (2003). Cultural Responsive Landscape: Planting in Rural Perak Malay Residential Garden. Unpublished Master Dissertation, Universiti Teknologi Malaysia.

Kementerian Perumahan dan Kerajaan Tempatan. (n.d.). Portal Rasmi Kampung Tradisional. Retrieved from <http://ejkt.kpkt.gov.my/kgtrad/index.php>.

Ministry of Culture, Arts and Heritage Malaysia (2006). *Kumpulan Kertas Kerja Seminar Antarabangsa Manuskrip Melayu*. Kuala Lumpur: Arkib Negara Malaysia.

National Landscape Department (2008). *Garis Panduan Landskap Negara* (National Landscape Guidelines). Second Edition, Ministry of Housing and Local Government, Malaysia.

Simonds, J.O. and Starke, B.W. (2006). *Landscape Architecture: A Manual of Environmental Planning and Design*. Fourth Edition. United State of America: McGraw-Hill.

Teh, W.H.W and Nasir, N.A. (2014). *The Traditional Malay House*. Kuala Lumpur: Institut Terjemahan dan Buku Malaysia.

The National Heritage Act, 2005 (Act 645). Law of Malaysia (2005).

Waterman, T. (2009). *The Fundamentals of Landscape Architecture*. United Kingdom: Ava Publishing.

Zakaria A.H, Salleh I. H and Rashid, M.S.A. (2013). Landscape Furniture Present in the Ancient Malay Garden According to Old Manuscripts and their Effects on the Formation of Malay Garden Design Concept Model in Malaysia. *Procedia Social and Behavioural Sciences*, 91. 28-35.

Zakaria A.Z, Salleh I.H and Rashid, M.S.A. (2014). Identity of Malay Garden Design to be Promoted as the Cultural Tourism Product in Malaysia. *Social and Behavioural Sciences*, 153. 298-307.