

SIGNIFICANCE OF WALKABILITY IN THE CONTEXT OF TERRACE ROW  
HOUSES IN MALAYSIA: AN ETHNOGRAPHIC APPROACH

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To my dear mom, dad, my sister, and my fiancée, Reza, who were there for me always  
and supported me with love and kindness throughout the course of this thesis

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## ABSTRACT

Walking is an excellent physical exercise. But it can contribute more than that. Pedestrian activities create social interaction in urban environments. Therefore walkability can play a significant role in Urban Design. Concentrating on residential neighborhoods, walkability can also reduce dependence on cars at least for shorter distances, and therefore contribute to economic and environmental sustainability as well. However, in a primarily car-dependent street network, walkability in residential neighborhoods has been neglected in Malaysia, especially in the terrace row housing estates, which is the most popular type of housing estates in the country. As a consequence, social interaction between neighbors has become extinct, which not only started depriving the neighborhoods from its liveliness, but also threatened the much needed security in such urban environment. Therefore, a study of walkability in terrace row housing states in Malaysia seems to be very much relevant and significant. This research aimed to investigate walkability of terrace row housing estates under three objectives. It tried to anticipate the degree of walkability, to identify the major problems related to walkability, and to provide suggestions for a pedestrian friendly street network inside such estates. The study adopted the qualitative approach, with ethnography as the research method. The researcher, as a participant observer, collected the data through intensive and informal interviews with residents of such neighborhoods. Identifying street network as the key urban element for walkability, and its connectivity with different facilities inside the neighborhoods as the benchmark to measure walkability, the sample of five housing estates was selected on the basis of four parameters. These are the existence of footpaths, intensity of traffic flow, connection from house to common facilities, and existence of guarded community. After collecting the data in the form of vignettes, several themes were derived through immersion. After verifying them through triangulation and peer review, the number of themes was later reduced to domains that represented the findings of the research. It showed that the residents indeed feel the necessity of more walkability inside neighborhoods, and the several steps should be immediately adopted with regards to the street network in order to develop walkability.

## ABSTRAK

Berjalan kaki bukan sahaja satu senaman fizikal yang bagus, tetapi ia boleh menyumbang lebih daripada itu. Aktiviti-aktiviti pejalan kaki boleh mewujudkan interaksi sosial dalam persekitaran bandar. Oleh itu, berjalan kaki boleh memainkan peranan penting dalam Rekabentuk Bandar. Dengan memberi tumpuan kepada kawasan kediaman kejiranan, berjalan kaki juga boleh mengurangkan kebergantungan kepada kereta, sekurang-kurangnya untuk jarak yang pendek, dan akhirnya menyumbang kepada pembangunan ekonomi dan juga alam sekitar. Walau bagaimanapun, dalam rangkaian perjalanan, budaya berjalan kaki di kawasan kediaman kejiranan telah diabaikan di Malaysia, terutamanya di deretan kawasan perumahan teres, yang merupakan jenis perumahan yang paling popular di negara ini. Akibatnya, interaksi sosial sesama jiran telah menjadi terhad, yang bukan sahaja menjarakkan kehidupan sesama jiran tetapi juga mengancam keselamatan, iaitu sesuatu yang amat diperlukan dalam persekitaran bandar itu. Oleh itu, satu kajian mengenai berjalan kaki di deretan kawasan perumahan teres di Malaysia adalah sangat wajar dan penting. Kajian ini bertujuan untuk menyiasat aktiviti berjalan kaki di kawasan perumahan teres di bawah tiga objektif. Ia cuba untuk menjangka tahap berjalan kaki, mengenal pasti masalah utama yang berkaitan dengan berjalan kaki, dan juga menyediakan cadangan untuk rangkaian jalan pejalan kaki di kawasan tersebut. Kajian ini menggunakan pendekatan kualitatif, dengan etnografi sebagai kaedah penyelidikan. Penyelidik, sebagai pemerhati peserta, mengumpul data melalui temubual intensif dan tidak formal dengan penduduk kawasan kejiranan itu. Dengan mengenal pasti rangkaian jalan sebagai unsur utama bandar untuk berjalan kaki, dan kaitannya dengan kemudahan yang berbeza di dalam kawasan kejiranan sebagai penanda aras untuk mengukur aktiviti berjalan kaki, lima kawasan perumahan telah dipilih sebagai contoh berdasarkan empat parameter. Ianya adalah kewujudan laluan pejalan kaki, keamatan aliran trafik, sambungan dari rumah ke kemudahan umum, dan kewujudan komuniti berpagar. Setelah mengumpulkan data dalam bentuk 'Vignette', beberapa tema telah diperolehi melalui pencilupan. Selepas mengesahkan mereka melalui triangulasi dan tinjauan, bilangan tema kemudiannya dikurangkan kepada domain yang mewakili penemuan penyelidikan. Ianya menunjukkan bahawa penduduk merasakan perlunya aktiviti berjalan kaki di dalam kawasan kejiranan, dan beberapa langkah segera berhubung dengan rangkaian jalan perlu diambil dalam usaha untuk membangunkan aktiviti berjalan kaki.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

Walking as an exercise improves physical health. According to new research, walking briskly for just an hour a day is enough to cut the effect of genetic tendencies toward obesity. A brisk one-hour daily walk reduces the genetic influence towards obesity, measured by differences in BMI by half [1]. But walking can contribute more than that. Walkability in business districts create vibrancy, while walkability through pedestrian networks in residential districts increases social interactions and community bonding. Thus, in residential neighborhoods, an environment where people can interact with each other through pedestrian networks can contribute to improving one's individual health, as well as contributing to a stronger community bonding. Neighborhoods need to be an enjoyable place, where adults can interact, children can enjoy playing in a secure community with a playground around their houses, and elderly people can enjoy walking or moving around rather than being confined to their houses. Therefore there is a need for walkability in the housing states.

## **1.2 Background of the study**

As we know Terrace houses are one of the dominant patterns of housing in Malaysia. They were adapted to accommodate the tropical weather which is warm and humid throughout the year and receives heavy rainfall. A typical Malay terraced house consists of inner courtyard for better air circulation and a front and rear yard. The manner in which the buildings were designed varies by their location in an urban area. Inner city terrace house design tended to lack any frontal yard at all, with narrow street frontages, hence the building's structure directly erected in front of the road. One of the reasons behind this was the taxing according to street frontage rather than total area, thereby creating an economic motivation to build narrow and deep streets. A five foot way porch was usually laid out at the ground floor for use by both the residents and pedestrians. Alternatively, the porch may be sealed from the rest of the walkway to serve as personal space [2]. Certain older terrace houses tend to be converted for various new roles; some are converted into shop houses or business premises (including clubs, hotels and boarding homes—especially pre-independence houses—and kindergartens). Others have remained in use as residential units, are abandoned, neglected, or razed. Significant expansions are also common on all terrace homes; roofs and additional rooms may be added within the floor space of the house's lot. Concerns are also raised with the limited maintenance and monitoring of deserted terrace homes, which potentially become hiding places for rodents and snakes (in yards with overgrown grass), and drug addicts.

## **1.3 Statement of the problem**

Terrace housing comprises 3 main positive factors to be considered such as physical, economical and environmental. Physical factors relates to the physical shapes and form of the houses which can be designed in a way to make the house more interactive with the surrounding environment. Economical factors are very considerable in terrace housing since the mass construction of the housing area is economically viable

while the other forms of housing demands more expenditure. Environmental factors relates to making use of local materials to build the houses accordingly. The purpose of this study is to illustrate the fundamental elements that must exists to support a walkable environment, significantly in the context of the terrace houses where a remedy for decline in social sustainability is necessary.

#### **1.4 Aims of Study**

This study hypothesized lack of interaction as a social problem inside terrace row housing in Malaysia, and aimed to find whether and how it is related with walkability inside these neighborhoods.

#### **1.5 Objectives of study**

- To determine the degree of walkability in the current situation of the terrace row housing in Malaysia.
- To identify problems related to walkability especially in the existing context of terrace row housing.
- To propose guidelines for a walkable environment in terrace row housing.

#### **1.6 Research Question**

- How walkable are the current terrace row housings in Malaysia?
- How can the problems related to walkability be identified in such context?

- What can be the design solutions for a walkable environment inside terrace row housing?

### **1.7 Scopes of the study**

Considering social interaction as a measure to achieve social sustainability, this study tried to find the contribution of walkability to such interaction inside residential neighborhoods in the context of terrace row housing in Malaysia, which is the dominant pattern of housing estates in the country.

### **1.8 Limitation of the study**

- There were time constraints related to the study period.
- Lack of recourses was also limited the volume of the survey of this study.

### **1.9 Significance of the study**

Walking around an environment is to experience its true essence—its soul.

“Our brain functions quite differently when we walk,”

said Scott Bricker, director of America Walks, a national non-profit dedicated to promoting the health benefits of putting one foot in front of the other.



“It’s good for our health, both physical and mental, and good for our fellow man, because we engage with the community we’re walking along.”

In recent years encouraging people to walk in an urban environment has been one of the biggest approaches in some developed countries.

But what is it exactly that makes a city perfect for walking? Is it a certain sort of walkable urban design? The streetscapes themselves, with their unique architecture and attractions? The climate? The friendliness and liveliness of the residents? Or is it perhaps something more ephemeral? [3]

Of course, there are obvious traveling pleasures that most good walking cities have in common. A sense of history, gorgeous buildings and must-see landmarks (or views) all can be better experienced by walking. There’s also a specific kind of commerce that helps make a cityscape attractive to explore by walking—like the sidewalk cafés without which cities like Paris, Vienna and Venice would be lesser versions of themselves [3].

Sometimes, though, it’s the less tangible things that make walking through the world’s urban centers uniquely fascinating. Like the smells of baking pan quotidien that emanate from countless boulangeries in early morning Paris, or the way the light glitters and reflects off of Tokyo’s glass skyscrapers. Or simply the childlike joy many of us feel when set loose in a strange, labyrinthine streetscape that promises adventure and the chance to get wonderfully lost.

More and more cities these days seem to be inviting pedestrian exploration. Metropolises that have traditionally seemed daunting to walkers are reinventing themselves as strolling cities par excellence—for example, Cape Town (now luring visitors with new waterfront walking routes) and Hong Kong (with its leafy urban

walking trails). Even Los Angeles and Atlanta—“two cities renowned for car culture,” as Bricker notes—are revitalizing their downtown areas to encourage walking [3].

## **1.10 Conclusion**

Making an environment people friendly and improving walkability through housing communities by encouraging people to use their physical energy to walk rather than consuming the natural energy of oil and gas is healthful to them and their surrounding environment. Obtaining proper design guidelines to improve the walkability in the housing states is the major concern in this study. Since this topic is broad I have limited my research to terrace housing as the dominant pattern of housing in Malaysia.

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