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The Role of Captivation and Sensation in Pleasurable Experience to Enhance Wayfinding Process

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Abstract: Many factors have influenced the livability of a city; one of them is a pleasant environment. By examining the activities and the points of reference in public spaces as well as their influence on the visitors' behaviors, this paper aims to explore pleasurable experience in public spaces as a potential way to create easy and exciting wayfinding schemes for the visitors. The methods employed for analysis are based on the theories of Passini, Costello and Edmond, and Berlyne. The data are collected through active observation, mapping, and picture taking at the Jakarta Old Town (also known as Kota Tua Jakarta) on the weekends, when public activity is the most frequent. This paper reveals that the pleasurable experience that helps the visitors' wayfinding is mostly derived from the visual aspects involving human activities. These visual aspects provide positive feedback to the visitors, such as the constructed meaning to a related place by stimulating captivation and sensation of the involved subjects.

Keywords: wayfinding; pleasurable; reference point; experience; livable

1. Introduction

The livability of a city that is part of the sustainable development, also affects the liveliness of its streets¹⁾, and it is influenced by many factors such as the presence of people, the provision of activities²⁾, comfort¹⁾, the presence of a symbol of an environmentally friendly society³⁾, human thermal comfort⁴⁾, and a pleasing environment⁵⁾. Several prior studies have examined wayfinding in detail, and they mainly inquire into the ways to improve the ability of wayfinding through various methods: color⁶), lighting⁷), sound⁸), interior^{9,10}), smell¹¹), travel mode¹²⁾, equipment¹³⁾, building layout¹⁴⁾, and providing auditory information¹⁵⁾. As for the subject of pleasurable experience, there have been only discussions about its applicability in interactive design¹⁶, and retail¹⁷, its changes in urban environment¹⁸⁾, and its correlation with sociocultural aspects¹⁹. In other words, none of these discussions have tried to explore how pleasurable experience has possibilities in accommodating wayfinding in public spaces. Examining the activities and the points of reference in public spaces along with their influence on the behavior of the visitors, this paper observes the meanings that these activities and reference points may have. The goal of this paper is to investigate the feasible opportunities of pleasurable experience in public spaces to create easy and exciting wayfinding schemes at tourist attractions by enhancing their liveliness.

2. Literature Review

2.1 Wayfinding

Wayfinding is a human cognitive process²⁰⁾ or a spatial problem-solving method that consists of absorbing information from the surrounding environment, making a decision plan, and executing the plan in the form of spatial behavior^{21,22}). In addition, Kevin Lynch explains that wayfinding is an action of utilizing and organizing sensory cues from the environment²¹). In wayfinding, a person utilizes mental representations of the area, commonly known as cognitive maps²¹). The cognitive mapping process itself is an accumulation of psychological transformation processes, in which one uses the environmental knowledge that they obtain from the everyday spatial life in their environment.

There are two sources of the environmental information needed to construct cognitive maps. The first is memory information, otherwise known as the information associated with human memory, and the second is sensory information, which is acquired directly from the environment. The information from these two sources creates an "image" (imageability), and it is later combined into a "structure" that makes it into cognitive maps²¹). Although physical elements are predominant, meaning is another essential contributor to the formation of cognitive

maps^{23,24)}. Meaning can be categorized into three types: functional nature or the meaning given from an object's functions, socio-symbolic nature or the meaning given by the community, and the meaning derived from sensory experience²¹⁾.

The next steps of the wayfinding cognitive process are decision making and decision execution respectively, and these steps are constantly evolving. With that said, the term "decision points" is introduced, and it is where all decisions are considered, evaluated, and narrowed down into the final plan for the execution.

Wayfinding is not always related to only efficiency. Passini²¹⁾ mentions that there are two different systems of wayfinding: the functional nature of wayfinding which prioritizes efficiency and the evaluative nature of wayfinding with a great emphasis on experience. Passini²¹⁾ also notes the value of wayfinding as a pleasurable problem-solving activity, in which a person's wayfinding is motivated by the pleasure derived from encountering new things; he later calls this "recreational wayfinding" (evaluative nature).

2.2 Pleasure

Mehrabian and Russell's framework of sensation consisting of pleasure, arousal, and dominance—outlines the stimulants that influence our actions²⁵⁾. Pleasure itself can also be associated with curiosity, well-being, and comfort. Furthermore, Costello and Edmonds¹⁶⁾ have developed the pleasure framework, which is a summary of the theories of six authors.

Groos	Callois	Calkszent	Apter	Gameau	LaBianc	Framework	
Pleasure				Power Creation	Expression	Creation	
of			Exploration			Exploration	
being				Discovery	Discovery	Discovery	
a cause		Problem	1	Intellectual		Diacovery	
		Solving		problem solving			
			Challenge	Application of Skill	Challenge	Difficulty	
	Competition	Competition		Competition Advancement & Completion		Competition	
		Risk	Facing Danger	Thrill of Danger		Danger	
	Chance	& Chance		Immersion Beauty	Submission	Captivation	
	Vertigo		Arousing	Physical Activity	Sensation	Sensation	
Aesthetic sympathy			Stimulation			Sympathy	
Pleasure	Simulation	Creative	Fiction		Narrative	Simulation	
of			& Narrative		Fantasy	Fantasy	
make		Friendship		Love			
believe		& Relaxation		Social Interaction	Fellowship	Camaraderie	
			Negativism Cognitive Symerny	Comedy		Subversion	

Fig. 1: The pleasure framework by Costello and Edmonds¹⁶⁾

The thirteen aspects of the above framework are considered to be the common generators of pleasurable sensations. However, this paper focuses on only two out of the thirteen aspects; the first is captivation, a pleasurable feeling gained when a person is attracted to or interested in something, whereas the second is sensation, a pleasurable feeling gained from doing something. In addition, there is an opinion on how urban settings that have stimulating areas can affect the perception and movement of the subjects within them. For example, the stimuli from an environment's sensory experience are able to deepen the subjects' bond with the area and improve their orientation²⁶. Berlyne's²⁷ theory of aesthetic response posits that an environment can create hedonic value, where a stimulant triggers arousal to the related subjects. The hedonic value comes from the responses created by the subjects when encountering a certain stimulant in the environment, such as a sense of pleasure generated by captivation and sensation.

3. Methods

The methods used in this research are based on the theories of Passini²¹, Costello and Edmonds¹⁶, and Berlyne²⁷, and their implementations are done through active observation, mapping, and picture taking. The observation takes place in the Jakarta Old Town, also known as Kota Tua Jakarta. The observation is conducted on the weekends, when public activities and events occur most frequently—thus making the place's atmosphere more energetic and lively. The observation components are the activities and the possible points of reference for wayfinding in every available decision point. There are seven decision points in total, and each decision point is different in their characteristics.



Fig. 2: The location of the observed decision points across the Jakarta Old Town

4. Results and Discussion

Table 1. The observation result of the decision points, the number of reference points in each decision point corresponding with its area density.

			Reference Points		
Decisi on Point	Intersect ion	Area Densi ty	Total (Physic al Objects + Activiti es)	Physi cal Objec ts	Activit ies
1	3	High	4	0	4

2	3	High	3	0	3
3	3	Low	2	1	1
4	4	Low	3	2	1
5	3	Low	2	2	0
6	3	High	5	3	2
7	4	High	3	1	2



Fig. 3: The points of reference in the Jakarta Old Town.

After observing the designated seven decision points in the Jakarta Old Town, it is apparent that there are two types of density, namely high and low density, taking place, and they can be seen from the elements present at their respective areas. If an area has a high density, it means that it has higher mobility and a greater variety of activities. From Table 1, the decision points that have a high density of people are Decision Points 1, 2, 6 and 7. The number of reference points within these four decision points is notably higher than that of the other three decision points. Another reason behind the high density at these specific decision points is that most of the reference points in the areas involve human activities in them. For example, in Decision Point 7, the total number of reference points is the same as Decision Points 4 and 5, but what distinguishes Decision Point 7 from the other two points is that there is a great quantity of human activities happening within it, such as trades at street vendors, gatherings around photo booths, and many others (see

Figure 3).

This statement is further supported by the fact that the signature attractions of the Old Town—namely its historic buildings and their façade—are now mostly blocked by construction fences, air conditioning machines, photo booths, and street vendors; it may appear that the Old Town buildings are becoming unpopular. However, there are also areas where the buildings and their façade are unobstructed, yet they remain quiet and devoid of visitors (see Figure 4). The empty unobstructed areas reveal that the visitors' interest is not in the elements of the Old Town itself, but in anything involving human activities within the place. That being said, this information is vital in creating a cognitive map that can improve the wayfinding in the Jakarta Old Town.



Fig. 4: The obstructed façade of the Old Town.

In addition to the aforementioned findings, it is discovered that the Jakarta Old Town's visitors would exhibit distinctive behaviors when they come across these points of reference.

Decision Point	Point of Reference	People's Behaviors	
	Groups of people resting	No response	
1	People taking photos	Slow walking with occasional stops	
1	Photo booth services	Stopping while taking photos	
	People selling/playing bubble blowers	Happy, smiling faces	
	Photo booth services	Stopping while taking photos	
2	Groups of people resting	No response	
	Food stalls	Slow walking	
	Food stalls	Slow walking	
3	Groups of people resting	No response	
4	Live music crowds	Stopping while taking photos	
	People selling/playing bubble blowers	Happy, smiling faces	
	Photo booth services	Stopping while taking photos	
5	People at the Krukut	Stopping while	
	Parking areas	No response	
	Photo booth services	Stopping while taking photos	
	Bike rentals	Slow walking with occasional stops	
6	Groups of people resting	No response	
	Street vendors	Slow walking	
	The red car display	Stopping while sightseeing	
7	Bike rentals	Stopping while taking photos	
/	Street vendors	Slow walking	
	The Fatahillah Museum	Sightseeing	

Table 2. Observation results of the visitor's feedback	behavior
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As seen from the table, some of the points of reference existing on each decision point encourage positive feedback to the visitors, such as happy faces and inspirations to take photos. These responses are a few examples of hedonic value created from the environment, which further creates a pleasurable experience for the related subjects. According to the framework made by Costello and Edmonds³), all these positive feedbacks may be products of captivation, in which the travelers or visitors are fascinated by the appeal of something, and it makes them feel pleasure. Some of the attractions that captivate the Old Town's visitors are the photo booth services with all the appropriate costumes (famous independence figures, Jakarta's mascot ondel-ondel, the Indonesian folklore character Gatot Kaca, princesses, and so on) as well as their props for the visitors to use while taking photos. In addition, there are street vendors selling a wide variety of food, accessories, and beverages that also have their little spaces for people to sit and rest. The fact that the vendors yell to the crowd to buy their goods further attracts more people, and the presence of live music makes people gather. This huge concentration of people causes those who are just passing by to stop for a while to join the activities—even if to just listen to the music and take photos.

Another factor in pleasurable wayfinding is the sensation created through doing activities, such as cycling through the Fatahillah Plaza and creating the chiming "ding-ding" sound on the bell, taking photos of the sceneries while laughing in the background, taking photos with living statues, and so on. Because these activities happen in the Jakarta Old Town area, the resulting sensation from the activities is considered as the "sensation" that generates a pleasurable feeling.

5. Conclusion

The imageability of a place is an essential factor in creating a cognitive map that helps the wayfinding process within it. Based on the results of the observation and analysis on the activities and the reference points in each decision point, one aspect that can improve imageability is the existence of reference points that are easily recognizable by visitors. In this case, the reference points are the ones that involve human activities in them, such as street vendors and photo booth services. These reference points possess some aspects from the pleasure framework made by Costello and Edmonds³⁾, which are captivation and sensation. If implemented, these two aspects can enhance the pleasurable experience of the subjects by giving meaning to the place. Consequently, the wayfinding process is improved, but in a pleasurable and contributive way to the liveliness of the space.

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