

Hardscape and Softscape Elements of a Malay Garden

Ahmad Zamil Zakaria*, Mohd Sabrizaa Abd. Rashid and Syazwani Ahmad

Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA Perak Branch, 32610 Seri Iskandar, Perak, Malaysia

ABSTRACT

This research will focus on understanding the concept of a Malay Garden. The aim of this study is to understand the use of hardscape and softscape elements in a Malay garden. The objective of the study is to identify key elements of the Malay Garden via the *Residents Preference*. The findings can be a guide for researchers in the field of cultural landscape, to better understand the way of life of the Malay community in Malaysia.

Keywords: Cultural landscape, Malay garden concept, Malay garden, Malay landscape, Malay

INTRODUCTION

Abu Dulaf, when he arrived at “Kalah” found that it had beautiful and impressive gardens which were flourishing (Wheatley, 2010). An understanding of landscape architecture is necessary, since every civilisation has its own unique landscape design concept (Zakaria, Salleh, & Rashid, 2014). According to Ninotaziz (2016), the

Malay Nusantara garden has a history dating back 1400 years and she believe the gardens were inspired by legends and folklores such as the Hikayat.

Aspects of the landscape architecture influence creativity and design (National Landscape Department, 2012). This study will examine the problems faced by the Malay community in understanding the field of landscape architecture. Referring to Booth (2011), residential sites should have a significant outdoor space such as an outdoor arrival and entry space, amusement or living space, eating or dining space, recreation space, work or storage space and garden space.

Culture elements which expresses itself in the locality, and which in turn is expressed by insertion, brands to our spaces and our

ARTICLE INFO

Article history:

Received: 15 September 2016

Accepted: 30 January 2017

E-mail addresses:

zamil227@perak.uitm.edu.my (Ahmad Zamil Zakaria),

mohds637@perak.uitm.edu.my (Mohd Sabrizaa Abd. Rashid),

syazw860@perak.uitm.edu.my (Syazwani Ahmad)

* Corresponding author

built forms with the personality, identity and character (Waterman, 2009). According to Zakaria, Rashid and Ahmad (2016), cultural landscape is an exceptional practise for maintaining land use, by considering the

characteristics and restrictions of nature, and spiritual affiliation with the environment.

This study was conducted to understand resident perspectives on the Malay concept of a garden.

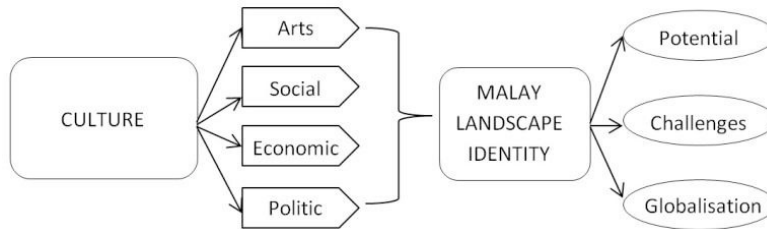


Figure 1. The Culture relationship in shaping the identity of Malay Landscape (Author, 2016)

METHODS

Primary data were collected while conducting site visits to selected Malay homes in addition to semi in-depth interviews with the respondents. The 75 sample homes were selected randomly in five states in Peninsular Malaysia (Melaka, Johor, Terengganu, Kelantan and Perak). The criteria for selecting the states are:

- 1) Large Malay populations
- 2) A unique garden landscape

Sample Criteria

In this study, researchers used the method of observation, and the samples fulfilled the following criteria:

- 1) Traditional Malay House
- 2) Traditional Malay Village
- 3) Still inhabited during the research
- 4) Has the character of a Malay garden

The study emphasised on four (4) key areas of landscape architecture, namely:

- 1) Analysis of softscape elements
- 2) Analysis of hardscape elements
- 3) Analysis of materials
- 4) Awareness level analysis of the Malays community.

RESULTS

Selected samples were classified according to the age of the house:

- 1) The house built (< 1900)
- 2) The house built (circa 1901-1920)
- 3) The house built (circa 1921-1940)
- 4) The house built (circa 1941-1960)
- 5) The house built (> 1961)

The focus was also on the materials used for garden landscape.

Sampel of Malay Traditional Houses

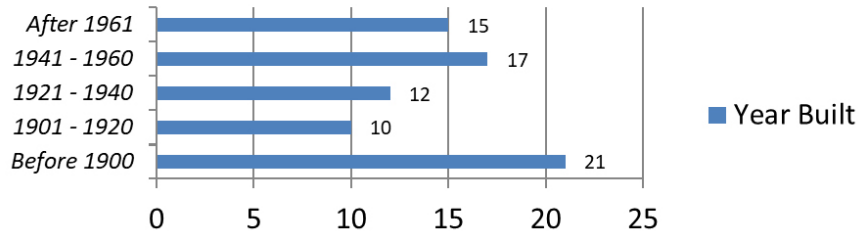


Figure 2. The number of samples in this study

Softscape Analysis

Softscape is an analysis of plants of the types of plants that are most commonly grown

in the compound, namely plant population frequency (see Table 1).

Table 1
Softscape analysis

No	Year house was built	List of Softscape		Percentage %
		Plant Species	No	
1	<1900	<i>Musa spp</i>	20	95.3
		<i>Nephelium lappaceum</i>	20	95.3
		<i>Cytopogoncitrat</i>	16	76.2
		<i>Citrus aurantifolia</i>	16	76.2
2	1901 – 1920	<i>Cocos nucifera</i>	7	70.0
		<i>Durio zibethinus</i>	7	70.0
		<i>Citrus aurantifolia</i>	6	60.0
		<i>Naphelium lappaceum</i>	6	60.0
3	1921 – 1940	<i>Musa spp</i>	8	66.7
		<i>Codieum variegatum</i>	7	58.3
		<i>Cocos nucifera</i>	5	41.7
		<i>Bougainvillea spp</i>	4	33.3
4	1941 - 1960	<i>Cocos nucifera</i>	8	47.0
		<i>Musa spp</i>	8	47.0
		<i>Nephelium lappaceum</i>	7	41.2
		<i>Bougainvillea spp</i>	7	41.2
5	1961 – 1980	<i>Cocos nucifera</i>	10	66.7
		<i>Bougainvillea spp</i>	8	53.3
		<i>Cymbopogen citratus</i>	7	46.7
		<i>Naphelium lapaceum</i>	7	46.7

Source: Site visit (2015)

The results of the survey found that many plant species are grown around the compound. A total of 21 species were examined and scoring was based on plant population frequency (i.e. the most frequently planted species) according to the age of the house (as categorised above). The study analysed the four most common plants grown For houses built before 1900, the highest score was for *Musa spp.* and *Nepheleium lappaceum*, 95.3% (n=20), *Citrus aurantifolia* and *Cytopogon citrates* scored 76.2% (n=16) of the 21 species studied in this group.

For houses built between 1901 and 1920, the highest score was for *Cocos nucifera* and *Durio zibethinus* - 70.0% (n = 7). *Citrus aurantifolia* and *Nepheleium lappaceum* scored 60.0% (n = 6) for 10 species studied. For houses built between 1941 and 1960, the highest score was *Musa spp.*, 66.7% (n = 8) followed by *Codieum variegatum* acquiring 58.3% (n=7). The third most common type of species planted was *Cocos nucifera*, 41.7% (n=5) and the last, *Bougainvillea spp.*, which scored 33.3% (n=4) from the 12 species studied.

For the houses built from 1941 - 1960, the highest score was *Cocos nucifera* and *Musa spp.*, 47% (n = 6). *Nepheleium lappaceum* and *Bougainvillea spp.*, 41.2% (n=7) from 30 species studied.

For houses that were built after 1961, the highest score was *Cocos nucifera*, 66.7% (n = 10). *Bougainvillea spp* planting frequency was 53.3% (n=8), while *Nepheleium lappaceum* and *Cymbopogen citratus* scored 46.7% (n=7) from 15 species studied.

In conclusion, the most frequent plant grown was *Nepheleium lappaceum*, 54.7% (n=41) followed by *Musa spp.*, 48.0% (n=36), and the third is *Cocos nucifera* with a frequency of 40.0% (n=30) of the total sample.

Hardscape Analysis

The second part analyses the Hardscape elements by focusing on the garden or outdoor furniture of the selected houses. It identifies the most frequent type of garden or outdoor furniture (Table 2).

Table 2
Hardscape analysis

No	Year house was built	List of Hardscape		Percentage %
		Type of Hardscape	No	
1	<1900	Dumpsite	16	76.2
		Well	14	66.7
		Flowerpot	13	61.9
		Suspension	12	57.1
2	1901 – 1920	Flowerpot	9	90.0
		Water vessel	6	60.0

Table 2 (continue)

		Bench	6	60.0
		Outdoor Toilet	5	50.0
3	1921 – 1940	Flowerpot	11	91.7
		Bench	9	75.0
		Well	5	41.7
		Water Vessel	4	33.3
4	1941 - 1960	Flower pot	14	82.4
		Bench	8	47.1
		Water Vessel	8	47.1
		Well	6	35.3
5	1961 – 1980	Flower pot	13	86.7
		Bench	10	66.7
		Water Vessel	7	46.7
		Fence	5	33.3

Source: Site visit (2015)

The results of the survey showed various types of garden furniture in the compound of the samples. Four (4) most frequent or common outdoor furniture according to the age of the house were identified and scored. For houses built before 1900, garden furniture 76.2% (n=16); houses with ‘well’ scored 66.7% (n=14) and those with ‘flower pot’ scored 61.9% (n=13), and those ‘suspension’ had a percentage frequency of 57.1% (n=12) for 21 samples studied.

For the houses built from 1900 to 1920, the highest frequency score for garden furniture is ‘flower pot’, 90.0% (n=9), whereas ‘water vessel’ and ‘bench’ showed the same frequency percentage of 60.0% (n=6) followed by ‘outdoor toilet’, 50% (n=5) for 10 samples studied.

The houses built between 1921 and 1940, the highest frequency score for garden is ‘flower pot’, 91.7% (n=11), followed by ‘bench’, 75.0% (n=9). The ‘well’, had

41.7% (n=5) frequency score while ‘water vessel’ 33.3% (n=4) of the 12 samples studied.

For houses built from 1941 to 1960, the highest frequency for outdoor garden is ‘flower pot’, which obtained the percentage frequency of 82.4% (n=14). ‘Water vessel’ and the ‘bench’ had the same score, 47.1% (n=8), and ‘well’ 35.3% (n=6) for 17 samples studied.

For houses built after 1961, the highest frequency score is ‘flower pot’, 86.7% (n=13). The ‘bench’ had a percentage frequency of 66.7% (n = 10), while the ‘water vessel’ 46.7% (n=7) and ‘fence’ showed frequency percentage of 33.3% (n=5) for 15 samples studied.

In conclusion, garden furniture that is more frequently seen in the samples is ‘flower pot’, 80.0% (n=60), followed by ‘well’, 33.3% (n=25), and the third is ‘bench’ with a percentage frequency of

32% (n=24). According to Zakaria, Rashid and Ahmad (2016b), the arrangement of garden furniture is generally in accordance with the philosophy of the ancient Malays, for example, ‘guri’ (water container for washing the feet), positioned at the entrance of the house.

Materials Analysis

This section analyses the materials that are used to make outdoor furniture. It identifies the kind of material that is most frequently used to make garden furniture (See Table 3).

Table 3
Materials analysis

No	Year house was built	Type of Material		Percentage %
			No	
1	<1900	Concrete	18	85.7
		Ceramic	17	80.9
		Wood	17	80.9
		Steel	9	42.8
2	1901 – 1920	Concrete	7	70.0
		Ceramic	4	40.0
		Wood	3	30.0
		Steel	1	10.0
3	1921 – 1940	Concrete	9	75.0
		Ceramic	8	66.7
		Wood	3	25.0
		Steel	1	8.3
4	1941 - 1960	Concrete	16	94.1
		Ceramic	8	47.1
		Wood	6	35.3
		Steel	2	11.8
5	1961 – 1980	Concrete	15	100.0
		Ceramic	15	100.0
		Wood	8	53.3
		Steel	6	40.0

Source: Site visit (2015)

There are five types of material used for building garden furniture.

For houses that were built before 1900, the highest frequency scores for material is ‘concrete’, 85.7% (n=18), followed by ‘ceramic’ and ‘wood’ which had the same

frequency at 80.9% (n=17), while ‘steel’ scored 4.8% (n = 9) of the 21 samples studied.

Houses built from 1901 to 1920, the most frequently used material for outdoor furniture is ‘ceramic’, 70.0% (n=7), followed

by 'wood', 40.0% (n=4). 'Concrete' scored 30.0% (n=3) whereas 'steel' had frequency percentages of 10.0% (n=1) of the 10 samples which were studied.

Most garden furniture in the houses built from 1921 to 1940 had was made of 'ceramic', with a frequency of 75.0% (n=9), followed by 'wood', 66.7% (n=8). The frequency for 'concrete' was 25.0% (n=3), and 'steel' 11.8% (n=1) of the 12 samples studied.

As for houses built from 1941 to 1960, the highest frequency score for materials used to make garden furniture was 'ceramic', 94.1% (n=16), followed by 'concrete' with a percentage frequency of 47.1% (n=8). 'Wood' scored 35.3% (n=6) and 'steel' had a frequency percentage of 11.8% (n=2) of the 17 samples studied.

As for houses built after 1961, the highest frequency score for garden furniture material is 'ceramic', 85.3% (n=64),

followed by 'wood' that showed percentage frequency of 66.7% (n = 50). 'Concrete' scored 53.3% (n=8) whereas 'steel' 25.3% (n=40) from 44 samples in this group.

The Level of Malay Community Awareness about the Concept of Malay Garden

In this study, researchers obtained feedback from respondents about their awareness of the existence of Malay garden elements and concepts using a *Likert Scale* to measure their responses:

An Understanding of the Malay Garden.

Data showed homeowners had poor understanding of the concept of Malay garden. Most of the respondents had never been exposed to the concept of landscape architecture. The knowledge on gardening was inherited. (Refer to Figure 3)

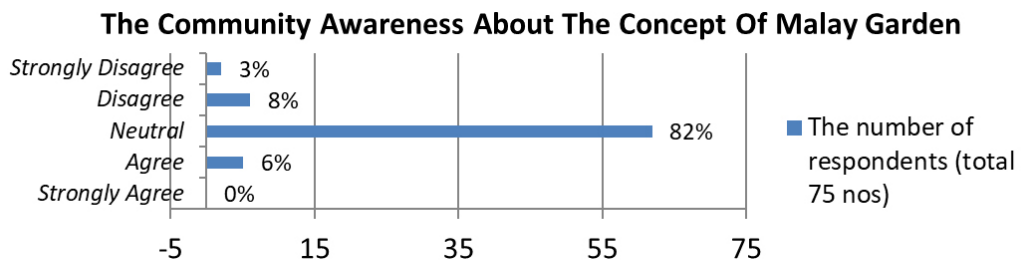


Figure 3. Community awareness about the concept of Malay Garden

The Malay Garden Future. Homeowner's opinion was sought about the future of the Malay garden. Data showed that the respondents did not believe the concept of Malay garden will be successfully

developed in the future as there were no active campaigns nor sound explanations from the relevant authorities on this (Refer to Figure 4).

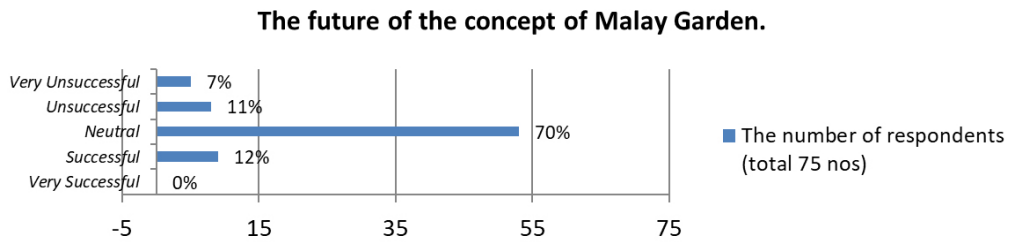


Figure 4. Respondents' opinions about the future of the concept of Malay Garden

Thus, the level of awareness on the concept is very poor. This is due to lack of publicity on the way of life of the Malay community in the village. Thus, the relevant authority needs to promote this concept of more seriously and actively in the future.

DISCUSSION

Community Identity

As a responsible member of society, we need to maintain the identity of the nation and should feature it without any sense of shame. Among the methods, we can make is by promoting it through local films. The old Malay movies show us a lot about Malay community life, such as the traditional Malay garden characters, the past culture, environment and some movies also depicted the way of life of the Malays in the olden days (Zakaria, Salleh, & Abd. Rashid, 2015).

Culture

Introducing and preserving the Malay culture is a priority. With their culture, it will be recognized civilized nation, and without it, people will continue to borrow other people the way of life without a clear

direction. The existence of a culture that must have a function and cause. According to Zakaria, Salleh and Rashid (2013), in the setting of interior and exterior space associations, the placement of the arch, water tank, pond, flower pots and guri on the front compound serves as a sense of welcoming before ascending to the house. According to Ninotaziz (2016), in *kampung* scenario, throughout the preparation of meals (especially for lunch), younger kids would be told to run downstairs to the garden to get lemongrass (*Cymbopogon citratus*), lime (*Citrus microcarpa* and *Citrus hystrix*), pandan leaves (*Pandanus amaryllifolius*) or other herb plants before they disappear into the nearby woods to play or go fruit picking.

Philosophy

The old Malays have a multiplicity of philosophies, taboos and customs that are endure relevant to our practice today. The old Malay philosophy teaches us about discipline, tolerance, respect for parents and also know the taboos. This is because the philosophy of the Malay is closely related to the way of life of Muslims. The Malay landscape, perhaps will not be gone if the community, tranquil obeys to the philosophy

of Islam that stresses cleanliness in daily life (Zakaria et al., 2015).

Architectural Features

The traditional architecture features strengthen the bond between the interior and exterior of the house. For the Malays, the house is the extremely privacy, and it cannot be entered without being invited, however, the external space is for socializing activity. From a psychological viewpoint, the house can offer a variation of instinctive desires, such as generous a sense of safety, amity, harmony, a place of internal peace and numerous others (Nasir & Wan Teh, 1994).

The National Landscape Department (NLD) in 1997 tried to introduce the concept of Malaysian Garden. Unfortunately, after almost 20 years, this concept has not been implemented. This is because the Malaysian Garden (*Malay Garden + China Garden + Indian Garden*) introduced as way to promote assimilation and integration and to establish parks that can be used by all races, but the process of merging the concepts into one seems quite impossible. It's like not to be associated because all concept has its own specialty, specifically when related to philosophy (religion as a core of both concepts) (Ismail, 1997).

CONCLUSION

During this study, researchers took into account a number of factors that can be a challenge for the concept of a Malay garden. There are tangible and intangible factors that researchers recognized as a counterweight to the development this concept in the future.

The study provided important information that can be used to realise the concept of Malay garden. Softscape and hardscape elements The Malay garden concept is based on the culture of Malays However, no consensus has been reached on how to make this concept more systematic and practical. This study showed there is ack of awareness and knowledge about aesthetic values.

ACKNOWLEDGEMENT

The authors thank the Research Management Institute (RMI), Universiti Teknologi MARA, for granting them permission to undertake this research. We are grateful for the funds received via MOHE - Fundamental Research Grant Scheme (FRGS) and the Centre for Knowledge and Understanding of Tropical Architecture and Interior (KUTAI) and Taman Alam Melayu Nusantara (T.A.M.A.N) UiTM Perak for their invaluable support.

REFERENCES

- Booth, N. K. (2011). *Residential Landscape Architecture: Design Process for The Private Residence*, (6th ed). USA: Prentice Hall.
- Bujang, R., Harun, Y., Ahmad, M. N., & Khairuddin, A. H. (2014). *Bab 12: Kesenian, Proses Sosialisasi, dan Pembudayaan Masyarakat Melayu, Tamadun Islam dan Tamadun Melayu*. Kuala Lumpur: Penerbit Universiti Malaya.
- Economic Planning Unit, Prime Minister's Department (2016). *Eleventh Malaysia Plan –RMK11*. Retrieved from [https:// www. rmk11. epu. gov. my/pdf/11MP-Brochure-BI.pdf](https://www.rmk11.epu.gov.my/pdf/11MP-Brochure-BI.pdf).
- Entrata (2016). *What Residents Want Study*. Retrieved from www.entrata.com

- Ismail, F. (1997, March 20). Designing the Malaysian Garden. *New Straits Times*. Retrieved from http://library.perdana.org.my/Digital_Content/Prominent_Leaders/Mahathir/News_1968-2004/1996-1998/1997aj/designing%20the%20malaysian%20garden.pdf.
- Nasir, A. H., & Wan Teh, W. H. (1994). *Rumah Melayu Tradisi*. Kuala Lumpur: Penerbit Fajar Bakti Sdn Bhd.
- National Landscape Department. (2012). *Guidelines on National Landscape Park*. Kuala Lumpur: Ministry of Housing and Local Government, Malaysia.
- Ninotaziz. (2016, July 18). Gardens from ancient past. *News Straits Times*. Retrieved from <http://www.nst.com.my/news/2016/07/158931/gardens-ancient-past>
- Oxford Dictionaries. (2010). *Identity definition*. Retrieved from <http://www.oxforddictionaries.com/definition/english/identity>
- Simonds, J. O., & Starke, B. W. (2006). *Landscape Architecture: A Manual of Environmental Planning and Design*, (4th ed). USA: McGraw-Hill.
- Waterman, T. (2009). *The Fundamentals Of Landscape Architecture*, UK: Ava Publishing.
- Wheatley, P. (2010). *The Golden Khersonese*, University of Malaya Press, Kuala Lumpur.
- Zakaria, A. Z., Abd. Rashid, M. S., & Ahmad, S. (2016a). Hard Landscape Trend Analysis: A Case Study at Perak Tengah District, *Social And Management Research Journal*, 13(2).
- Zakaria, A. Z., Rashid, M. S. A., & Ahmad, S. (2016b). Perak Malay Landscape Furniture Design: An Overview. In *Proceedings of the 2nd International Colloquium of Art and Design Education Research (i-CADER 2015)* (pp. 497-510). Singapore: Springer.
- Zakaria, A. Z., Salleh, I. H., & 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 behavioral sciences*, 91, 28-35.
- Zakaria, A.Z., Salleh, I. H., & Abd. Rashid, M.S. (2015). Malay Landscape Architecture As Depicted In Malay Films, *Journal of Malay Studies, Jurnal Pengajian Melayu*, 24(1), Kuala Lumpur: Universiti Malaya Publisher.
- Zakaria, A. Z., Salleh, I. H., & Rashid, M. S. A. (2014). Identity of Malay garden design to be promoted as the cultural tourism product in Malaysia. *Procedia-Social and Behavioral Sciences*, 153, 298-307.
- Zakaria A. Z., Salleh I. H., Harun S.N., & Rashid M. S. A. (2015) Preservation Characteristics of Malay Garden: A Catalyst for Sustainable Cultural Landscape in Malaysia. In: Hassan O., Abidin S., Legino R., Anwar R., Kamaruzaman M. (eds) *International Colloquium of Art and Design Education Research (i-CADER 2014)*. Springer, Singapore.