



The Effect of Physical Quality Improvement to Inhabitant's Sense of Place

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Abstract: *Sense of place is closely related to the level of community participation and sustainability development. In this paper, the context of environment is tourism kampung. Tourism kampung has a dynamic activities and cultural values both tangible and intangible. The development of tourism kampung has a positive goal to improve inhabitant's socio-economic welfare. But, there was a change in kampung's function, activity and meaning from a closed settlement system with low social accessibility to a tourism kampung. This change can also affect the people's sense of place. Research method used in this study is mixed method, which combines quantitative and qualitative research. Data collection techniques were obtained from questionnaires, field observations, and in depth interviews. The result shows that physical improvement has a positive effect in escalating the level of inhabitant's sense of place. The finding will be important to the development of the sense of place's theory and sustainable development.*

Keywords: sense of place, physical quality improvement, Kampung Lawas Maspati

1. INTRODUCTION

Kampung is an informal settlement in Indonesia which has a lot of socio-cultural potential but has less feasible physical condition. Therefore, the Indonesian government generate some Kampung Improvement Program (KIP) especially for kampungs in urban cities, one of them is Surabaya. The journey of developing kampung in Surabaya is quite successful by winning several awards like The Aga Khan Award for Architecture 1986, UNEP Award 1990, and The Habitat Award 1991. Kampung Improvement

Program in Surabaya had many other complementary programs held by the Surabaya City government. Among other things are "*Pahlawan Ekonomi*" for escalating Home Based Enterprises, "Green and Clean Program" for upgrading kampung's physical condition, and the "Thematic Kampung Program" for increase the character diversity of Kampung in Surabaya. These program has successfully developed some thematic Kampung in Surabaya such as "*Kampung Tempe*", "*Cake Kampung*", "*Shoes Kampung*", "*Batik Kampung*", "*Mangrove Kampung*", and many others.

There also some old kampung which has aimed to be a tourist destinations. This is in line with the commitment of the New Urban Agenda in article 60 on the importance of optimizing the function of sustainable tourism to support urban economic development and

sustainable development (New Urban Agenda, 2016,).

Responding to these issue, Surabaya City government has appointed 14 thematic tourism kampung in the UN Habitat Preparatory Committee III which was held in Surabaya City in 2016. One of them is Kampung Lawas Maspati which has been named as one of the leading tourism kampung in the city of Surabaya. Kampung Lawas Maspati has been visited by many tourists, both domestic and foreign. Those who came were interested in experiencing socio-cultural of the people living in the kampung, by interacting directly with the community, observing their daily lives, and enjoy the physical attraction of kampung's building (Ramadhani, Faqih, & Hayati, 2017).

In its development, the tourism kampung has a physical quality development program through a green and clean program, community service, and cooperation with outside parties (CSR). This was done to increase kampung's infrastructure facilities to meet the requirement to become a tourism kampung. But on the other hand, improving this physical quality (form) also has a significant role in influencing people's sense of place. Physical aspects contribute to making an environmental setting easier to read by users, where the environment can be identified, organized and directed by the community (Lynch, 2003). A readable place allows people to form clear and accurate images

and can help users to orient themselves which are influenced by some aspects of form in urban designs such as paths, edges, districts, nodes, and landmarks (Lynch, 2003). This paper will discuss about the effect of physical quality improvement to inhabitant's sense of place based on some literature study. Besides literature study, observation and in depth interview in one of the tourism kampung in Surabaya (Kampung Lawas Maspati) is also conducted to adjust theories in specific context. The finding will be important to analyze and identify the effect of physical quality improvement to the inhabitant's sense of place level.

1.1. Sense of Place

The concept of sense of place is much related to the place theory proposed by (Canter, 1977), this concept can be one of the theoretical frameworks that can explain the components of sense of place (see figure 1). According to Canter, a place consists of three dimensions, which are forms, imaginations, and activities. The attraction and efficiency of the place component model by David Canter has made many other scientists from urban design discipline to recreate sub-versions of the model (Mitchell, Canter, & March, 1977). One of the sense of place models from Punter (1991) which defines the sense of place aspect in the form of three components which are subversion of Canter's model (1977), namely (1) form; (2) meaning; and (3) activity.

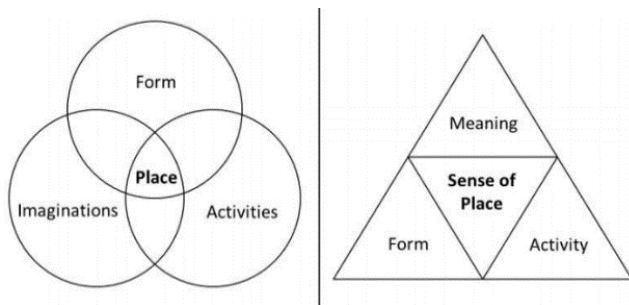


Figure 1. Sense of Place Theory (Source: Canter, 1977)

1.2. Kampung

In a built environment, according to Lynch (2003), sense of place is a factor that creates a link or relationship between humans and place. A space must also have a clear identity and must be identifiable, memorable and obvious to create a sense of place (Lynch, 2003). In the context of the kampung's environment, this informal settlement has unique characters in both physical and cultural forms that other types of housing such as formal housing do not have. According to Hutama (2016), the form aspect in the kampung is closely related to its public space. Kampung's public spaces can accommodate social interactions that have a direct influence on increasing people's sense of place (see table 1).

Table 1. Physical attribute in Kampung

Physical Attribute in Kampung	Characters
Pathways/ Kampung Alley	Organic and dynamic, the width of the road varies from wide to narrow
Food Stall/ Kios	HBE's, semi-permanent construction
Public Toilet	Use for the public, usually found in places that are not exposed
Communal Space (Mosque, Bench, Public Space)	Use for the public, symbolic representation of a community
Field/ Open Space	The size is limited, part of the rest of the land, and diverse

Source: Hutama, 2014

From examples of those physical characters, it can be concluded that some aspects of form / physical attributes that affect the sense of place in kampung, especially tourism kampung are as seen in table 2 (Ramadhani, Faqih, & Hayati, 2018).

Table 2. Physical attribute for Sense of Place measurement in Kampung

Sense of Place Measurements in the Form Aspect	Definitions	Indicators
System of Setting or Kampung Layout	Configuration of space in the village layout to identify the socio-spatial environment	Connectivity Integration Intelligibility
Built Form and Building Façade	The shape and facade of buildings associated with the architectural style and conditions of the village	Architecture Style Building Condition
Street Furniture	Components in the road and alley areas are linked to the function of the road as the main public space in the village	Sidewalks Components Road Utility Components Gang / Road Components
Landmark	A landmark that can serve as the point that becomes the identity of an area	Local Citizen Landmark Tour Landmarks

Source: Montgomery (1998); Punter (1991); Ujang, (2008)

2. RESEARCH METHODS

Research method used in this study is mixed method, which combines quantitative and qualitative research in the data's collection and analysis. Data collection techniques were obtained from questionnaires, field observations, and in depth interviews. The quantitative data are being analyzed with cross tabulation techniques. While qualitative data from literature and in depth interview being analyzed with triangulation techniques to provide final synthesis of the research. The research approach taken is a comparative approach. To examine the systematic analysis of settlement layouts, and how activities change therein over time. This in line with Lawrence (1987) that proposes a comparative study of the same type of building in different societies, to describe the reciprocal relationship between architectural, social, and cultural variables in a particular society.

3. RESULT AND DISCUSSION

3.1. Changes in the Development of the Kampung Lawas Maspati

There are a number of significant changes in the physical condition of the environment before and after the tourism development in Kampung Lawas Maspati. These changes are some repairs on building facades, building's painting, renovation of building forms, and the addition of street furniture elements and greenery along kampung's alley to improve the aesthetics of the Kampung Lawas Maspati as well as attractions for tourists visiting the kampung (fig. 2).

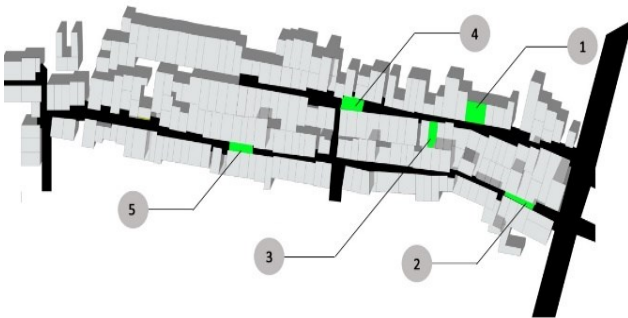


Figure 2. Changes in the development of the Kampung Lawas Maspati (Source : researchers, 2019)

3.2. Building Façade

In the following Figure 3 and 4 are the atmosphere of Maspati Kampung's alley before and after the tourism development. There are changes in the facade of the building by repainting and renovating some building elements such as windows and doors.



Figure 3. Building facade before tourism development (Source: Yohanes,1991)



Figure 4. Building facade after tourism development (Source: Researchers, 2019)

3.3. Street Furniture

In Figures 5 and 6 shown the atmosphere of the kampung alley before and after the tourism development. There are significant change in the street furniture elements of the kampung, such as the improvement quality of roads. Before tourism development, the road was made of concrete blocks which were not processed and left as they were. But after the tourism development, inhabitants paved the roads and paint the murals along the pathway. Murals painted are in the form of three dimensional (3D) paintings, pattern, and wall art to improve the kampung's appearance for tourism attraction.



Figure 5. Building before tourism Development (Source: Yohanes,1991)



Figure 6. Building after tourism development (Source: Researchers, 2019)

3.4. Colonial Buildings

The figures 7 and 8 shows the changes of colonial building in the Maspati kampung before and after the tourism development. There are some changes in the building facade, such as the addition of iron grids which are decorated with hanging plants covering the original facade of colonial building.



Figure 7. Building before tourism development (Source: Yohanes,1991)



Figure 8. Building after tourism development (Source: Researcher, 2019)

3.5. Pathways (Kampung Aley)

In figures 9 and 10 shows the atmosphere of Maspati Kampung's alley before and after the development of tourism which revealed the aesthetic improvement of the road from the concrete block becomes colored paving.



Figure 9. Pathway before tourism development (Source: Yohanes,1991)



Figure 10. Pathway after tourism development (Source: Researchers, 2019)

3.6. Green and Clean Program

In figures 11 and 12 shows the addition of the green line which was initiated through the green and clean program and held by the community.



Figure 11. Kampong's green atmosphere before tourism development (Source: Yohanes, 1991)



Figure 12. Kampong's green atmosphere after tourism development (Source: Researchers, 2019)

3.7. Changes in the Development of Kampung Lawas Maspati

There are several historic buildings in the kampung such as the "1907 house", "Ongko Loro School", "Tomb of Raden Karyo Sentono and Mbah Buyut Suruh", and also "Raden Sumiharjo's House". The building have become the main attractions of the Maspati Kampung. Based on the results of participatory observation conducted through interviews with local residents, despite having historical value, the building does not have the status of a cultural heritage building yet. In its context as one of the attractions of tourism in the village, local residents will allow tourists visiting to see the interior of the building (see fig. 13).

3.8. Building Architectural Style in Kampung Lawas Maspati

In the context of the tourism kampung, building form and facade are considered quite important in defining the sense of place. Aspects that are considered are architectural style of the building and the condition of the building in the case study tourism kampung. Kampung Lawas Maspati is one of the old kampung that still preserved many of its original building styles. There are various architectural styles buildings in this kampung, including colonial, traditional, jengki, eclectic, and modern styles. The classification of building's architectural styles in Kampung Lawas Maspati can be seen in figure 14.



Figure 13. Historic buildings in Kampung Lawas Maspati (Source: Researchers, 2019)

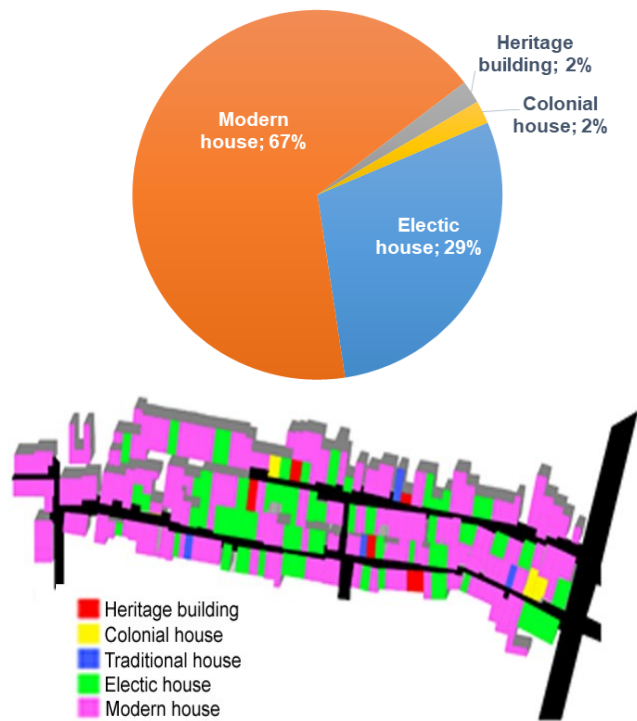


Figure 14. The classification building by architectural style (Source: Researchers, 2019)

From the 230 observed houses in Kampung Lawas Maspati, it can be seen that buildings in Kampung Lawas Maspati is currently dominated by modern and eclectic styles. But besides that, colonial style, cultural heritage building, and even traditional style buildings are still maintained and used as architectural attractions of Kampung Lawas Maspati Surabaya. In following figure 15, 16 and 17 can be seen some examples of buildings with various distinctive architectural styles in the village of Maspati.



Figure 15. Colonial style (Source: Researchers, 2019)



Figure 16. Eclectic style (Source: Researchers, 2019)



Figure 17. Traditional style (Source: Researchers, 2019)

3.9. Landmark of Kampung Lawas Maspati

Landmarks are visually attractive symbols with attention-grabbing properties. Usually landmarks have a unique shape and there are different scales in their environment. Landmark is an important element that shaping an environment because it helps people recognize an area. Besides that, landmarks can also be a point that characterizes an area (Lynch, 2003). In this case, Kampung Lawas Maspati is related to its function as a tourism kampung that have various landmarks supporting tourism activities. These landmarks include mosques, cultural heritage buildings, culinary centers, community centers for tourism activities, elders' tombs, and photobooth spots for tourists (figure 18).

3.10. Street Furniture of Kampung Lawas Maspati

Empirically, street furniture is a structural aggregate of roads, drainage and utility lines, sidewalks, and intersections (Adedokun & Mnitp, 2013). In the context of tourism kampung, street furniture that will be discussed include the sidewalks component, drainage components, and alley properties. This case related to the Kampung alley as the main public space that accommodates both domestic and tourism activities (figure.19).



Figure 18. Building Landmark (Source: Researchers, 2019)



Figure 19. Street Furniture of Kampung Lawas Maspati (Source: Researchers, 2019)

3.11. Community Perception of Aspects of Form Sense of Place

The physical aspect (form) has a significant role in influencing the sense of place. Physical aspects are useful so that a setting is readable for users and can be identified easier, organized and directed by the community (Lynch, 2003). Regarding case study settings, informal settlements (in this case referring to kampung) have unique characters both in physical and cultural forms that other types of housing do not have.

Kampung can accommodate diverse and dynamic social activities, this is supported by the existence of a variety of public spaces that can accommodate it (Hutama, 2016). In this context, public perception that will be examined includes the conditions of kampung

alley, the condition of kampung social space, kampung community hall, cultural heritage building, kampung mosque, as well as perceptions of the kampung's cleanliness. A quantitative data collection techniques were conducted through questionnaires and the results were analyzed quantitatively through likert scale and triangulated with qualitative results from in-depth interviews through several respondents representing their groups. From the seven physical variables studied, scoring classes can be taken with the particular range (table 3).

Table 3. Sense of Place level scoring

Mean Value	Scoring	Sense of Place levels
1	7-13	Very Low
2	14-18	Low
3	19-23	High
4	24-28	Very High

Source: Analysis, 2019

From the results of the questionnaire that was analyzed quantitatively through likert scale, the results were obtained in table 4. From the table 4, we can see a significant increase in public perception against sense of place towards physical environment. The comparison chart can be seen in figure 20.

Table 4. Mean value of inhabitant Sense of Place levels

Mean value	Tourism development	
	Before	After
Kampung alley	2,02	3,59
Social space	2,07	3,38
Kampung's communal space	2,26	3,18
Cultural heritage building	2,18	3,34
Mosque	2,15	3,50
Greenery	2,20	3,40
Cleanliness	2	3,63
Total	14,87 (Low)	24,05 (Very High)

Source: Analysis, 2019

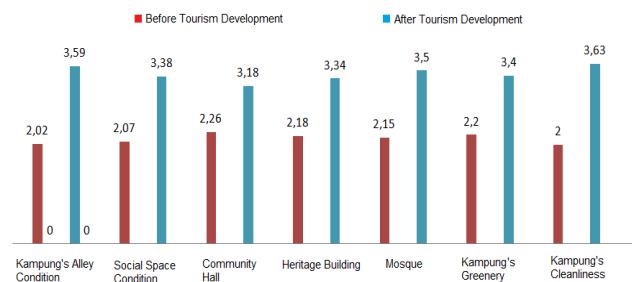


Figure 20. Street furniture of Kampung Lawas Maspati (Source: Analysis, 2019)

From the analysis result, it can also be seen the changes in public perception of the form sense of place aspects as seen in figure 21.

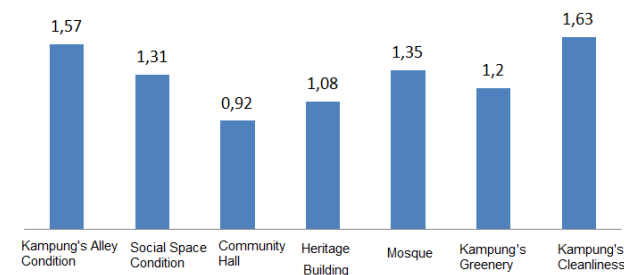


Figure 21. The Sense of Place's improvement towards physical condition of tourism kampung (Source: Analysis, 2019)

Furthermore, it can be seen that the inhabitants of Maspati Kampung agree that there has been a significant increase in the physical condition after the development of tourism kampung. From the results, the most satisfying aspect of physical condition is kampung cleanliness. This is due to the Green and Clean program initiated by the peoples of Maspati Kampung since 2014. With the program, the cleanliness in Maspati kampung is well maintained, starting from the orderly garbage disposal, the

cleanliness of the area around the inhabitant houses, and the construction of a waste treatment system (IPAL) in the Maspati Kampung which is managed by local residents (figure 22)



Figure 22. Waste treatment system by the Kampung Lawas Maspati residents (Source: Researchers, 2019)

Significant improvement in the environment's physical quality according to inhabitants perception is an increase in the conditions of kampung alleys. The alley of Maspati Kampung was developed as the main attraction. There are several attraction spots that contain wall murals, three-dimensional paintings on roads, and traditional game areas (figure. 23).

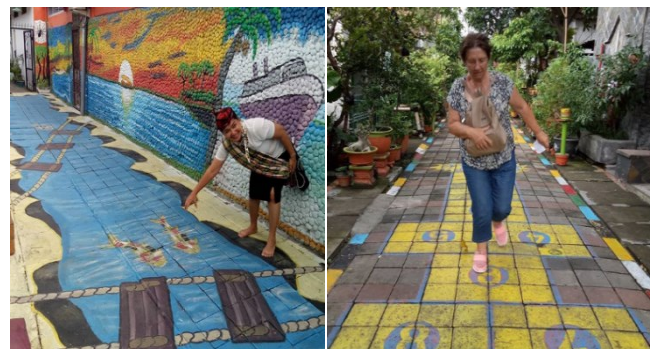


Figure 23. three-dimensional paintings on roads, and traditional game areas at Kampung Lawas Maspati (Source: Researchers, 2019)

Some landmarks in Maspati kampung are mosques, cultural heritage buildings, culinary centers, RW centers for tourism activities, elders' tombs, and photobooth spots for tourists. Among that, the community believes that the mosque's physical quality improvement has the highest contribution to the increasement of sense of place. This relates to the religious activities of Maspati kampung's inhabitants who are 90 percent Moslems. After the development of tourism, the mosque was renovated both extensively and aesthetically to accommodate community religious activities. Moreover, the kampung object which experienced further improvement was social space. The social space in this kampung is enhanced by its

aesthetic quality through painting and rebuilding the seating area and street furniture. Some spots are also used for residents gathering and become attractive photo-spots for tourists that visit Maspati Kampung (figure 24).



Figure 24. Street Furniture of Kampung Lawas Maspati (Source: Researchers, 2019)

Another landmark that helping increase the people's perception is cultural heritage buildings. After tourism development, there are a lot of attentions from the government and Corporate Social Responsibility (CSR) to preserve and maintain cultural heritage buildings in the Maspati Kampung. The renovation includes painting, replacing materials that are already improper, remodeling leaks, and adding some signage to cultural heritage buildings. This is an effort to improve the identity of Maspati kampung as an old kampung that has cultural potential both tangible (physical) and intangible (non-physical).

4. CONCLUSION

From the quantitative results of the research questionnaire obtained, it can be seen that the physical aspect (form) has the highest influence on increasing the inhabitant's sense of place. This indicates the importance of physical environmental conditions in the formation of inhabitant's sense of place. This because the physical aspects is a tangible aspects or can be seen clearly and directly felt by the community, so that people can easily assess and measure their improvement and changes. Physical quality improvement also has an influence on improving other sense of place aspect such as activities and meaning indirectly.

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