

Proceedings of



A Joint Conference With

International Conference on Engineering, Innovation and Technology (EIT)

Date:

9th to 11th December 2014

Venue:

Tabung Haji Hotel, Alor Setar

Editors:

Professor Dr. Ruslan Rainis Assoc. Prof. Dr. Ahmad Sanusi Hassan Muhammad Nasrul Abu Bakar Jeffiz Ezuer Shafii

Design by:

Saiful Haizad Hj. Ahamad Jainid

Proceeding of International Workshop on Livable City (2014)

A Joint Conference With

International Conference on Engineering, Innovation and Technology (EIT)

"Remapping the Idea of Livable City through History and Theory"

Tabung Haji Hotel, Alor Star, Kedah, Malaysia $9^{th} - 11^{th}$ December 2014

Editor:

Professor Dr. Ahmad Sanusi Hassan Muhammad Nasrul Abu Bakar Jeffiz Ezuer Shafii

Organized by:

Centre for Research Initiative, Liberal Arts and Social Science Universiti Sains Malaysia, Penang, Malaysia School of Housing, Building & Planning HBP Research Unit

Sustainable Architecture and Urban Design Research Unit Universiti Sains Malaysia, Penang Malaysia

Co-Organizer

TuEngr Group Thammasat University Thailand

Published by:

Centre for Research Initiative, Liberal Arts and Social Sciences. Universiti Sains Malaysia 11800, Pulau Pinang, Malaysia

Tel: (6)04-6533081 Fax: (6)04-6584149

Email: sanusi@usm.my http://crilass.usm.my/

Printed in Malaysia by Gen F Technologies Enterprise

First Print 2014

ISBN: 978-967-394-203-9

Proceeding of International Workshop on Livable City 2014

Copyright © International Workshop on Livable City 2014 All rights reserved

No parts of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronics, mechanical, photocopying, recording, or otherwise, without the written permission of the publisher.

International Workshop on Livable City (2014)

A Joint Conference With

International Conference on Engineering, Innovation and Technology (EIT)

Advisors

Y. Bhg. Prof. Dato' Dr. Omar Osman Assoc. Prof. Dr. Aldrin Abdullah Prof. Dr. Ruslan Rainis

Chairman

Prof. Dr. Ahmad Sanusi Hassan

Scientific Committee

Prof. Dr. Till Requate (Kiel University)
Prof. Dr. Ahmad Sanusi (USM)
Prof. Dr. Ruslan Rainis (USM)
Assoc. Prof. Dr. Boonsap Witchayangkoon (Thammasat University)
Dr. Mazran Ismail (USM)

Organising Committee

Dr. Mazran Ismail
Najib Taher Al-Ashwal
Yasser Arab
Aliyu Zubairu
Abdunnaser Ali Moh Abujrad
Ahmad Sid Hijaz Md. Saaid
Mohammed Salem Bakhlah
Muhammad Nasrul Abu Bakar
Jeffiz Ezuer Shafii
Hanan Abu Hasan

MESSAGE FROM THE CONFERENCE CHAIRMAN

On behalf of the Organizing Committee and Universiti Sains Malaysia, it gives me the utmost pleasure in welcoming all of you as the paper presenters and participants to the 2nd IWLC2014. Allow me to first commend the Organizing Committee for their tireless endeavour in a preparation of this conference. It is therefore hoped that this concerted and collaborative effort will continue in the years to come as IWLC continues to grow in repute and stature to hopefully blossom into *the* definite regional conference in issues related to livable city.



The theme this year, 'Remapping The Idea of Livable City through History and Theory' is perhaps one of the important topics of what our world is in dire need of, especially in these challenging times where 70% of the world population today live in the cities. Discussion in remapping the idea of livable city through history and theory is an important asset in this conference in rethinking the approach and steps for the future research study in shaping our livable cities in the future. Studying the past history and theory of development of our cities is an important key understanding the present and action for the future development. New research methods and tools should be discussed to uncovered new map of livable cities around us. Among research discussions are as follows: What new forms of archival research should be discussed and highlighted by the researchers and industrial players? What new or alternative models of history and theory in shaping livable cities should be made visible and through what new research methodologies and technologies of inquiry? What is the role and value of history and theory which capable to form livable cities for the local context, culture, communities and environment in a particular place and time? We however do not have clear figures how many researches that have taken place by researchers, practitioners and thinkers from various disciplines and professions in proposing development for livable cities. It is thus the aim of this conference to provide a platform in a discussion in remapping development of livable city through history and theory by introducing new ideas, testing questions, defining methodology, developing technology, raising social issues and promoting critical discourse.

Any and all efforts toward making this a reality are indeed welcome and cherished, and therefore; all of you here, by your mere participation, have sowed and nurtured these seeds of change. I would like to extend my sincere gratitude for all the cooperation given by the Centre for Research Initiatives and School of Housing, Building and Planning from Universiti Sains Malaysia and TuEngr Group from Thammasat University. I also would like to thank to our Advisory Committee, Scientific Committee, Organising Committee and Secretariat, especially Mr. Muhammad Nasrul Abu Bakar for generous efforts and supports in ensuring the IWLC2014 a success.

Thank you.

Prof. Dr. Ahmad Sanusi Hassan

Professor Dr. Ahmad Sanusi Hassan



TABLE OF CONTENT

PAPER	
The Role Of Vanpool Commuter Services Towards Livable City By Assoc. Prof. Dr. Boonsap Witchayangkoon	1
Green And Energy Efficient Building Awareness Study In The Klang Valley / Malaysia by Prof. Dr. Karl Wagner & Yusnita Azira Binte Abdul Rahim	8
Satisfaction And Perception Of Occupants Towards Highrise Government Apartments Built Using Industrialized Building System In Putrajaya, Malaysia by Mazran Ismail, Nur Haffeza Ahmad Termizi & Ahmad Sanusi Hassan	21
The Function Of Street Performing In The Livability Of Historical Urban Spaces by Narges Ghaffari, Faezeh Ghaffari and & Mohamdreza Pourjafar	28
Factor effecting roof leaking focusing on material used for concrete and metal roofing on Malaysia heritage buildings by Roslan Talib, A Ghafar Ahmad & Mohd Zailan Sulieman	41
Towards Sustainability in the Livable City by Walaa Nour	52
Historical city of Tunis, Tunisia, City space and Social values: A Lesson from the Past by Hamza ZEGHLACHE	64
PLACE ATTACHMENT IN RELATION TO URBAN STREET VITALITY by Nur Bazliah Zaidin,Mohd Ramzi Mohd Hussain, Izawati Tukiman and Fitrynadia Mohd Shahli	72
Gated Communities (GCs) - A New Face of the Rich Amman by Nabeel Alkurdi	81
Strength of Reinforced Concrete Column Strengthened by Ferro Cement Jacketing by Sayan Sirimontree, Boonsap Witchayangkoon & Krittiya Lertpocasombut	91
Study On Management Of Garbage Problems: Case Study Of 21 Dormitary Buildings' Community by Krittiya Lertpocasombut, Boonsap Witchayangkoon & Sayan Sirimontree	99
The Healing Garden Physical Attributes For A Century Old Healthcare Premises by Fuziah Ibrahim, Wan Mariah Wan Harun & Wan Nor Wahidah Syumaiyah Wan Kamaruddin	105
Spatial Interpolation Of The Unconfined Compressive Strength Of Soil By Non-Geostatistical Methods And Artificial Neural Networks by Thongchai Phothong & Boonsap Witchayangkoon	119
Similarity as Deformation Tool of Interior Design Identity by Oday Qusay Abdulqader, Dr. Fuziah Ibrahim & Dr. Azizi Bahauddin	126
Investigation Of Energy Performance And Energy Savings For High-Rise Apartments In Kuala Lumpur, Malaysia by A hmad Sanusi Hassan & NajibTaher Al-Ashwal	135
Urban Planning Practice In Sudan: An Investigation by Abbas E. M. Khair	148
Creating A Resilient Sustainable Livable City by Reham M. M. Mohie El-Din	160
The Streets In A Livable City by Reham M. M. Mohie El-Din	170

Proceeding of International Workshop on Livable City 2014

Conservation Urban Design Towards Sustainable Development of Tarim City in Hadhramout Valley, Yemen by Anwar Ahmed Baeissa	179
Impact of religion and culture on traditional houses by Tamara Kelly	194
Appraisal Of Residential Satisfaction In Two Double-Storey Terrace Housing Neighborhoods In Greater Kuala Lumpur, Malaysia by Mohammad Abdul Mohit & Adel Mahfoud Mubarak Al-Khanbashi	205
The Sunlight Shading Performance In Traditional Style Apartment Case Study Of Putrajaya, Malaysia by Yasser Arab & Ahmad Sanusi Hassan	220
The Concept Of Built Environment Towards Sustainable Integrated Design And Construction Processes (IBS and BIM) by Aliyu Zubairu & Ahmad Sanusi Hassan	228
Housing Affordability For Low Income Households In Penang, Malaysia by Abdunnaser Ali Moh Abujrad & Ahmad Sanusi Hassan	237
Architectural Styles Of Apartment Design In Putrajaya, Malaysia by Ahmad Sanusi Hassan, Yasser Arab & Mazran Ismail	257
The Children's Playgrounds Dilemma: Rethinking How We Design Our Playgrounds by Ahmad Sid Hijaz Md. Saaid & Ahmad Sanusi Hassan	264
The Concept Of Livable City Toward Integrated Project Delivery Using Industrialised Building System by Aliyu Zubairu & Ahmad Sanusi Hassan	284
The Strategy Of Using Digital Coding To Find The Main Shape Of The Traditional City by Hussien S. Abdullah & Ahmad Sanusi Hassan	293
The Impact of Natural Resources on a Sustainable Urban Design in Mountainous Regions by Hussien S. Abdullah & Ahmad Sanusi Hassan	310
The Effect Of Orientation On Indoor Air Temperature In Hot And Dry Climate In Case Of Hadhramout, Yemen by Mohammed Salem Bakhlah & Ahmad Sanusi Hassan	314
Implementation Of Landscape Design As Elements In Creating Values For Housing Areas In Klang Valley, Malaysia by Fitrynadia Mohd Shahli,Mohd Ramzi Mohd Hussain, Izawati Tukiman and Nur Bazliah Zaidin	324
A Development of Reliable and trusted mobile RFID-based Asset management System using Android Apps by Hairulnizam Mahdin & Abdul Halim Omar	335
A Study on using smartphone of students in Secondary School Thailand by Sawat Pararach*, Kantaporn Pararach, and Boonsap Witchayangkoon	342
The Critical Establishment of Livability for Sustainable Community in Future Cities after Fossil Oil Reduction by Cemal Inceruh	349

PLACE ATTACHMENT IN RELATION TO URBAN STREET VITALITY

Nurbazliah Zaidin, Mohd Ramzi Mohd Hussain, Izawati Tukiman, and Fitrynadia Mohd Shahli.

Department of Landscape Architecture,

Kulliyyah of Architecture and Environmental Design (KAED),

International Islamic University Malaysia, MALAYSIA

Street plays an important role in shaping the urban living environment. Preliminary studies have highlighted on the importance of the street as public space that provide setting for activities and amenities which allow people to do their activities. Simultaneously, it can attract more people to the city and invite social interaction among them. However, the roles of urban street as public space have weakened due to rapid growth development. It is more focused on the transportation compared to the people who make people feel less attached to the street. Therefore, this paper is aimed to review on the place attachment and its significance in affecting the urban street vitality. The analyzed review comprising on the urban streets in the context of interrelation between two main factors which is the i) behavioral pattern of people and ii) the physical features of streets. These main factors create an attachment feeling in the area that will lead to the vitality of urban streets. Hence, this paper will give understanding of how place attachment influence people's presence on the streets in order to attract people and enliven the urban street.

Key Words: street, public space, activities, place attachment, urban street vitality

INTRODUCTION

People experience the place by interacting with their environment through creating bonds and link. Generally, spaces turn into places enriched with the meaning which acts as an object of attachment. Tuan (1977) has stated that place is manifested of experience and aspirations which emphasize people's emotions and its relationship toward the environment. Place attachment is the bonding that occurs between people and their environment. There are lots of ideas to describe the concept of place attachment.

Firstly, studies by Bricker and Kerstetter (2000), Gunder and Watson (2007) and Warzecha and Lime (2001) has stated that place attachment comprising two main forms which is social (emotional) and the physical (functional). Besides that, Casakin and Kreitler (2008) also explained place attachment in two aspects which is the emotions and cognition in the context of beliefs, attitudes, memories, and also concept that is built up by the meaning of the place and dependent on the interaction within the location. The second aspect in place attachment is the correlates between the personality and behavior of individuals to the place. This is because every individual has different characteristic that influence their perception and interaction with the place. They also highlighted that all the aspects which is emotions, cognitions, meanings, and also personality are important in the place attachment.

Apart from that, in the Figure 1 below, there are three dimensions that involved in place attachment concept described by Scannel and Griford (2010) state that place attachment occur at both level individual and also group. Place attachment is built through the historical experiences and the meanings of places which influence the degree of attachment at the individual level. Second dimension is about the way the perceived the experiences through psychological process comprising three components; affect refers to the emotional connection, cognition refer to the beliefs, meaning, memories and knowledge, and behavior

refers to the attachment express through actions. As for physical setting, Scannel and Griford divided into two levels, which is social and physical attachment.

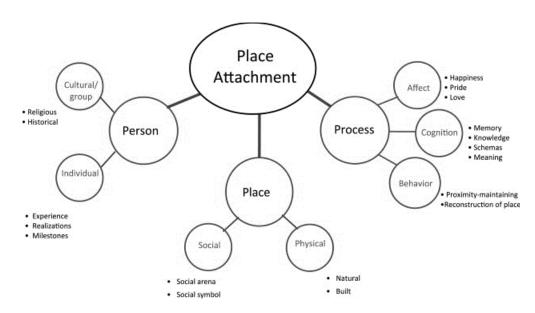


Figure 1
Scannell and Gifford's tripartite model of place attachment
Source: Scannel and Griford, 2010, pp. 2

While, according to Altman and Low (1992) state that place attachment is integrates with various aspects of people and place relationship and it involves the interactions between emotions, knowledge and beliefs and also behavior and actions in mentioning to a place. This is also agreed by Miligian (1998) and Chow and Healey (2008) that in the place attachment process social relationship aspect are also important besides the individual's feeling and emotion which those aspects evolve the bonding between people and place. However, Trentelman (2009) provide different point of view about place attachment in a bigger vision by highlighting three different disciplined in place attachment. Among them are:

- a) The socio-cultural dimensions of place, for example, the community attachment
- b) The bio-physical dimensions of place which stress on the setting
- c) The integration of both dimension; socio-cultural dimension and the setting of the place.

Apart from that, study by Shamsuddin and Ujang (2012) state that the concept of place attachment is set within the realm of the environment meanings and association. They explained that meaning is related to the perceptual and the psychological aspects of environment experience, thus within this realm, the concept of place attachment is viewed as a form of bonding between people and the setting. This attachment is influenced by two aspects which is the qualities and the characteristic of the place. Therefore, based on the studies above, the concept of place attachment can be define as the bonding between people and the place that perceived through their experienced gained from the physical setting of their surroundings. This concept is important as it influence people presence at the place.

STREETS AS PUBLIC SPACE

Street plays an important role in shaping the urban living environment, and it is consider as a major public spaces in urban fabric whilst help in creating a city image.

Streets and sidewalks, the main public places of a city, are its most vital organs. Think of a city and what comes to mind? Its streets. If city's streets look interesting, then the city looks interesting; if they look dull, the city looks dull.

Jacob (1961), p 39.

In the urban design and planning, the role and need of meaningful public area for the experience of public user and social interaction is important in order to make people value the area. Mehta (2007) states that, most of modern urban societies are no longer depending on the town square in their settlements for basic needs, but good urban public spaces are required to support the social and psychological need of the modern societies. Walzer (1986) states that public space is space that individual share with the other people that are not related to the individual. Besides that Oranratmanee and Sachakul (2014) also state that public space is an important issue that has been highlighted in urban design and planning of a city.

Urban public spaces are includes streets, parks, squares, plazas can support, facilitate and also promote the urban life. Jalaladdini and Oktay (2012) state that urban space can be studied into two form which is streets and squares, which the spaces must capable to support diverse of users that have different behavior and activities such as walking and relax. However in this study, focusing on street and its physical features as stated in Chapter 1, streets is most of the public spaces that people travel on and spend their time.

Street is one of the urban elements that help to create a city image and along it other environmental elements are arrange and related (Lynch, 1960). Streets are places of social and commercial encounter and exchange. Street defined as a public road in a city, town, or village, typically with houses and buildings on one or both sides (www.oxforddictionaries.com). Besides that, Moudon (1987) states that street also known as linear spaces lined by buildings found in settlements and used for circulation other activities. While Moughtin (2006) defined street as space that enclosed in order to generate movement which created through trees, buildings, and also combination of both.

In urban area, streets play vital roles because it provide setting for activities and amenities that allow people to do their activities which can attract more people to the city and also invite social interaction. According to Jacobs (1961), streets is a significant part of the public spaces and it is seen as the important symbols of public realm. Streets are includes, sidewalk, sitting and others. Mehta (2007) state that people in urban area rely on street because of its function, social and leisure activities that includes shopping, meeting, play, travel and interaction with other people.

As summary, streets are the widest and most accessible public space which plays a significant role in providing public spaces in a city. Therefore, by examining the street, people can understand the place itself.

Vitality of Urban Streets

The vitality of urban life demands a design approach sensitive to the various role streets play in the cities. Vitality deals to the degree with which successful urban spaces. As stated in previous chapter, Lynch (1981) has identifies that vitality as one of the factor that that indicate the performance of urban design which show that places supports the functions, biological requirement and capabilities of individual. As general, vitality can be defined as the ability of space that can cater and support variety of activities and people that have different needs and behaviors. Montgomery (1998) states that vitality is refer to the

number of people that presence in and around the streets across different times that can support people behavior and needs which make the place feel alive and lively.

While, Jalaladdini and Oktay (2012) state that vitality is the concept that involve in visual quality of the environment and the diverse of supported activities. Besides that, vitality in the urban realm is an important quality because it reduces crime, makes commercial interests more viable, increases passive enjoyment of streetscape – people watching, encourages social interaction and encourage the cultural exchange. Besides that, the design of public space (street) should meet the needs of people. This is because by achieve the people's need and adapt to their activities is reflect of good public space. These have in line with the concept introduce by Maslow pyramid regarding the need of people. The level of need is starting from the physical need which includes the safety and belonging needs.

Whereas Jaladdini and Oktay (2012) state that accessibility, equity and safety are the most important elements of the public realm. In the most basic level, accessibility is the most important one. Accessibility has two types: (a) Visual accessibility which allows people to see it and be informed what is happening there and (b) Physical accessibility which allows people to enter that space and use its functions. An urban public space should invite people to come inside and use its facilities. This factor leads us to another significant social need which is equity. Equitable environments are those which can be shared equally by all sections of society. They provide all the qualities that the full range of users require (Carmona et al. 2003). They meet the needs of different groups without diminishing the welfare of others. The environments which are not equitable or are exclusive, display qualities which make them less available to certain sections of society, i.e. women, ethnic minorities, elders, disabled, poor people, and children.

Apart from that, as general, vitality is related to the physical and mental energy. As stated by Rastegar et al. (2014), vitality is concern with fours features which is:

- a) Levels of activities; refer to the things that going on
- b) Levels of use; refer to the participant
- c) Levels of interaction, communication, transaction and exchange
- d) Levels of representations; how activities, use and interaction is shown to the others.

Thus, vitality of urban streets in this study defined as street with the presence of people engaged with diverse of activities that cater the needs of people. It describes the mass of activities either good or bad. With this regards, it is important because with the street vitality, it make the place become livelier.

BEHAVIORAL PATTERN OF PEDESTRIAN ON STREET

This study is focusing on the behavioral pattern of pedestrian by classify the activities that held by them on the streets. This is because Shamsudin (2011) states activities are the behavioral of man manifestations of their response to the environment. Therefore, observing pedestrian activities can determine the place distinctive. Basically, by the definition, pedestrian is person that going on the foot (www.merriam-webster.com), and Appleyard (1981) states that the best perspective to experience the surrounding and feel the belonging is person that travel on foot. As known, pedestrian is the most vulnerable group among the roadways user. Pedestrians are fairly a heterogeneous group comprising children, adult, elderly and disable peoples. So due to that, the needs, speeds and movement patterns are varies for different pedestrians.

In general, interaction between people and places can categorize in three dimensions which is in terms of cognitive, behavioral and emotional. According to Hashem et al. (2013) state that cognition aspects is interact to formal aspects of the places, while in the context of behavioral interaction, it explains the perception of the functional aspects and types of activities occurs on the environment, and in relation to the aspects of emotional interaction between people and places, explains the consideration of emotional

and meaning towards places. However, this paper only focusing on the behavioral aspects as it reflected the function of the street.

According to Shamsuddin (2011), it is important to identify the activities occur in street in order to characterizing the qualities of the streets. People use street for different activities that serve their needs and preferences. Prior studies have classified the activities in the public space. Table 1 below shows Francis (1991), Simon (2000) and Gehl (2002) have classified the people activities.

Table 1
Classification of activities

Francis (1991)	Simon (2000)	Gehl (2002)
Work relatedSocializingHome WorkingRecreation/relaxation	TravelShoppingInteraction	TrafficCommercialLeisure

Previous studies have discovered that people use the streets for two main reason which to access and socialize. Gehl (1987) has states that people utilize the street to circulate, move from one space to another and to interact in the context of shopping and meeting. However, the street's function has expended into the opportunities of leisure activities. According to Mehta (as seen in Ghahramanpouri et al., 2012), there are three main reason people especially pedestrian use the street, which is for functional, social and leisure activities. Apart from that, according to Ghahramanpouri et al. (2012), among the common activities occurs in Pedestrian Street is sitting, walking, lingering and spending time with others. As shown in Figure 2 below, with the activities, the environment become livelier and it can enhance the street vitality.



Figure 2

The activities occur on street such as walking, busking, and do business

In order to categorize the pedestrian activities, Gehl (1987) and Rastegar et al. (2014) state that there are three types of activities occur on the street which is necessary activities, in which people need to do them despite of the environment, optional activities such as activities that attracting people to do and social activities that depending on the presence of others.

As summary, activities occur on the street are reflect their interaction with the surrounding because people use the place in order to fulfill their needs and preferences. Besides, people activities are the key factors that can contribute to the place distinctive. Thus, the presence of people and the activities held by them can bring the vitality to the street as well as enhance the diversity of the street. This is also agreed by Farazmand and Sehizadeh (2014) state that the level of people activities can influence the street vitality.



Physical features influence pedestrianon street

A physical setting is required when people do the activities. According to Shamsuddin (2011), the level of availability of physical features on street effect the ability of the street to support the pedestrian's activities. Prior scholar such as Whyte (1980) and Gehl (1987) state that people is the focal point, thus, people especially pedestrian need to feel comfortable while engage with diverse of activities. Gemzoe (2006) states that the chances to have diverse of activities on street and experience the surrounding is depend on city spaces designed to encounter and facilitate the basic people activities.

As stated above, pedestrian is people that walk. According to Koh and Wong (2013), among the factors that influence people to walk are categorize in three aspects which is distance, infrastructural and personal factors as shown in the diagrams below. Those factors are affecting people decision to walk.

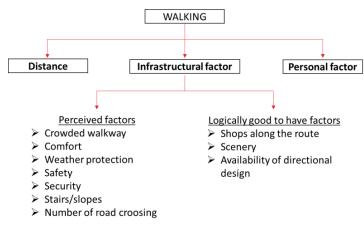


Figure 3
Factor influence pedestrian to walk
Source: Koh and Wong (2013)

As stated by Koh and Wong, the distance is one of the factors because people tend to choose the shortest distance. However, study by Guo and Loo (2013) state that the decision in choosing walking route by pedestrian is influence by the amenities and the environment such as topography and the streetscape. Thus, it is important to identify the physical features on the street because it can influence the pedestrian walking environment.

Generally, a physical feature of the built environment is important since it affect people perceptions and also their orientation. According to Mehta (2007), urban designers nowadays are more emphasized on the perceptual qualities because it can affect people's selection of the environment. This is because the characteristics of the physical environment which is fixed or movable objects) and the behavioral environment which is the uses, activities and management are important to people of public spaces.

Focusing the physical features of street such as street and sidewalk width, traffic volumes, height of building, tree canopy, number of people and also weather are directly influence pedestrian walking behavior. As shown in Figure 4 below, pedestrian can feel sense of enclosure through the presence of physical features.



Figure 4

Sense of enclosure created by the presence of street trees, light posts, awnings that is welcoming and comforting to pedestrians

Other than that, the physical features also acts as narrative that can communicate with pedestrian through the designs and values implement into the features. Based on Montazerolhaje and Zadeh (as seen in Samvati et al, 2013), Pavements regarding to its characteristics and potentiality for communication, functional, historical and cultural which pedestrian could master over it (Figure 5).



Figure 5

Pavement pattern that imply in the design of Putrajaya Boulevard is derived from the 'songket' pattern which is famous in Malay cloth

As summary, in order to create good walking, the availability of physical feature is important besides the level of permeability. This is because, it provide the opportunity for pedestrian to held various of activities which can offer them diverse experiences on street.

CONCLUSION

As conclusion, successful of urban space is depend on the presence and the steady flows of people. With the good physical features on the urban street, it can provide a range of possible social interactions by support the activities. It is important to understand the pedestrian behavioral pattern in order to attract them walk on the street. Based on the review above, the environment of the street seems to affect people perception and street utilization. Thus, it is important to have physical features as supporting elements for people. In addition, it also can create a good experience to pedestrian both direct and indirectly feel attached to the streets which influence them to revisit the street again. Therefore, the livelier and more vibrant of Pedestrian Street, it will offers greater opportunities for optional and social activities which can enhance the street vitality.



REFERENCES

- Altman, L. A., and Low, S. M. (1992). Place attachment. New York: Plenum.
- Appleyard, D. (1981). Livable Streets. Berkeley; University of California Press
- Bricker, K. and Kerstetter, D. (2000). Level of specialization and place attachment: an exploratory study of Whitewater recreationists. <u>Leisure Sciences</u>. 22 (4). pp. 233–257.
- Carmona, M., Heath, T., Oc, T. and Tiesdell, S. (2003). <u>Public Places Urban Spaces: The Dimensions of Urban Design</u>. Oxford: Architectural Press.
- Casakin, H.P., and Kreitler, S. (2008). Place attachment as a function of meaning assignment. <u>Open Environmental Sciences</u>. 2. pp. 80 87.
- Chow, K. and Healey, M. (2008). Place attachment and place identity: First-year undergraduates making the transition from home to university, <u>Journal of Environmental Psychology</u>. 28(4). pp. 362-372.
- Farazmand, R., and Sehizadeh, M. (2014). Effective factors on creating vitality of public space as an essential in the suitable development of city. <u>Journal of Social Issues and Humanities</u>. 2(3). pp. 269 276.
- Francis, M. (1991). <u>The making of democratic streets</u>. In A. Vernez-Moudon (ed.). Public Streets for Public Use. New York: Columbia University Press, 23–39.
- Ghahramanpouri, A., Lamit, H. and Sedaghatnia, S. (2012). Behavioural observation of human stationary and sustained activities in pedestrian priority streets of Johor Bahru. <u>Journal of Construction in Developing Countries</u>. 17(2). pp. 105–116.
- Gehl, J. (1987). Life Between Buildings. New York: Van Nostrand Reinhold.
- Gehl, J. (2002). Public Spaces and Public Life City of Adelaide. Adelaide: Adelaide City Council.
- Gemzoe, L. (2006). Quality for people, a set of quality criteria for the design of pedestrian places and networks: With people in mind. 7th International Conference on Walking and Livable Communities. Melbourne, Australia, 23–25 October.
- Gunderson, K. and Watson, A. (2007). Understanding place meanings on the Bitterroot National Forest, Montana. Society and Natural Resources. 20(8). pp. 705–721.
- Guo, Z. and Loo, B.P.Y. (2013). Pedestrian environment and route choice: evidence from New York City and Hong Kong. <u>Journal of Transport Geography</u>. 28. pp. 124-136.
- Hashem, H., Abbas, Y.S., Akbar, H.A., and Nazgol, B. (2013). Comparison the concepts of sense of place and attachment to place in Architectural Studies. <u>Malaysia Journal of Society and Space</u>. 9(1). pp 107 – 117.
- Jacob A., (1993). The Great Streets, United States of America: The MIT Press.
- Jalaladini, S., and Oktay, D. (2012). Urban public spaces and vitality: a socio-spatial analysis in the streets of Cypriot towns. <u>Social and Behavioral Sciences</u>. 35. pp. 664-674.
- Koh, P.P. and Wong, Y.D. (2013). Comparing pedestrians' needs and behaviours in different land use environments. <u>Journal of Transport Geography</u>. 26. pp. 43-50.
- Lynch, K. (1960). The Image of the City. Cambridge: MIT Press.
- Lynch, K. (1981). Good City Form. Massachusetts: MIT Press.
- Mehta, V., (2007). Lively streets: determining environmental characteristics to support social behavior. Journal of Planning Education and Research, 27. pp.165-187.
- Milligan, M. (1998). Interactional past and potential: The social construction of place attachment. <u>Studies in Symbolic Interaction</u>, 1. pp. 1–33.
- Montgomery, J. (1998). Making a city: Urbanity, vitality and urban design. <u>Journal of Urban Design</u>. 3(1) pp.93-116.
- Moudon, A. V. (1987). Public Streets for Public Use. Portland: VNR.
- Moughtin, C. (2006). Urban Design: Street and Square. London: Architectural Press.
- Oranratmanee, R., and Sachakul, V. (2014). Streets as public spaces in Southeast Asia: Case studies of Thai pedestrian streets. <u>Journal of Urban Design</u>. 19(2). pp 211-219.



- Rastegar, N., Ahmadi, M., and Malek, M. (2014). Factors affecting the vitality of streets in downtown Johor Bahru city. <u>Indian Journal of Scientific Research</u>. 7(1). pp. 361-374.
- Samvati, S., Nikookhooy, M., and Izadi, M. S., (2013). The role of vitality and viability of urban streets in enhancement the quality of pedestrian –oriented urban venues. <u>Journal of Basic and Applied Scientific Research</u>. 3(7) pp. 554-561.
- Scannell, L. and Gifford, R. (2010). Defining place attachment: A tripartite organizing framework. <u>Journal of Environmental Psychology</u>. 30(1). pp. 1-10.
- Shamsuddin, S. (2011). <u>Townscape Revisited: Unravelling the Character of the Historic Townscape in Malaysia</u>. 1st Edition. Johor, Malaysia: Universiti Teknologi Malaysia Press.
- Shamsuddin, S. and Ujang, N. (2008). Making places: The role of attachment in creating the sense of place for traditional streets in Malaysia. <u>Habitat International</u>. 32(3): 399-409.
- Simon, D. (2000). <u>A Way of Seeing People and Place, Phenomenology in Environment-Behavior Research</u>. New York: Plenum Publisher.
- Trentelman, C. K. (2009). Place attachment and community attachment: A primer grounded in the lived experience of a community sociologist. <u>Society & Natural Resources</u>, 22(3), pp. 191-210.
- Tuan Y, (1977). Space and Place: The Perspective of Experience. University of Minnesota Press, Minneapolis UNESCO (2007). Draft Revised 2009 Framework for Cultural Statistics. Montreal: UNESCO Institute of Statistics.
- Walzer, M. (1986). Pleasures and cost of urbanity. *Dissent* 33, pp. 470–484.
- Warzecha, C. and Lime, D. (2001). Place attachment in Canyonlands National Park: visitor's assessment of setting attributes on the Colorado and Green Rivers. <u>Journal of Park and Recreational Administration</u>. 19(1). pp. 59–78.
- Whyte, W. H. (1980). The social life of small urban spaces. Washington, DC: Conservation Foundation.