

WALKABILITY AS KEY STRATEGY IN IMPROVING WELD QUAY  
LEGIBILITY

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Specially dedicated to Allahyarham Ayahanda and to my beloved Bonda.

Thank you Allah S.W.T. for everything.

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## ABSTRACT

Walkability is an important concept in sustainable urban design. It is a measure figure of how friendly an area is. They create social interaction in urban environment through pedestrian activities. However, in a primarily car-dependent street network country like Malaysia, it is common to see urban design evolve around the priority of cars instead of people. Concentrating on Georgetown city, this paper studies walkability issues focusing at Weld Quay area. The demand for vehicular transportation increased immensely when Georgetown was inscribed as one of The United Nations Educational, Scientific and Cultural Organization (UNESCO) Heritage Site in 2008. Heavily traffic street is unsafe and does not attract liveliness. Furthermore they damage the waterfront's *legibility*; physical qualities that makes a place understandable. Jinnai (2001) highlighted that the waterfront has a potential role as a new public place and nodes for urban centres. This research aimed to revitalize Georgetown waterfront's legibility through the concept of walkability. The objectives of this research is to anticipate the degree of walkability, to identify the major issues related to walkability and to establish potential ideas for better walkable environment for Weld Quay. The study uses qualitative approach with grounded theory as its research method. This research is expect to produce a walkability strategies that could possibly promote walkability concept in urban waterfront area of Goergetown. Walkable and livable city attract many of the best professionals in which this attributes benefits local people economically and socially.

## ABSTRAK

'*Walkability*' adalah konsep yang penting dalam reka bentuk bandar lestari di mana interaksi sosial wujud dalam persekitaran awam melalui aktiviti berjalan kaki. Ia digunakan untuk mengukur tahap kemesraan sesebuah kawasan. Walau bagaimanapun, negara yang rangkaian jalannya bergantung kepada kereta seperti Malaysia, adalah perkara biasa di mana pembangunan Bandar tersebut mengutamakan kereta. Disertasi ini menggunakan Bandar George Town sebagai subjek kajian untuk memahami isu-isu '*walkability*' dengan memberi tumpuan terhadap kawasan Weld Quay. Penggunaan kenderaan telah meningkat dengan mendadak apabila George Town dipilih sebagai salah satu tapak warisan UNESCO. Jalan yang mempunyai kadar trafik yang tinggi adalah tidak selamat dan tidak menarik perhatian orang awam. Tambahan pula, ia boleh menjejaskan '*waterfront's legibility*'; iaitu sifat fizikal yang menjadikan sesuatu tempat itu difahami. Jinnai (2001) menyatakan bahawa kawasan persisiran air mempunyai peranan tinggi untuk dijadikan sebagai tempat awam baru dan nod kepada pusat bandar. Kajian disertasi ini bertujuan untuk memulihkan semula '*waterfront's legibility*' George Town melalui konsep '*walkability*'. Objektif kajian adalah untuk menjangka tahap '*walkability*', mengenal pasti isu-isu utama yang berkaitan dan untuk mewujudkan idea-idea yang berpotensi untuk rangkaian jalan yang lebih mesra kepada pejalan kaki di kawasan Weld Quay. Kajian ini menggunakan pendekatan kualitatif sebagai kaedah penyelidikan. Kajian ini dijangkakan akan menghasilkan strategi yang boleh menggalakkan aktiviti pejalan kaki di persisiran pantai George Town. Perancangan Bandar yang mengutamakan aktiviti berjalan kaki akan menarik ramai dan pelbagai professional dimana sifat ini memberi manfaat kepada penduduk tempatan dari segi ekonomi dan social.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

Truly walkable city are characterized by much more than just good sidewalks and street design. They take account other aspects like mix of uses, frequent street network and pedestrian links. Principles for successful city evolve over time naturally from the earliest of time. Only when 'modern' time began, people begin to focus on mobility. This is what happening in Georgetown, a waterfront city in Penang. Around 1780 and 1790, the development of the city concentrates on the waterfront where most port activities are located. Development began to spread west of the waterfront inland and continued to do so until the sixties. Due to the waterfront area having private development nature, this area does not attract a lot of public unlike other tourist site around the city inland. Without the public, there will be no activities to be held. Activities can encourage walkability at waterfront, making the place more alive and loved by locals and tourist, which promotes it as a successful public place. That is why this research is important because it seeks to establish the underlying theory that affect most walkability. The findings will be useful as a reference and guideline to improve walkability in an urban waterfront development in the future.

## **1.2 Problem Statement**

Waterfronts are attractor. Their natural dramatic geographic and strategic location in most cities reflects an obvious urbanistic importance. A prominent waterfront can shape a city's image. George Town waterfront especially area along Weld Quay road and Padang Kota area showcases the image of the city. They represent the beginning of Georgetown as one of the main port city in Malaysia. Unfortunately the historical part of the waterfront are no longer use as an asset to the city. More urban development have focused in the inner area of the island, neglecting the potential of the George Town waterfront as one of the important public space which could be economically beneficial towards the city and people.

Roads along the waterfront such as Weld Quay and Lebuh Pantai are two of the most widely use roads in Georgetown as they channels people upon entering George Town via the first bridge, ferry or boat. However, heavily traffic road is consider unsafe and they can affect waterfront's vitality. The area itself being surrounded by private entities reduces the chance of outdoor public activities thus further affecting the waterfront's legibility. The current characteristic and surrounding condition of the waterfront along Weld Quay does not reflect a walkable environment.

## **1.3 Research Aim**

The research aim is to identify the theoretical concept of walkability and it's capability in contributing to urban waterfront's legibility.

#### **1.4 Research Objectives**

- i) To identify characters behind the theory of walkability.
- ii) To identify character that influence waterfront's legibility
- iii) To clarify the relationship between the theory of walkability and the component that promote waterfront's legibility.

#### **1.5 Research Question**

Based on literature studies, research questions arising are:-

- i) What are the component that influence walkability?
- ii) What are the component that influence a legible waterfront?
- iii) What are the relationship between the theory of walkable environment and the component of legible urban waterfront?

#### **1.6 Literature Review**

This chapter discuss findings from various literature including books, journal, report, previous thesis and web source. Being a literature based research, it is important to have this part of the chapter included in the dissertation as it act as the main references for this research.

First, the author will bring the reader to understand the meaning, concept, and component of walkability in general. Author will also discuss the history and development of vehicular and how the priorities towards road users instead of

pedestrian affect the culture of walking in neighbourhood and cities. The theory of walkability is further elaborated through its various benefits towards health, economics, sustainability and tourism field. Author will also talks about various argument most city faces in achieving the walkable city status.

Secondly, the chapter talks about kevin lynch's theory on legibility and his view on imageability of a waterfront. Most urban studies involve the research of legibility analysis on city centre but rarely focusing cities with waterfront edges. Kevin Lynch's point of view towards the imageability towards waterfront will help readers to understand the characteristics that build a 'sense of place' for waterfront area. Author will also highlights common issues in archieving legibility of a place.

Thirdly, the chapter will discuss on various types of waterfront cities and which are commonly found in Malaysia. One type is given focus in relation to the chosen site which is George Town waterfront.

## **1.7 Research Methodology**

This chapter discuss the research method used to conduct this research. The methodology is further elaborated through the research paradigm in order to understand the essential method of the research. The methodology uses a qualitative theoretical framework and methods based in the field of grounded theory research. This will be further discussed in Chapter 3. The research paradigm has been arranged in a manner that will articulate the theory and convey the literature review into a comprehensive study. Primary data of the research are data collected from the observation and site analysis. Secondary data are books, report, journal article, grey-literature and internet-based article and previous thesis.



## **1.8 Expected Findings**

From this study, it is expected that walkability plays a big role at supporting the key elements that define legibility of an urban waterfront area. Making a waterfront as vital as it can be will not work as much without allowing people to arrive at the location safely. Many factors like street character, land use and activity influence the perception of walking. Over excessive use of other mode of transportation such automobile are not as sustainable and may affect our health and our surrounding nature in long run. Thus there is a need in highlighting the key features that contribute to the idea of walking and its relation to making a waterfront legible.

In this study, George town waterfront focusing along Weld Quay road is being use as area of study. Georgetown town waterfront is one of the few waterfront cities available in Malaysia. Its current state of being the main point of arrival for both local and tourist makes Weld Quay one of the most widely used road in the city. However the city developing with the priority on street instead of pedestrian affect the waterfront's legibility. This study expect to integrate the theory of walkability and its explore its capability in improving waterfront legibility. Strategy to improve waterfront's legibility using the idea of walkability will be outlined as a result of this study.

## **1.9 Structure of Thesis**

The research structure is generally divided into five main chapters. Chapter 1 delivers an overview of this study. This includes the background studies, research statement, research aim, research objectives, research questions and literature reviews, research methodology, structure of the research and lastly, the expected findings of the research.

Chapter 2 provides a comprehensive background study of walkability and other element that are related such as legibility studies adapted from Kevin Lynch, the rising issues of mobility and studies on waterfront cities.

Chapter 3 elaborates on the method of research used in this study. In this case this research has adopted a grounded theory research. The methodology will be further explained through research paradigm and research design. At the end of this chapter, author will produce a research framework suitable for this study.

Chapter 4 discuss data and findings from the site analysis. Data are synthesised in accordance to the literature review as a reference. These results will be discussed in the form of strategies in order to realise the research aim and objectives that were mentioned earlier.

Chapter 5 re-examine the findings and discussion made in chapter 4 and will conclude this dissertation with a summary of the research. In addition, this chapter will also present its possible shortcomings and recommendation on the potential future work regarding walkability in urban waterfront.

## **1.10 Summary**

This study helps to explore the degree of walkability and its various effects on waterfront cities socially and economically. From this chapter, it is understandable that the author is interested in the development focusing on cities with waterfront feature and believe that the concept of walking could play a big role at contributing to the waterfront's legibility or and improving its 'sense of place'.

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