



UNIVERSITI PUTRA MALAYSIA

***VISUAL PREFERENCE OF URBAN RIVERFRONT AMONG
KUALA LUMPUR RESIDENTS***

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KUALA LUMPUR RESIDENTS**

By

RAUDHAH BINTI HJ HILALUDDIN

**Thesis Submitted to the School of Graduate Studies,
Universiti Putra Malaysia, in Fulfilment of the
Requirement of the Degree of Master of Science**

November 2017

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DEDICATION

This thesis is dedicated to my parents, Hilaluddin bin Awang Mohamad and Azizah binti Sharif who always have faith in me. I also dedicated this thesis to all my siblings and my close friends who always provides me with shields of love. Thank you for all your support. It is their unconditional love that motivates me to complete this study. Nevertheless, this thesis is for those who love and enjoy the public spaces in the cities especially riverfront. May the findings gathered from this research helps us to make a better place in this world.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment
of the requirement for the degree of Master of Science

**VISUAL PREFERENCE OF URBAN RIVERFRONT AMONG
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By

RAUDHAH BINTI HJ HILALUDDIN

November 2017

Chairman: Norsidah Ujang, PhD
Faculty: Design and Architecture

Rapid urbanization and population growth of Kuala Lumpur city have drastically changed the relationship between the society and the river. It is unfortunate that for years, the river has been transformed into a concrete drainage and lost its identity. This is worsened by the lack of aesthetic value and the absence of social activities along the riverside area. 'River of Life' project initiated by the Kuala Lumpur City Hall is an ambitious attempt to revitalise the Kuala Lumpur riverfront. The aim is to improve the city image and to create opportunities for development close to the city centre. Since the proposed riverfront involves the making of public spaces, the public preferences need to be considered in developing effective riverfront development. This study was carried out to determine the visual preference of Kuala Lumpur riverfront as perceived by the residents of Kampung Bharu, Brickfields, Chow Kit and Titiwangsa. Visual Preference Survey was conducted with 304 respondents. The survey includes a photo-questionnaire and close-ended questions to measure their preference for scenes typical of the riverfront for future riverfront of Kuala Lumpur and their perceptions of attractive elements that should characterise the river. The study found that the respondents preferred the organised natural setting along the riverfront. They would like to see an expansion of newer areas which will provide water connected activities, higher pedestrian volume and increased amenities along the riverside of Kuala Lumpur. The findings could be a guide for the architects to design the future Kuala Lumpur riverfront that suits the character of the city. It could also improve the visual image and attractiveness of the area for enhanced public activities.

Key words: Visual preference, riverfront, revitalization, perception.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

KEUTAMAAN VISUAL TERHADAP TEPIAN SUNGAI BANDAR DI KALANGAN PENDUDUK KUALA LUMPUR

Oleh

RAUDHAH BINTI HJ HILALUDDIN

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Pembangunan yang pesat dan pertumbuhan penduduk di bandar Kuala Lumpur telah mengubah hubungan secara drastik di antara masyarakat dan sungai. Malangnya, selama bertahun-tahun, sungai telah berubah menjadi perparitan konkrit dan telah kehilangan identitinya. Keadaan ini diburukkan lagi dengan kekurangan nilai estetika dan ketiadaan aktiviti sosial di sepanjang kawasan sungai. Projek 'River of Life' yang diasaskan oleh Dewan Bandaraya Kuala Lumpur adalah satu usaha bercita-cita tinggi untuk memulihkan sungai Kuala Lumpur. Tujuannya adalah untuk meningkatkan imej bandar dan mewujudkan peluang untuk pembangunan berhampiran dengan pusat bandar. Oleh kerana tepian sungai yang dicadangkan melibatkan pembentukan ruang awam, keutamaan awam perlu dipertimbangkan dalam membangunkan pembangunan tepian sungai yang berkesan. Kajian ini dijalankan untuk menentukan keutamaan visual di tepian sungai Kuala Lumpur seperti yang dilihat oleh penduduk di Kampung Bharu, Brickfields, Chow Kit dan Titiwangsa. Kaji selidik Keutamaan Visual ini dijalankan terhadap 304 responden. Survey ini termasuklah kaji selidik bergambar dan soalan tertutup untuk mengukur pilihan mereka terhadap jenis gambar dari tepian sungai untuk sungai di Kuala Lumpur pada masa depan dan persepsi mereka terhadap unsur menarik yang perlu dicirikan pada sungai tersebut. Kajian mendapati bahawa responden lebih suka persekitaran semulajadi yang tersusun di sepanjang sungai. Mereka ingin melihat peluasan kawasan baru yang akan menyediakan aktiviti berhubungan dengan air, jumlah pejalan kaki yang lebih tinggi dan peningkatan kemudahan di sepanjang kawasan tepian sungai Kuala Lumpur. Penemuan kajian boleh menjadi panduan untuk arkitek untuk mereka bentuk kawasan tepian sungai Kuala Lumpur pada masa depan yang sesuai dengan karakter bandar. Ia juga boleh meningkatkan imej visual dan daya tarikan kawasan tersebut untuk meningkatkan lagi aktiviti awam.

Kata kunci: Keutamaan Visual, tepian sungai, pemulihan, persepsi.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

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CHAPTER 1

INTRODUCTION

1.1 Background of the study

The purpose of this study is to obtain the residents' preference of the image of future riverfront development in Kuala Lumpur City Centre. The study areas include a place along Kelang and Gombak River covering Kampong Bharu, Brickfields, Chow Kit and Titiwangsa area. The objective is to identify the landscape elements that contribute to the residents' visual preference of the riverfront.

River is the vibrant component of life. In most cases, the city growth has radiated from the river. The particularities of the site and the way the settlement meets the water, determined the form of the city (Zhang, 2002)

In recent years, there has been an increasing interest in accommodating the water and river management especially in the city region. Sustainable development agenda has been promoted since early 1990s and adopted via policies by many governments to ensure that sustainability can be achieved in the urban areas and for the community to have a better quality of life (Boyko, 2005). In this regards, in the developing countries, revitalization of rivers in the city have been done to improve the city image and to provide an opportunity for development close to the city centre (Nasar, 1990). It is important to sustain the river so that the identity of the city could be preserved towards achieving a sustainable environment. Moreover, waterfront has been characterized as a place for integrating the land with the water body for having a natural connection between human and the river.

Kuala Lumpur city has also taken the same steps as developed countries in revitalizing the riverside area. After its formation at the confluence of the Kelang and Gombak rivers in 1850s, Kuala Lumpur grew rapidly from the end of the nineteenth century to become the administrative centre of the Federated Malay States (Bunnell, Barter, & Morshidi, 2002). The Kelang and Gombak rivers were used to be busy with activities for the export of tin in 1857 (Abdul Latip, 2011). Rapid urbanization and population growth in the Kuala Lumpur city have drastically changed the relationship between society and the river. Many rivers and streams have disappeared through flood control, drainage works and urban development (Asakawa, Yoshida, & Yabe, 2004). This condition has transformed the river to a concrete drainage in order to manage the flood. Therefore, many may not notice the existence of the river and regarded as forgotten river (Abdul Latip, 2011). Furthermore, the neglected and dirty areas along the river have impaired the visual image of Kuala Lumpur townscape.

Recently, a revitalization project of the Kelang and Gombak Rivers called River of Life Project (RoL) has been undertaken by AECOM. This project is under the Economic Transformation Plan (ETP) and expected to be completed by 2020 (KLSP 2020). This project aims to transform the river into a vibrant and livable waterfront with high economic value. The transformation of the river involves three stages which are river cleaning, river beautification and land development.

The objective of the river beautification stage is to master plan and beautifies 10.7 km of Kelang and Gombak River and to increase the economic viability of the area. This stage is led by Dewan Bandaraya Kuala Lumpur (DBKL), through the collaborations of 13 departments and agencies within and beyond DBKL. Launching on 12 April 2011, the River Beautification task force had organized an International Master Planning Competition to identify the best vision and masterplan for the master planning and design along the effective riverfront area. The winning entry consultant, AECOM, has been engaged in producing detailed designs for Phase 1 of the Beautification works (Ministry of Federal Territories, 2011). This project has invited a jury panel, consisting of international and local personalities for judging the submissions. In addition, the public can view the submissions and participate in an open voting system to choose their preferred design by online.

On a large scale, the River of Life Project is seen as an investment in the country's economic development, as part of its efforts to achieve a developed-country status by 2020 (Stevens, Kozlowski, & Ujang, 2016). It has become a new frontier of the city with meaningful contributions in terms of aesthetics, economics, social and environmental quality (Shafaghat, Mir, Keyvanfar, & Lamit, 2017).

The riverfront can be one of the attracting places which can provide users the opportunity to enjoy and experience the nature. In fact, the tourism industry has now become the main key player in the economy of the country (Yassin et al., 2011; Anuar, Ahmad, Jusoh, & Hussain, 2013). An attractive visual image has an important influence on user's experience of the city. It can evoke strong emotions (fear, joy, fun) and conclusions about the social status and hospitality, and it can affect behavior, attracting people to places and drove them from places that are not pleasant (Nasar, 1990).

Therefore, it is important for this study to regard a place as a fundamental knowledge-sharing system that assists urban developers in making more inclusive, effective, and precise decisions for achieving sustainable river development and to design a pleasant riverfront setting in Kuala Lumpur riverfront. In addition, it can also enhance the economy of the cities, social needs and the environmental quality.

1.2 Problem statement

Most countries encounter the same situation in which they are committed to restoring the country's precious asset (Hoyle, 1999). Historically, transportation depends much on watercourses proves the importance of the river in bringing the nation toward glory (Abdul Latip, 2011). Formerly the Kelang and Gombak Rivers provided a water resource for the people. Due to the natural form of the river has changed to a large concrete drainage and left as a dilapidated area. The river also has been separated with the surrounding areas by the wall.

As a result of the growing awareness in contributing back to the river and towards sustainable environment, riverfront revitalization has become a popular agenda in developing countries including Malaysia. Based on the development of the surrounding river, the riverfront treatments were identified since 1979 until now (Abdul Latip, 2011). This revolution happens over the years and many changes occurred to the riverside area and the functions of the river also changing with time. The River of Life is an Entry Point Project 5 (EPP5) coordinated approach to transform the Klang and Gombak River, which runs through central KL, for attracting positive new investments to a city (ETP Annual Report, 2014). The project thus made an element of the wider development goal within Malaysia's Economic Transformation Plan to enhance urban development in the Klang Valley (Stevens et al., 2016). For ROL, economic impact is difficult to measure and very long-term, compared to industry investments in other sectors (DBKL, 2014). However, the riverfront revitalization would benefit in term of urban ecology because it proposes the development of new eco-valleys that connect to the existing neighbourhoods and increase habitat areas by 900 percent. The Plan also sets the structure of renewable energy systems, including mini-hydro and solar lilies (Dunn, S. , 2011; ETP Annual Report, 2014).

In Kuala Lumpur structure Plan 2020 (KLSP2020), the policy "UD 15" is enforcing the Kuala Lumpur City Hall (CHKL) to 'designate river corridors, implement measures to improve the amenity value of the rivers and implement guidelines for developments within or abutting the river corridors (KLSP2020, 14.4.2, 700).

Modification of the river has also indirectly changed the Kuala Lumpur city image. This city development has been worsened by the dilapidated areas along the river bank area in which has spoiled the city appearance. The transformation of the river in the form of demolition is often accompanied by changes in the images and the identity of the places. As Smith proposes, 'no memory, no identity; no identity, no nation'. Place identity is referring to the meanings and perception held by the people in relation to their environment (Ujang, 2012). It is parallel with the policy UD19 in KLSP 2020 (14.4.3, 709 and 710), which is to define, conserve and enhance distinctive identity areas in the City Centre, district and local precincts. Therefore, residents of the places could benefit for it articulates a more conceptually refined

account of memory and its relation to identity and history. This situation leads this study to refer to the residents in revitalization effort.

Consultants normally do not refer to residents' concern through participation and involvement in the planning process. The waterfront project is driven more by investment needs rather than by community and environmental needs, and subsequently having a negative impact environmentally and socially such as water pollution and crime (Abdul Latip, Heath, Shamsuddin, & Vallyutham, 2010; Yassin et. al, 2012). In agreement with the previous findings (Nasar, 1990; Steinitz, 1968; Ismail & Said, 2015), the residents' images were more extensive, more detailed, and less amorphous than the visitor images. Generally, this group is hoping for a more ecologically sound relationship between cities and rivers. Since efforts to revitalize the river began in Kuala Lumpur, the community has voiced about wanting to live close to the water for recreation and aesthetic reasons (Yassin et. al., 2012; Abdullah, Ahmad, Sa'ad, & Wahab, 2015; Othman & Abdul Majid, 2016). In contrast with Van den Berg & Koole (2006) who argued on the previous studies, the rural residents showed negative attitudes towards reconstruction of their areas which may give rise to a 'resistance to change'. Thus, the communities' concerned towards the river should be identified in the first place in the efforts to understand community needs parallel in improving the living quality in the city.

Although this study focuses on the visual dimension in urban riverfront design, it is important to identify the general residents' liking for particular environments much broader than aesthetic criteria. (Nasar, 1990) argued that to improve a place image, the planner needs to know how the public evaluates their cityscapes. He agreed that most cities have implemented design review but empirical studies of design review are very rare. Carmona (2003) opined that the visual appreciation of urban environment is also the product of perception and cognition. It includes on how the observers interpret and judge the information gathered and how it attracted their minds and emotions. Therefore, recognition of a success in creating the public spaces especially in riverfront area depends on how the users appreciates and frequently used that space.

Despite the RoL project has been in progress, there is a need to refer to many studies and learn from good practices to avoid repeating the same mistake and to face the future constraints in revitalizing riverfronts. Since Kuala Lumpur is embarking on the riverfront revitalization project, it is timely for this research to take place. This research will provide an understanding concerning the visual attributes that influence the public preference towards the future image of Kuala Lumpur riverfront.

1.3 Research Questions

The main research question for this research is:

How to create an attractive visual image of future Kuala Lumpur riverfront?

The Sub-RQ for this research is listed as below:

- i. What are the residents' preference of the visual image of the Kuala Lumpur riverfront?
- ii. What are the landscape elements that influence the imageability of the residents towards riverfront based on their visual preference?

1.4 Research Aim

This study aims to improve the visual image of the Kuala Lumpur riverfront for an attractive urban design and sustaining place identity.

1.5 Research Objectives

The objectives of the research are as follows:

- i. To determine the residents' preference of the visual images for future Kuala Lumpur riverfront.
- ii. To identify the landscape elements that influence the image of the future Kuala Lumpur riverfront based on the residents' visual preference.

1.6 Significance of the Study

Study on the visual preference towards the visual image of riverfront is significant to develop a more attractive and functional public spaces for public recreational use. It is expected that there will be elements that influence the public visual preferences. Different elements with their characteristic have different effects on the public preference. This research is important to generate a research framework and approach that integrate the physical and visual dimensions of riverfront. Therefore, this study will identify the public's preferences for designing the future riverfront area that appropriate for users in developing the public spaces.

1.7 Scope and Limitation of the Study

This study is conducted to determine the public's visual preference for future Kuala Lumpur riverfront. The respondents are the public from the neighbourhood of Kampong Bharu, Brickfields, Chow Kit and Titiwangsa who were willing to participate in the survey. However, there are some limitations in this study: -

- i. This study specifically limited to improve the visual image of the Kuala Lumpur riverfront in the residential area.
- ii. This study focuses on the influence of visual images from the riverfront scenes that taken in the Asian country only to ensure consistency of culture.
- iii. The study area covers the riverfront along Klang river and Gombak river in Kuala Lumpur city, which adjacent to the Kampung Bharu, Titiwangsa, Chow Kit and Brickfields residence.
- iv. The participants of the study limited only for about 300 respondents to reduce the sampling error.
- v. The participants for the survey will only focus for the residents of Kuala Lumpur at selected residence only and their age must 18 years old and above.

1.8 Terminologies used in this research

Place Identity

Place identity is an interpretation of the self that uses place as a significant, symbolic locale, sign or locus identity (Hummon, 1986). Place identity is more than an attachment to a place; it is "an individual's cognitions, beliefs, perceptions or thoughts that the self is invested in a particular spatial setting" (Jorgensen & Stedman, 2001). The place identity construct has its origins in "place identity theory" (Proshansky et al., 1983) which has roots in symbolic interactionism (Mead & Morris, 1934) and cognitive self- concept theories (Gecas, 1982; James, 1890)

Perceptions

Landscape perception is considered as a function of the interaction between the human and the landscape (Zube et. al, 1982). Zube (1982) highlighted that the human component encompasses experience, knowledge, expectations and social-cultural context of individuals and groups. While, the landscape components include both the individual elements and landscape as the entities. More precisely, perception is one of the physical-psychological processes through which human acquire information of the environment (Dasgupta, Banaji, & Robert P. Abelson, 1999).

Preferences

According to R. Kaplan, Kaplan, & Brown (1989), preference is the product of the perception. Obviously, the difference between the perception and the preference in term of the level of the thinking process (Herzog & Herbert, 2000). Preference involves a low thinking process that suitable for participants which include the non-expert rather than the perception. There is no hint in the consciousness of the complex, inferential process that appears to underline the judgment of the preference (Kaplan, 1987). Furthermore, people perceived their environment more in the visual form and based on this fact, to understand the environment is easier by using the materials in the visual form (Nassauer, 1995). Therefore, preference in the context of this study was referred on how much people perceive their future riverfront look like which presented in photographs and they just need to rate them using the preference scale given.

Riverfront

Although the word waterfront clearly mentions the meaning, some of the researcher prefer to replace the waterfront with others word for example city port, harbour front, river side, and riverfront to be more specific (Hussein, 2005). Therefore, riverfront is defined as the land that fronting to the river.

Sustainable Urban Design

A process in which sustainability concept is taken into account when deciding which urban design features should be incorporated into urban (re)development plans. The concept of sustainable development was defined by World Commission on Environment and Development (WCED) as “a development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” in 1987 (WCED, 1987; Chan & Lee, 2016). Generally agreed that economy, environment and social equity are three foremost components of sustainability concept (Berke & Manta Conroy, 2000; Samson, 1995; Shearlock, James, & Phillips, 2000).

Waterfront

Generally, the waterfront refers to the zone of interaction between the land and the water. According to Dong (2004), the waterfront is defined as the land fronting on to water while Zhang (2002) characterizes waterfront as a place integrating land with water and having a natural attraction to people. Breen & Rigby (1994) view waterfront at the water's edge in cities and towns of all sizes and the water body may be a river, lake, ocean, bay, creek or canal. In addition, Breen & Rigby (1996) believe that waterfront property may not necessarily need to be directly fronting to water, but just might have to see attached to the water.

Although the term 'waterfront' clearly defined by researchers, some of them have used the term using other words such as city port, harbour front, river side, and riverfront to be more specific (Hussein, 2005). In this research 'waterfront' refers to the land fronting onto the water, which endowed with special features and characters, while the 'riverfront' refers to the land which fronting onto the river body area.

Visual Preference Survey (VPS)

Visual Preference Survey (VPS) is a visualization method to promote democratic design and planning. It is also a research and visioning method that attempts to articulate community resident's impressions of their present community to build consensus for its future (A. Nelessen, 1994). The survey consists of a photographic image, evaluation forms, optional questionnaires, and analysis techniques to understand and generate the results. The respondents in this case were from the immediate community; they were shown with the slide images of riverfront from their town and other places. Then, the respondents were asked to rate numerically these selected photographic images on a given scale. Once the results are generated, the visual preference based on the value recorded will be calculated.

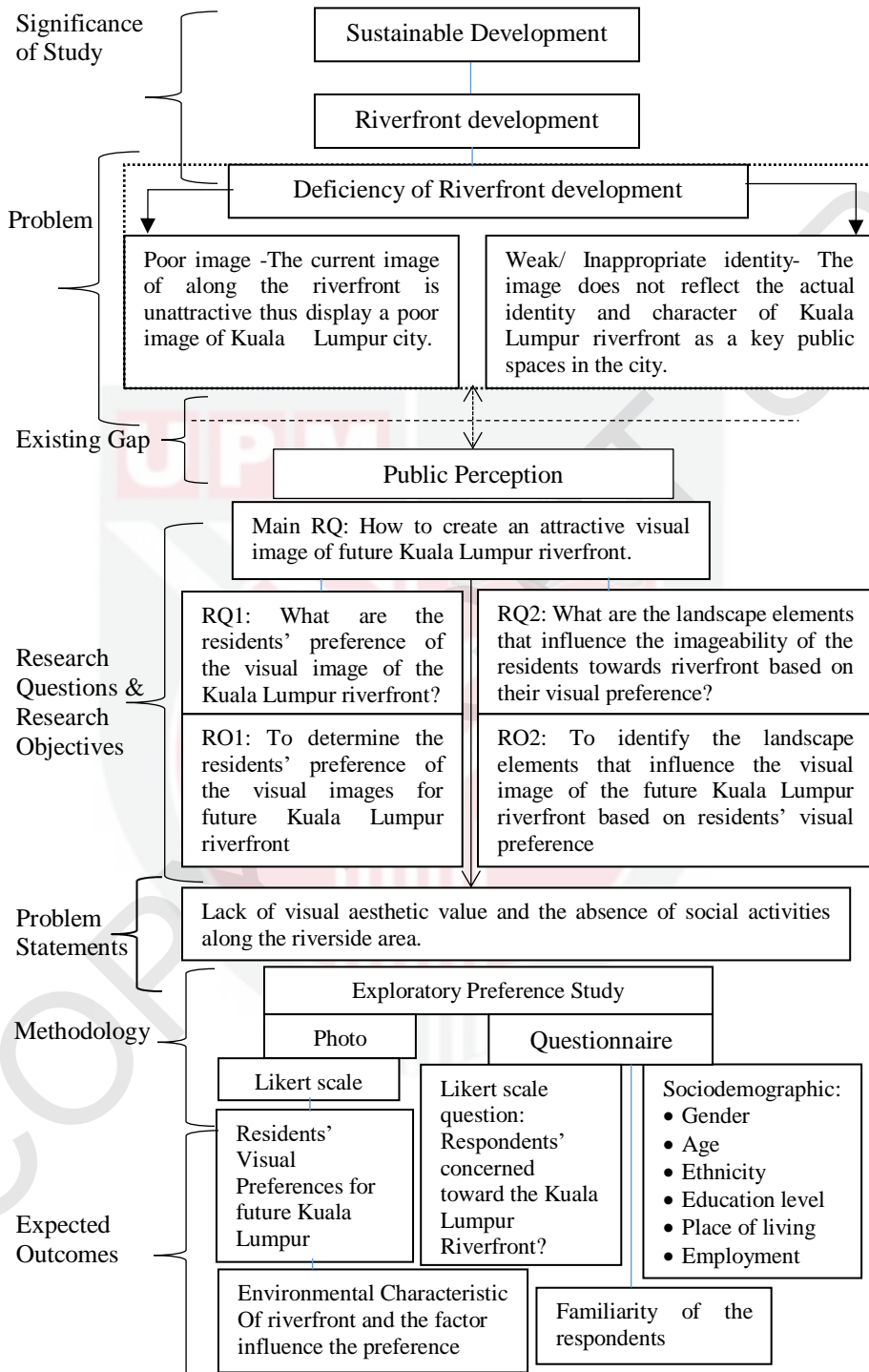


Figure 1.1: Research Framework

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