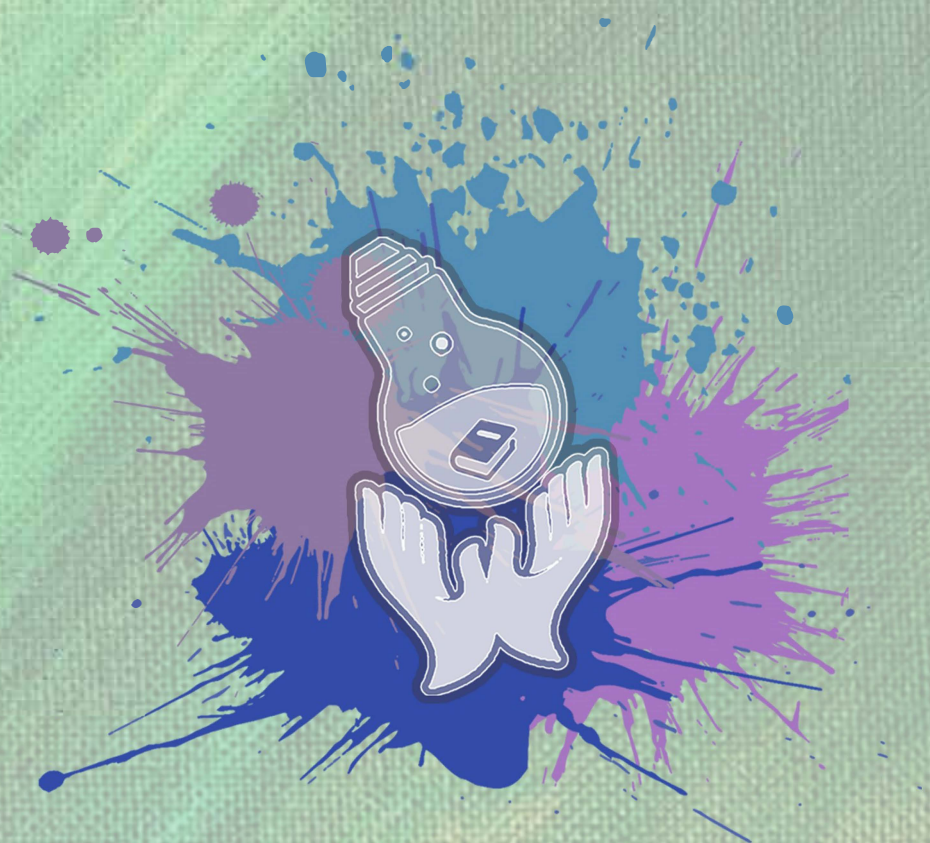




UNIVERSITI
TEKNOLOGI
MARA

F|S|P|U
FACULTY OF ARCHITECTURE,
PLANNING AND SURVEYING

2019



4th UNDERGRADUATE **SEMINAR** 2019

BUILT ENVIRONMENT & TECHNOLOGY

e-PROCEEDING

eISBN-978-967-5741-97-5



organised by

FACULTY OF ARCHITECTURE, PLANNING & SURVEYING

UNIVERSITI TEKNOLOGI MARA PERAK BRANCH

SERI ISKANDAR CAMPUS

URBAN PARK PATHWAYS' DESIGN AND THEIR INFLUENCE ON PEDESTRIAN PREFERENCE; A CASE STUDY IN IPOH, PERAK.

Razlin Rais¹ and Sufian Che Amat²

^{1,2} Department of Architecture, Faculty of Architecture, Planning and Surveying,
Universiti Teknologi MARA, Perak Branch, Seri Iskandar Campus, 32610 Seri Iskandar, Perak
Email: rrazlin97@gmail.com¹

Abstract:

According to the United Nation, almost 60% of the world population will live in urban areas by the year 2030. As the city grows and urbanizes, green public spaces are needed for better quality of life for city dwellers. Similarly, urban public parks are not a strange term for the city of Ipoh dwellers and they play a big role in improving the city's environmental, social and economic wellbeing. A number of public parks were created and landscaped beautifully in the heart of Ipoh such as Bandar Seri Botani Eco Park and DR Seenivasagam Recreation Park for the purpose of recreational and family activities. In addition, pedestrian pathways were also widely built in parks for users' convenience. However, it has been observed that quite often visitors to these public parks often prefer to crisscross along alternative impromptu pathways whilst the original intended footpaths remain underutilised and can often be seen as surplus. This paper reviews the various environmental and social reasons that may have influenced users and visitors to the public parks in the city of Ipoh.

Keywords:

Urban public parks; Pedestrian; Accessibility; Natural setting; Pathway

1.0 INTRODUCTION

According to Suria et.al (2013) the urban park is recognised as an open space with a natural environment that is often surrounded by an urban setting and located near urban community environments. Every government uses various policies by dividing into active and passive parks in providing urban open spaces. 'Active' parks are usually used as a community gathering and communal activity space. Suria et.al (2013) also noted that it is the combination of green space and also a place for hanging out. On the contrary, 'passive' parks are only green spaces and not with the purpose of a place for any of the said activities with network of roads, streets and paths connect these places that form a highly connected pedestrian circulation network (Erni S. et.al, 2013). Furthermore, Erni et.al (2013) also noted that circulation generates dynamic interaction with the environment. Dynamic interaction is the effect of the interaction of human-environment as we move about, and these signals remain static when we are in stationary mode.

2.0 LITERATURE REVIEW

2.1 Diversity along the walking path

Table 1: Variables of a natural setting

NO	VARIABLES	JUSTIFICATION	EXPECTED PATHWAYS THAT WILL BE USED MORE BY SENIORS
1	Presence of flowers.	Color plays an important role in influencing landscape preference (Misgav, 2000)	Pathways with beautiful flowers
2	The degree of shade	Shading can impact walking behaviors. (Lu, 2010)	Pathways with enough shade
3	Enclosure type (Presence of tall objects along pathway)	Users prefer openness. (Kaplan and Kaplan, 1989; Thwaites and Simkins, 2007)	Pathways that are open on sides
4	The degree of enclosure	Visual access can impact users' movement. (Kaplan et al, 1989)	Pathways with lateral visibility.

5	Visual connection with water	Water has a positive influence on the observers' emotional state. (Ulrich, 1981)	Pathways that provide a visual connection with water.
6	Near water body	Paths near the water body bring enjoyable experience for the users. (Whitaker and	Pathways along the water.

2.2 Influence of natural setting towards pathways' design

Our behaviors are determined in surprising and mysterious ways by the interactions with the built environment (Nikos Salingas, 2015). According to Ann Sussman and Justin Hollander (2015) they defined 'thigmotaxis' as edge conditions influence how organisms move. The brain system creates mental spatial maps and makes us feel safe with the surroundings (Nikos Salingas, 2015). Dynamic interaction is always generated by the human movement as we walk through the environment and surroundings. A pedestrian network should offer choices of pleasant and interesting routes. Design plays a vital role in the creation of a pedestrian network. Landscaping which faces human activity and provides aesthetic comfort can influence the way people perceive the neighborhood as well as their behavior and movements. Architecture and its features are able to cater to human needs either aesthetically or functionally (S.Naghavi, A.H. Abdul Hamid, 2014).

3.0 METHODOLOGY

The study is conducted in an urban public park located in the heart of Ipoh which is Japanese Garden. To be clear, it is located in DR Seenivasagam Recreational Park that is also known as 'Coronation Park' near Jalan Keliling Dalam. The data collection involves all the paths in the park except for the path that is too short or entrance path which is less than 3 meters. The paths are segmented into several pathway segments. Pathway segment is the individual pathway that begins from one intersection to another intersection (Yujia Zhai, 2017). First and foremost, studying similar case from another urban public park might be a helping hand as a reference to this process. Moreover, the data is also collected using the method of field survey, closed-ended question and open-ended question. Finally, after all the data have been collected, it will be analyzed, synthesized and reviewed afterward.

4.0 ANALYSIS AND FINDINGS

For this study, the garden is separated into three zones, which is in the north, south, and west. In each zones, two different paths are selected to be observed and studied. Some of the paths are created unofficially by pedestrians while the others are official paths. Natural settings along each path surely give different feels, perceptions, and attractions due to the presence of walkability



Figure 1 : Selected zones and paths

Table 2: Number of pedestrian who walk through the paths

		PATH A1	PATH A2	PATH B1	PATH B2	PATH C1	PATH C2	TOTAL
WEEKDAYS	Morning (7.00am-9.00am)	0	1	2	2	2	0	7
	Afternoon (3.00pm-5.00pm)	1	0	2	0	2	0	5
	Evening (5.30pm-7.30pm)	1	0	6	4	6	1	18
WEEKEND	Morning (7.00am-9.00am)	3	2	32	5	30	6	78
	Afternoon (3.00pm-5.00pm)	2	1	20	2	10	4	39
	Evening (5.30pm-7.30pm)	0	1	6	3	8	0	18



Figure 2 : New desire paths created

4.1 New desire paths

At the end of the observation, the result collected stated that two new paths are unofficially created by the pedestrians. As a result, from the interviews and questionnaire survey, these desire paths are created as the pedestrians are attracted to the visibility of the natural settings that the new paths can offer. These views are absent at the usual paths that encourage them to explore the other paths. Thus, the paths are also shortcuts for the users. Apart from that, it can be said from the result of the study that the major reason users prefer the new paths in term of the environmental factors is shading from trees. Since the users are majority at the middle age (31-50) and the golden age of 51 to 70 years old, they prefer more calming and soothing paths to enjoy walking which is not too exposed to sunlight.

5.0 CONCLUSION

In conclusion, the findings of this study show that natural settings are crucial as a factor that affects the users' circulation in an urban public park. The integration of natural settings and the pedestrian paths must be taken into account as it affects the optimum use of the paths in designing a functional path as well as a successful urban public park.

REFERENCES

- Chris Walker (2004). Beyond Recreation: A Broader View of Urban Parks. Understanding Park Usership
- David Beaulieu (2017). Walkways and pathways. Building, design considerations.
Available: <https://www.thespruce.com/walkways-and-pathways-2132017>
- Francis DK Ching (1996). Architecture: Form, Space & Order – 2nd Ed (John Wiley & Sons, Inc).A VNR Book, Canada.
- Nil Pasaogullari, Naciye Doratli (2004). Measuring accessibility and utilization of public spaces in Famagusta.

- Siti Rasidah Md Sakip, Norizan Mt Akhir, Siti Syamimi Omar (2014). Determinant factors of successful public parks in Malaysia. Proceedings of Asian Conference Environment-Behaviour Studies Chung-Ang University, Seoul, South Korea.
- Yujia Zhai, Perver Korca Baran (2017). Urban park pathway design characteristics and senior walking behavior.